

TRANSLATIONS
NETWORK ADMINISTRATION CENTER RESPONSIBILITIES
NETWORK ADMINISTRATION
DIGITAL MULTIPLEX SYSTEM-10

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1. GENERAL

1.01 This section covers the major responsibilities of the Network Administration Center (NAC) for translations of the Digital Multiplex System-10 (DMS-10).

1.02 Whenever this section is reissued, this paragraph will contain the reason for reissue.

1.03 The title of each figure contains a number(s) in parentheses which identifies the paragraph(s) in which the figure is referenced.

1.04 This section and related sections entitled Network Administration—Digital Multiplex System are numbered 241-120-010 through 241-120-060. These sections present a summary of the network administrator's job responsibilities and the organizational guidelines designed to effectively perform these responsibilities.

1.05 Guidelines and recommendations presented in this section represent one approach to the administration of the DMS-10. Additional information and instructions will be provided in subsequent issues of this section.

1.06 Refer to the DMS-10 Translation Guide (TG) published by Northern Telecom, Incorporated (NTI) and Northern Telecom Practices (NTPs) for additional sources of information on the DMS-10.

A. Software Structure

1.07 The DMS-10 is an electronic Digital Multiplex System which provides a Class 5 switching

operation. The modular design of the hardware allows for planned growth up to a maximum of 6000 lines.

1.08 The DMS-10 software compliments the hardware modularity and compactness. The DMS-10 processes telephone calls on the basis of resident programs and office data. The resident programs are fixed for a particular software generic version. The office data are defined on a per system basis to reflect the operating environment of a particular office. The office data for the DMS-10 are recent changeable much like the No. 1 Electronic Switching System (ESS). Detailed instructions for making these changes can be found in Section 241-120-030 and NTPs on data modification.

B. Translation Guide

1.09 A TG ordered through NTI provides a description of the office data that must be supplied by the Bell Operating Company (BOC). This TG also provides a forms package containing all forms required for initial office data definition as well as forms required for the ongoing modification of data. The TG supports current generics, but not all information is applicable to all generics. The network administrator should obtain a copy of the DMS-10 TG to assist in the preparation of forms. A standing order must be placed through NTI if the network administrator is to receive updates.

C. Network Administration Responsibilities

1.10 The NAC is responsible for the preparation of the line and number, routing, charging, and special customer service translations. The information provided by the network administrator on the translation forms and configuration records is merged by NTI to create the DMS-10 office records. The NAC has the added responsibility of reviewing and correcting these records. (Office records are covered in more detail later in this section.)

2. "DMS-10" SOFTWARE STRUCTURE

2.01 The DMS-10 uses office data to process calls. The definition of the office data is the responsibility of the network administrator (NA). The office data consist of various translators and data blocks used to process calls. A translator is a collection of tests to determine the routing of a call. Based on the results of these tests, a call is either allowed

or denied and appropriate action is indicated. Thousands groups, trunk groups, etc, make up a data block. The traffic order is the best source for determining the types of office data requiring routing and screening for a particular office. More details on translators and data blocks are given in paragraphs 2.07 through 2.16.

A. Office Data

2.02 Calls processed by the DMS-10 are referred to as office data. The office data are comprised of intraoffice calls, outgoing calls, incoming calls, and tandem calls, if applicable. Various types of translators and data blocks are used for these calls.

Intraoffice Calls

2.03 The following represents the steps required by the DMS-10 to translate an intraoffice call. These steps include building the translators in the order listed (see Fig. 1):

- (a) Prefix Translator
- (b) Address Translator
- (c) Thousands Group Translator
- (d) Screening Translator
- (e) Station (directory number [DN]) Translator.

Outgoing Calls

2.04 The following reflects the process of translating an outgoing call through the DMS-10. These steps should be followed in the order listed to build outgoing call capability (see Fig. 2):

- (a) Prefix Translator
- (b) Address Translator
- (c) Destination
- (d) Screening Translator
- (e) Route
- (f) Trunk Group
- (g) Trunk.

Incoming Calls

2.05 The following represents the translation flow for an incoming call (see Fig. 3). The incoming call can be built by completing:

- (a) Trunk
- (b) Incoming Trunk Group
- (c) Prefix and/or Address Translator
- (d) Thousands Group
- (e) Screening Translator
- (f) Station (DN) Translator.

Tandem Calls

2.06 The following represents the flow of tandem call translation (see Fig. 4):

- (a) Trunk
- (b) Incoming Trunk Group
- (c) Prefix and/or Address Translator
- (d) Destination
- (e) Screening Translator
- (f) Route
- (g) Outgoing Trunk Group
- (h) Trunk.

B. Translators

2.07 A translator is a collection of tests to determine the routing of a call. Based on the results of these tests, a call is either allowed or denied and appropriate action is indicated.

Prefix Translators

2.08 Prefix translators (PRFX) provide analysis of first digit dialed or prefixed digits. All allowable first digits dialed must be defined on this translator. This information is contained in the traffic

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order. The valid prefixed digits for Plain Old Telephone Service (POTS) customers are:

- (a) Direct Distance Dial (DDD): 1+
- (b) Operator Assisted: 0+, 0-
- (c) International Operator Assistance (IDDD): 010
- (d) Person-to-Person (Traffic Service Position System [TSPS] Operator)—IDDD: 01+
- (e) Station-to-Station (IDDD): 011.

Address Translators

2.09 Address translators (ADDR) are used to analyze and route the first three or four digits dialed following any prefixed digit. Only information pertaining to working codes is entered on this form. All unassigned codes are automatically routed to a vacant code intercept announcement.

Screening Translators

2.10 Screening translators are provided to determine proper routing based on the sequence of digits dialed. All working codes are pointed from the address translator to the screening translator where final routing is determined.

C. Data Blocks

2.11 A data block is a group of related data items which defines a particular office parameter, eg, trunk groups, thousands blocks, etc. Data blocks are built for each of the following categories.

Destination

2.12 A destination data block is built to provide information that is shared by originating calls allowed by the DMS-10. All allowable interoffice, outgoing, and tandem calls must point to a destination data block.

