297-2251-304

DMS-100 Family

TOPS IWS

Operator Guide

IWSS015 Standard 07.01 June 2001

NORTEL NETWORKS™

DMS-100 Family

TOPS IWS

Operator Guide

Publication number:	297-2251-304
Product release:	IWSS015
Document release:	Standard 07.01
Date:	June 2001

Copyright © 1999, 2000, 2001 Nortel Networks

All rights reserved.

Printed in the United States of America.

NORTEL NETWORKS CONFIDENTIAL: The information contained herein is the property of Nortel Networks and is strictly confidential. Except as expressly authorized in writing by Nortel Networks, the holder shall keep all information contained herein confidential, shall disclose the information only to its employees with a need to know, and shall protect the information, in whole or in part, from disclosure and dissemination to third parties with the same degree of care it uses to protect its own confidential information, but with no less than reasonable care. Except as expressly authorized in writing by Nortel Networks, the holder is granted no rights to use the information contained herein.

Information subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

DMS, NORTEL NETWORKS, and TOPS are trademarks of Nortel Networks. Microsoft Windows is a trademark of Microsoft Corporation.

Publication history

June 2001

IWSS015 Standard 07.01 release

September 2000

IWSS014 Standard 06.01 release

March 2000

IWSS013 Standard 05.01 release

August 1999

IWSS012 Standard 04.01 release

March 1999

IWSS011 Standard 03.01 release

November 1998

IWSS010 Standard 02.02 release

November 1998

IWSS009 Standard 01.02 release

August 1998

IWSS010 Standard 02.01 release

April 1998

IWSS009 Standard 01.01 release. Initial release of TOPS IWS Operator Guide. This document replaces the *TOPS IWS DA Operator Guide*, 297-2251-301, and the *TOPS IWS NT OA Operator Guide*, 297-2251-302.

About this book

This book describes the TOPS IWS applications and TOPS IWS operator interface. It defines operator tasks and provides procedures for completing them. Also, this book provides instructional and complete reference materials for use by IWS trainers and operators.

This book is intended for test and methods personnel, operating company supervisors and managers, personnel who train operators, and any other personnel requiring information about TOPS IWS applications.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers, for example, 01.01.

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the next software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but re-released in the *same* software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

This document is written for all DMS-100 Family offices. More than one version of this document may exist. To determine whether you have the latest version of this document and how documentation for your product is organized, check the release information in *DMS-100 Family Guide to Nortel Networks Publications*, 297-1001-001.

References in this document

This book refers to the following TOPS IWS documents:

- *TOPS IWS Force Management Guide*, 297-2251-313
- *TOPS IWS Base Platform User's Guide,* 297-2251-010
- *TOPS IWS RAMP and Provisioning Guide*, 297-2251-015
- *TOPS IWS Billing Application User's Guide*, 297-2257-016

The following DMS-100 document is referred to in this book. The middle section of the document number is represented by *nnnn* because the NTP version is determined by the PCL to which it belongs.

- *DMS-100 Translations Guide*, 297-*nnnn*-350
- *DMS-100 Office Parameters Reference Manual*, 297-*nnnn*-855

1.0 Introduction to TOPS IWS

This section describes the following TOPS IWS (Traffic Operator Position System Intelligent Workstation) features:

- major components of IWS positions
- IWS position types and their functions
- how to make operator adjustments to the IWS position
- applications that run on the IWS
- common customizable features of the IWS

TOPS IWS combines features of all previous TOPS positions with the following additional capabilities:

- customizable window displays and features
- customizable keyboard options
- ability to accommodate added functionality (new services)

TOPS IWS may contain any of the following applications at the operating company's discretion:

- IWS base
- IWS Billing application
- directory assistance (DA) (including intercept and customer name and address)
- open information access (OIA) for services such as an operator information reference database
- supervisory capabilities [CSE (customer service expert) using QMSCASE (Queue Management System Customer Assistance Service Enhancements)]
- third-party vendor services

1.1 TOPS IWS workstation

The following components comprise each TOPS IWS workstation:

- CPU
- monitor
- keyboard
- headset jack

The CPU and monitor are standard PC devices, but the keyboard is designed exclusively for TOPS IWS. Although a mouse or other pointing device can be used with other applications on the TOPS IWS workstation, these devices cannot be used to control TOPS IWS applications unless the operating company specifically enables the mouse.

Different models of IWS workstations (positions) are available. Each varies slightly in its appearance, settings, and adjustments. However, because all IWS workstations are modular, they can be placed on a desktop or customized work area.

1.1.1 TOPS IWS workstation components

Screen
The screen is adjustable. It has two dials to used to adjust brightness and contrast. The power ON and OFF switch turns the monitor on and off.

Central processing unit (CPU)
The CPU contains the following components:

- computer and memory of the TOPS IWS positions
- computer programs (software) that allow the position to communicate with the DMS switch and the DA database

Although the CPU has an ON/OFF, Nortel Networks recommends that the unit not be turned off at any time.

Keyboard
The Nortel keyboard attaches to the CPU by a flexible cord that allows movement. The keyboard tilts at the following two angles:

- 11 degrees, keyboard legs folded under the keyboard
- 18 degrees, keyboard legs extended

Headset jacks
The two sets of headset jacks can be attached to the workstation furniture or placed on the desktop. These jacks allow communication between the customer and supervisor.

1.1.1.1 TOPS IWS workstation types

TOPS IWS Base software recognizes the following types of workstations:

- operator position
- DMS gateway
- RAMP (remote access maintenance position)

Operator position
Operators at general operator positions use TOPS IWS applications to provide billing and DA to telephone operating-company customers. These operators assist subscribers in tasks such as the following:

- completing calls
- placing emergency calls
- ensuring proper billing assignments to subscriber calls

A specific traffic office can contain any number of operators. The size of the traffic office is determined by the types of calls handled, the complexity of the operator’s job, the amount of assistance normally required from management, and administrative costs.

DMS gateway
The DMS gateway is an operator position, used in TDM networks, that offers the following capabilities:

- IWS base position functionality
- LAN connectivity (including an audio card and a token-ring interface card)
- communication through one X.25 data link connecting the position to the DMS TMS

DMS gateway positions are paired (duplicated on the ring) so that a second gateway is available if the first goes down. Gateway positions can also serve as operator positions.

Remote access maintenance position (RAMP)
Each RAMP position comes equipped with a modem for dial-in access from the public switched network (PSN) to the LAN, and a token-ring interface card.

The RAMP position can also function as a general operator position. However, when needed, the RAMP can be used as a maintenance position.

A RAMP may contain a audio card; however, if the RAMP is configured as a stand-alone maintenance position, DMS voice and data connections are not needed.

The RAMP can be used to dispense datafill and download files to all operator positions; it cannot be designated as a DMS gateway.

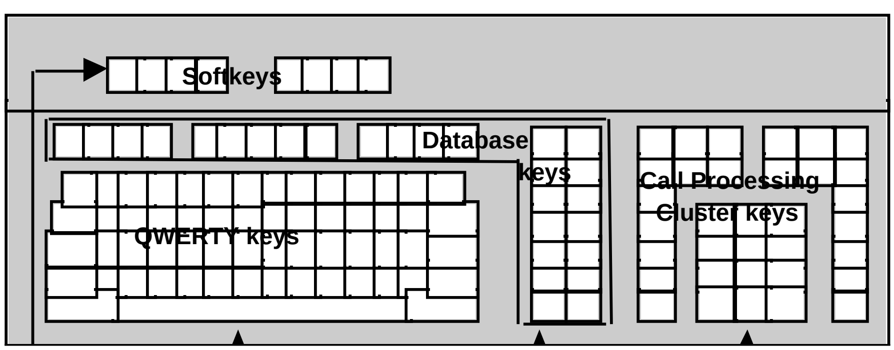
1.2 TOPS IWS keyboard

TOPS IWS keys are grouped as follows:

- QWERTY keys
- softkeys
- database keys
- call processing/cluster keys

Use the keyboard to type text and digits into the data entry fields. See Figure 1.

Figure 1. TOPS IWS keyboard



The keyboard comes with a default set of general functions, key names for those functions, and locations for keys. However, keyboard functionality is customizable. Each operating company can designate other TOPS IWS functions and define keys for those functions. Operating companies can also change the key names and locations of general functions.

The keyboard figures presented in this book show examples of completely company-programmed keyboards. However, keyboards are customizable; therefore, configurations vary in the field.

For details on key functions, see Chapter 2.0 “Keyboard,” on page 35.

1.3 TOPS IWS software

TOPS IWS software runs on Microsoft Windows 95 and supports multiple applications. The TOPS IWS system, together with DMS Open Position Protocol (OPP) software provides a windowing interface to the DMS switch and to IWS-related databases. Through this interface, an operator can provide input by using the keyboard to select features and enter information.

1.3.1 Software features

This section describes the following major TOPS IWS software features and their capabilities:

- IWS Billing application
- Nortel directory assistance (NTDA)
- Nortel open information access (OIA)
- Global operator services (GOS)

IWS Billing application

The IWS Billing application provides the following features:

- basic toll and assistance capabilities for operators
- access to an external database containing the following information:
  - — account codes
  - — message waiting indication
  - — speed dial access
  - — calling restrictions
  - — access to other services

Nortel directory assistance (NTDA)

NTDA provides the following features:

- integrated DA
- intercept services

Open information access (OIA)
OIA provides external database access to reference data such as the following:

- emergency number information
- rate and route information
- phraseology
- city name to numbering plan area (NPA) translations

Global Operator Services (GOS)
GOS applies to operating systems outside North America that use TOPS combined with additional features. Depending on how TOPS IWS system is configured, operators can use all or some of the various GOS features.

1.3.2 Software installation

TOPS IWS uses many different levels of datafill files to run operator-service applications. TOPS IWS software supersedes any other software previously installed on the positions.

Several datafill categories are included in the IWS Base, Billing, NTDA and OIA applications. These categories are customizable (for example, changes to text words on operator windows).

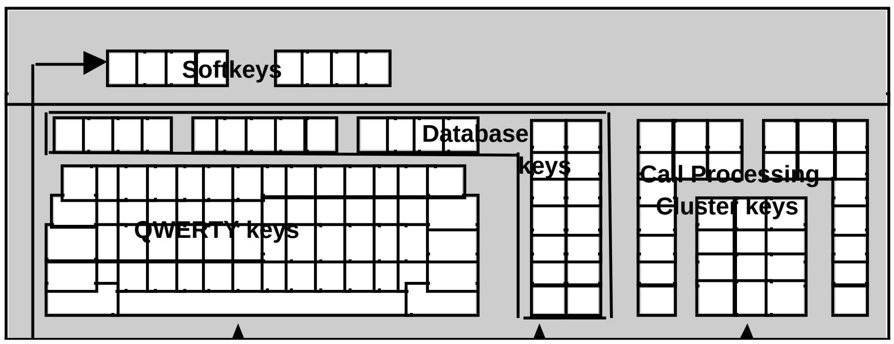
2.0 Keyboard

The TOPS IWS keyboard contains the following groups of keys:

- QWERTY keys
- softkeys
- database keys
- call processing/cluster keys

Figure 2 shows the location of each group.

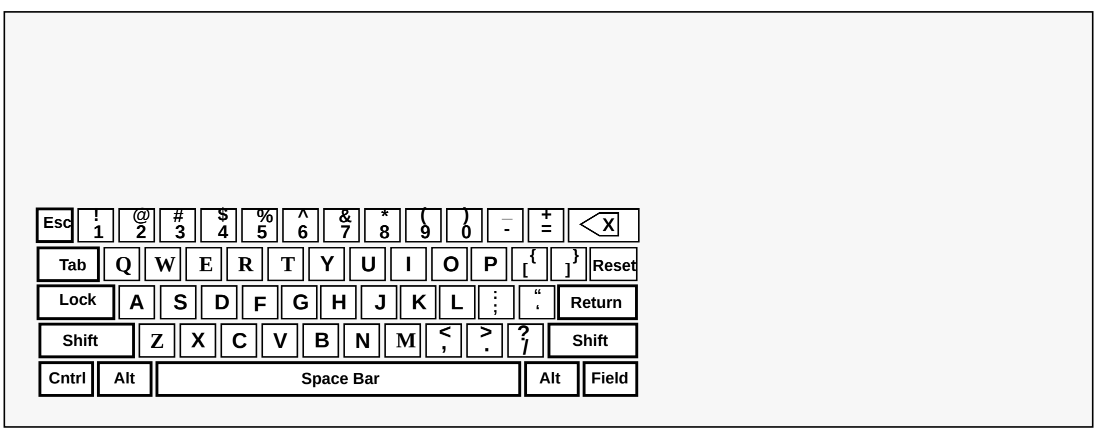
Figure 2. TOPS IWS keyboard



2.1 QWERTY keys

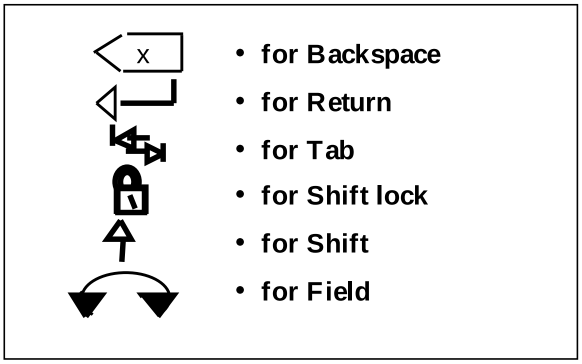
The QWERTY keys, shown in Figure 3, provide the operator with the standard set of typewriter keys. While the QWERTY keys are not often used for operator assistance (OA) and OIA, they are used extensively for DA.

Figure 3. QWERTY keys



Some words have been replaced with **icons** to represent key functions, as shown in Figure 4.

Figure 4. QWERTY key icons



For service providers transitioning from previous TOPS positions, the QWERTY section on these positions replaces the alphabetic keys with hardcoded TOPS functions.

Color coding is used to separate functions such as class charge keys, automatic messaging accounting (AMA), and network control keys. Shading can be provided in lieu of color coding for operators who have difficulty discerning some colors.

2.2 Softkeys

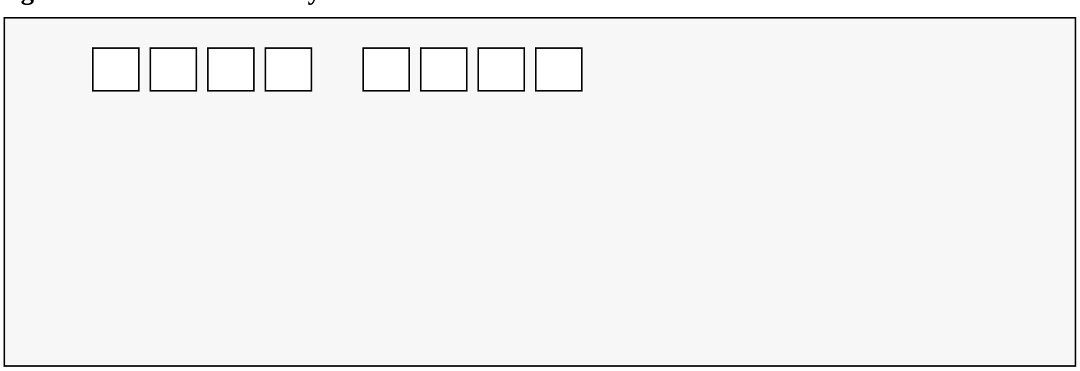
Each of the eight softkey labels corresponds to a key on the TOPS IWS keyboard as follows:

- Softkey functions vary from application to application.
- Softkeys are always under the control of the active application. The current functions of the softkeys are indicated by the softkey labels at the bottom of the screen; the softkeys themselves remain blank.

If softkey labels are displayed but a particular softkey label is blank, the blank softkey label is not operational; therefore, nothing happens if a blank softkey is pressed.

Operating companies can customize softkey labels. The labels in this book use the function's default names and may not match the ones on the position screen. See Figure 5.

Figure 5. TOPS IWS softkeys



2.2.1 IWS Billing softkeys

With the IWS Billing application for billing or call completion, 16 functions from the Functions menu can be defined on the softkeys. A default set of 16 softkeys is loaded when the IWS Billing software is initially installed, as shown in Figure 6.

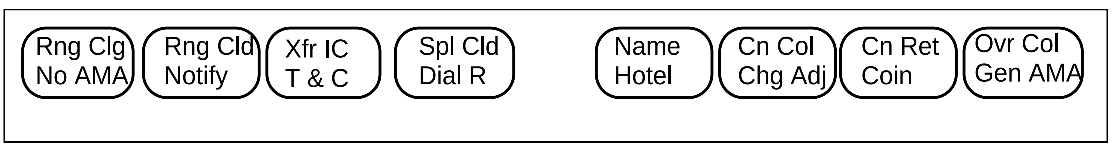
Note the following default softkey qualifications:

- Two functions are assigned to each key.
- To access the function described at the bottom of the key, just press that softkey.
- To access the function described at the top of the key, press the **SHIFT** key plus the softkey, while continuing to hold the softkey down.
- If softkey labels are displayed, and a particular softkey is blank, nothing happens when that key is pressed.

To define the IWS Billing softkeys, the operating company can do the following:

1. Datafill the actual softkey in the keyboard datafill (table XKBOARD).
2. Datafill any function as a softkey in the Functions Menu (table XFNCTS).
3. Datafill the function ID and label for each softkey (table XPCCSK).

Figure 6. Default softkey layout



2.3 Database keys

Mostly pertaining to DA applications, the database keys are as follows:

- row of 13 keys between the QWERTY section and the softkeys
- 2 x 7 vertical row of 14 keys between the call processing/cluster keys and the QWERTY section

The database key group controls mute on, mute off, and paging. Operating company personnel program the database keys to provide database functions. Figure 7 shows an example of the database and call processing/cluster keys.

To define the Common Finding Name/NPA (numbering plan area) keys for the database, use the top row of QWERTY keys between the **Esc** and **Backspace** keys.

Typically, database keys are designed for the following NTDA functions:

- search
- audio release
- search field input
- subsequent search
- edit

Database applications also use two of the keys in the 2 x 7 vertical row (**Page Fwd** and **Page Bwd**), as shown in Table 1.

Figure 7. Database and call processing/cluster keys

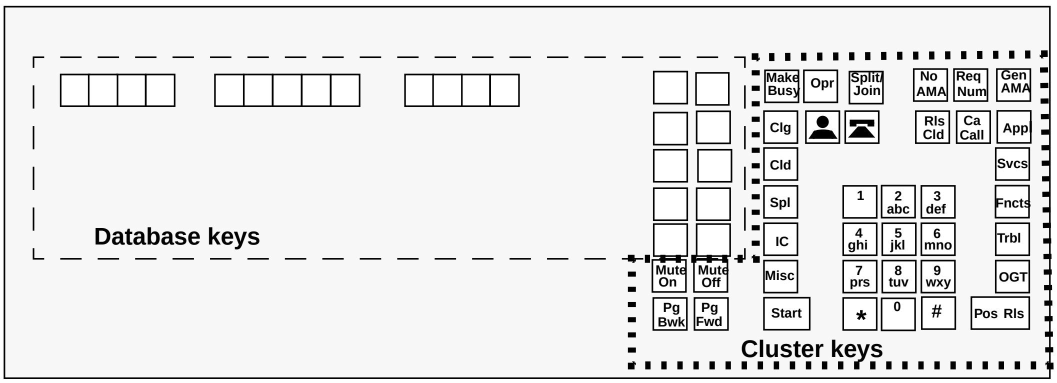


Table 1. Database keys

Key label	Function
Mute On	Disconnects the voice path to the calling and called parties. However, the operator can still hear any connected party.
Mute Off	Reconnects the voice path to the calling and called parties. If this key is pressed when the voice path is not disconnected, there is no effect.
Pg Bwd	Pages backward through a menu. After reaching the top of the menu or multi-page list, paging backward has no effect. To lower the headset volume, pressing **Shift** + **Pg Bwd**.
Pg Fwd	Pages forward through a menu. After reaching the end of the menu or multi-page list, paging forward has no effect. To raise the headset volume, press **Shift** + **Pg Fwd**.

2.3.1 Paging keys

The paging keys are located in the bottom row of the database area of the keyboard and are generally used for NTDA, as follows:

- to move from page to page, backwards or forwards, within an NTDA menu
- to page through DA listings and other application panels

2.3.2 Edit keys

On the IWS keyboard, editing keys are usually datafilled in the 2x7 vertical row of the database keys, but may also be datafilled elsewhere on the keyboard.

To edit on the IWS keyboard, move the cursor to the desired editing field or data input field. Make sure that the editing option is turned on through datafill in table NTOAIN.INI.

Use the call processing/cluster keys and the numeric keypad for editing using the octothorpe and asterisk keys.

Editing keys include the following:

- **Edit** unformats an already-formatted number in the **Clg**, **Cld** or **Spl** fields.
- **Home** moves the cursor to the beginning of the field.
- **Backspace** moves backward a space within a particular field.
- **Right and Left Arrow keys** move the cursor to the right or left.