Route

2.13 A route data block is used to direct calls to trunk groups, provide test line facilities, and specify routing that is not handled generically. Calls that do not terminate on a line within the DMS-10 must terminate on a route.

Trunk Group

2.14 The DMS-10 uses trunk group data blocks to define certain trunk features by trunk group.

Information such as sender holding times, remote make busy indication, start pulsing, etc, is defined on this form.

Trunks

2.15 For each trunk circuit, certain information is required for system use. Trunk location, trunk type, trunk group number, and transmission gain are all defined within the DMS-10. This information is provided to Network Administration by the Equipment Engineer, Message Trunk Design or Traffic Engineering. All trunks are assigned by NTI unless otherwise specified by BOC personnel.

Stations

2.16 Station data blocks or directory number data blocks contain working telephone numbers in the DMS-10. Working telephone numbers must be within the range of numbers opened up by the thousands group translator provided by the NA.

3. TRANSLATION GUIDE

A. Purpose

3.01 The purpose of the TG distributed by NTI is to assist the BOC with defining office data for a DMS-10 installation. Each translation form is described in terms of its purpose and content. The data items, called prompts, are explained on each form along with the allowable responses for each prompt. (See Fig. 5.) The NTI TG contains procedures for defining an initial office installation only.

B. Description

3.02 The NTI TG is divided into 60 sections; however, Sections 19 through 58 are reserved for future use. Section 1 is the Forward section; Section 2 is the general information section. Section 3 contains a description of the use of translators and data blocks in call processing. This is the point at which the NA should begin the translation process. The processing of various call types is described in this section. The NA should complete the forms in subsequent sections in order to complete the translation process.

3.03 Section 4 contains instructions on the preparation of the office dialing and trunking plan. This office layout serves as a guide for the NA to build correct office translations.

3.04 Sections 5 through 18 and Section 59 give a detailed description of all DMS-10 translators and data blocks requiring initial input from the BOC.

3.05 Section 60 contains a description of other data blocks defined by NTI on an initial installation.

3.06 The TG also contains a blank copy of each translation form. Included with these forms is an index which gives the latest issue of each form.

C. Ordering Information

3.07 The NA will receive a copy of the NTI Guide upon completing the NTI translation course. However, if the NA is to obtain updates to this document, a standing order must be placed. This will ensure that the NA receives all generic changes as well as form changes that may occur to the NTI TG.

4. TRANSLATION FORMS

DESCRIPTION

4.01 The DMS-10 utilizes a series of translation input forms that require responses to prompts. The NTI TG explains each form and gives the allowable response to each prompt. This part describes only those forms which require additional effort or information to be completed by the NA.

Office Layout

4.02 Prior to the start of the translation process, the NA should prepare an office layout (dialing and trunk plan) for the office. This form is described in Section 4 of the NTI TG. It should contain all trunk groups required by the office, quantity of digits received, call types, and route information. Data for internal trunk groups accessed by generic routes are preprinted on this form. Information relating to other trunk groups required on this form, such as IDDD, Outward Wide Area Telephone Service (OUTWATS), Repair Service, 900 Mass Calling, etc, can be found in the traffic order. Additions to this form after cutover should be made by the NA to ensure that a complete office layout is always available.

Prefix Translator

4.03 The Prefix Translator (PRFX) form is completed to direct calls along a particular path, depending upon the digits dialed. The PRFX form is used to define valid prefixed digits as well as allowable first digit dialed. The following example illus-

trates how the system uses the prefix translator to test and verify an 0+10D call.

Example: Customer dials 0+919-555-1234.

Step 1: System tests first digit dialed, ie, 0 (Fig. 6).

Step 2: Does timeout occur after digit dialed? No (Fig. 6).

Step 3: Route call to address translator (Fig. 6).

Step 4: Check for valid digits dialed; 919 is valid and is directed to Destination 1 (DEST 1) which is a 10 digit call. See Fig. 7. Route call to screening translator 02 for additional handling.

Step 5: Screening translator 02 tests for toll denial (TDN) 0+. This is coin (COI) or OUTWATS (OWT). The call is then directed to route 024 which is a route for 0+ 10 digit TSPS. See Fig. 8.

4.04 If, in the preceding example, the customer had dialed an invalid digit, the DMS-10 would route the call to vacant code intercept announcement. An office does not need translating for all prefixes.

4.05 Only those prefixes required for this particular office should be defined. The Office Layout form is the source for the allowable prefixes.

4.06 The DMS-10 has a capacity of eight prefix translators (0-7). The standard prefix translator for POTS dialing is prefix 00. Prefix translator 01 is reserved for defining custom calling features, if required. Translator 01 is completed by NTI for each office serving custom calling features. Prefix translators 02-07 are available for use by the system according to job requirements. After initial setup of the prefix translators, changes will be required only if additions or deletions are made to the dialing plan.

Address Translators

4.07 The Address Translator (ADDR) form is primarily used to define all valid NXX and NPA codes. This form also defines thousands groups opened within the office. The information for this form can be obtained from a current Routing Guide

and the traffic order. All unassigned codes are routed to the vacant code intercept announcement by the system. Section 9 of the NTI TG provides additional information on this form.

Screen Translators

4.08 The Screen Translator (SCRN) form is used to define the translator which tests each call to determine prefixes dialed. Call types sharing common characteristics may utilize the same screen translator. The system has 48 screen translators (00-47) available for assignment. The SCRN form is preprinted with translators already defined. However, the form may be changed to add/delete those screens not needed in a particular office. Typical examples (Fig. 9) that may appear on the SCRN form are:

- SCRN 00—Used for intraoffice calls
- SCRN 01—Used for the station ringer test
- SCRN 02—Used for 0+, 0-, 1+ calls
- SCRN 03—Used for special services (1 + 900)
- SCRN 04—Used for 1 + 800 Service
- SCRN 05—Used for Extended Area Service (EAS) calls
- SCRN 06—Used for 1 + 555
- SCRN 07—Used for 01+, 011+
- SCRN 08—Used for 411
- SCRN 09—Used for 1 + 611.

4.09 Each route referenced on the SCRN form should be assigned on the Office Layout form. Figure 10 is a typical screen for Centralized Automatic Message Accounting/Local Automatic Message Accounting (CAMA/LAMA) and operator calls.

Destination

4.10 The Destination (DEST) form stores information common to interoffice calls. Instead of providing information for each NXX and FNPA, a common destination is defined once and is accessed by various numbers.

4.11 This form is preprinted with three destinations: 7D, 10D, and 3D. If the DMS-10 serves

OUTWATS, IDDD, and/or tandem calling, these must also be defined on the DEST form. The information required on this form is found in the traffic order and should have been included on the Office Layout form.

Route

4.12 Routes are used to direct calls to trunk groups, tones, test lines, announcements, etc. The NTI TG provides 16 different forms for the call types handled by routes. (These forms are all listed and discussed in Section 11 of the NTI TG.) A separate route must be provided for each trunk group defined by the Office Layout form. As additional trunk groups are provided on subsequent traffic orders, the appropriate route form must be prepared.

Trunk Groups

4.13 Each Trunk Group form is used to provide information for prefix, address, and screening translations. The three types of trunk group forms provided are incoming (INC-TG), outgoing (OUT-TG), and 2-way (2WAY-TG). An entry on one of these forms must be made for each trunk group number assigned on the Office Layout form. Details for completion of these forms can be found in Section 12 of the NTI TG. Additional information required for completion of these forms can be obtained from Equipment Engineering, Traffic Engineering, or Message Trunk Design. As additional trunk groups are provided on subsequent traffic orders, the appropriate entry must be made on one of these three forms.

Digital Carrier Module Trunk

4.14 The Digital Carrier Module (DCM) form provides channel assignments for the digital trunks. If, on the Trunk Group form, the prompt Packtype (PKTP) is digital trunk (DTRK) for any trunk group, then an entry on the DCM form is required for that trunk group. The bay assignment on this form is completed by NTI; however, the NA should make sure that trunks are spread evenly over all equipped bays. Specific information for this form is obtained from Traffic Engineering, Equipment Engineering, or Message Trunk Design. As digital trunks are added to the office, the DCM form must be updated.

Stations

4.15 Information associated with stations is entered on the Network Loading Stations

(NLSTN) form. One entry is required for each working DN. A list of stations with special features, such as Billing Telephone Numbers (BTNs), OUTWATS, 800 Service (formerly known as Inward Wide Area Telephone Service [INWATS]), Toll Deny, etc, should be acquired prior to filling out this form. This information can be obtained from business customer billing records and Network Administration records. After the initial cutover of an office, station assignments are made on a recent change basis. (Additional details may be found in Section 241-120-011.)

Rate Treatment Package

4.16 A Rate Treatment Package (RTP) provides flexibility in defining toll and toll free calls on a per station basis rather than defining an entire thousands group (THGP) to a Rate Center. Each station will have an RTP number option (0-3) assigned to it. Access to the proper RTP table is determined by:

- (a) The **RTP** (0-3) and class of service (COS) option designed to the originating station.
- (b) The **Rate Center** of an originating station thousand group. A Rate Center determines the route to be taken when the toll rate is different for subscribers within the DMS-10.
- (c) The **toll region** of a terminating station. A toll region is assigned to identify local (nontoll), Intrastate OUTWATS, and Interstate OUTWATS.

4.17 Each of the following classes of service will have their own RTP:

- Flat rate residential (FR)
- Coin (COI)
- Measured Business/Message Rate Business/Measured Residential (MB/MR).

4.18 The RTP is comprised of the following forms.

- (a) **FR** (Flat Rate Services): Used for stations that have toll free calling (see Fig. 11).
- (b) **CN** (Coin Service): Used to define the local calling area for a coin station. In addition, this form may be used for initial and overtime periods

by utilizing the prompt **ITOT** and the toll region to be charged.

Note: Only one coin RTP is assigned for each Rate Center. Therefore, the CN form does not have the prompt **RTP** (see Fig. 12).

(c) **MR** (Message Rate—Residence): Provides a means of recording local calls on the Automatic Message Accounting (AMA) tape and associating them with the Message Billing Indices (MBIs) much like the No. 1, No. 2, and No. 3 ESS (see Fig. 13).

(d) **MB** (Message Rate—Business): Provides the same billing information as the MR. In addition, this COS can provide pulses to a private branch exchange (PBX), ie, Hotel/Motel, which indicate the end of the initial time period and the end of each overtime period. This form can also be used to establish discounts for certain days and hours of the day (see Fig. 14).

(e) **MRTI** (Message Rate Treatment Index): Specifies that either the total elapsed time on the call or only a peg count of each call will be recorded on AMA tape. In addition, an MBI (000-999) may be specified from Comptrollers which determines if the call is to be timed or untimed. The MRTI is associated with tariff and pulsing tables for Hotel/Motel lines (see Fig. 15 and 16).

Note: Complete one MRTI for each index (1-14) entered on the MR/MB form.

(f) **PULS** (Hotel/Motel Pulsing): Used to provide initial and overtime charges for a given time period for Hotel/Motel remote message register service **only** (Fig. 17).

(g) **TARE** (Tariff Tables): Used to specify tariffs for Hotel/Motel service. This form, in conjunction with the MR/MB form, may be used to establish discounts for certain days, holidays, or weekends (see Fig. 18).

4.19 Figure 19 is a diagram that reflects a DMS-10 with LAMA and four RTPs (0-3) within the same office. There are also four COS: FR, CN, MR, and MB. Using this diagram and the forms in Fig. 11 through 17, the following dialing plan exists for these subscribers.

- (a) **Station 528-1234:** An FR Subscriber may terminate toll free to TR 04, 05, and 06 (see Fig. 11).

(b) **Station 528-9222:** May also terminate toll free to TR 04, 05, and 06, but will be timed for an initial rate of 1 minute and overtime rate for 3 minutes for those calls to TR 03 (see Fig. 12).