2.4 Call processing/cluster keys

The call processing/cluster key group includes the following keys:

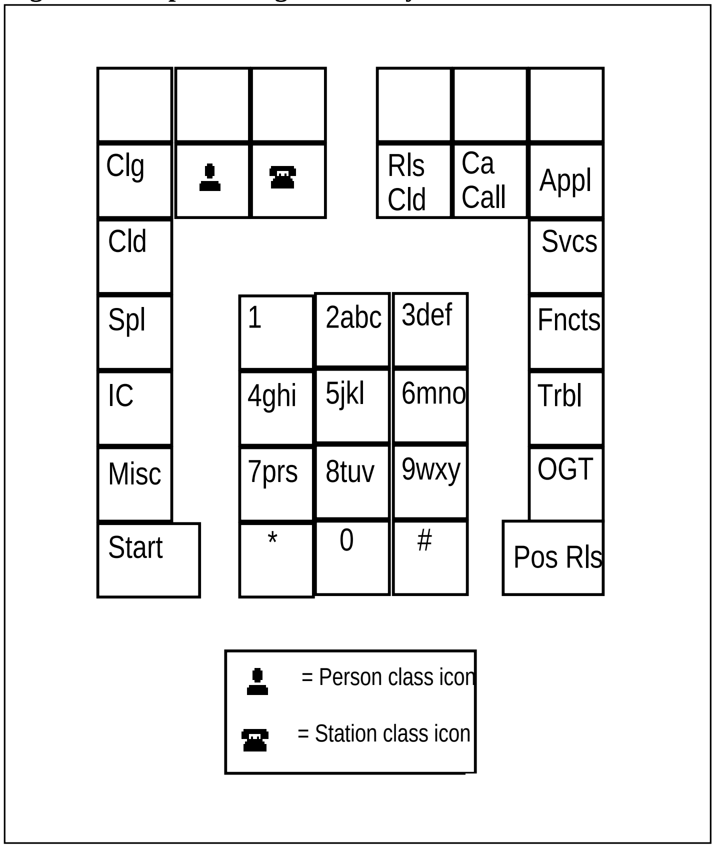
- Call Information window cursor control keys
- menu control keys
- class icon keys
- call processing keys
- numeric keypad

The keyboard comes with a default set of call processing/cluster keys; however, key names and locations for the cluster key set can be customized.

Use the following call processing/cluster keys, shown in Figure 8, to complete toll calls and to bill for NTDA calls:

- cursor control keys
- menu control keys
- AMA and network control keys
- numeric keypad
- paging keys
- miscellaneous hardkeys
- undefined hardkeys

Figure 8. Call processing/cluster keys



2.4.1 Cursor control keys

The cursor control keys include the keys labeled **Clg**, **Cld**, **Spl**, **IC**, **Misc**. These keys correspond to the same fields in the Call Information window on the billing window.

Entry fields and cursor control keys do not exist on previous TOPS operator positions.

TOPS IWS supports screen displays and cursor default positions at call arrival; they should not require manual entry by the operator.

2.4.2 Menu control keys

The menu control keys include those keys labeled **Appl**, **Svcs**, **Fncts**, **Trbl**, **OGT**, and **CT4Q**. (Unlike other menu keys, **CT4Q** has no pre-assigned key on the IWS keyboard. Before using it, the operating company must choose a key to be the **CT4Q** key and then use the KeyBind tool to bind the CTQ key action to that key. For information on using KeyBind, refer to *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015.)

Pressing any of these keys displays a menu window from which items can be selected by designating a number.

For more information on menu keys, refer to Chapter 4.0, "TOPS IWS menus and menu functions," on page 61.

2.4.3 AMA and network control keys

AMA (automatic message accounting) refers to billing a call. Two keys (along with the field keys **Clg**, **Cld**, and **Spl**) define the particular billing/class charge for each call. Note the following qualifications:

- The change in this group of keys is related to the class charge keys.
- Icons denote the class of billing.
- The person class charge key bills a call made to a specific individual at the called party number. This call is billed only if the specified individual is there to take the call.
- A picture of the head and shoulders of an individual is used as the person class charge icon.
- The station class charge key is used for non-person billing at the called party.
- The picture of an on-hook telephone is used as the station paid billing icon.

Use the network control keys to keep or release a call from the operator’s control, as follows:

- The **Ca Call** key preceded by the **Pos Rls** key cancels the call, determining that a call was not billed.
- **Pos Rls** releases a billed call from the position and lets the operator take and process other calls.
- The **Start** key is used most often in call processing. It sends a message to the switch to enact the functions necessary to process and record call information. The operator presses the **Start** key after call information is entered to connect to a party.
- In contrast to **Start**, the **Rls Cld** key lets the operator format and store a called number without outpulsing it immediately.

2.4.4 Numeric keypad

The layout and function of the numeric keypad remains unchanged, regardless of the position that service providers have worked on previously.

The asterisk (*) is a destructive backspace key.

The octothorpe (#) key appends an area code to a number after the number is entered, but before it is outpulsed.

2.4.5 Miscellaneous hardkeys

To signal the DMS switch to connect the operator to the appropriate party while the call is still at the position, optionally datafill the **Con** key, usually located in the call processing cluster.

2.4.6 Undefined hardkeys

The six undefined hardkeys are located in the top row of the call processing cluster.

Using KeyBind, service providers define these keys from functions in the Functions menu.

Operators can use the **Make Busy** and **Scripting** keys if using these functions often to eliminate keystrokes.

Table 2 describes call processing/cluster key functions.

Table 2. Call processing/cluster key functions

Key label	Function
Make Busy (optional)	Toggles between making the position available and unavailable to accept calls
Opr (optional)	Used with the number keys and the **Start** key to sign on, request assistance, and transfer a call to another operator
Split/Join (optional)	Cuts off and restores the subscriber's voice connection to: •speak with a supervisor •forward a party without the subscriber hearing the conversation
Clg	Enters the calling number and positions the cursor for a class charge.
	Applies a person class charge.
	Applies a station class charge.
Cld	Enters the called number and positions the cursor for a class charge.
Spl	Enters the special number and positions the cursor for class charge.
IC	Moves the cursor to the [inter-LATA (local access and transport area) or inter-zone carrier] field of the Call Information window
Misc	Moves the cursor to the Misc field of the Call Information window for entry of a room or suite number
Start	Processes call processing actions and reports them to the DMS switch
Rls Cld	• Releases the called party • can be used as a terminating key (like the **Start** key) when the cursor is in the Cld field and a connection is not needed
Ca Call	Toggles between marking the call as cancelled and removing the cancelled mark.
Appl	Accesses the Application menu, which lists applications
Svcs	Accesses the Services menu, which lists available services
Fncts	Accesses the Functions menu, which lists available functions
Trbl	Accesses the Trouble menu
OGT	Accesses the Outtrunks menu, which contains a list of outtrunk events
Pos Rls	Releases a call .
numeric keypad	Registers numeric data, such as the called number. • * (asterisk) is a destructive backspace. • # (octothorpe) appends area code to number.

2.5 Key macros

A key macro is a series of keystrokes defined by the service provider and assigned to a specific key on the keyboard. Key macros offer the following advantages:

- flexibility to define up to a 15-keystoke sequence on one key
- more customization opportunities for frequent operator keystrokes
- up to 25 macros per keyboard

Key macros are identified in the keyboard datafill table XKBOARD and defined in the datafill file XKEYMAC.TBL. The KeyBind utility assigns a macro to a designated key.

Note the following key macro limitations and suggestions:

- When an IWS Billing query is running, all key macro keystrokes are ignored.
- Since macros are defined for specific applications, a macro defined for IWS Billing may not have the same effect if pressed while the IWS workstation is in NTDA.
- Macros include only one keystroke in a macro that sends a message to the switch.
- To define a macro, do not use context change keys such as **Clg**, **Cld**, **Spl**, **Misc**, **Acct**, and **IC** (for NTDA); or the **Context Change** key (if one is datafilled for IWS Billing).

2.6 Customizing the TOPS IWS keyboard

The TOPS IWS keyboard can be customized to maximize efficiency and to reduce the learning curve when converting to this new position, as follows:

- In the Base position datafill, use Table XKBOARD to define unique keyboard aspects for IWS Billing.
- Use Table XKBOARD to support a standard DOS keyboard.
- The layout of each application (IWS Billing, NTDA, OIA) may need to be modified as the application is implemented.
- Use the KeyBind tool to edit the XKBOARD table easily.

For more information, refer to KeyBind utility in the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015, for more information.

The following fields make up the **XKBOARD** table:

- **Scan Code** selects a particular key.
- **Modifier Mask** identifies the modifier to be applied to a key.
- **Action Set** identifies the key set containing the desired key action. (For a list of key sets for scan codes and key sequence modifiers, refer to the *TOPS IWS Base Platform User's Guide*.)
- **Key Action** identifies a particular action within the key set field. Valid ranges are specific to each key set. Key sets are as follows:
  - — IWS generic keys
  - — Functions menu hotkeys
  - — Services menu hotkeys
  - — OGT menu hotkeys
  - — Trouble menu hotkeys
  - — Applications menu hotkeys
  - — Application-specific actions
  - — IWS key macros
  - — CT4Q menu hotkeys

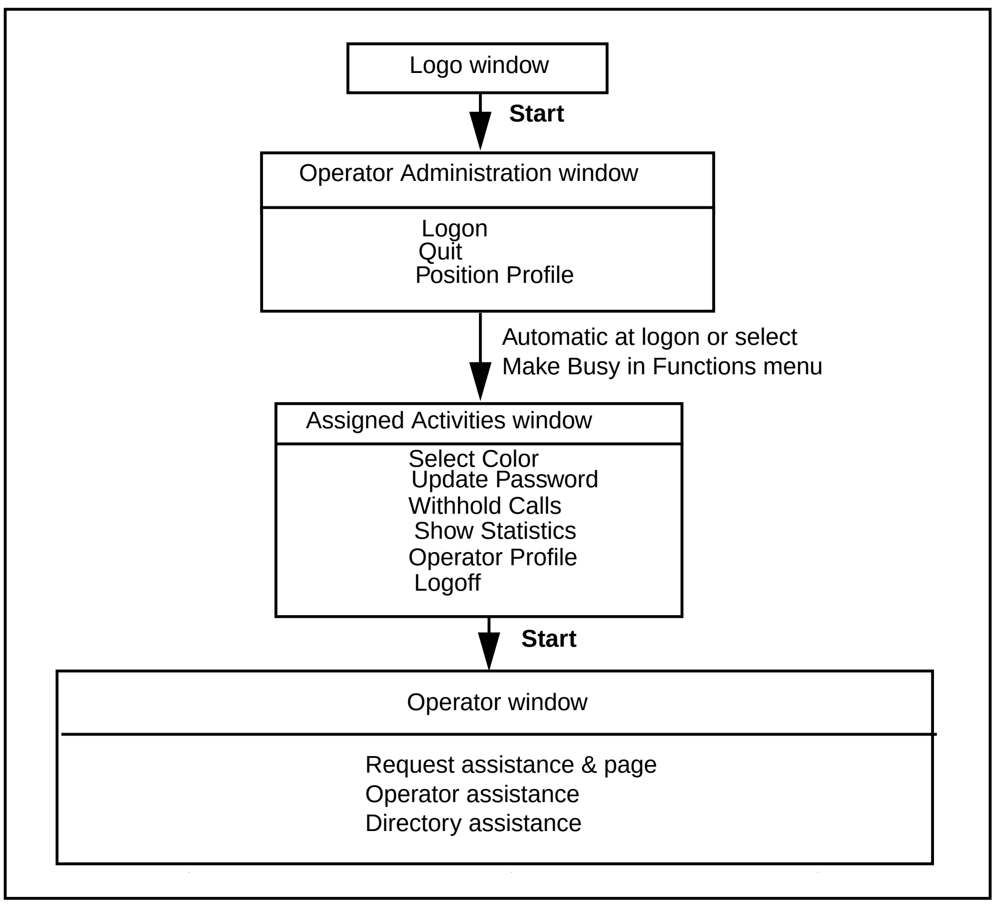
3.0 Operator Log On and Start Up Tasks

Communication to the DMS switch includes the following tasks:

- logging on
- performing administrative searches
- accessing the position profile
- accessing the operator profile
- changing colors at the position
- changing the password
- accessing operator statistics
- accessing all of the menus (including Applications, Functions, Outtrunks, Services, and Trouble menus)

Figure 9 shows a system flow diagram for the displays.

Figure 9. System flow diagram



3.1 IWS screen saver

TOPS IWS provides a screen saver to help prevent screen burn-in on the operator position display screen. When the position is not logged on, the screen saver appears after a period of inactivity. The operating company selects the period of inactivity and the screen saver display. To remove the screen saver, the operator takes one of the following actions:

- presses any key
- seats or unseats the headset
- moves the mouse attached to the workstation
- returns to service or makes busy the position

When the position is unoccupied and in the Logo or Operator Administration window, the default or service provider-selected screen saver appears on the IWS screen.

Six Windows 95 screen savers are included with the installation of Windows 95 on the IWS. The Scrolling Marquee screen saver is the default on the IWS in the position software in the initialization file **MPXINI.INI**.

The six screen savers available with Windows 95 on the IWS are:

- Scrolling marquee
- Curves and colors
- Blank screen
- Flying windows
- Flying through space
- Mystify your mind

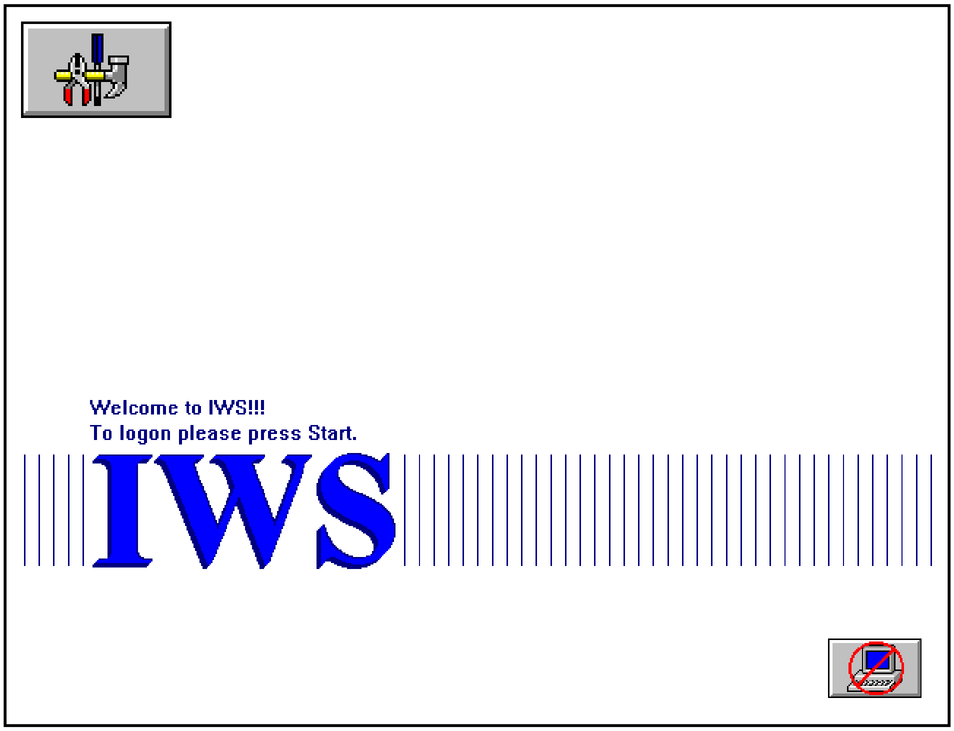
3.2 Getting started

This section describes how to log on at a position and prepare to take customer calls.

3.3 Logo window

The Logo window displays after position initialization but before logon, when the position is unoccupied and cannot receive calls. The logo displays first, along with any additional information. The position returns to the Logo window when the operator quits the Operator Administration window. Figure 10 shows the Logo window.

Figure 10. Logo window



The Logo window displays the TOPS IWS icon and can display either or both of the following icons:

- If the position is running the RAMP application, the RAMP icon appears in the top left corner. The RAMP allows remote maintenance of other positions from a single maintenance position.
- If the position is in a maintenance-busy condition, the maintenance-busy icon appears in the bottom right corner. When the position returns to service, this icon disappears.

A message area above the TOPS IWS logo displays customizable text (See Table 3).

The only valid key in this window is the **Start** key, which displays the Operator Administration window.

Table 3. Logo window displays

Display	Description
IWS logo	The only valid key is **Start,** used to move to the Operator Administration window.
RAMP icon	Indicates that the position that is collecting log information for the positions on the token ring. Displays if the RAMP application is running.

Table 3. Logo window displays (Continued)

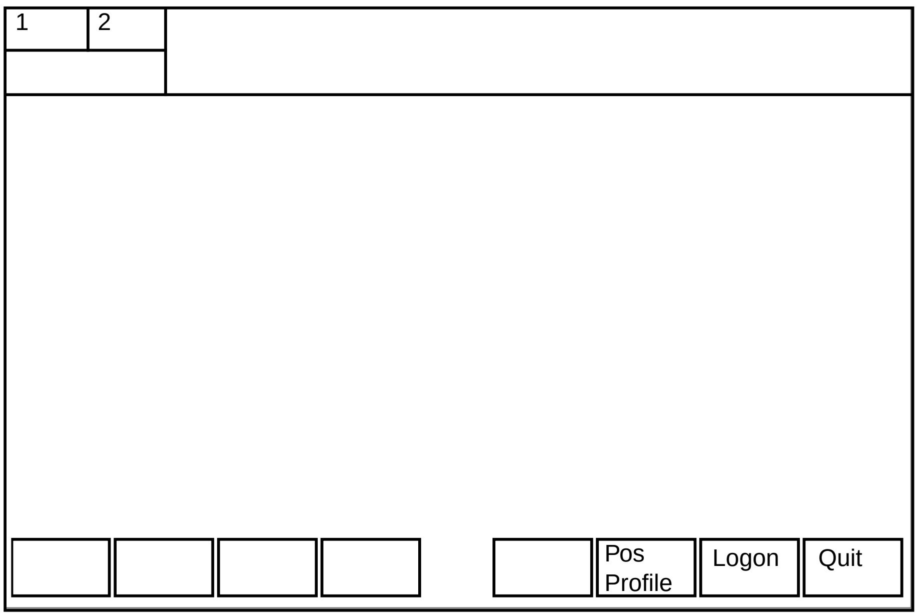
DMS Maintenance Busy icon	Displays if the position is busied by the DMS. When the position returns to service, the icon disappears.
Customizable message	Consists of two lines that provide message information to the operator before logon. Text is edited in table LOGOTEXT.LNG.

3.3.1 Starting the TOPS IWS position

To start the TOPS IWS position, operators can use the following procedure:

1. Plug in the headset.
2. Press the **Start** key. The Operator Administration window (Figure 11) appears.

Figure 11. Operator Administration window



If there is a problem, one of the following messages might display:

`Link problems encountered....`

The operator cannot log on to the DMS switch. However, the operator can access applications that do not require the DMS switch.

`Headset unseated`

The headset is not correctly seated in the jack. Reseat the headset.

3.4 Operator Administration window

When pressing the **Start** key to initiate logon while in the Logo window, the Operator Administration window displays.

Note the following qualifications:

- Application-specific windows display between the message and status area (MSA) and softkeys.
- The MSA displays system- and service-specific information to the operator. It consists of the following:
  - text display area
  - two loop information areas
  - port status information area
- The MSA displays different messages, depending on the application currently running.
- The operator is not logged on to the DMS switch while in the Operator Administration window, although the Applications menu (Appl) allows access to programs such as DA (for an administrative search) or an operator reference database.

The Operator Administration window contains the following softkeys:

- **Pos Profile** accesses position-related information.
- **Logon** initiates DMS logon. If, however, the HeadsetDriver option is set in MPXINI.INI, the logon softkey is ignored until the headset is seated (plugged in).
- **Quit** returns the operator to the Logo window.

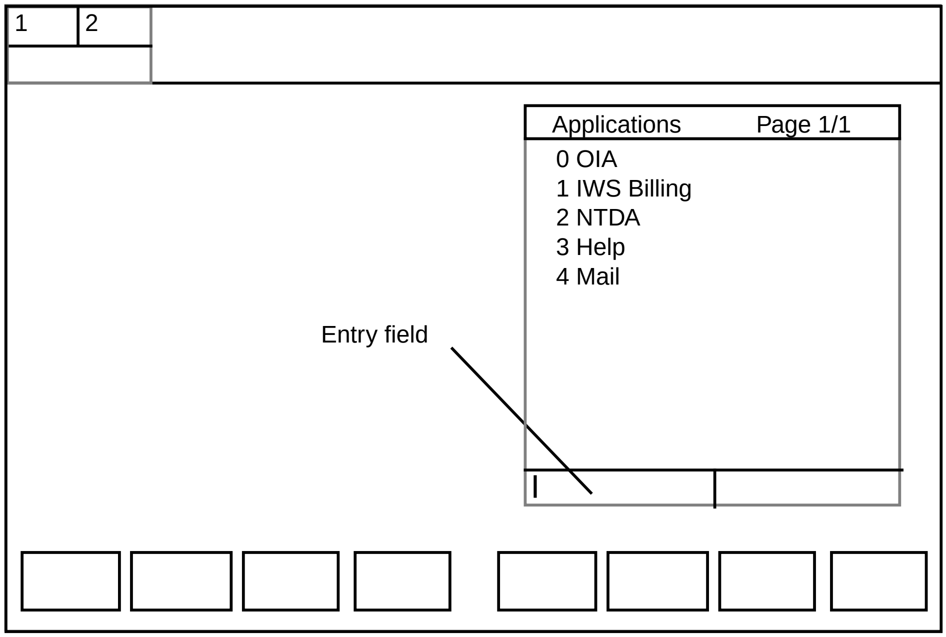
3.4.1 Selecting applications

This procedure explains how to select applications and display information about position software.

1. Press the **Appl** key twice. The Applications window (Figure 12) appears in the Operator Administration window.

The Applications menu accesses applications (such as help) that do not require the DMS switch. This menu is also used for administrative searches for DA.

Figure 12. Applications window



2. Type the menu number of an application. The number appears in the entry field.
3. Press the **Start** key to access the application.
4. To close the Applications window, press the **Quit** softkey.

3.4.2 Adjusting the headset volume

To raise or lower the volume of the headset audio, do the following:

- Press the **Shift** + **Pg Fwd** keys to raise the volume.
- Press the **Shift** + **Pg Bwd** keys to lower the volume.

3.4.3 Logging on to the IWS

This procedures explains how to access the TOPS IWS applications and log on to the DMS switch.

1. Press the **Logon** softkey. The Logon window appears in the Operator Administration window (Figure 13 and Figure 14).

The Logon softkey is disabled if the headset is unseated and the Headset-Driver option is set to ON in file MPXINI.INI.

Figure 13. Operator Administration window with Logon window

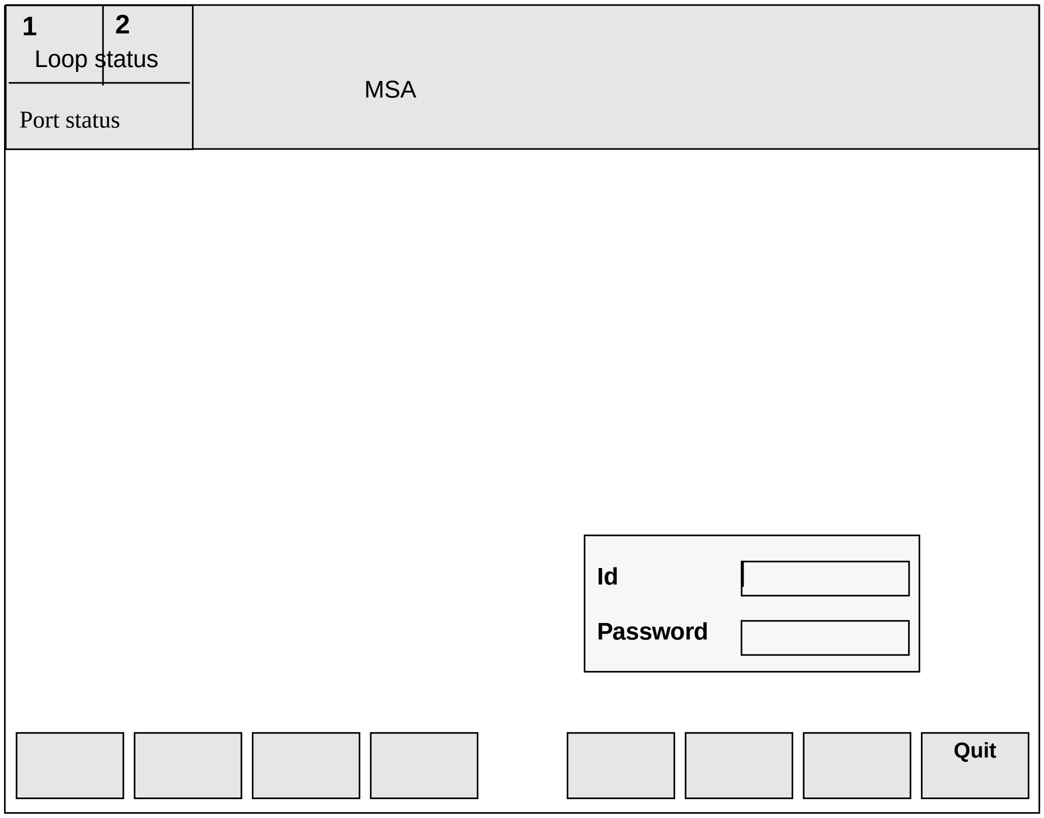
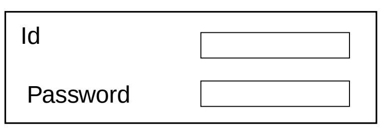


Figure 14. Logon window



2. Type the operator ID number.

3. Press the **Start** key.

   If logon is denied, one of the following error messages is displayed:

   `Incompat Srv Profile`

   The service profile for the position is incompatible with the operator's service profile.

   `Incompat Queue Profile`

   The queue profile for the position is not compatible with the operator's queue profile.

   `Oper Already Logged On`

   Someone is already logged on with this operator number.

   `Invalid Operator Num`

   The operator number is not valid.

   - If one of these messages is received, repeat steps 2 and 3. If logon fails again, request help from a supervisor; do not continue with this procedure.
   - If the operator has several operator IDs and logs on with an operator number that does not match the required profile, the operator should press the **Quit** softkey to exit the logon process at any time while logging on. Return to Step 1.

4. If a password is required, the cursor moves to the Password field. Type the password. An asterisk (`*`) appears in the Password field for each character typed.

5. Press the **Start** key.

   If the password is not valid for the operator number, the following message appears:

   `Invalid password`

   Verify that the operator number and password are correct. Then, return to Step 1.

   When logon is successful, the Assigned Activities window appears.

6. Press **Quit** to remove the Logon window and return to the Operator Administration window.

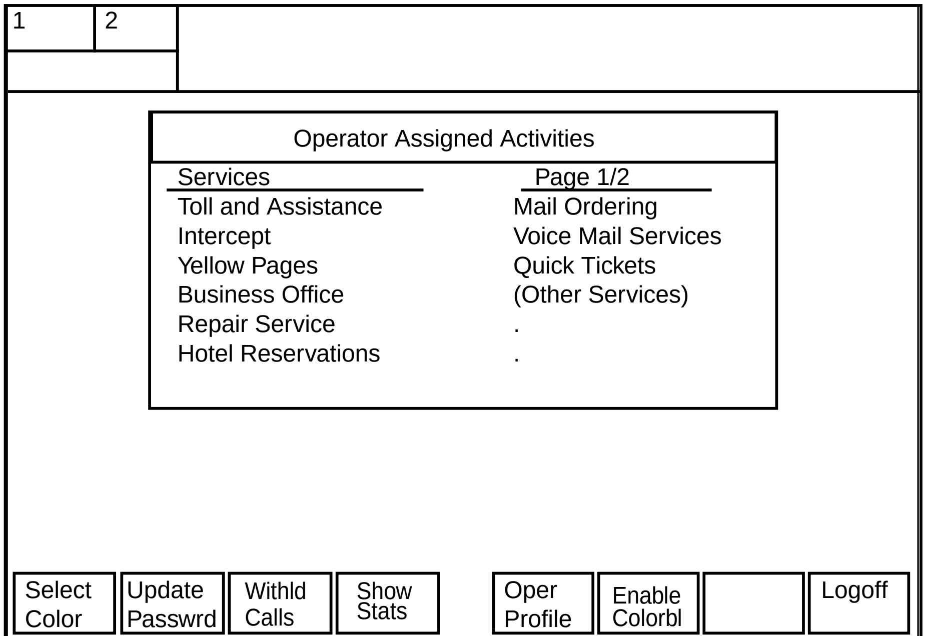
3.5 Assigned Activities window

When logging on to the DMS switch, the Assigned Activities window (Figure 15) appears in the Operator Administration window. The queueing system determines how much information displays in the Assigned Activities window.

The Assigned Activities window provides information about the type of position and the services available. This window also contains softkeys at the bottom of the window.

Since QMS (Queue Management System) can support 63 services with OPP, the operator can use the **Page Bwd** and **Page Fwd** keys to cycle through up to four pages (16 services per page). The softkeys and text displays differ for operators and for supervisors.

Figure 15. Assigned Activities window



This window displays a list of all activities available at the position. From this window, the operator can do the following:

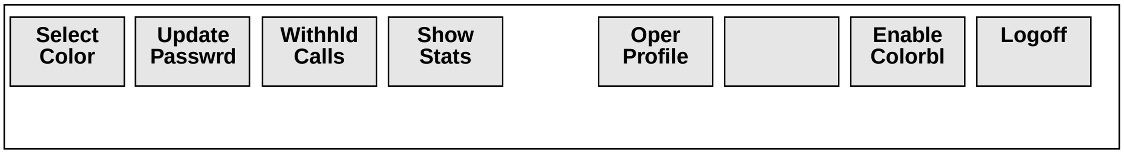
- specify colors that the TOPS IWS applications use
- change the password
- withhold or accept calls
- display statistics about operator and system performance
- display operator and position numbers
- enable colorblind
- access the Operator Information window
- log off of the DMS switch

To access the Assigned Activities window while receiving calls, the operator select **Make Busy** from the Functions menu.

3.5.1 Assigned Activities window softkeys

As many as seven softkeys are available in the Assigned Activities window, as Figure 16 shows. These softkeys and procedures for using them are presented in this section.

Figure 16. Assigned Activities window softkeys

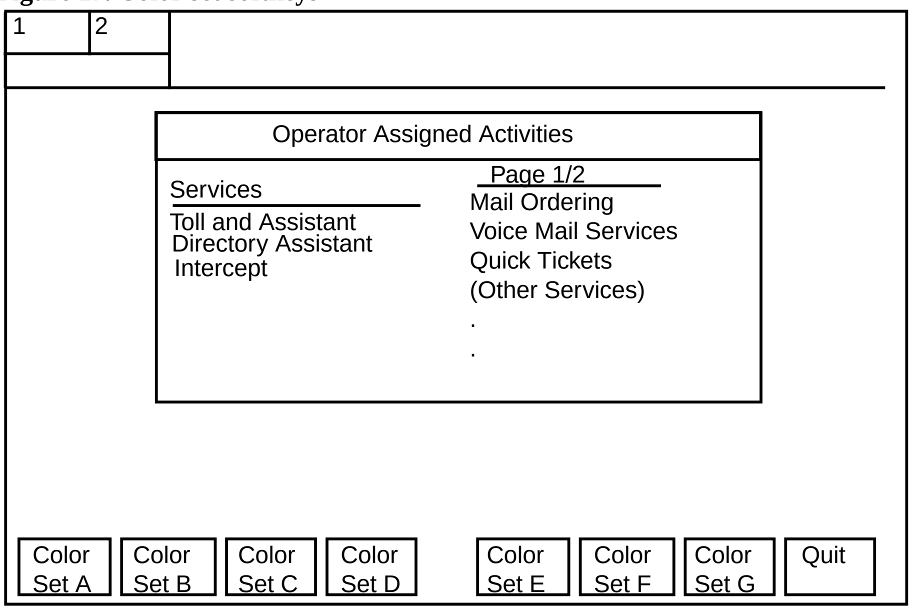


3.5.1.1 {Select Color} softkey

TOPS IWS applications use color for some text strings and icons. Operators can select from a number of color schemes for the windows. To select colors, operators can use the following procedure.

1. Press the **{Select Color}** softkey. The titles of the softkeys change to up to seven color sets (Figure 17).

Figure 17. Color set softkeys



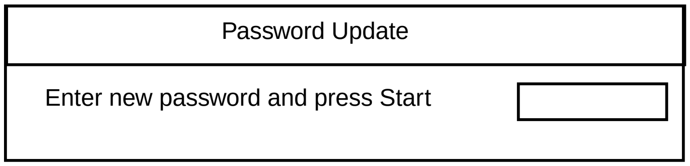
2. Press the softkey to select a color set. The window colors change to those of the set selected.
3. Press softkeys to choose a color.
4. Press the **{Quit}** softkey to establish that color set as the scheme for all TOPS IWS windows. The softkey labels return to the ones for the Assigned Activities window.

3.5.1.2 {Update Passwrd} softkey

To change a password, using the following procedure. However, a password cannot be updated when the position is in the calls-withheld state.

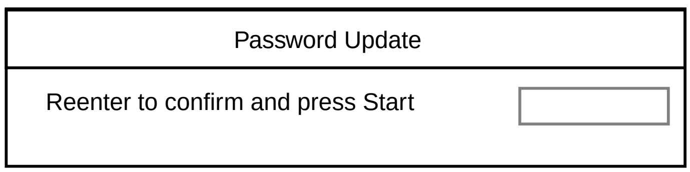
1. Press the {**Update Passwrd}** softkey. The Password Update window (Figure 18) appears in the Operator Administration window, below the Assigned Activities window.

Figure 18. Password Update window



2. Type the new password (four to seven alphanumeric characters) and press the **Start** key. A confirmation window (Figure 19) appears. An asterisk (`*`) appears in the Password field for each character typed.

Figure 19. Password Confirmation window



3. Type the new password again and press the **Start** key.

   One of the following messages appears in the Password Update window:

   `Password update successful`

   The password change is successful.

   `Password entries did not match`

   The same password was not typed in both windows.

   `Password update failed`

   The DMS switch cannot update the password.

   If the update is not successful, return to Step 1.

4. Press the **{Quit}** softkey. The Password Update window closes.

3.5.1.3 {Withhld calls} softkey

Before accessing the Operator Information window, select whether to withhold or accept calls as follows:

- Press the **{Withld Calls}** softkey to prevent calls from coming to the position. The softkey label changes to {**Accept Calls**}.

  The *AppTimeoutvalu*e parameter in the *Timeout* section of table MPXPARM.INI determines the {**Withhld Calls}** softkey's actions. This parameter specifies the number of seconds that the position remains in the calls-withheld state, as follows:

  — When the value is set to zero and time is disabled, the **{Withld Calls}** softkey acts as a toggle between the available and busy states, when moving to the Operator Information window.

  — A value between 6 and 99 (values between 1 and 5 are interpreted as 0) specifies the number of seconds the position stays in the calls-withheld state when the **{Withhld Calls**} softkey is pressed. When the specified number of seconds expires, the position enters the accept-calls state.

- Press the {**Accept Calls}** softkey to allow calls to come to the position. The title of the softkey changes to {**Withld Calls**}.

3.5.1.4 {Show stats} softkey

If enabled, to display statistics about operator and system performance, use the following procedure.

1. Press the **{Show Stats}** softkey. The Operator Statistics window (Figure 20) appears in the Operator Administration window, below the Assigned Activities window.

Figure 20. Operator Statistics window

Operator Statistics	
Calls Processed:	0
Average Work Time:	0
System Average:	0

The following fields display:

- **Calls Processed** displays the number of calls handled since log on.
- **Average Work Time** (AWT) displays the average number of seconds spent on each call since logged on.
- **System Average** shows the average number of seconds spent on each call on the entire system.

2. Press the **{Quit}** softkey to close the Operator Statistics window.

Notes:

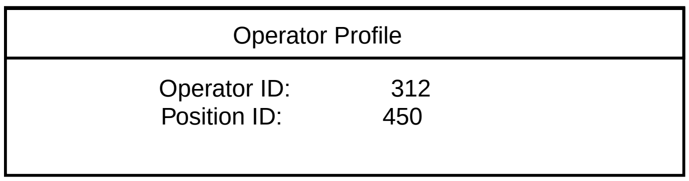
- The **{Reset Stats}** softkey allows resetting of the statistics feedback register to 0. DMS datafill enables this capability. However, the reset statistics do not transfer to the switch.
- The **{Print Stats}** softkey prints a hardcopy of operator statistics at the appropriate printer. DMS datafill enables this capability.

3.5.1.5 {Operator Profile} softkey

Use the following procedure to display the operator and the position numbers.

1. Press the {**Oper Profile}** softkey. The Operator Profile window (Figure 21) appears in the Operator Administration window, below the Assigned Activities window.

Figure 21. Operator Profile window



2. Press the {**Quit}** softkey to close the Operator Profile window.

3.5.1.6 {Enable Colorbl} softkey

The TOPS IWS position can provide customizable support to assist colorblind and partially colorblind operators. IWS does this by allowing color adjustment of some text strings and icons on the position screen. If the colorblind softkey is enabled, the **{Enable Colorblind}** softkey appears.

To change colors, do the following:

- To display text and icons in shades of gray, press the {**Enable Colorbl}** softkey. The key title in the Assigned Activities window changes to **{Disable Colorbl}**. Some text and icons might also flash.
- To display text and icons in color, press the {**Disable Colorbl}** softkey. The key title in the Assigned Activities window changes to {**Enable Colorbl}.**

3.5.1.7 {Logoff} softkey

At the Operator Administration window, press the **{Quit}** softkey to log off and return to the Logo window.

3.6 Operator Information window

As with the Operator Administration window, the Operator Information window contains the following components:

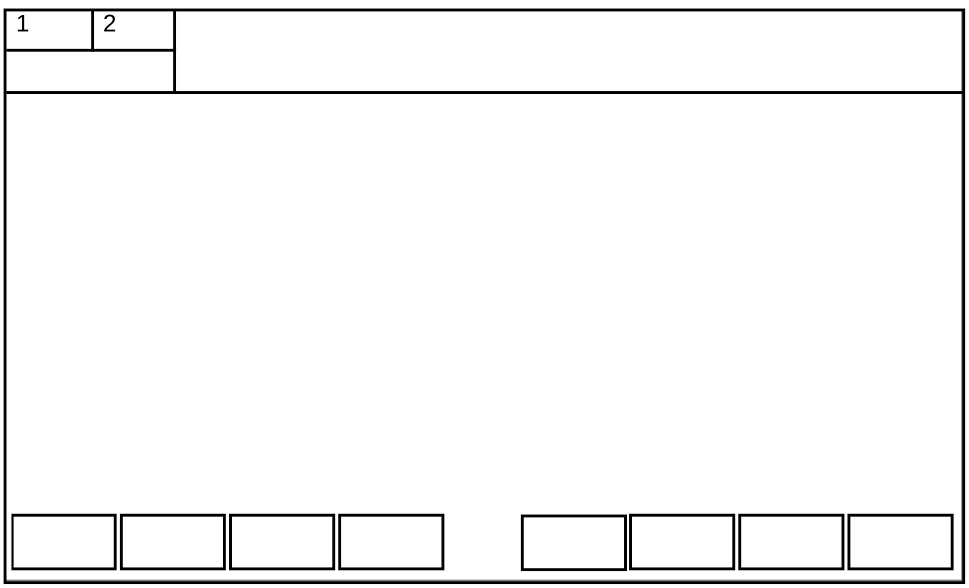
- MSA
- application area
- softkeys

No softkeys display in the Operator Information window, since no application has control of the position. To access the Operator Information window, use the following procedure:

1. Press the **Start** key to close the Assigned Activities window and access the Operator Information window (Figure 22).

   Now the position is ready to accept calls (unless withhold calls is selected) and all menus are available. Both the number keypad and the QWERTY section of the keyboard are accessible. Use the **Appl**, **Svcs**, **Fncts**, **Trbl**, and **OGT** keys to access menus for all operator tasks.

Figure 22. Operator Information window

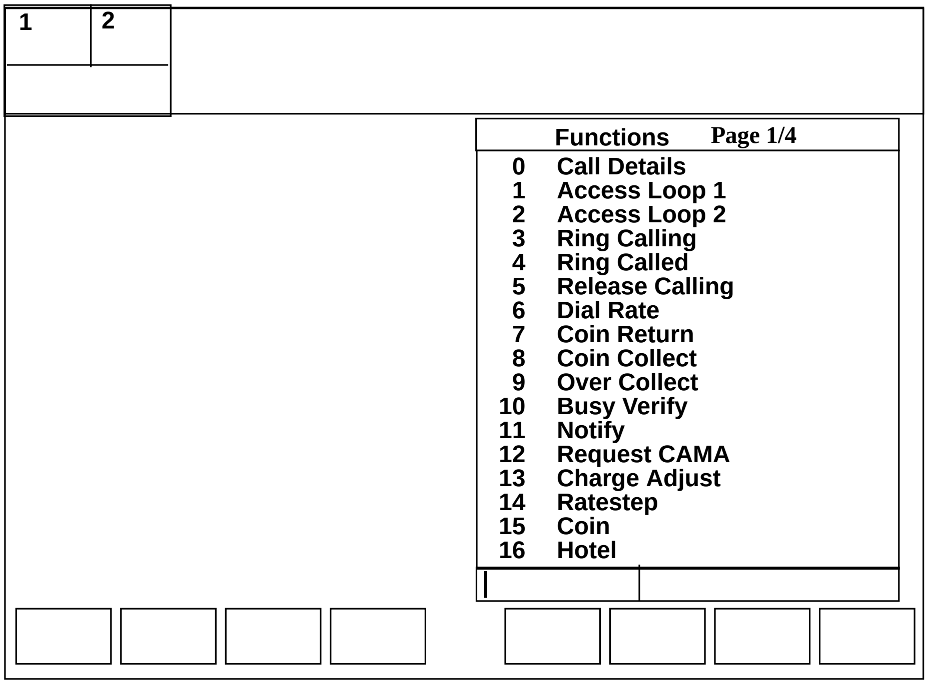


2. To display a menu, press the appropriate menu key twice. Choose the menu item and press the **Start** key.

   Alternatively, if the number of the item to be accessed is known, press the appropriate menu key once, type the number, and press the **Start** key.

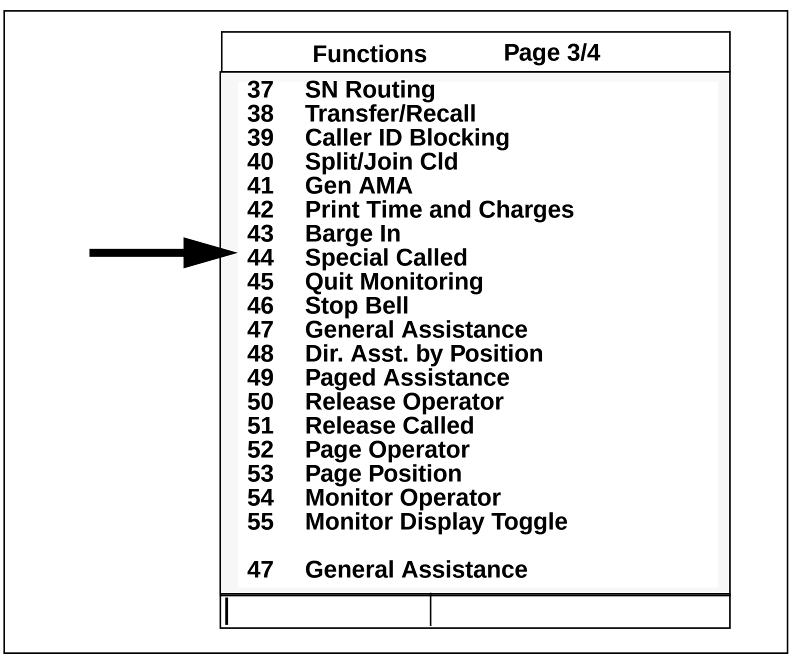
   For example, if an operator needs to barge in on a line, the operator presses the **Fncts** key twice to display the Functions menu (Figure 23) and search for the menu number for Barge in.