(c) **Station 851-4543:** May terminate toll free to TR 04, but is measured for calls to TR 03, 05, and 06. In this situation, the MR/MB form must be completed along with the MRTI form. For simplicity, TR 03, 05, and 06 have been assigned the same MRTI and all calls to these toll regions will be recorded using the information assigned to MRTI 3 (see Fig. 13 and 15).

(d) **Station 851-3243:** A Hotel/Motel subscriber and calls to TR 03, 05, and 06 can be timed for initial and overtime periods. On Monday, a different rate will be charged from 3:00 pm to 4:00 pm and 7:00 pm to 9:00 pm (see Fig. 14, 16, and 17).

5. CONFIGURATION RECORDS

DESCRIPTION

5.01 The Configuration Record (CNFG) contains information which is unique to the DMS-10 end office. There are 20 blocks of data contained within the CNFG record. Each of these blocks is listed and explained in Section 59 of the NTI TG. Eleven of these blocks are the responsibility of Northern Telecom Engineering at the time of initial translations and will not be discussed here.

5.02 The remaining nine blocks of data for which the NA has the responsibility of submitting to Northern Telecom are listed in Table A.

5.03 A separate form is provided for each of these blocks in the translations package in the NTI TG. A brief description of the information required on these forms and the logical source for acquiring this information is contained in the following paragraphs.

5.04 Call Processing Parameters: Form CNFG CP is used to define call processing parameters for each office. Information for this data block is supplied by the traffic order or Equipment Engineering upon request.

5.05 Logical Units: Form CNFG LOGU contains information relating to the interfacing TTYs to the DMS-10. The TTY numbers assigned by this form range from 01 to 08.

5.06 Generic Conditions: Form CNFG GCON defines treatment for specific call conditions. This form allows the BOC to specify automatic routing or treatment of certain call conditions encountered during call processing. The NA should follow American Telephone and Telegraph Company (AT&T) standard procedures and local policies in completing these forms.

5.07 Regular Call Timing: Form CNFG COTM is used to define overload call timing. Office overload call timing defines various intervals for the call processing functions when the DMS-10 is in the overload condition. Prompts and responses are the same as for the CRTM. Timing intervals are generally shorter when an office is in an "overload" condition.

5.08 Maintenance: Form CNFG MTCE defines system maintenance parameters. These include incoming test desk busy and overflow tones, the Noller test circuit access code, and allowing or disallowing monitoring of busy lines. Information for this form can be requested from the Maintenance Engineering Group.

5.09 Circle Digits: If circle digit translation is required in multiparty serving offices, form CNFG CDIG is submitted. This form specifies the relationship between multiparty line ringing codes and circle digits. Section 59.14 of the NTI TG describes how this form is completed.

5.10 Office Site(s) Information: Form CNFG SITE defines base and remote site parameters. Refer to Section 59.19 in the NTI TG if completion of this form is required.

5.11 Custom Calling Services: Form CNFG CCS is used to define all custom calling features served by the DMS-10. The traffic order specifies the custom calling features available.

6. OFFICE RECORDS

6.01 Office records are computer-generated printouts containing translation data actually entered into the DMS-10. The Equipment Engineer should specify that a copy of the office record be provided to the NA. This copy should be available to the NA at the time of delivery of the equipment. It is the responsibility of the NA to verify those office records for which inputs were provided and correct any discrepancies prior to cutover.

6.02 Table B reflects the responsibility of the NA for verifying, correcting, and/or maintaining 19 of the 27 office records provided by NTI.

6.03 At the present time, there is no means of acquiring updated office records. In order to maintain a current office record, the NA can request, via TTY, certain translation records. The procedures for obtaining these listings may be found in Section 241-120-030, Data Modification.

7. REFERENCES

7.01 The following Bell System Practices will aid the network administrator in accomplishing the required administrative functions. See Section 780-100-027 for a complete list of recommended documents.

SECTION	TITLE
241-120-010	Manual Office Records
241-120-011	Line and Number Administration
241-120-030	Data Modification Operations
241-120-040	Data Management
241-120-050	Service Analysis
241-120-060	Machine Capacity Management
780-200-014	Determination of Line and Number Requirements

SECTION	TITLE
780-200-031	Busy Hour Determination—End Office

7.02 In addition, the following NTPs may be of use to the network administrator.

SECTION	TITLE
297-3001-060	Performance Oriented Practices User's Guide
297-3001-100	General Description
297-3001-105	Features and Services Description
297-3001-150	Equipment Identification
297-3001-181	Line Circuit Interface
297-3001-182	Trunk Circuit Interface
297-3001-200	System Growth Practices
297-3001-300	Input/Output System
297-3001-304	Data Modification—General
297-3001-307	Line Load Control
297-3001-311	Data Modification Manual
297-3001-456	Operational Measurements

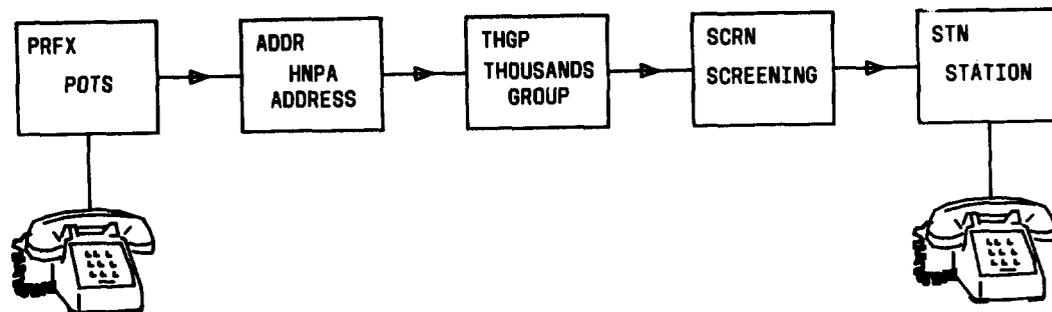


Fig. 1—Intraoffice Calls (2.03)