Figure 23. Displaying a menu window



If the Barge In item is not on the first page of the menu, the operator can use the **Pg Fwd** and **Pg Bwd** keys to page through the menu to find it (Figure 24).

Figure 24. Scrolling through a menu window



In this example, the operator types **43** and presses the **Start** key to barge in on the line.

Alternatively, if the operator already knows that item number 43 is Barge in, the operator presses the **Fncts** key once, types 43, and presses the **Start** key to cut in on the line.

The Functions menu, used in this example, is discussed in Chapter 4.0, "TOPS IWS menus and menu functions," on page 61.

The area between the MSA and softkeys is the application area. This space is used by applications running on the position. The Billing, NTDA, and OIA applications are discussed later in this section.

For more information on the Operator Information window, refer to the *Force Management Guide*, NTP 297-2251-313.

3.7 Capturing and saving screens

An operator can capture a screen display during a call for reporting problems on the position. The system saves the captured screen in a file on the hard disk that can be printed at the RAMP. To capture a display on the screen, the operator presses the **Screen Capture** key.

The operating company can also program TOPS IWS to create a screen capture when specific trouble codes are entered.

3.8 Logging off the DMS switch

The operator presses the **{Logoff}** softkey to log off the DMS switch and return to the Operator Administration window.

4.0 TOPS IWS menus and menu functions

This section presents sample menus with the following information:

- definitions for each menu
- instructions on how to use call processing menus
- important menu options
- explanations of menu key capabilities
- customization options for service providers

The following menu keys are located within the call processing/cluster section of the keyboard:

- **Fncts**
- **Trbl**
- **Svcs**
- **OGT**
- **Appl**
- **CT4Q** (This key must be bound to a hard key before it can be used. For information on using the KeyBind utility, refer to *RAMP and Provisioning Guide*, 297-2251-015.)

Pressing any of these menu keys twice displays a list of menu options.

Notes on IWS Menus:

- If the menu item selection code is already known, the operator can press the menu key once and enter the code. Pressing the menu key once does not display menu options.
- Any menu option can be datafilled on a single hotkey for faster keying action. (Nortel Networks recommends datafilling items used often in call processing as softkeys.)
- Each menu selection requires input of an item selection code, and some may require further input.

  If further input is required, the Item Selected compressed menu displays in the Call Details area, allowing the operator to input additional information. When the operator presses the corresponding menu key again, the menu expands to its original size on the screen.

4.1 Functions menu

The Functions menu provides a list of datafillable functions for processing customer requests and complex calls with minimal keystrokes.

The Functions menu key appears in the call processing/cluster area of the keyboard. Pressing this key twice displays the list of options in the Functions menu. This key also allows supervisor functions, which can be datafilled on the operator positions.

For example, an operator can access options such as Calling and Called Party Names through the Functions menu, and then enter them at the Functions menu.

Figure 25 shows an example Functions menu window. Because this menu is datafillable, the function order can be changed.

Table 4 shows available functions.

Figure 25. Functions menu window

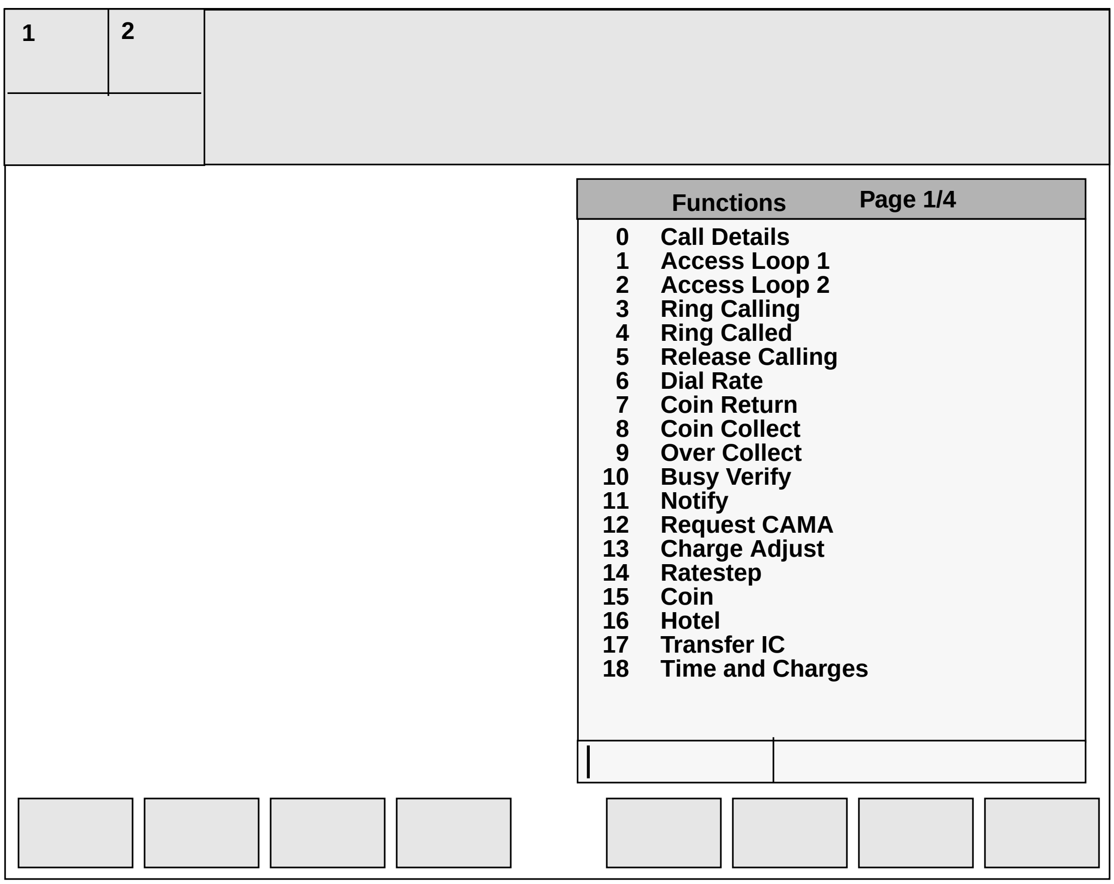


Table 4. Functions menu

Funct. ID	Name	Function Description
0	Call Details	Displays all active call information known by the DMS, including: • calling number (if it is known and was not displayed at call arrival) • rate step associated with the calling (A) and called (B) numbers • initial notification period (if one is appropriate for the call type) • any class charge information (such as paid). Used to request rates or when a subscriber wishes to change billing on a coin paid call (to determine the class [station or person] of the original call)
1	Access Loop 1	Secures communication loop one. Used when the operator initiates a call. This may include a call to a subscriber or to a supervisor. Lets the operator enter keyboard information and provide a hearing and speech path for the call. Used at a supervisor position to answer a general assistance request. The loop can be accessed only when it is idle.
2	Access Loop 2	Secures the second idle communication loop. Used when the operator initiates a call. This may include a call to a subscriber or to a supervisor. Lets the operator enter keyboard information and provides a hearing and speech path for the call. Used at a supervisor position to answer a directed assistance request. The loop can be accessed only when it is idle.
3	Ring Calling	Initiates ringing to the calling (A) number. Requires ring back capability for the calling line. Used to ring a coin telephone when the calling customer did not deposit coins for completed call. This function is available in the default softkey set.
4	Ring Called	Initiates ringing to an interim called (B) number (that is, either to the operator who placed the initial call or the hotel attendant who placed the call through to an extension). Used when there is no answer or the line is busy, and the interim operator/attendant has not returned to the line. The operator can re-ring the interim location to either leave a message or assist with another number. This function is available in the default softkey set.

Table 4. Functions menu (Continued)

5	Release Calling	Stops the connection to the calling (A) number. Used when the calling party asks the operator to call back because of a noisy connection. The operator initiates the call back by releasing the calling line and pressing the **Start** key.
6	Dial Rate	Applies the price of a subscriber-dialed call to a call placed by an operator. Used when a subscriber reports problems with a previous call. This function is available in the default softkey set.
7	Coin Return	Triggers a mechanism in a coin-operated telephone to release the coin deposit to the coin customer. Used when the caller either deposits incorrect change or cancels the call. This function is available in the default softkey set.
8	Coin Collect	Triggers a mechanism in a coin-operated telephone to gather the coin deposit into a storage area for collection by the coin telephone owner at a later time. Used when the operator asks the coin customer to deposit a large amount of coins, collects them, and then requests additional increments until the total price is deposited. This function is available in the default softkey set.
9	Over Collect	Used when a coin customer deposits more than the required amount of coins and does not have the correct amount to deposit. The operator enters the excess amount to alert the system that any additional charges for the call will start only after the excess amount is used. This function is available in the default softkey set.
10	Busy Verify	Checks the status of a called (B) line (busy, clear, trouble) to report the status to the calling (A) subscriber. With the **{Barge In}** softkey function, this allows the operator to interrupt a busy line and request that the called (B) subscriber release the line so that the calling (A) subscriber can place a call to the called (B) number.
11	Notify	Allows an operator to enter a requested time period on a call after which the system notifies the operator. Used when a subscriber only wants to talk for a limited amount of time. This function is available in the default softkey set.

Table 4. Functions menu (Continued)

12	Request CAMA	Initiates a message to the DMS switch to route a CAMA call (direct-dialed call). The operator enters only the calling (A) number into the system for call setup to begin.
13	Charge Adjust	Alerts the DMS of a billing record change, defined by the code the operator enters after selecting this function. For example, code 2 may define a connection cutoff, while 7 may define a noisy connection. Used when a subscriber reports trouble on a previous call and the operator reestablishes the connection at no additional set-up charge; however, billing for any elapsed time is charged at the standard rate. This function is available in the default softkey set.
14	Ratestep	Initiates entry of a ratestep code when no ratestep is associated with a call from the calling (A) number to the called (B) number. Ratesteps are defined for rating (pricing) of calls. [Rates associated with the ratesteps are available as part of the rate and route information in ORDB]. Immediate rates are available on coin-paid calls and hotel-paid calls as well as at the end of call charges on time and charges calls.
15	Coin	Defines a call as originating from a coin-operated telephone. Used when coin telephones are not assigned to dedicated coin trunks. This function is available in the default softkey set.
16	Hotel	Defines a call as originating from a hotel guest telephone. Used when hotel telephones are not assigned to dedicated hotel trunks. This function is available in the default softkey set.
17	Transfer IC	Identifies a call as requiring transfer to an interLATA carrier operator for assistance. Currently applicable only in the USA. This function is available in the default softkey set.
18	Time & Charges	Alerts the DMS to route the call to an operator (or automated system) for quotation of the duration and price to the billed number, when the call ends. Cannot be used with Fixed Duration. This function is available in the default softkey set.
19	International	Initiates entry of an international called (B) number.

Table 4. Functions menu (Continued)

20	Person Call Back	Specifies billing at a paid or special rate for the called (B) number.
21	Name	Initiates entry of a hotel guest name or special file number. Limited to four characters. Used on calls where multiple parties are assigned to the same hotel room and require unique telephone charges or where attorneys want time and charges associated with a client file. This function is available in the default softkey set.
22	Auto Collect	Defines a called (B) number as the billing number; announcement to the called party for acceptance of billing is not required. When a called (B) number is identified as the billing number, as soon as the number is entered into the system, the auto collect class charge displays and does not require that the function be used. Used when the billing method for called (B) number should be automatically collect but is not identified by the system.
23	No AMA	Identifies calls where no automatic billing record is to be produced.Used when no charge applies for the call or when a manual billing ticket is to be prepared. This function is available in the default softkey set.
24	Split/Join Clg	Disconnects or reconnects the voice and hearing path to the calling (A) number. Used when the operator wants to speak with the called (B) party without the calling (A) party speaking or hearing the conversation.
25	Tone Repeat	Requests a system regeneration of a specific identification tone (such as an alarm tone or a tone that identifies a coin telephone). Used when the operator is unsure of what tone was heard at call arrival.
26	Start Stopwatch	Displays a timer (in the format *hh:mm:ss*) and counts the number of seconds, minutes, and hours the function is active. Determines the the duration of a sequence of events.
27	Clear Stopwatch	Erases the timer display. Used when the timer function is no longer required.
28	Start Timing	Alerts the system to start the system timing of a call; only necessary if the call is to be placed on hold. Automatically triggers a position release of all calls not placed on hold.

Table 4. Functions menu (Continued)

29	Cancel Timing	Cancels the billable time on a recall when, because of trouble, the billed party should not be charged for the initial period. Used when the calling (A) party is reconnected to an operator and reports that the connection was unsatisfactory.
30	Hold	Places a call on temporary hold or initiates the procedure for placing a call on permanent hold. Used when the subscriber requires additional services.
31	Make Busy	Alerts the system to stop all calls from routing to the position because the operator is in the process of logging off of the system. Used any time an operator is scheduled to take a break, go to lunch or dinner, or leave for the day.
32	Withhold Calls	Alerts the system to stop calls from routing to the position because the operator is in the process of performing procedures that require an idle position. Used when an operator receives a page message from a supervisor or wants to call a supervisor when a subscriber call is not attached to the position.
33	Verify Special	Connects to a third number to verify billing verbally. Used when third-number billing requires a verbal acceptance of charges.
34	Time	Displays the current time in hours, minutes, and seconds. Used when a static time is required; for example, at the beginning of an emergency call.
35	Handoff to AABS	Initiates the procedure for transferring a call to the automated alternate billing service (AABS) after billing information is entered. Used for calls to an operator where the subscriber wishes to bill the call as collect or to a third number. ***Note:*** This function requires the optional software package for the AABS feature.
36	Requested Number	Initiates the procedure for entering a DA listing number on AMA for billing purposes. Used when the requested number is not automatically provided on the AMA record or transferred for call completion. This function is valid only in the DA service.
37	SN Routing	Enters service number codes for automatic completion to specified service numbers (such as fire, police, ambulance) if more than one service number is available to the calling (A) number. Used in areas that do not have centralized local emergency numbers.

Table 4. Functions menu (Continued)

38	Transfer/Recall	Initiates the procedure for transferring a call to another operator or for changing the call queue for recall purposes, so that an operator with the same capabilities handles the call if it recalls to an operator position.
39	Caller ID Blocking	Alerts the system not to display calling (A) number at the called (B) number. Used when a calling (A) subscriber does not want the called (B) subscriber to be able to identify the calling (A) telephone number. If this function is used a second time on the call, the request for Caller ID Blocking is canceled. ***Note:*** This function requires an optional software feature in the DMS. For display of the calling (A) number at the called (B) number, the (B) equipment must include a display terminal.
40	Split/Join Cld	Disconnects and reconnects the voice and hearing path to the called (B) number. Used when the operator wants to speak with the calling (A) party without the called (B) party speaking or hearing the conversation.
41	Gen AMA	Initiates a billing record for a portion of a call. Used when more than one service is performed within a single call (such as performing a busy line verification and then completing the call). This function is available in the default softkey set.
42	Print Time and Charges	Allows the operator to request the DMS switch to print a time and charges report for call.
43	Barge In	Allows the operator to access an active conversation so that the operator can interrupt the conversation to inform the parties of an urgent need for the line.
44	Special Called	Allows the operator to indicate that the called party will pay for the call, charged to a special number.
45	DTMF	Supports dual tone multifrequency (DTMF) outpulsing from the position. Supports DTMF tones for the digits 0-9, as well as the pound key (#) and asterick (*) characters, as defined by Bellcore in OSSGR/LSSGR guidelines.
46*	Fixed Duration	Alerts the system to terminate a call after a specified amount of time. Used on calls prepayed for a specified time period. Used with the Notify function. This function cannot be used with Time and charges.
47*	International DA	Routes a call to an overseas operator for DA.

Table 4. Functions menu (Continued)

48*	International Inward	Routes a call to an overseas operator for dialing assistance. Used when the called (B) number is not dialable or the originating operator cannot complete the call.
49	Quit Monitoring	Used by the supervisor to end monitoring. Valid only on a supervisor position that is monitoring an operator. If the Quit Monitoring function is invoked while the supervisor is not monitoring, no action occurs.
50	Stop Bell	Stops the audible alert.
51*	Calling Party Name	Enters or clears the A party’s name. (Up to 32 characters may be entered in field 2 of the Functions menu data entry area. The name can be edited with the **Edit** key.)
52*	Called Party Name	Enters or clears the B party’s name. (Up to 32 characters may be entered in field 2 of the Functions menu data entry area. The name can be edited with the **Edit** key.)
53*	Generate Ticket Number	Causes the DMS to generate a ticket number associated with the current call.
54*	Update Ticket Number	Enters or clears the ticket number currently associated with the call. (Up to 11 characters may be entered in the second data entry field of the Functions Menu. Only the first three characters may be alphanumerics. If the first character is numeric, then only eight characters may be entered.)
55*	Split/Join Operator	Used as a toggle. If invoked when the operator has a one-way connection, the DMS switch joins the two-way connection. If the operator has a two-way connection invoked, then the DMS switch splits the operator port.
56*	Muted Notify	Asks the DMS switch to provide automatic notification after a given time interval (in the range 1-59). Upon arrival of a muted notify recall, the operator port is muted to allow silent monitoring.
57*	Alternate Route	Lets the operator perform alternate routing for international calls when a connection cannot be made with a direct route. Occurs if no direct route exists or if the direct route is congested.

Table 4. Functions menu (Continued)

58*	Start Calling TBI	Sends a message to the DMS switch requesting a manual toll-break-in on the A party's line. Allows the operator to speak to the A party. Valid only if the A party line is busy and trunk type is R2 signal.
59*	Stop Calling TBI	Sends a message to the DMS switch requesting that the operator be separated from the A party, so the calling parties can go on-hook without the operator. Valid only if Start Calling TBI was invoked.
60*	Start Called TBI	Sends a message to the DMS switch requesting a manual toll-break-in on the B party's line. Lets the operator speak to the B party. Valid only if the B party line is busy and the trunk type is R2 signal.
61*	Stop Called TBI	Sends a message to the DMS switch requesting that the operator be separated from the B party, so the calling parties can go on-hook without the operator. Valid only if Start Called TBI was invoked.
63	General Assistance	Lets the operator request assistance from any supervisor currently available.
64	Dir. Asst. by Position	Lets the operator direct a request for assistance to a particular operator or supervisor by specifying that operator's position number.
65	Paged Assistance	Lets an operator who has been paged request assistance directly from the operator or supervisor who issued the page.
66	Release Operator	Lets the operator who has requested assistance from another operator cancel the assistance request while remaining on the call. If two operators are attached to the call, this function allows an operator to drop the other operator from the call.
67	Release Called	Lets the operator release the called party.
68	Page Operator	Lets the operator page another operator by specifying the operator's login ID.
69	Page Position	Lets the operator page another operator by specifying the operator's position number.
70	Monitor Operator	Lets an operator to monitor another operator by specifying the operator's number.

Table 4. Functions menu (Continued)

71	Monitor Position	Lets a supervisor monitor another operator by specifying the operator's position number. Places the cursor in the extra entry field of the Functions menu, indicating that supervisor input is required.
72	Monitor Display Toggle	Lets a monitoring supervisor toggle the display of the monitor string that specifies the monitored operator's position and operator numbers.
73	Directed Assistance by Operator	Lets an operator direct a request for assistance to a particular supervisor. Places the cursor in the extra entry field of the Functions menu, where the operator enters the supervisor's operator ID number and then presses **Start**. If the operator presses **Start** but does not enter a number, the system issues a general assistance request.
74	LNP Info Called	Requests the portability status of the called directory number (DN). LNP (local number portability) changes the way an operator uses the Busy Verify function.
75	LNP Info Calling	Requests the portability status of the calling DN. LNP changes the way an operator uses an Operator Reference database.
76	LNP Info Special	Lets an operator process LNP verification for special numbers with credit card or third number billing. Accepts only North American NPAs and credit card numbers based on a 14-digit line base.
77	Calculate Est Chg	Lets the operator provide a customer with an estimate of call charges based on the entry or modification of call data.
78	Allow Automation	Lets the operator to override the no automation specification from the DMS switch for the current call. This action also removes the no automation icon from the IWS display.
79	Clear Trigger Profile	Lets the operator manually disable the triggers for a particular call to prevent that call from returning to the operator, automated system, or service node.
80*	No Release Link Trunking	Lets the operator turn off release line trunking.
Items marked with an * indicate Global functions, commented out in XFNCTS.TBL.		

Customer selection of functions

Because it is customizable, TOPS IWS allows selection of which functions to display on the menu and which to eliminate. This reduces the number of menu pages and helps keep AWT at a satisfactory level.

Table XFNCTS.TBL controls the display and ordering of functions in the Functions menu. Table XFNCTS.TVL contains the following fields:

Function ID	Internal function ID mapping. Does not necessarily correspond to the displayed number, especially if service providers choose to rearrange the functions.
Function Text	Function name as displayed in the menu. This name is entered in double quotes. This allows the company to change the names of the functions to something unique for their needs. Limit is 25 characters.

Service provider engineers can determine the order in which the menu items display by re-ordering the lines in the file, making sure to move both the number and name. The field function ID maps to an internal function number and must remain with the associated name. Changing only the function number in the table causes the wrong function to be accessed at the position.

4.2 Trouble menu

The Trouble menu contains a list of trouble codes. The operator uses these codes to report both operator- and customer-encountered call processing trouble to the switch. The trouble menu has the following capabilities:

- minimizes keystrokes when reporting trouble
- appears in the call processing area of the keyboard
- lets operators double click on a single key to bring up a list of options
- gives supervisors 100 trouble codes that can be datafilled on operator positions.

For example, when a customer reports that a call disconnected, the operator accesses the Trouble menu and enters the trouble code associated with the cutoff, thus reporting the trouble to the switch for repair.

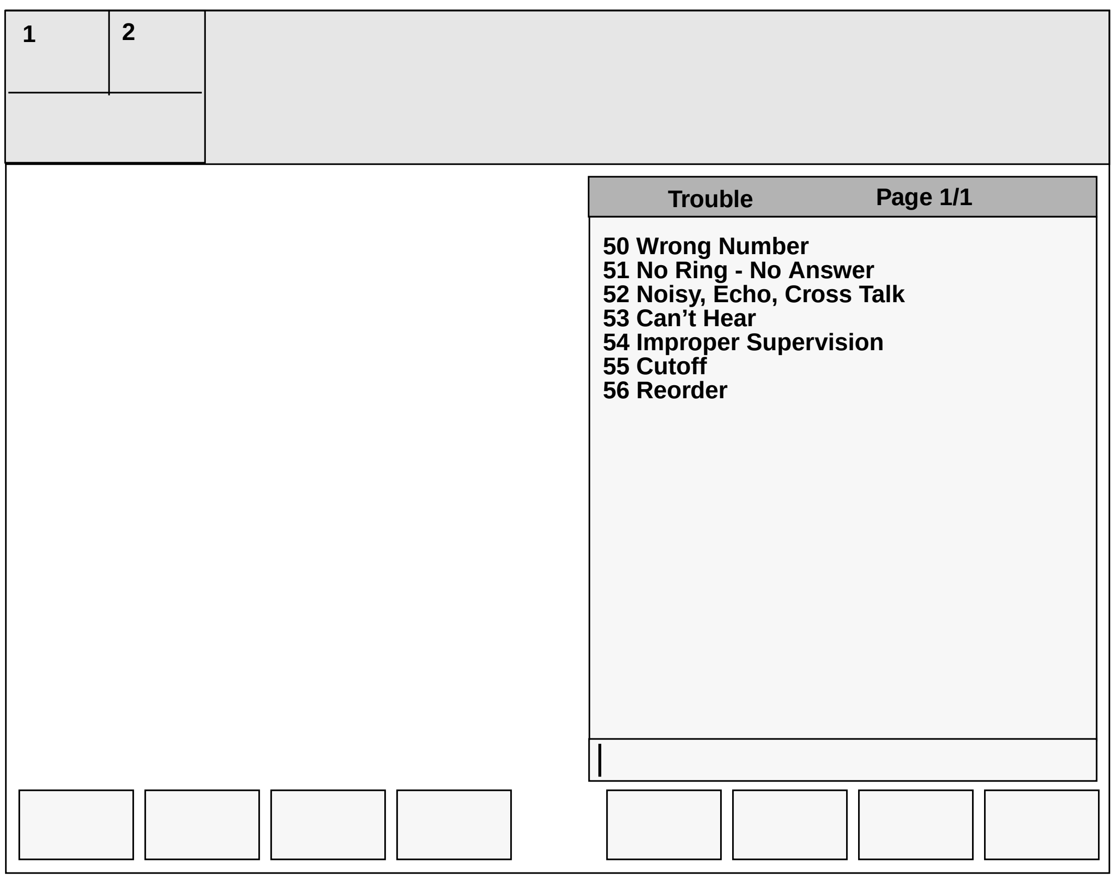
TOPS IWS provides a Trouble menu on-screen, and allows service providers to define 100 trouble codes, numbered 0-99. Categories typically datafilled in this table include troubles associated with the following situations:

- wrong number
- no ring-no answer
- noisy line
- can't hear
- improper supervision
- cutoff
- reorder

To clear a trouble code, the operator presses the pound, or octothorpe, key (#) while the cursor is in the menu entry field.

The cursor displays in the bottom row of this menu; this is where the trouble code is entered. The operator enters a trouble code into the menu entry field of the Trouble menu. When the operator enters the trouble code and presses the **Start** key, the Trouble menu disappears from the screen and the Call Details window appears, displaying the code.

Figure 26. Trouble menu



Defining the trouble menu: table XTRBL

Table XTRBL.TBL in the position lets operators define a Trouble menu by associating an integer from 0-99 with a text string to describe the trouble code. The following fields make up Table XTRBL:

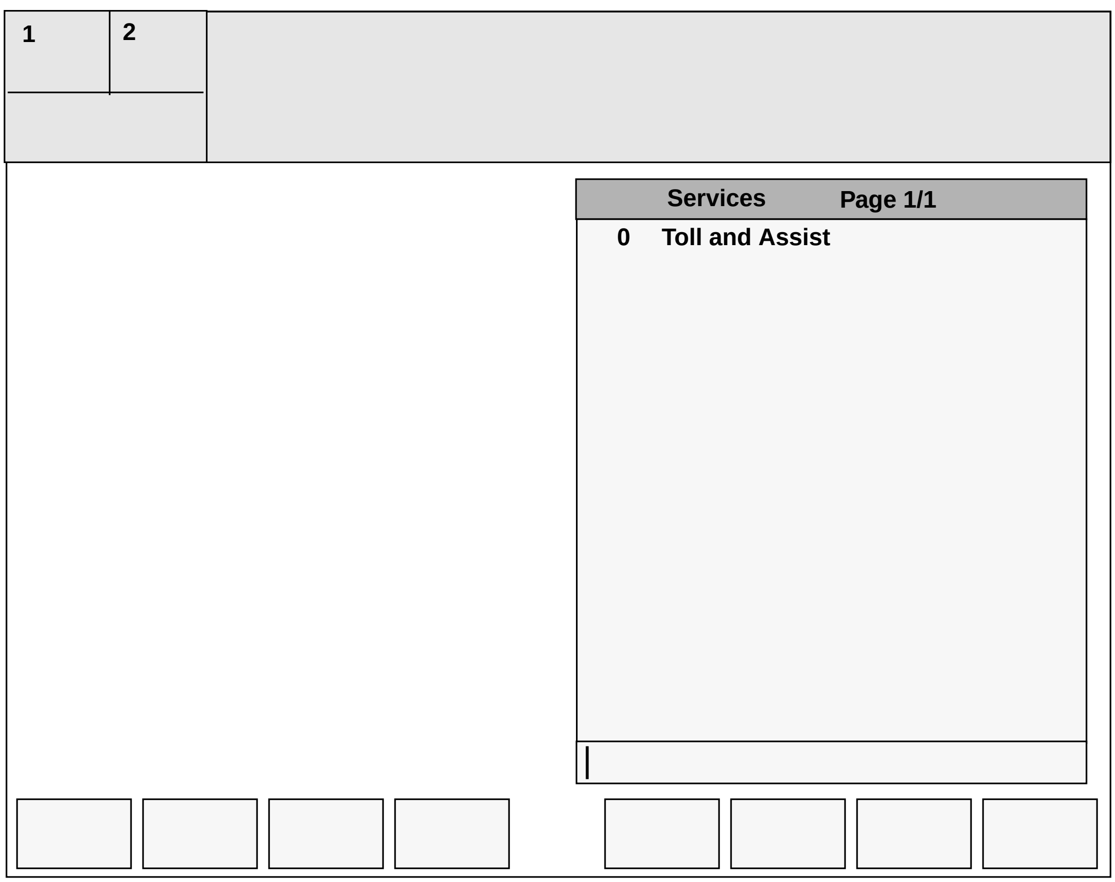
Trouble ID	Specifies the trouble code number
Trouble Text	Describes the nature of the trouble corresponding to the code number selected from the menu

4.3 Services menu

The Services menu (shown in Figure 27) contains a list of services provided on the operator position. In this menu, double clicking on a single key brings up the list of services in the Services menu. The menu appears in the call processing area of the keyboard.

With OPP and TOPS IWS, up to 63 services are supported with QMS. Pressing the **Page Bwd** and **Page Fwd** keys in the 2 x 7 vertical row of database keys displays pages that list services on the operator position. Alternatively, the operator presses the menu key a third time to go forward and recycles to go back.

Figure 27. Services menu



Defining the services: Table XSERVS

Table XSERVS.TBL lists information about each service the position provides. This table must match the DMS TOPS services datafill (Table TQMSSERV for QMS queuing). Table XSERVS.TBL contains the following fields:

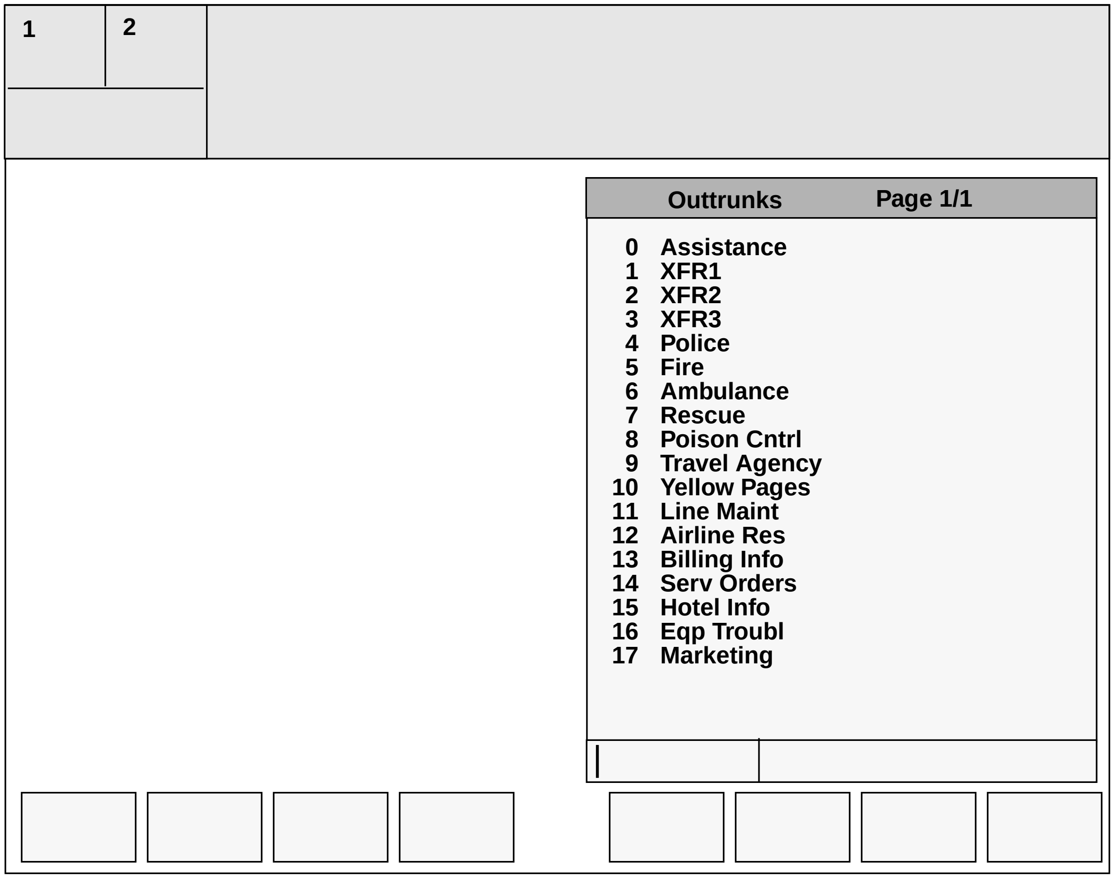
TOPS Service Number	Number of the TOPS Service. Must match DMS datafill.
Application Tag	Identifies the position application providing access to the service (enclosed in double quotes). Must match the tag documented by the application providing the service.
Billing Application Tag	Identifies the position application providing billing functions for the service (enclosed in double quotes). Must match the tag documented by the application providing the billing screen for this service.
Service Description	Text string displayed in Services menu window to describe the service (enclosed in double quotes).
Service Type Text	Text string displayed in the Service/Type field of the Call Information window at call arrival to identify the service of the new call.
Restricted Billing Table	Identifies which restricted billing table displays restricted billing information. Choices are 0=none, 1=Toll, 2=DA.

4.4 Outgoing trunks menu

The Outgoing trunks (OGT) menu (Figure 28) lets operators quickly connect the customer to a needed service (as defined and datafilled by each company). The OGT menu offers the following capabilities:

- saves time (used instead of actual phone numbers)
- stores operator-entered information on the DMS switch
- lets operators connect a customer to predefined trunks, emergency locations, or assistance services that may not offered directly
- lets operators double click on a single key to bring up the list of trunks located in the OGT menu
- gives supervisors 100 trunks that can be datafilled on operator positions

Figure 28. OGT menu



Defining the outtrunks: Table XOGTMENU

The position table where the outgoing trunks menu is defined is Table XOGTMENU.TBL. It equates an integer from 0-99 with a text string indicating an outtrunk key. The text string appears in the OGT menu window. Table XOGTMENU contains the following fields:

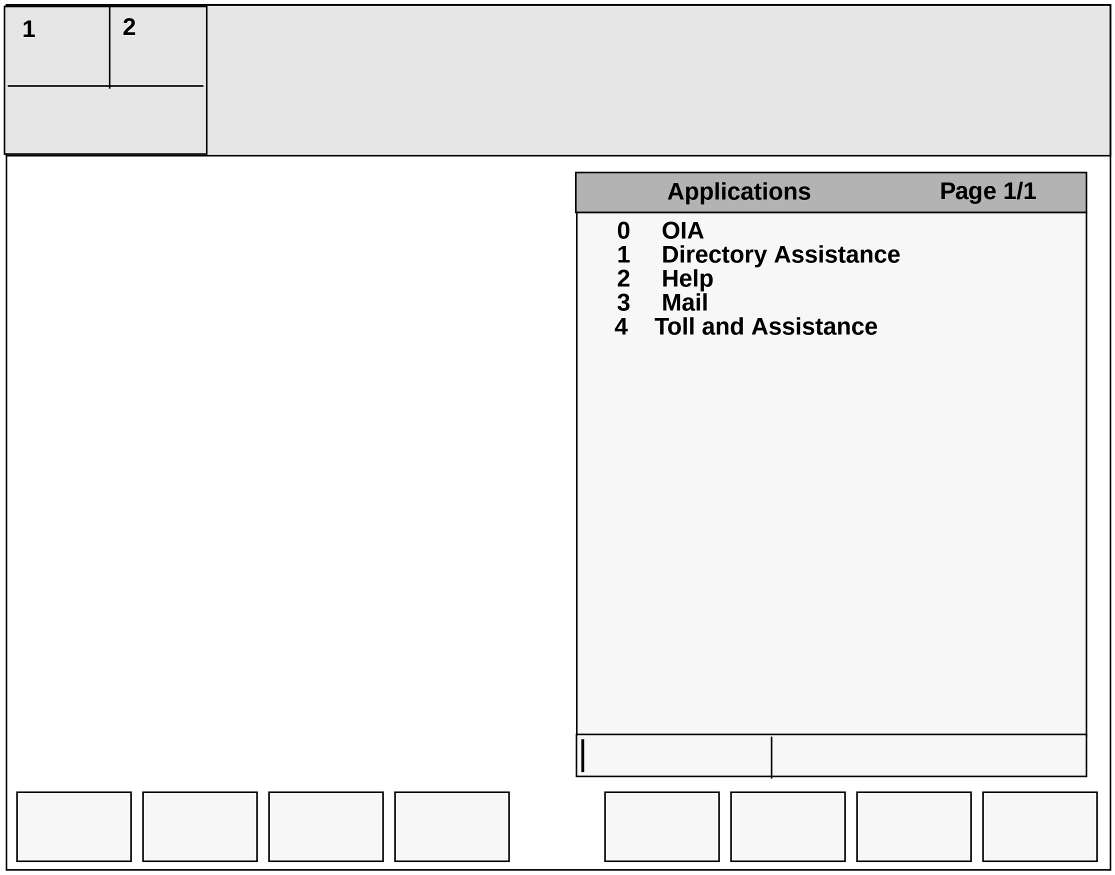
OGT Key	Appears in the OGT menu. Value 0 is always reserved for Assistance.
Key Label	Describes the outtrunk selected from the OGT menu. This datafill must match TQOGTKEY for QMS. Enclosed in double quotes.

4.5 Applications menu

The Applications menu (Figure 29), which displays in the call processing area, lets operators select applications.

This menu contains a list of applications on the operator position, allowing operators to double click on a single key to bring up applications on the Applications menu.

Figure 29. Applications menu



Defining the applications: Table XAPPL

The applications listed in Table XAPPL.TBL create the applications menu and initiate sessions in the corresponding applications. Table XAPPL contains the following fields:

Application Number	Number of the application, used as the index for the application in the Applications menu. Maximum is 32 applications.
Application Description	Text string displayed in the Applications menu window. Enclosed in double quotes.
Application Tag	Provides access to the applications. Enclosed in double quotes. Must match the tag documented by the application.
Extra Data Indicator	Indicates whether to prompt the operator for extra data input. A valueof Y or N is acceptable input.

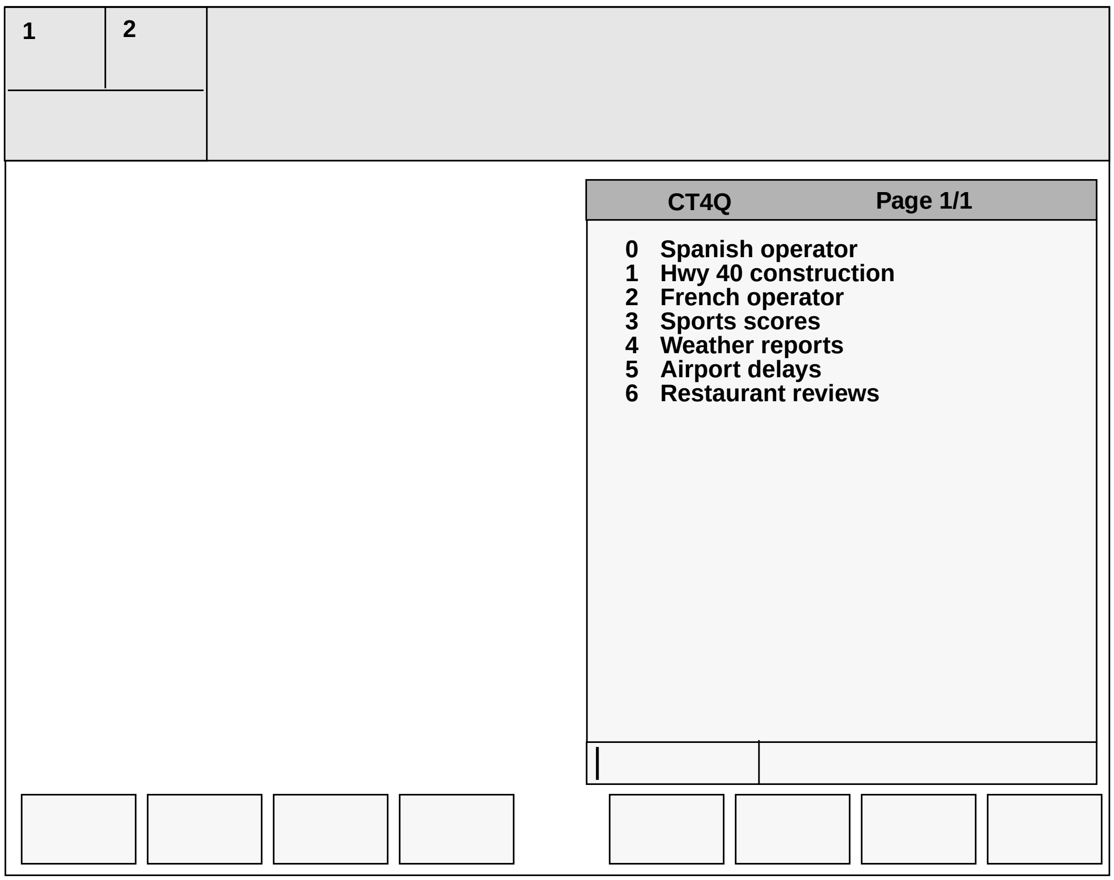
4.6 CT4Q menu

The call types for queueing (CT4Q) menu (Figure 30) provides an alternative to the OGT menu as a way for operators to connect the customer to a needed service. Like the OGT menu, the CT4Q menu offers the following capabilities:

- lets operators double click on a single key to bring up the list of queues located in the CT4Q menu
- lets operators select a queue for transfer

The CT4Q menu offers much greater capacity than the OGT menu, allowing up to 2046 queues to be datafilled on operator positions.

Figure 30. CT4Q menu



Selecting the CT4Qs: Table XCT4QMENU

CT4Qs are defined in IWS position **Table XCT4Q.TBL**. This table equates an integer from 0-2046 with a text string identifying a particular CT4Q. The datafill in the IWS table must match the datafill in the DMS switch table CT4QNAMS.