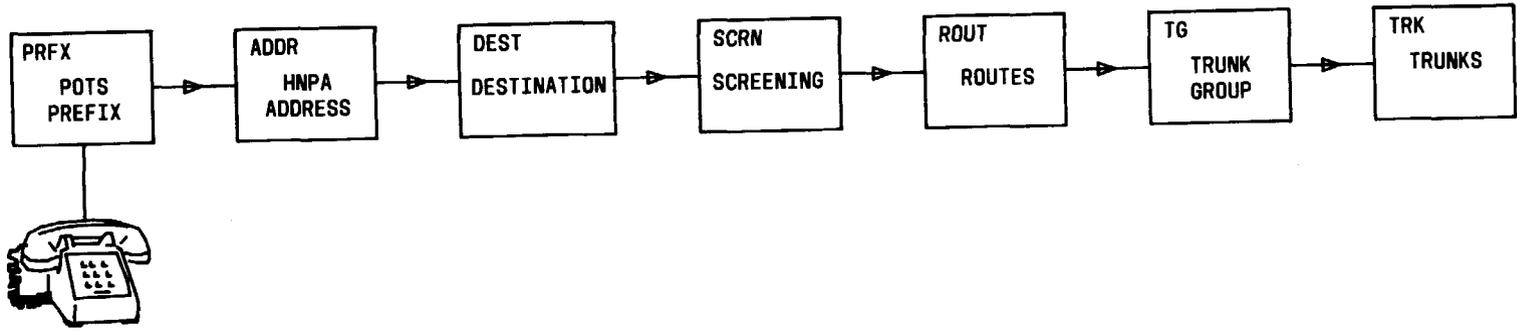


Fig. 2—Outgoing Calls (2.04)

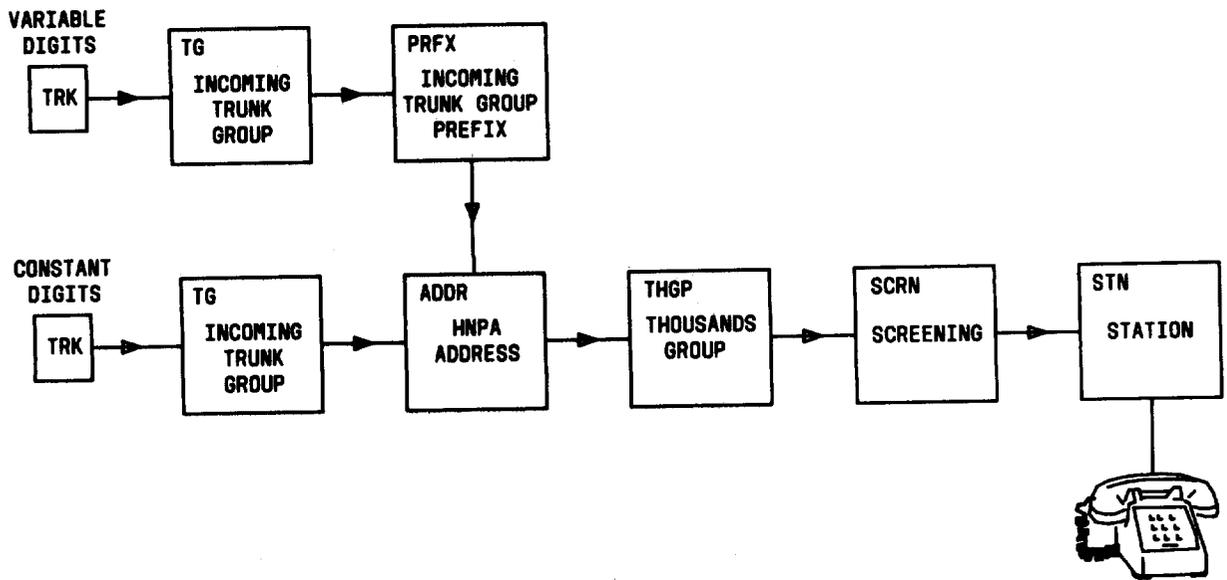


Fig. 3—Incoming Calls (2.05)

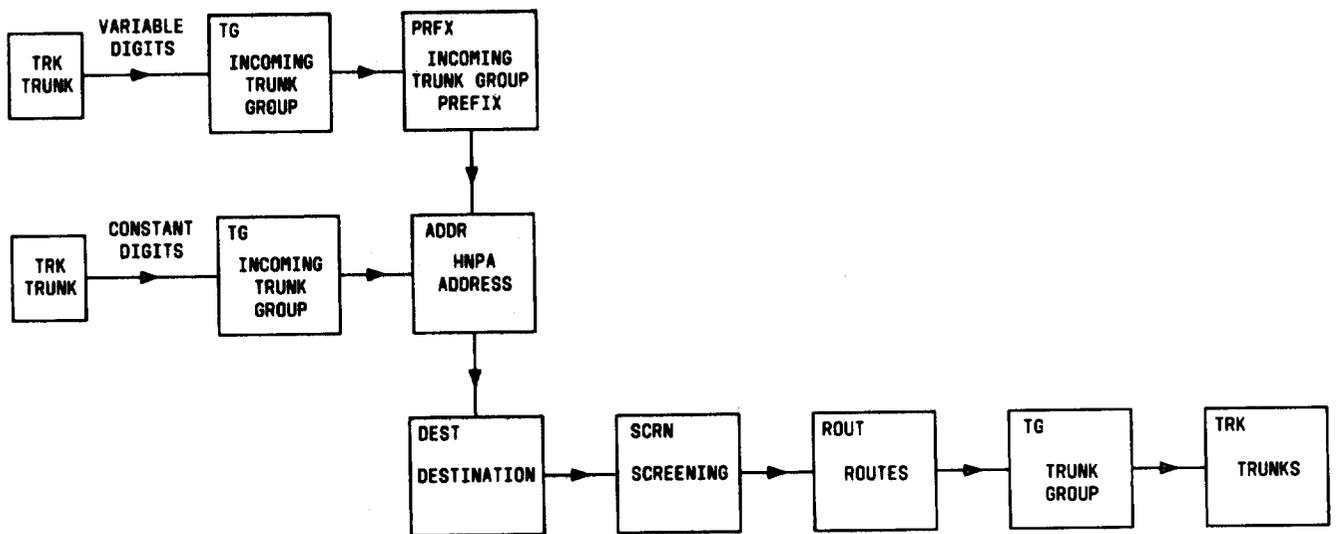


Fig. 4—Tandem Calls (2.06)