Table XCT4QMNU.TBL in the IWS position is used to select CT4Qs from table XCT4Q.TBL to appear in the CT4Q menu. The text string entered in the CT4Q menu window can be expanded in table XCT4QMNU.TBL to make it more understandable when it appears on the CT4Q menu. Table XCT4QMNU.TBL contains the following fields:

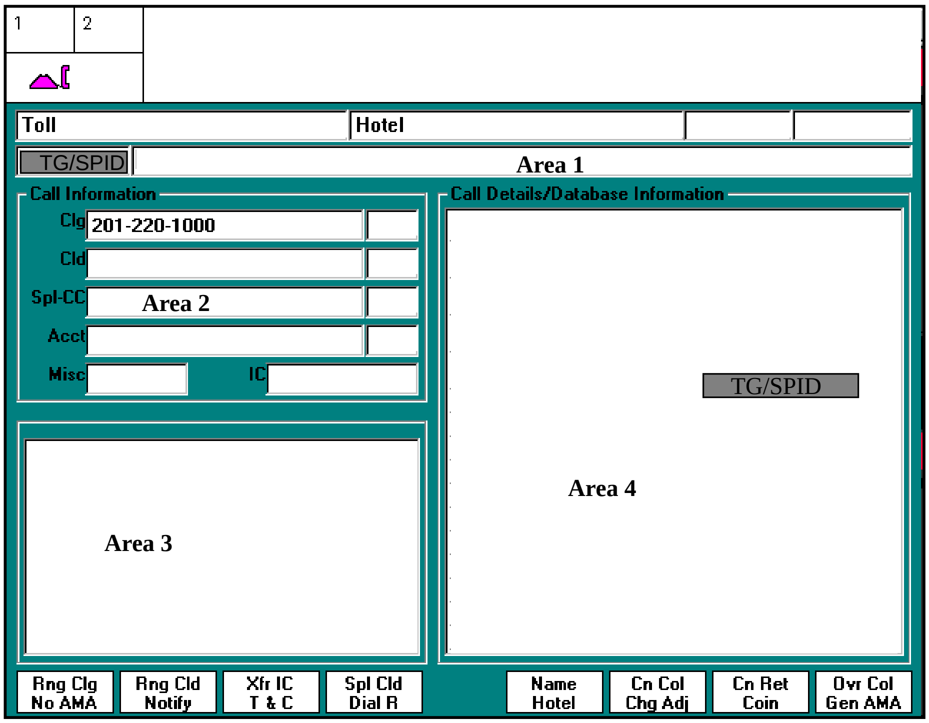
CT4Q ID	Integer value representing a CT4Q. This ID must match datafill in the XCT4Q table in the base software and the CT4QNAMS table in the DMS switch software. Range is 0-2047 (decimal).
CT4Q Long Name	Text string containing the expanded CT4Q name. The characters must be enclosed in double quotation marks. Limit is 25 ASCII characters.

5.0 IWS Billing application

5.1 IWS Billing application features

In Figure 31, the IWS Billing application window shows that a toll call has arrived at the operator position and is ready to process.

Figure 31. IWS Billing application window



The IWS Billing application window displays data from the DMS switch in the following areas:

- Call headlines in Area 1
- Call information in Area 2
- Memo, scripting message, booked call (GOS), and estimated charges in Area 3
- Call details in Area 4

5.1.1 Area 1: Call headlines

The call headlines area contains the following fields:

- Field 1 contains:
  - — service
  - — call type (such as toll, DA intercept, 0, 0+, 1+, and 411)
  - — reason for agent information (such as overtime)
  - — call arrival status
- Field 2 contains:
  - — call origination or calling station class information (such as coin pre, hotel, coin po, inst)
- Field 3 contains:
  - — call type for queueing (CT4Q) (such as international)
- Field 4 contains:
  - — calling and called station class information (such as to: hotel and: coin)
- Field 5 contains:
  - — SPID (service provider identification) or trunk group associated with the current call
- Field 6 contains:
  - — text-to-operator data from the Intelligent Service Network (ISN) in the OSSAIN (Operator Services Systems Advanced Intelligent Network) environment
- For GOS, text-to-operator data may contain IN node for Service Builder functions.
- Service providers may see Billing and Access Services call state message (such as 0Plus3RD for third party billing, billed party not connected), operator handoff status or reason the call was transfer to an operator (such as NR Failed, indicating name record failed).

5.1.2 Area 2: Call information

The call information area provides fields for display of information about a call. When a call arrives at a position, the following may display:

- Call processing fields (CLG, CLD, SPL numbers, ACCT, IC and MISC.)
- Icons expressing whether the call information displayed is valid
- The Acct field for calling card codes and icon. When validated, a green check mark displays.
- Softkeys for the current application. Use the database (DB) key to change the softkeys to display billing for the CCDB (calling card database) environment.

The call information area contains the following fields, corresponding to the cursor control keys in the call processing cluster on the keyboard:

- **CLG** -- calling number
- **CLD** -- called number
- **ACCT** -- calling, LEC, credit card account numbers, and PIN numbers
- **MISC** -- room or authorization number
- **IC** -- interLATA carrier identification code
- **SPL** -- third or credit card number
  The SPL field labels change from **Spl** to the following:
  — **Spl3d** -- when a valid third-party number is entered in the SPL field
  — **SplCC** -- when a valid calling card number is entered
  — **SplEC** -- when a valid enhanced card number is entered

Fields within the **CLG**, **CLD**, and **SPL** areas contain the following items:

- information
- icons containing class charge information (such as person, station, or invalid icon)

Use the InterLATA Carrier field (**IC**) to do the following:

- enter and display carrier IDs and names
- transfer miscellaneous information about the carrier
- to display appropriate information (such as hotel room number and guest name) in the Miscellaneous field (**Misc**)

To display or edit text strings for these fields, open file PCCCINFO.LNG.

5.1.2.1 Data entry in the call information area

To determine the active field for data entry in the call information area, note the following:

- The active field contains the cursor.
- Press a cursor control key in the desired field to make it the active field.
- Some fields accept digits only; others take both alpha and numeric characters. For those that accept digits only, alpha entries are ignored.
- Each field accepts a limited number of characters.

To terminate data entry in a field, press one of the following data termination keys:

- **Start** formats and terminates data in any field.
- **Rls Cld** terminates data in the called field only.

5.1.2.1.1 Data entry keys

If data is entered and not terminated, the following keys are active:

- Cursor control key of active field
  The cursor moves to the first position of the active field. Pressing the cursor control key a second time clears the field of data.
- Cursor control key other than the active field
  Clears data from the active field and places the cursor in a new data entry field
- Any menu key
  Clears unterminated data from the field
- **Home key**
  Moves the cursor to the first position of the active field, if it is not already there by default. The Home key must be defined as a key by datafill.

If the operator terminates the data in the **Clg**, **Cld** or **Spl** fields and the data returns to the position unformatted and invalid, the operator can edit the data using the following cursor control keys:

- **Right** and **Left arrow**s
- **Delete**
- **Home**
- **Destructive Backspace**
- **Asterisk** (*)
- **Start**, to terminate the newly edited number
- **Edit** (must be datafilled). For example, if the **Edit** key is pressed when parties A and B parties are not connected, the calling or called number displays in the appropriate field unformatted with the cursor located at the end of the number. If provisioned in NTOAINI.INI, the operator can use the **Edit** key to edit a number in the **Spl** field that returns from the switch.

5.1.3 Area 3 features

Area 3 contains the following information:

- Internal booked call
  database that handles operator-assisted calls that cannot complete immediately. This database stores call details for an attempt at a later time.
- Memo window (optional)
  offers 64 characters that the operator can enter and issue during the current call. For GOS, the Memo window lets another operator retrieve information about the current call when the calling party dials the operator at a later time.
- Estimate of charges feature
  lets the operator estimate the cost of completing a call. Using the Calc Est Chg function, the operator can enter data about a call in the Estimated Call Charges window to calculate estimated charges.

- Scripting feature (optional)
  provides a brief tutorial, explaining how to process the current call.
- Service provider information feature
  provides service provider messages, such as branding text and billing data for the present call from the CCDB.
- special service options
  The service provider can offer these options for incoming calls, such as sequence dialing, speed dialing and billing restrictions for card holders, greetings, and terminating branding for resellers.

  When an enhanced calling card call arrives at the position with restrictions, the IWS automatically queries the CCDB and displays restrictions at call arrival.

5.1.4 Area 4: Call details

The call details area displays all other information relative to a call, including the following:

- billing -- such as RS, for rate step
- calling, called, and special party information -- such as Loc, for a local call
- SPID or trunk group associated with the current call
- database information such as valid services, speed dial numbers, and restrictions. To access this information, the operator press the **DB** key. The softkey display changes (area 2) and the CCDB window database display appears.
- additional service information associated with the call at the position

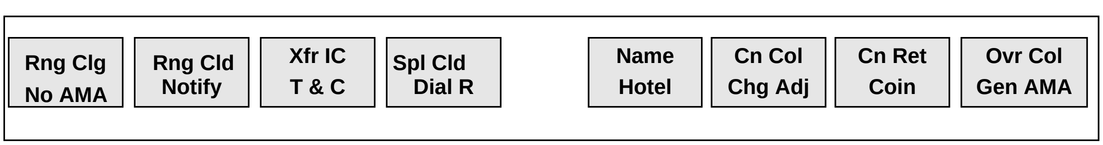
For more detailed information on Call Details displays, refer to the *IWS Billing Application User's Guide*, 297-2257-016.

5.1.5 Softkeys for call completion

The IWS Billing application provides up to 16 customer-definable softkeys (see Figure 32). The softkeys labels for the first eight softkeys display in the bottom row of the softkey displays at the bottom of the Call Information window. Each label may be up to seven characters in length. The second set of softkeys display in the top row of the softkey label. To use the second set of softkeys, press the **Shift** key.

The function ID and label for each softkey used must be datafilled in table XPCCSK in the TOPS IWS position. The field Function ID in table XPCCSK maps to table XFNCTS to identify the unique function assigned to the particular softkey.

Figure 32. Default softkey labels for the IWS billing application



5.1.6 Billing application additional call processing keys and fields

The billing application provides the following call processing keys and fields:

- cursor control keys
- miscellaneous hardkeys
- call Information area fields

5.1.6.1 Cursor Control Keys

The IWS Billing application provides the following default cursor control keys:

- **CLG** -- calling number
- **CLD** -- called number
- **ACCT** -- account code
- **MISC** -- room or authorization number
- **IC** -- interLATA carrier identification code
- **SPL** -- third or credit card number

5.1.6.2 Miscellaneous HardKeys

The call processing cluster contains the following hardkeys:

- **THrCC** -- toggles between third-party billing and enhanced calling card fields. It applies only when the enhanced calling card database is connected in file NTOAINI.INI.
- **OVR** -- overrides restrictions placed on the enhanced calling card database, if connected in file NTOAINI.INI. (Only supervisors can use this feature.)
- **DB** -- toggles between the softkey set from the default toll key display and the database key. **DB** applies when an enhanced calling card database is connected in file NTOAINI.INI.
- **Spl/Third --** toggles between **CCDB Validation Disabled** and **CCDB Validation Enabled** in the MSA. In **CCDB Validation Disabled** mode, CCDB is disabled only for the next number entered. However, in **CCDB Validation Enabled** mode, CCDB automatically validates subsequent numbers in the special field against the CCDB and the switch (if the number is not found in the CCDB).
- **Con** -- with the call information area displayed, activates the NTDA Search window and NTDA keyboard functions.

5.1.6.3 Call information area fields

Use the Call information fields (area 2) to do the following:

- CLG -- enter the calling number
- CLD-- enter the called number

- ACCT -- enter the account code to be validated by the DMS switch and the CCDB. When validated, a green check mark displays in the icon field.
- IC -- enter
- MISC -- enter the room or authorization number
- SPL -- enter a customer's 1-to-4 digit PIN number, after entering the called party's number for CCDB validation and quick outpulsing to the called party.

  The SPL field labels change from Spl to the following:
  — Spl3d -- when a valid third party number is entered in the Spl field
  — SplCC -- when a valid calling card number is entered
  — SplEC -- when a valid enhanced card number is entered

5.1.7 The IWS Billing application credit card database violated restrictions

If datafilled, the IWS Billing application displays MSA credit card restrictions and violations in an alert color with flashing, as follows:

- When a call comes to the position, either a violation code and text display in the MSA or a violation code appears as the operator enters numbers for the call.
- In area 3, violated restrictions displays as the operator enters information associated with the current call (if datafilled). The operator then tries to reprocess these types of card calls for the customer.
- If a call displays **Restriction Violated** in alert colors in the MSA (with the violated restriction listed afterward) in area 3, the operator cannot process the call. The switch will not let the operator outpulse the call.

6.0 Nortel Directory Assistance (NTDA)

This sections explains TOPS IWS features, such as alternate billing (using the IWS billing application) and access to the Functions, Services, Applications, OGT and Trouble menus from within the NTDA application.

6.1 NTDA window

NTDA provides call handling for TOPS services at the IWS operator position. The IWS billing application resides on the IWS position with NTDA to provide billing through the DMS switch.

When a DA call arrives at a position, one of the following actions occurs:

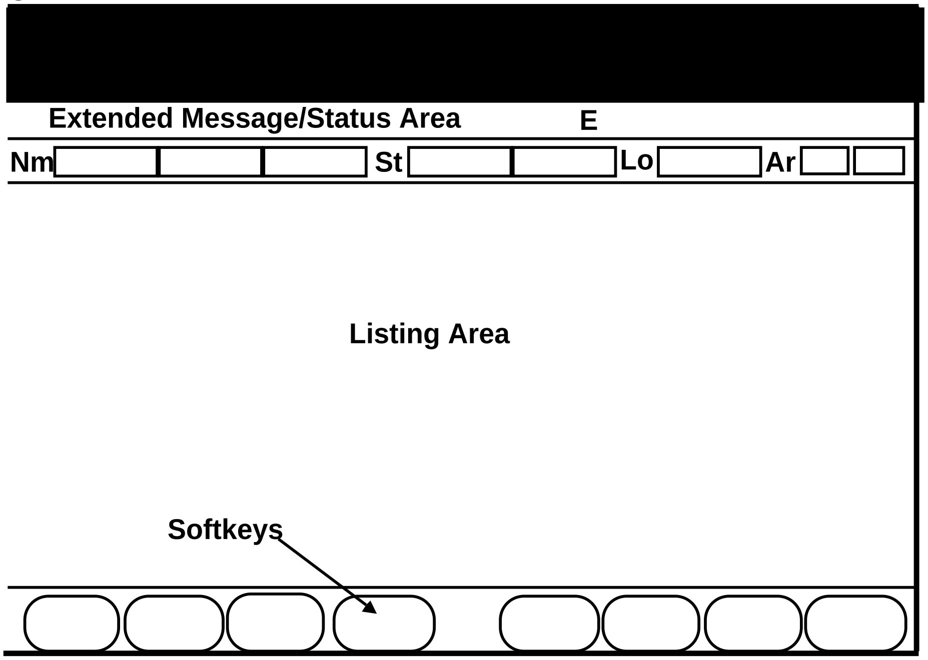
- If billing for the call is not required or is satisfied, the NTDA window appears and the operator can search the DA listings.
- If the position has the IWS billing application and billing is not satisfied, the Call Information window appears.
- If the position does not have the IWS billing application and billing is not satisfied, the operator asks the customer to call operator assistance (OA).

During the call, the operator can switch back and forth between the DA and Call Information windowS by pressing context switch keys on the keyboard.

If billing is not satisfied and the operator tries to release a DA call, the call does not release and a message displays in the MSA. For example, the requested number or the calling number might be missing. The operator can then enter the required data in either the DA or the Call Information window, whichever is appropriate. When the operator releases a DA call from the position, all call-related data is cleared from the screen.

The NTDA search window presents call-related information to the operator. The screen is configurable by the service provider. A typical NTDA search window screen layout appears in Figure 33 on page 90.

Figure 33. NTDA search window



6.2 TOPS IWS position types

The following positions are defined in Chapter 1, “Introduction to TOPS IWS” on page 29:

- operator position
- operator/maintenance position (RAMP)
- DMS gateway position (for TDM systems)
- database gateway position (with NTDA). This position contains the functionality and interface card for one 56kb/s, X.25 link connecting the position to the NTDA system.

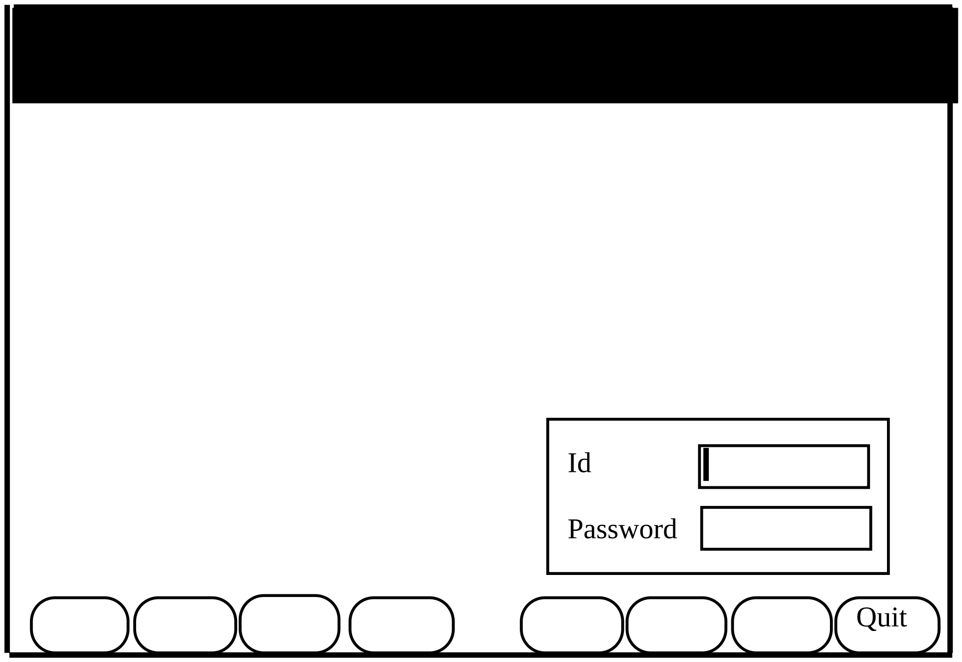
The X.25 link interfaces with the position and the NTDA system by modem. This database gateway position type is always provided in pairs on the token ring and also serves as an operator position. An audio card, a token ring interface card, and an X.25 interface card are included.

6.2.1 Log on to DA

The TOPS IWS position provides a single logon interface for all applications, including NTDA. As described in Appendix A:, “Datafill,” on page 517, the operator enters a logon ID number in the Logon window.

When the operator logs on to the position, the logon information is passed on to the NTDA application. See the Logon window in Figure 34.

Figure 34. Logon window



To log on to NTDA for an administrative search, an operator can do the following:

1. With the Logo window showing, press the **Start** key.

   The Operator Administration / Logon window appears.

2. Press the **{Logon}** sofkey (and, optionally, plug in the headset).

3. Enter the operator ID and password. Press the **Start** key.

   The Assigned Activities window appears.

4. Press the **Start** key.

   The Operator Administration window appears. The operator is now logged on.

Alternately, if the Applications menu was datafilled with the NTDA application, the operator logs on to the NTDA application through this menu.

However, the Applications menu does not have to be displayed to allow activation of an application. The operator can use the following procedure instead:

1. Press the **Appl** key once.

2. Enter the digit(s) of the NTDA application.

3. Press the **Start** key.

   The Logon window displays.

Additionally, service providers can datafill the NTDA application on an Applications menu hotkey to reduce keystrokes. This log on method is most useful for conducting administrative searches. To log on through the Applications menu, the operator can do the following:

1. With the Operator Administration window on the screen, press the **Appl** key twice.
2. Enter the digit(s) of the DA application, and press the **Start** key.

   The Logon window appears.
3. Enter the operator ID and password, and press the **Start** key twice.

   The DA Search window appears on the screen, and the operator is logged on.

6.3 NTDA window

Figure 35 shows the NTDA application window, which has the following parts:

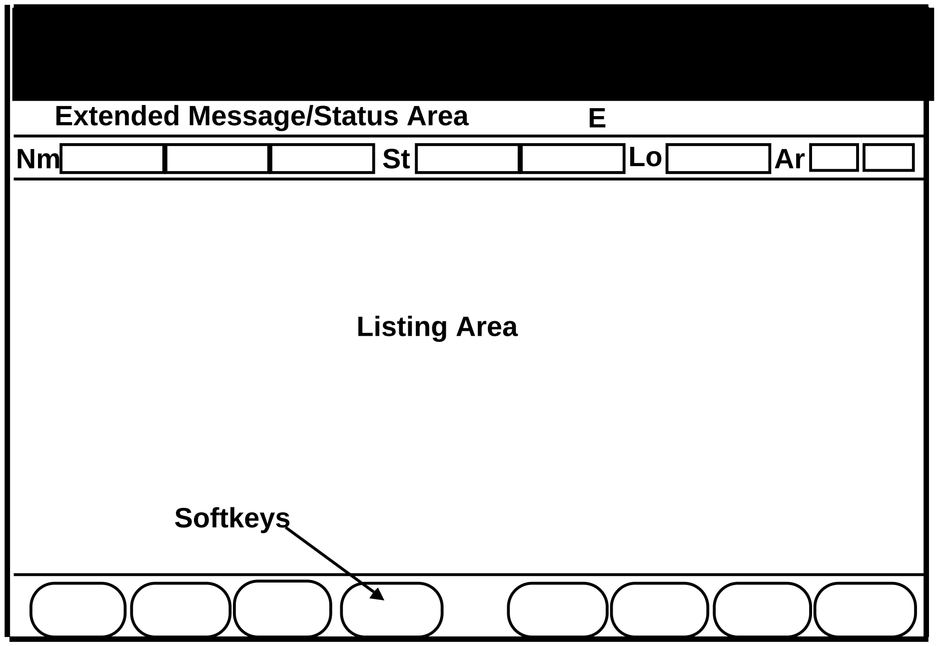
- NTDA window title bar
- MSA
- search/listing area
- softkeys

Service providers can display an additional window, called the Options menu, by pressing the **OPTS** key. This window appears in the center of the screen, on top of the listings display area.

The following NTDA options are available in this window. These options are datafilled in the database gateway and are dependent on the individual operator’s permissions:

- non-published search
- training search
- mon-connected search

Figure 35. Typical NTDA window

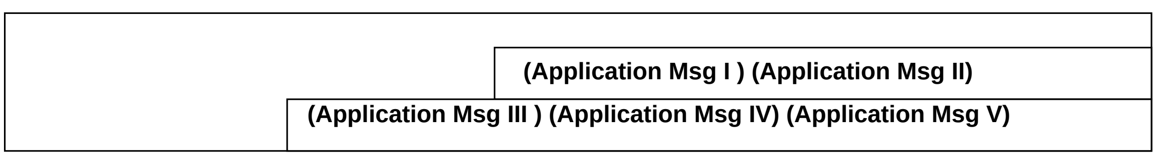


6.3.1 Message status area (MSA)

The MSA is made up of the top four lines of the screen, as shown in Figure 36.

When the NTDA application is active, it has access to the bottom two lines of this area. The application uses the three Application Message fields to present displays to the operator, such as language indication, search type, and search status.

Figure 36. MSA for NTDA



6.3.1.1 Lines 0 and 1 Information

Messages from the switch display on the top two lines of the MSA.

6.3.1.2 Line 2 Information

The following fields make up the display area for Line 2:

- Application Message I - 25 characters in length
- Application Message II - 26 characters in length

6.3.1.3 Line 3 Information

The following fields make up the display area for Line 3:

- Application Message III - 25 characters in length
- Application Message IV - 25 characters in length.
- Application Message V - 26 characters in length

6.3.1.4 Extended MSA

The NTDA application also controls the area between the MSA and the softkeys. The application uses the top two lines of the area to display extended message status, including service type, to indicate the service of the call (for example, DA).

Call origination info consists of the following parts:

- Call origination type

  indicates the originating call type for the call, datafilled in Table XCLLORIG (for example, “411”)
- Reason for operator

  indicates the reason the call is presented to an operator (for example, Recall, Notify, Overtime, T&C, DA-Rcl)
- Call arrival status

  indicates the status for the call presented to the operator, datafilled in Table XCASTS (for example, Int-Cut)
- CT4Q

  indicates the call type for queuing of the call presented to the operator, datafilled in Table XCT4Q (for example, Spanish DA)
- Clg DN - indicates the number of the calling party. Clg DN supports a string of up to a 16 characters, formatting and displaying valid DNs. Invalid numbers are displayed unformatted. A question mark (?) displays if a DN is missing or indicates an ONI (operator number identification) call. An X indicates ANI (automatic number identification) Failure. If caller ID blocking is enabled, Xs replace the formatted digits.

6.4 NTDA database search types

NTDA database searches occur when the NTDA service window displays. The operator can perform a database search with or without a calling party attached to the call.

6.4.1 Initial searches

An initial search is the first search the operator performs with particular database search criteria. Table 5 shows the different types of initial searches supported by NTDA. Included are search type, NTDA key action code (which corresponds to the search key), and a description of the search.

Table 5. Initial search

Search Type	NTDA key action code (corresponds to the search key)	Description of search
Business member	32	Inputs a type of business. Returns listings matching the business name.
Customer name and address (CNA)	35	Input a DN. Returns listings matching the DN.
Government	40	Returns listings matching the government name.
Intercept	43	Input a DN to search the intercept database. Returns listings matching the intercept database DN.
Residential	49	Returns listings matching the residential name.
Special (Special business)	51	Returns listings matching the special name.
Street	175	Returns listings matching the street information.

6.4.2 NTDA administrative searches

To perform NTDA administrative searches, the operator accesses the NTDA application from the Applications menu as follows:

1. Press the **Appl** key twice to display the Applications menu.
2. Type the menu number for NTDA.
3. Press **Start** to display the NTDA window.

When handling DA calls, the operator performs an administrative search as follows:

1. Press the NTDA options menu key to display the NTDA options menu.
2. Type the menu number for administrative search.
3. Press **Start** to start an NTDA administrative search session.

To exit from an administrative search session, press any of the context change keys. The administrative search ends automatically if a call arrives at the position.

6.4.3 Subsequent searches

Table 6 shows the different types of subsequent searches supported by NTDA. Included in the list are search type, NTDA key action code (which corresponds to the search key), and a description of the search.

Table 6. Subsequent Search

Search type	NTDA key action code (corresponds to the search key)	Description of search
Dropped field	37	Performs the search without including data from any optional input field. The dropped fields are defined in the database.
Expanded locality (expanded place)	38	Geographically extends the defined locality being searched.
Full set	39	Displays all members of one caption set, whether or not they match the locality or other input. An example of a caption set is a large business with many specific DNs associated with it; for example, a department store.
Half page backward and half page forward	41 and 42	When the initial search returns more listings than will fit within the listing area, returns listings beginning either half a page before or after the listings returned in the previous search.
Alternate order	44	Searches for the listing using a different word order.
Page backward and page forward	46 and 47	When the initial search returned more listings than will fit within the listings area, returns listings beginning either a page before or after the listings returned in the previous search.
Phonetic	48	Provides listings with names that are phonetically equivalent to the entered name or that are operating company-defined alternate spellings.

Note that not all databases support each of these search types. Refer to company-specific database documentation to determine which search types are supported.

6.5 TOPS IWS keyboard with NTDA

The same keyboard is used for both NTDA and IWS billing applications (Figure 37). As with the IWS billing application, keyboard functionality is determined by datafill in XKBOARD.TBL and the NTDA Keyboard Mapping Utility.

The keyboard is divided into the following groups of keys:

- call processing/cluster keys (Figure 38)
- softkeys
- database keys
- QWERTY keys

Figure 37. TOPS IWS Keyboard with a typical NTDA key function layout

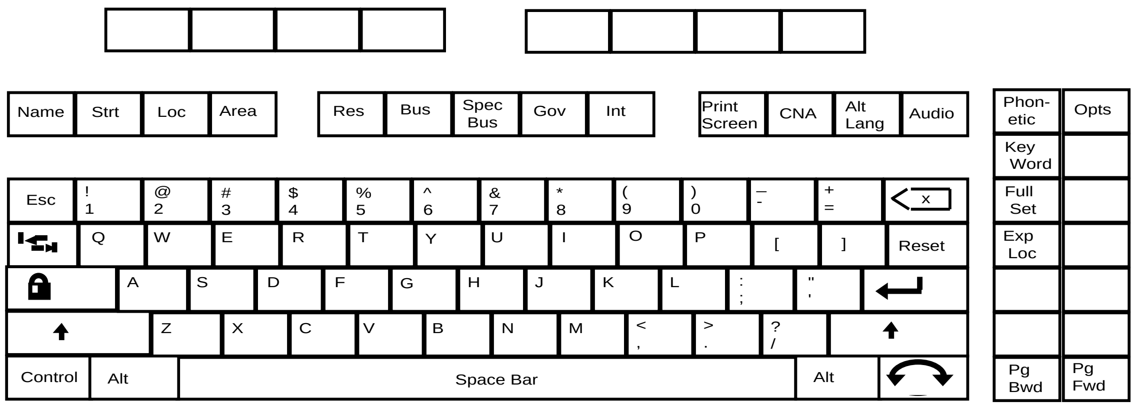
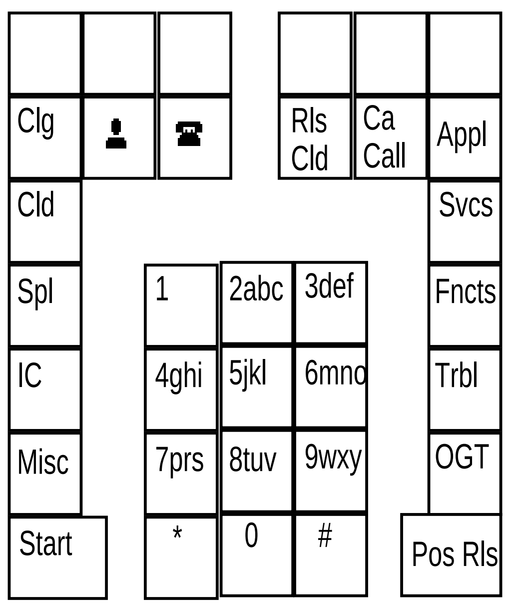


Figure 38. TOPS IWS call processing cluster keys



6.5.1 QWERTY keys

QWERTY keys are standard typewriter keys used to enter search data.

6.5.2 Database keys

Database keys are the row of 13 keys between the QWERTY keys and the softkeys, and the 2 x 7 vertical row of keys between the call processing cluster and the keys, as follows:

- search keys
- audio release key
- search field input keys
- subsequent search keys

Two of the keys in the 2 x 7 vertical row (Page Fwd and Page Bwd) are also used in the Application environment.

6.5.3 Cluster keys

Use the following cluster keys to complete calls:

- cursor control keys
- menu control keys
- AMA and network control keys
- numeric keypad
- paging keys

6.5.4 Menu Control keys

Optionally, datafilled menu control keys in the call processing/cluster key area can be used within NTDA using the following menus:

- **Fncts**, to access the Functions menu
- **Svcs**, to access the Services menu
- **OGT**, to access to the Outgoing Trunks menu
- **Appl**, to switch the position to the IWS billing application or to access an external database or another application
- **Trbl**, to access the Trouble menu
- **CT4Q**, to access the CT4Q menu

6.5.5 Softkeys

In NTDA, softkeys typically display localities, as follows:

- Sixteen localities may be chosen for use with the NTDA application.
- Service providers define their own softkeys. They are datafilled in the call control tables of the Directory One system.

For more information on changing softkey functions within each particular window and application, refer to Chapter 2.0, “Keyboard,” on page 35.

6.5.6 Context change keys

When positions are first installed, at least one key on the keyboard is datafilled in Table XKBOARD (using the Keybind utility) to cause a *context switch* from the NTDA window to the NTDA billing window (Call Information window).

A context switch makes it easy to switch from NTDA to OA for billing purposes or to access an operator information database from the Applications menu. When switching from the NTDA application to the IWS billing application, the NTDA screen clears.

6.5.7 Context change key for NTDA and the IWS billing application

At least one key should be datafilled in Table XKBOARD to allow a context change from the IWS billing application to NTDA.

Default datafill in the XKBOARD table assigns this function to the shifted version of the **Reset** key. If this key (or another assigned key) is pressed while displaying the Call Information window, the NTDA Search window appears and NTDA functions on the keyboard are active.

6.6 NTDA call handling

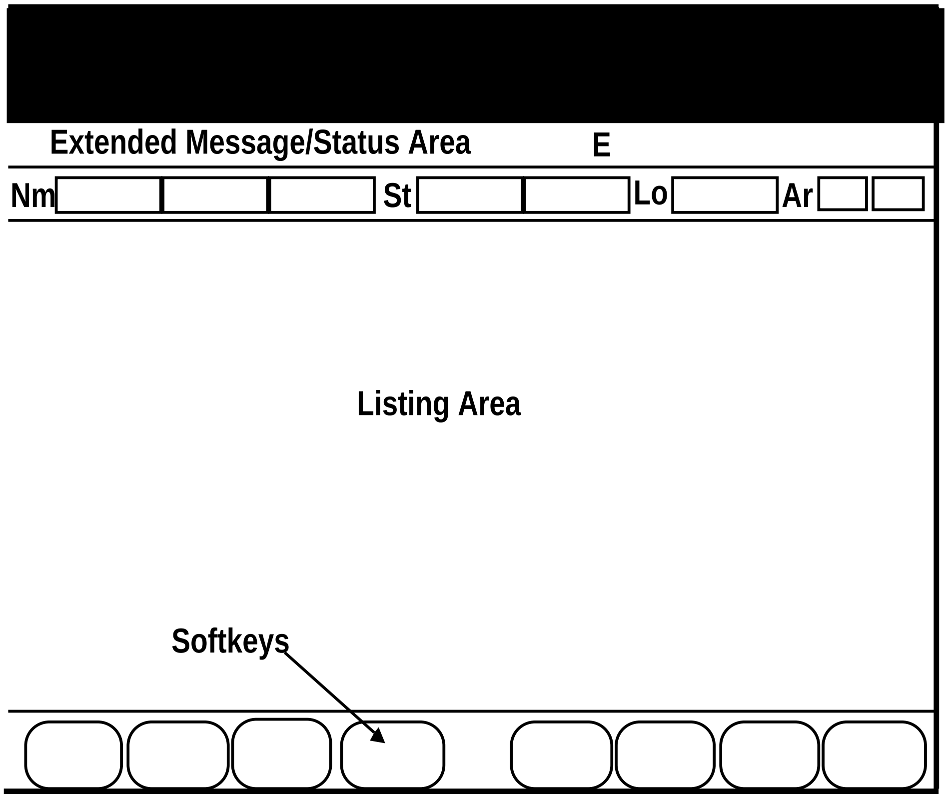
The NTDA window displays when the DMS switch recognizes that a call requires NTDA service. If billing information is satisfied or not required, the NTDA window displays to initiate the NTDA listing search.

6.6.1 NTDA billing

The IWS billing application provides billing software for NTDA.

Use Call Information window to enter billing information for NTDA calls, when necessary, as shown in Figure 39. If billing is not satisfied on the call, the DMS switch displays the Call Information window.

Figure 39. NTDA window



6.6.2 NTDA call release

If the operator tries to release an NTDA service call when billing is not satisfied, the call does not release and a message displays in the MSA. The operator must enter the required data in either the NTDA or Billing window, whichever is appropriate.

When call release does occur, all call-related data clears from the MSA and the NTDA window title bar. NTDA softkeys remain, but NTDA billing softkeys clear.

After the NTDA call releases from the position, the operator can still switch between the NTDA and Call Information windows. In the NTDA window, all NTDA keys are active. But in the Call Information window, no cursor displays and no data can be entered. The operator can access menus, although some menu selections may be invalid when there is no call at the position.

6.6.3 NTDA call types

In North America, NTDA has as many as eight basic DA call types, as shown in Table 7.

Table 7. NTDA call types

DA	Call type
411	local DA request
0 + 411	DA call in which the subscriber wishes to bill the call through an alternate billing method (e.g., calling card or credit card)
555-HOM	DA request from within the serving NPA
555-FOR	DA request from outside the serving NPA
555	undifferentiated DA request
131	DA request from another DA operator in another office
141	DA request from another DA operator in another office
DA-Rcl DA	DA request where the subscriber is released to audio and remains off-hook after the announcement plays. The search criteria and selected listing display when the DA recall arrives at the position.
Emergency DA call	occur when the operator accesses NTDA and the caller asks to be connected to the requested number. The operator presses the **CLD** key to forward the call, enters the requested telephone number, and press **Start**.

6.6.4 Call processing examples

Although most DA calls are handled similarly, the operator should answer the following questions to determine handling differences:

- Was a listing found for the requested number?
- Can the call be released to audio or verbally quoted?
- Does the call require a trouble report?
- Does the call require connection to a supervisor?
- Does the call require billing because the connection from the DMS switch to the DAS (DA system) is not available?

The following call scenarios answer these questions. The call type displays shown in this document reflect default settings. Actual displays depend on the datafill used in the NTDA office.

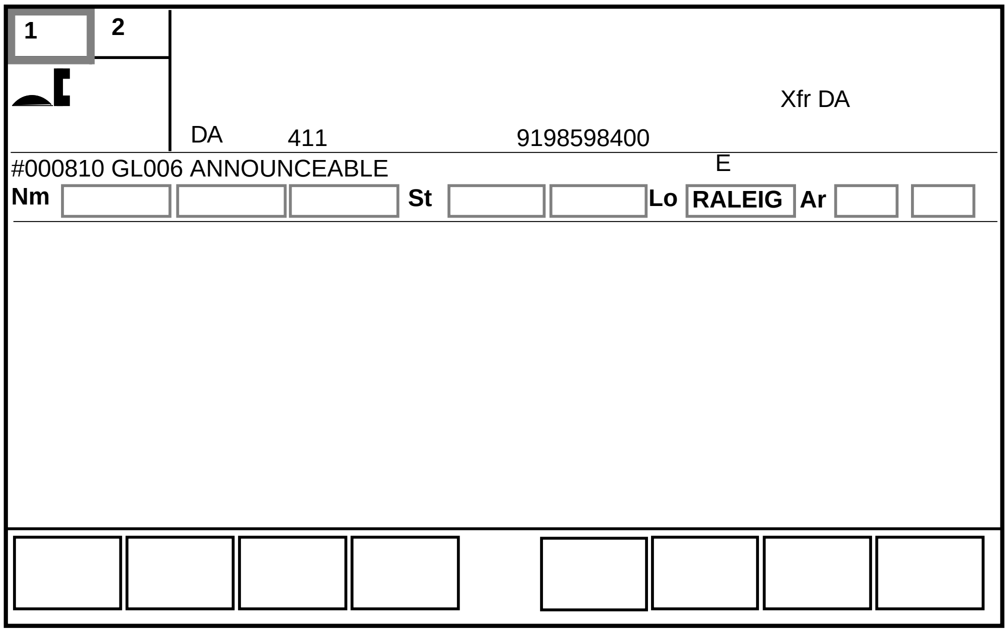
6.6.4.1 Example of a 411 call

The calling party (919-859-8400) dials 411 and asks for the number of John Long in Raleigh, NC. The operator does the following to complete the call:

1. The call arrives at the position (Figure 40). DA, 411, and calling number appear in the NTDA title bar. The default locality is Raleigh. The NPA is 919.

   The operating company determines if NTDA displays the calling number. If NTDA displays the calling number, it does so only on billable calls.

Figure 40. 411 call

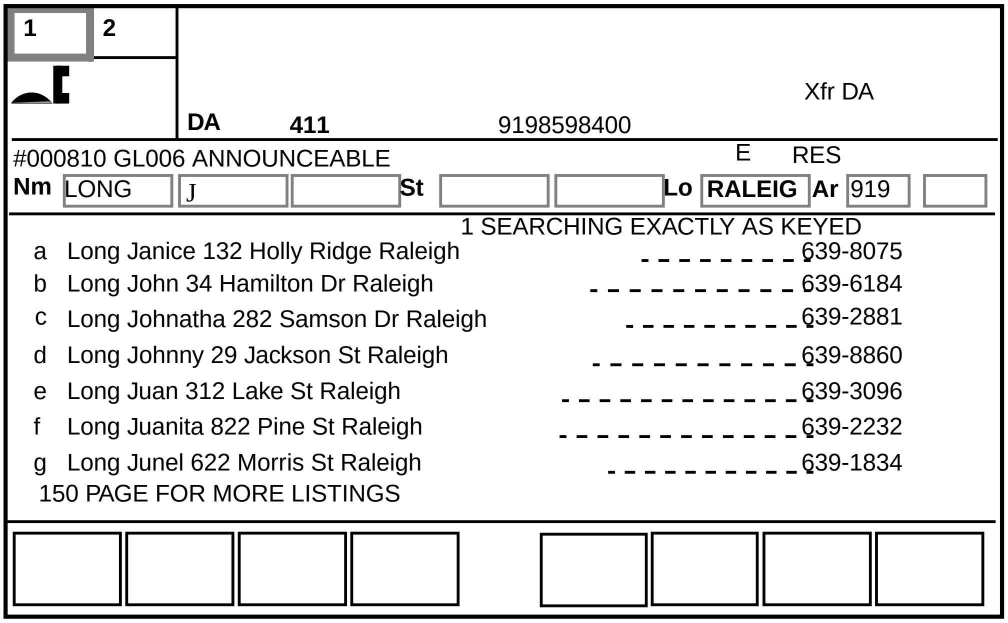


2. Answer the call using the locally defined answer phrase.

   The subscriber requests the residential listing for John Long in Raleigh.
3. Enter Long in the first name (Nm) field and J in the second name field.
4. Press the **Res** key to initiate a residential search.

   Database search results display in the listing area of the screen (Figure 41).

Figure 41. 411 call results



5. Highlight line designator b, by the listing for John Long.
6. Press the **Audio** key.
7. The call releases to audio and the screen clears.

6.6.4.2 Example of a 0 + 411 call with alternative billing

The calling party (919-991-0507) dials 411 and asks to bill the call to an alternate method, such as a calling card or credit card. If the position does not have the IWS billing application, the operator asks the customer to call OA. If the position has the IWS billing application, the operator does the following to complete the call:

1. The call arrives at the position (Figure 42). The Call Information window displays the calling number and DA 411.

   Secure and enter the appropriate billing information or press the **No AMA** key if no charge is required. In this example (Figure 43), the calling party uses a calling card and PIN.