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PRFX 00 DIG 0 TMS 1 N DIG 0 SP 0 2 SCRN 2
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 0 SP 0 2 SCRN 2
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 1 SP 011 2 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 2 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 3 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 4 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 5 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 6 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 7 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 8 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 1 DIG 9 SP 01 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 2 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 3 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 4 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 5 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 6 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 7 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 8 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 N DIG 9 SP 0 1 ADDR HNPA
PRFX 00 DIG 0 TMS 1 Y SCRN 14
PRFX 00 DIG 1 SP 1 1 ADDR HNPA
PRFX 00 DIG 3 ADDR HNPA
PRFX 00 DIG 4 SAME 3
PRFX 00 DIG 6 SAME 3
PRFX 00 DIG 7 SAME 3
PRFX 00 DIG 8 SAME 3
PRFX 00 DIG 9 SAME 3

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REQ

Fig. 6—Sample Printout for Prefix Translators (4.03)

```

ADDR 704 900 DEST 1 SCRN 3
ADDR 704 901 DEST 2 SCRN 2
ADDR 704 902 DEST 10 SCRN 2
ADDR 704 903 ROUT 16
ADDR 704 904 DEST 4 SCRN 2
ADDR 704 905 DEST 10 SCRN 2
ADDR 704 906 DEST 4 SCRN 2
ADDR 704 907 DEST 7 SCRN 2
ADDR 704 911 DEST 8 SCRN 11
ADDR 704 912 DEST 2 SCRN 2
ADDR 704 913 DEST 5 SCRN 2
ADDR 704 914 DEST 4 SCRN 2
ADDR 704 915 DEST 5 SCRN 2
ADDR 704 916 DEST 6 SCRN 2
ADDR 704 918 DEST 5 SCRN 2
ADDR 704 919 DEST 1 SCRN 2
ADDR 704 922 DEST 9 SCRN 2
ADDR 704 926 DEST 9 SCRN 2
ADDR 704 932 DEST 9 SCRN 2
ADDR 704 933 DEST 9 SCRN 2
ADDR 704 937 DEST 9 SCRN 2
ADDR 704 938 DEST 9 SCRN 2
ADDR 704 955 DEST 9 SCRN 2
ADDR 704 956 DEST 9 SCRN 2
ADDR 704 957 ROUT 16
ADDR 704 958 DEST 9 SCRN 2
ADDR 704 959 DEST 9 SCRN 2
ADDR 704 963 DEST 9 SCRN 2
ADDR 704 966 DEST 9 SCRN 2
ADDR 704 982 DEST 9 SCRN 2
ADDR 704 983 DEST 9 SCRN 2

```

Fig. 7—Sample Printout for Address Translator (4.03)

```

SCRN 02 TDN N TP 0 N TP 1 N ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT N ROUT 27
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS M SWT IN ROUT 28
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS M SWT OT ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS F SWT IN ROUT 28
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS F SWT OT ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI Y ROUT 26
SCRN 02 TDN N TP 0 Y COI N OWT N ROUT 24
SCRN 02 TDN N TP 0 Y COI N OWT Y ROUT 16
SCRN 02 TDN N TP 0 Y COI Y ROUT 25
SCRN 02 TDN Y ROUT OVFL

```

Fig. 8—Sample Printout for Screen Translator (4.03)

```

SCRN  ALL
SCRN 00 TP 0 N TP 1 N OWT N GEFG
SCRN 00 TP 0 N TP 1 N OWT Y SWT IN GEFG
SCRN 00 TP 0 N TP 1 N OWT Y SWT OT ROUT 16
SCRN 00 TP 0 N TP 1 Y OWT N ROUT 17
SCRN 00 TP 0 N TP 1 Y OWT Y SWT IN GEFG
SCRN 00 TP 0 N TP 1 Y OWT Y SWT OT ROUT 16
SCRN 00 TP 0 Y ROUT 24

SCRN 01 TP ANY N ROUT 50
SCRN 01 TP ANY Y ROUT 17

SCRN 02 TDN N TP 0 N TP 1 N ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT N ROUT 27
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS M SWT IN ROUT 28
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS M SWT OT ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS F SWT IN ROUT 28
SCRN 02 TDN N TP 0 N TP 1 Y COI N OWT Y OWTS F SWT OT ROUT 16
SCRN 02 TDN N TP 0 N TP 1 Y COI Y ROUT 26
SCRN 02 TDN N TP 0 Y COI N OWT N ROUT 24
SCRN 02 TDN N TP 0 Y COI N OWT Y ROUT 16
SCRN 02 TDN N TP 0 Y COI Y ROUT 25
SCRN 02 TDN Y ROUT OVFL

SCRN 03 TDN N TP 1 N ROUT 15
SCRN 03 TDN N TP 1 Y OWT N COI N ROUT 34
SCRN 03 TDN N TP 1 Y OWT N COI Y ROUT 16
SCRN 03 TDN N TP 1 Y OWT Y ROUT 16
SCRN 03 TDN Y ROUT 1

SCRN 04 TP 0 N TP 1 N ROUT 16
SCRN 04 TP 0 N TP 1 Y OWT N TOL N ROUT 16
SCRN 04 TP 0 N TP 1 Y OWT N TOL Y COI N ROUT 27
SCRN 04 TP 0 N TP 1 Y OWT N TOL Y COI Y ROUT 26
SCRN 04 TP 0 N TP 1 Y OWT Y ROUT 16
SCRN 04 TP 0 Y ROUT 16

SCRN 05 TP 0 N TP 1 N OWT N ROUT 30
SCRN 05 TP 0 N TP 1 N OWT Y SWT IN ROUT 30
SCRN 05 TP 0 N TP 1 N OWT Y SWT OT ROUT 16
SCRN 05 TP 0 N TP 1 Y OWT N ROUT 17
SCRN 05 TP 0 N TP 1 Y OWT Y SWT IN ROUT 30
SCRN 05 TP 0 N TP 1 Y OWT Y SWT OT ROUT 16
SCRN 05 TP 0 Y ROUT 24

SCRN 06 TDN N TP 0 N TP 1 N ROUT 15
SCRN 06 TDN N TP 0 N TP 1 Y OWT N COI N ROUT 27
SCRN 06 TDN N TP 0 N TP 1 Y OWT N COI Y ROUT 26
SCRN 06 TDN N TP 0 N TP 1 Y OWT Y SWT IN ROUT 28
SCRN 06 TDN N TP 0 N TP 1 Y OWT Y SWT OT ROUT 16
SCRN 06 TDN N TP 0 Y ROUT 15
SCRN 06 TDN Y ROUT 1

SCRN 07 TDN N OWT N COI N TP 011 N TP 01 N ROUT 1
SCRN 07 TDN N OWT N COI N TP 011 N TP 01 Y ROUT 44
SCRN 07 TDN N OWT N COI N TP 011 Y ROUT 43
SCRN 07 TDN N OWT N COI Y ROUT 1
SCRN 07 TDN N OWT Y ROUT 1
SCRN 07 TDN Y ROUT 1

SCRN 08 TP 1 N TP 0 N OWT N ROUT 35
SCRN 08 TP 1 N TP 0 N OWT Y ROUT 16
SCRN 08 TP 1 N TP 0 Y ROUT 16
SCRN 08 TP 1 Y ROUT 17

SCRN 09 TP ANY N ROUT 20
SCRN 09 TP ANY Y ROUT 39

```

Fig. 9—Typical Screen Translator Printout (4.08)



DMS-10

FORM RTP-FR AREA 64 R I P F 67

RATE TREATMENT PACKAGE FLAT RATE SERVICES

DATE _____

PAGE _____ OF _____

SHEET 1 OF 1 ISSUE 1

OFFICE _____

ESTIMATE NO. 75 80

PROMPT	ENTRY	STATION 528-1234	ITEM
1	4 6		60 62
REQ	REDF		001
TYP	RTP		002
RC	0		003
COS	FR		004
RTP	0		005
LOCL	04 05 06		006

Fig. 11—Flat Rate Services (4.18, 4.19)

nt northern telecom

DMS-10

FORM RTP-CN
OVLY AREA

RTPC
64 67

RATE TREATMENT PACKAGE
COIN SERVICE

DATE _____

PAGE _____ OF _____

SHEET 1 OF 1
ISSUE 1

ESTIMATE NO. _____

75 80

OFFICE _____

PROMPT	ENTRY	ITEM	
	STATION 528-9222		
1	4 6		
REQ	REDF	60	62
TYP	RTP	001	
RC	0	002	
COS	COIN	003	
LOCL	04 05 06	004	
ITOT	1 3	005	
TR	03	006	
ITOT		007	
TR		008	
.		009	
.			
.			
.			
.			
ITOT			
TR			

Fig. 12—Coin Service (4.18, 4.19)



DMS-10

FORM RTP-MR/MB
OVLY AREA

RATE TREATMENT PACKAGE
MESSAGE RATE-RESIDENCE/BUSINESS

DATE _____

PAGE _____ OF _____

SHEET 1 OF 1
ISSUE 01

OFFICE _____ R I P _____
64 67

ESTIMATE NO. 75 80

DESCRIPTION	PROMPT	ENTRY												ITEM					
		1	5	10	15	20	25	30	32	60	62								
REQUEST	R E Q	R	E	D	F														
TYPE OF OPERATION	T Y P	R	T	P															000
RATE CENTER (0 TO 7)	R C	1																	001
CLASS OF SERVICE (MR OR MB)	C O S	M	R																002
RATE TREATMENT PACKAGE (0 TO 3)	R T P	3																	003
TOLL REGIONS (00 THRU 31/NONE)	L O C L	0	4																004
MESSAGE RATE TREATMENT INDEX (1 TO 14)	M R T I	0	3																005
TOLL REGIONS	T R	0	3	0	5	0	6												006
	M R T I																		007
	T R																		008
	M R T I																		009
	T R																		010
	M R T I																		011
	T R																		012
																			013
Station 851-4543																			

Fig. 13—Message Rate—Residence (4.18, 4.19)

nt northern telecom	DMS - 10		DATE _____
FORM RTP-MR/MB	RATE TREATMENT PACKAGE		PAGE _____ OF _____
OVLY AREA	MESSAGE RATE-RESIDENCE/BUSINESS		ESTIMATE NO. _____
SHEET <u>1</u> OF <u>1</u>	OFFICE _____	<u>R I P</u>	75 80
ISSUE <u>01</u>	64	67	

DESCRIPTION	PROMPT	ENTRY												ITEM	
		1	5	10	15	20	25	30	32	60	62				
REQUEST	R E Q	R E D F													000
TYPE OF OPERATION	T Y P	R T P													001
RATE CENTER (0 TO 7)	R C	1													002
CLASS OF SERVICE (MR OR MB)	C O S	M B													003
RATE TREATMENT PACKAGE (0 TO 3)	R T P	0													004
TOLL REGIONS (00 THRU 31/NONE)	L O C L	04													005
MESSAGE RATE TREATMENT INDEX (1 TO 14)	M R T I	04													006
TOLL REGIONS	T R	03 05 06													007
	M R T I														008
	T R														009
	M R T I														010
	T R														011
	M R T I														012
	T R														013
Station 851-3243															

Fig. 14—Message Rate—Business (4.18, 4.19)

nt northern telecom		DMS - 10										DATE _____			
FORM TARE OVLY AMA		TARIFF										PAGE _____ OF _____			
SHEET <u>1</u> OF <u>1</u> ISSUE <u>01</u>		OFFICE _____										ESTIMATE NO. <u>75</u> 80			
DESCRIPTION	PROMPT	ENTRY												ITEM	
		1	5	10	15	20	25	30	32	60	62				
REQUEST	REQ	CHG												000	
TYPE OF OPERATION	TYP	TARE												001	
MODE	MOD	PERM												002	
DAYS OF WEEK	DAY	MON												003	
RATE (1 TO 3)	RATE	1												004	
HOURS TARIFF IS IN EFFECT (XX YY)	HRS	1400 1600 1900 2100												005	
RATE (1 TO 3)	RATE													006	
HOURS TARIFF IS IN EFFECT (XX YY)	HRS													007	

Fig. 18—Tariff Tables (4.18)

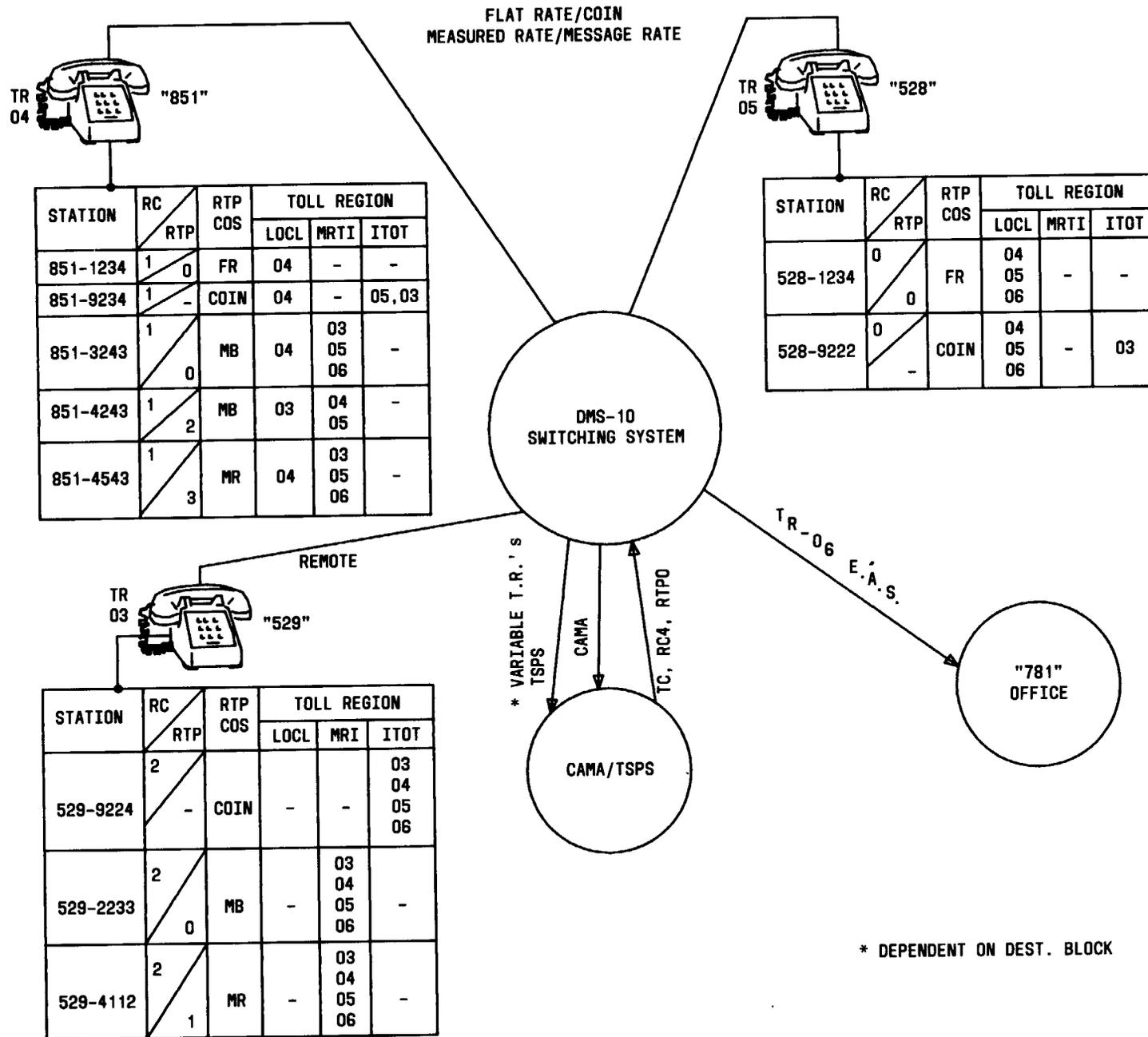


Fig. 19—Typical Application of Toll Regions and Rate Treatment Package (4.19)

TABLE A
CNFC RECORD DATA BLOCKS

BLOCK	DESCRIPTION	TG REFERENCE
CP	Call processing parameters	59.5
LOGU	Logical units	59.7
GCON	Generic conditions	59.8
CRTM	Regular call timing	59.9
COTM	Overload call timing	59.9
MTCE	Maintenance	59.13
CDIG	Circle digjts	59.14
SITE	Office site(s) information	59.19
CCS	Custom calling services	59.20

TABLE B

OFFICE RECORD RESPONSIBILITY

TITLE	RECORD NA	VERIFY	MAINTAIN
Loop Assignments	001	X	
Peripheral Equipment Map	002	X	X
Pack Assignments	003	X	X
Trunk Groups	004	X	X
Lines	005	X	X
Available Circuits	007		X
Available Slot Positions	008	X	X
Configuration Record	009	X	
Home Numbering Plan Area	010	X	
Local Calling Area	011	X	
Rate Centers	012	X	
Thousands Groups	013	X	
Destinations	014	X	
Routes	015	X	
Hunt Groups	016	X	X
Prefix Translator	017	X	
Screening Translator	018	X	
Address Translator	019	X	X
Digital Carrier Module Controller	022	X	