Figure 42. 0411 call with alternative billing

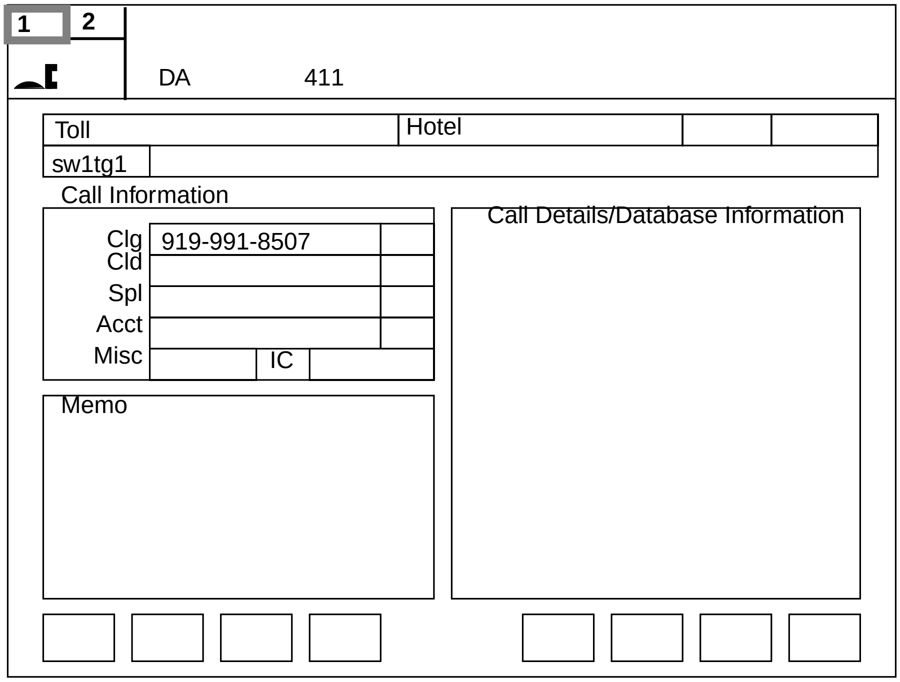
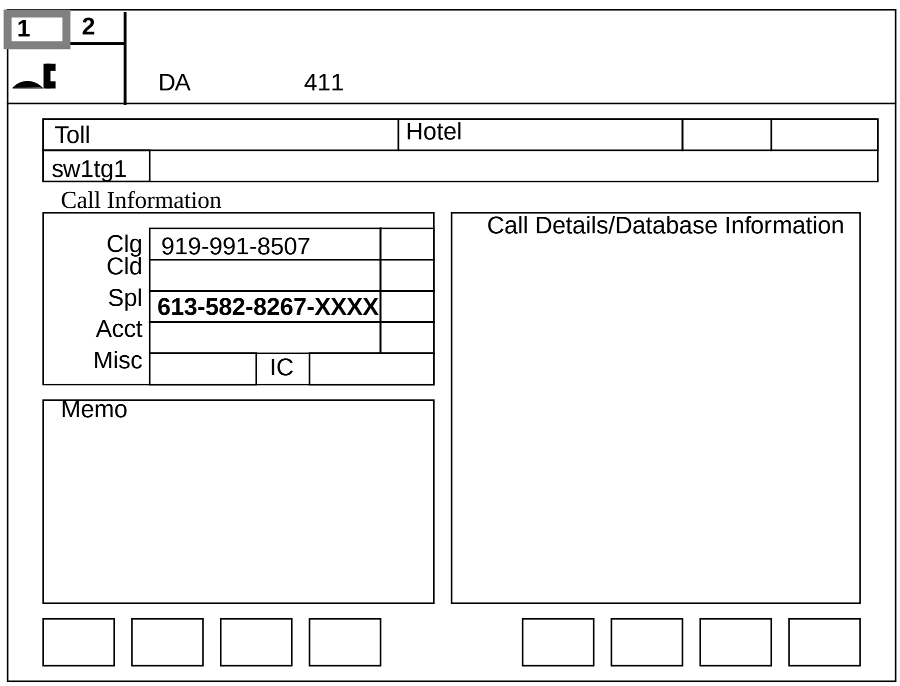


Figure 43. 0411 call with alternative billing information



2. Press the context change key to display the NTDA window.
3. Handle the subscriber's DA request as described in Section 6.7.1, "Automated DA service (ADAS)," on page 115.

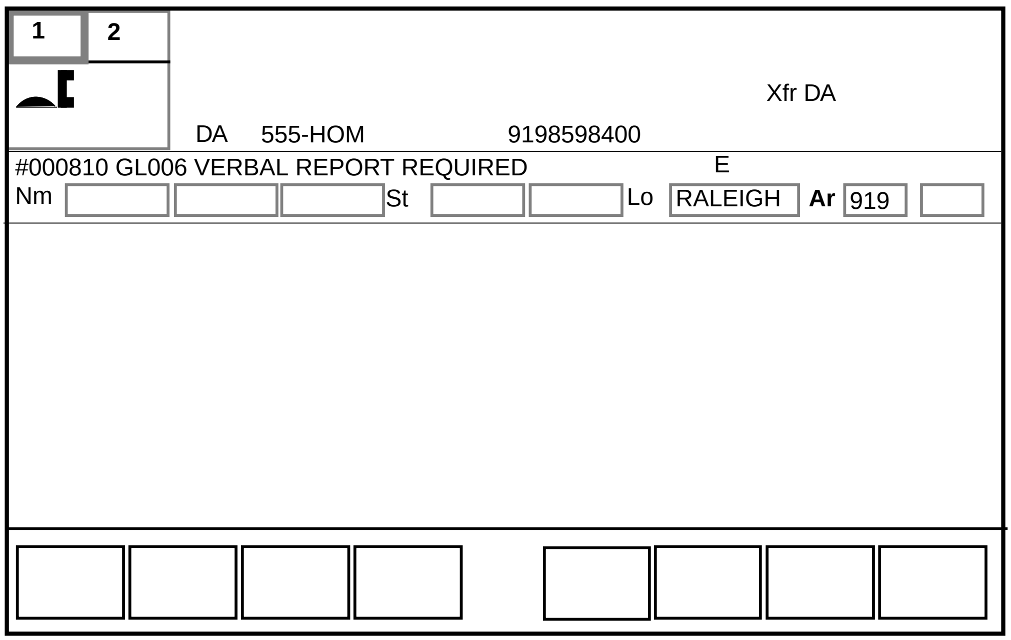
6.6.4.3 Example of a 555-HOM call with a verbal quote

The calling party (919-859-8400) dials 1+ 555 + 1212 and asks for the number for Terry’s Tire Center in Cary, NC. The audio system is not available. The operator does the following to complete the call:

1. The call arrives at the position (Figure 44). DA, 555-HOM, and the calling number appears in the NTDA title bar. The default locality is Raleigh. The NPA is 919.

   Answer the call using the locally-defined answer phrase. The subscriber requests the business listing for Terry’s Tire Center in Cary.

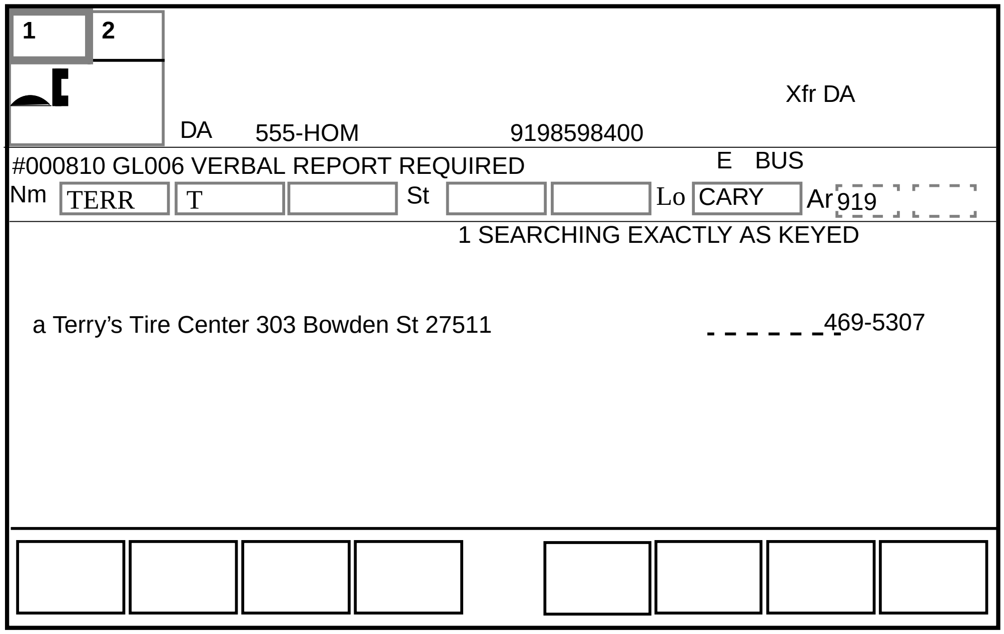
Figure 44. 555-HOM call



2. Press the **Loc Step** key to replace Raleigh with Cary, or type Cary in the Loc field.
3. Type Terr in the first name (Nm) field and T in the second name field.
4. Press the **Bus** key to initiate a business search.

   Database results display in the listing area of the screen; the cursor defaults to Nm field. The message Audio Not Available appears in the MSA (Figure 45).

Figure 45. 555-HOM call results



5. Verbally quote the number of Terry's Tire Center to the subscriber.
6. Press the **Pos Rls** key. The call is released from the position and the screen clears.

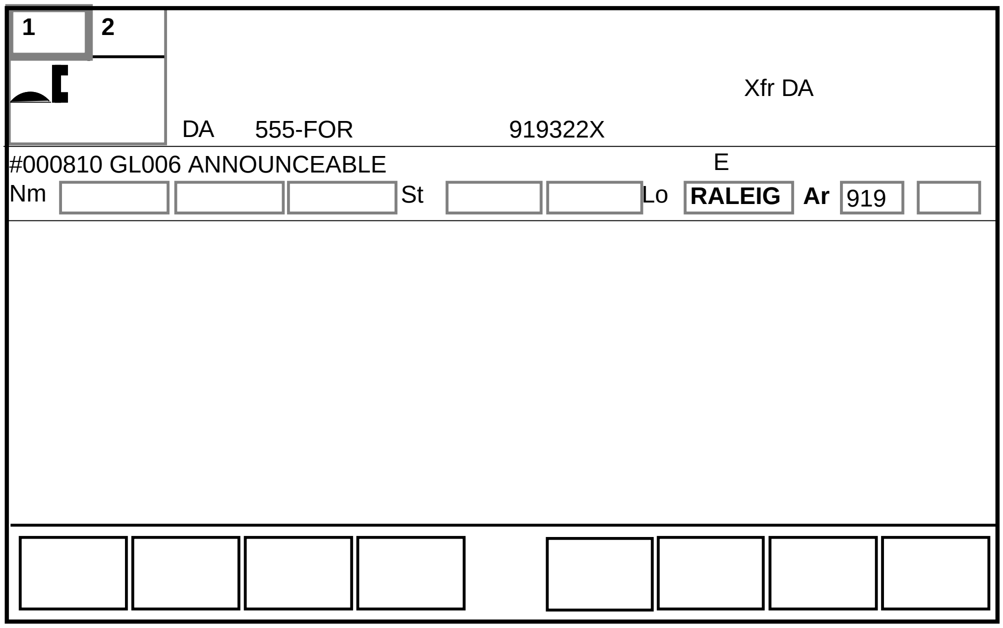
6.6.4.4 Example of a 555-FOR call with ANI failure

The calling party (619-322-1324) dials 1 + 919 + 555 + 1212 and asks for the number of Mary Smith in Raleigh, NC. Do the following to complete the call:

1. The call arrives at the position (Figure 46). A partial calling number displays, followed by X. The X indicates that the system cannot find the calling number. The Loc field indicates the default locality as Raleigh. The NPA is 919. If no calling number digits are available, the X displays alone.

   Answer the call using the locally-defined answer phrase.

Figure 46. 555-FOR call with ANI failure

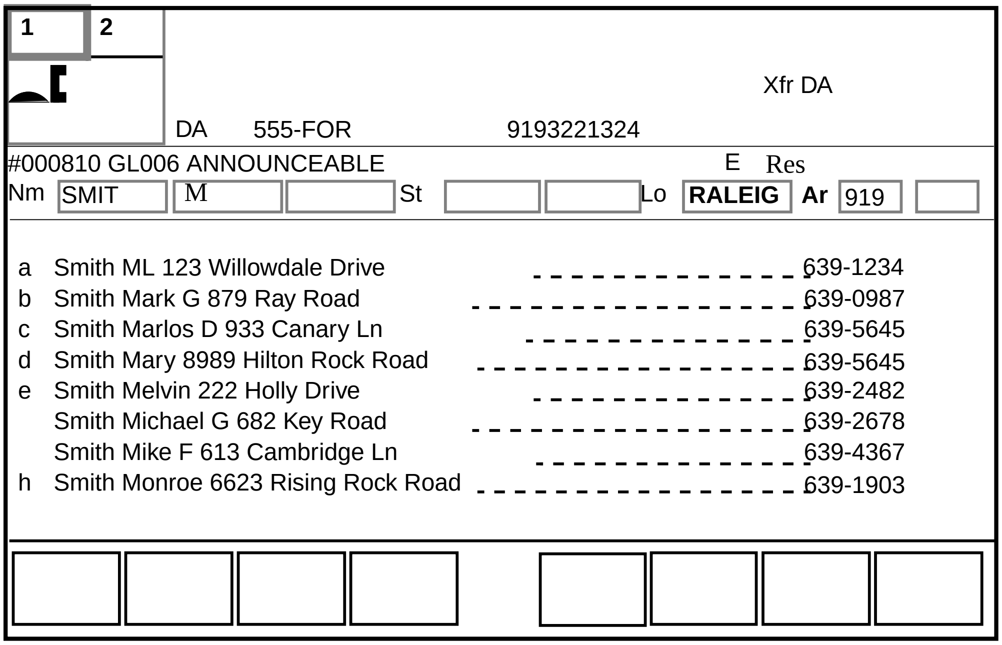


2. Ask the subscriber for the calling number.
3. Press the **Clg** key, type 9193221324, and press the **Start** key.
4. The subscriber requests the residential listing for Mary Smith.

   Type Smith in the first name field and M in the second name field.
5. Press the **Res** key to initiate the residential search.

   Database search results display in the listing area of the screen and the cursor defaults to the name field (Figure 47).

Figure 47. 555-FOR call with ANI failure results



6. Press the **Audio** key.

   The call is released to audio and the screen clears when the next call initiates.

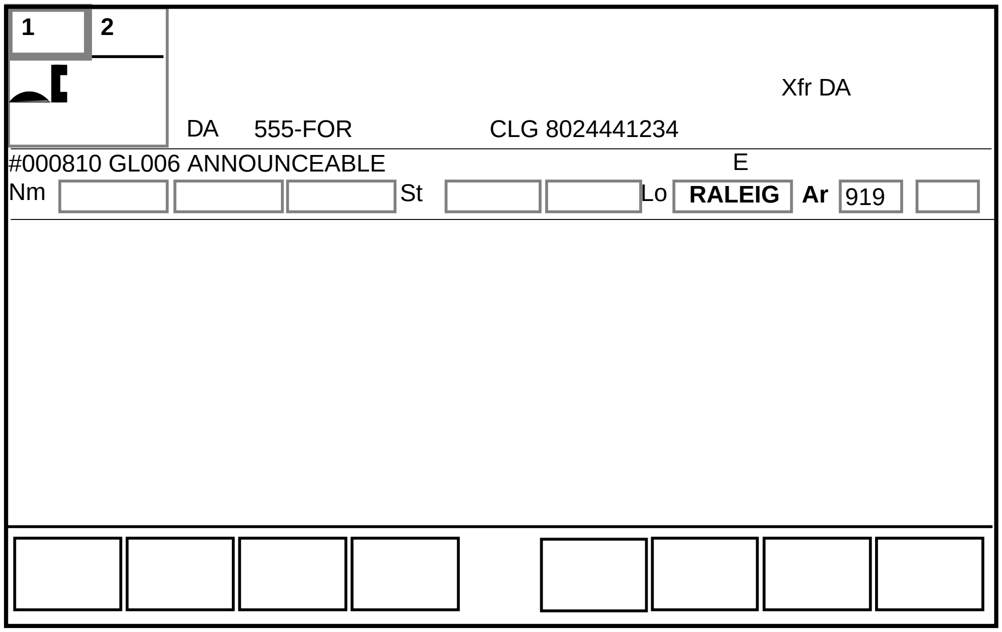
6.6.4.5 Example of a 555-FOR call with requests for two listings

The calling party (802-442-1234) dials 1 + 919 + 555 + 1212 and requests numbers for Jennifer Long and Harold Baker in Sanford, NC. The operator does the following to complete the call:

1. The call arrives at the position (Figure 48). DA, 555-FOR, and the calling number appear in the NTDA title bar. The locality is Raleigh.

   Answers the call using the locally-defined answer phrase.

Figure 48. 555-FOR call with requests for two listings



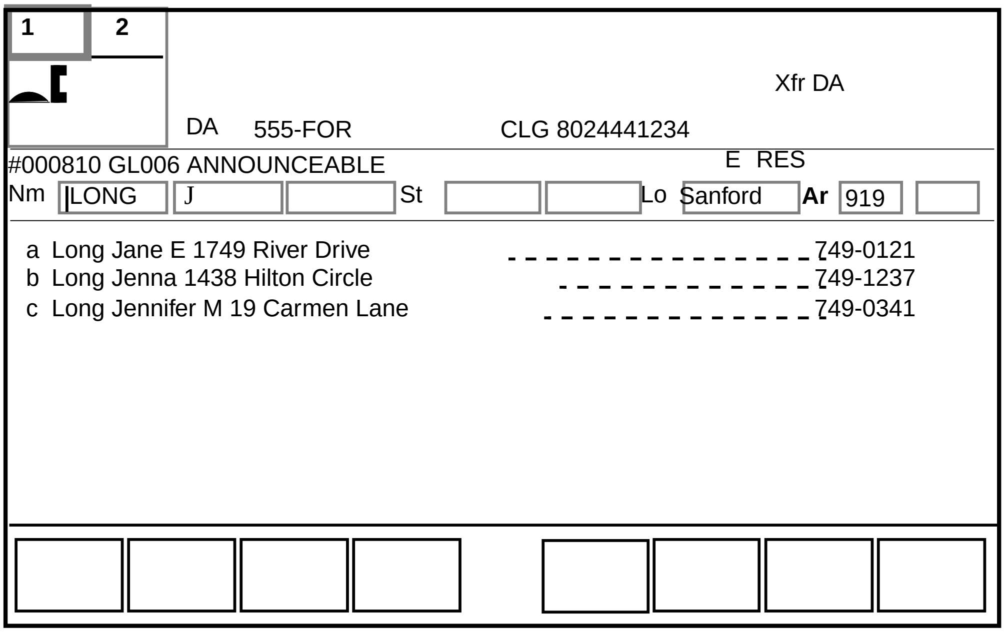
2. The subscriber requests the numbers for Jennifer Long and Harold Baker, both in Sanford.

   To change the default locality, the operator presses the **Loc Step** key to obtain the locality or type the locality into the Loc field. Sanford displays in the Loc field.

3. Enters `Long` in the first name field and `J` in the second name field, and presses the **Res** key to initiate the residential database search.

   Database results display in the listing area of screen (Figure 49). The file type field indicates the type of search that took place (Res), and the cursor defaults to the name field.

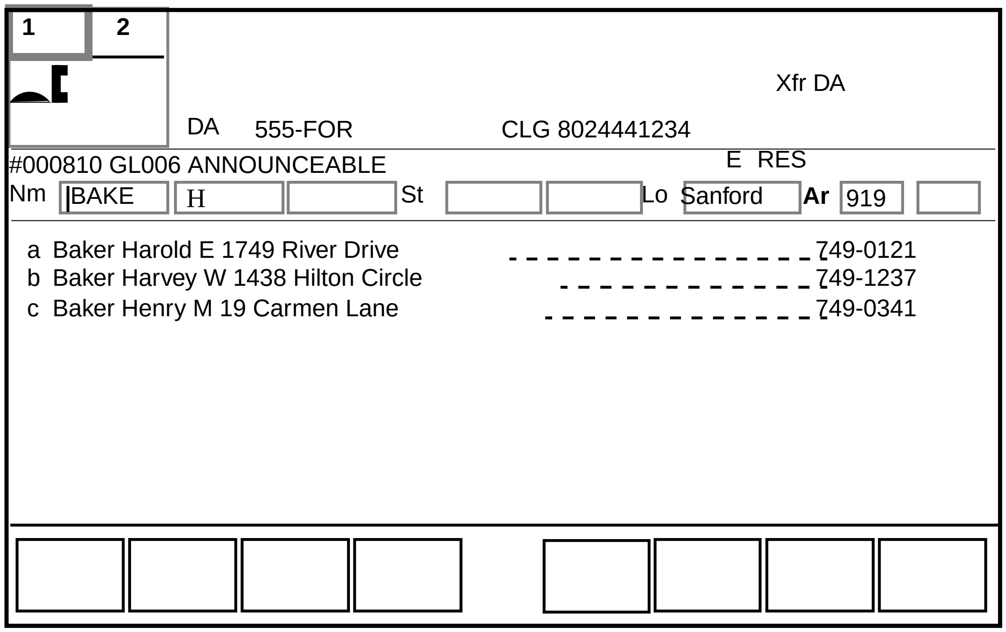
Figure 49. 555-FOR call with requests for two listings first listing



4. Verbally quotes the number of Jennifer Long to the subscriber. On multiple requests, the operator can release the call to audio only for the last number that the subscriber requests. The operator also types the requested number if datafill requires the requested number.
5. Enters the line designator for the requested name and press the **Gen AMA** key to generate a billing record for the first request.
6. Presses the **Esc** key to clear the listing area, Nm, St, and Type fields, or types over the previous name. The cursor repositions in the name field.
7. Types `Baker` in the first name field and `H` in the second name field, and presses **Res** to initiate the residential database search.

   Database results display in the listing area of the screen; the file field indicates the name field. See Figure 50.

Figure 50. 555-FOR call with requests for two listings first listing



8. Verbally quotes the number of Jennifer Long to the subscriber.
9. Presses the **Audio** key. The call is released to audio and the screen clears.

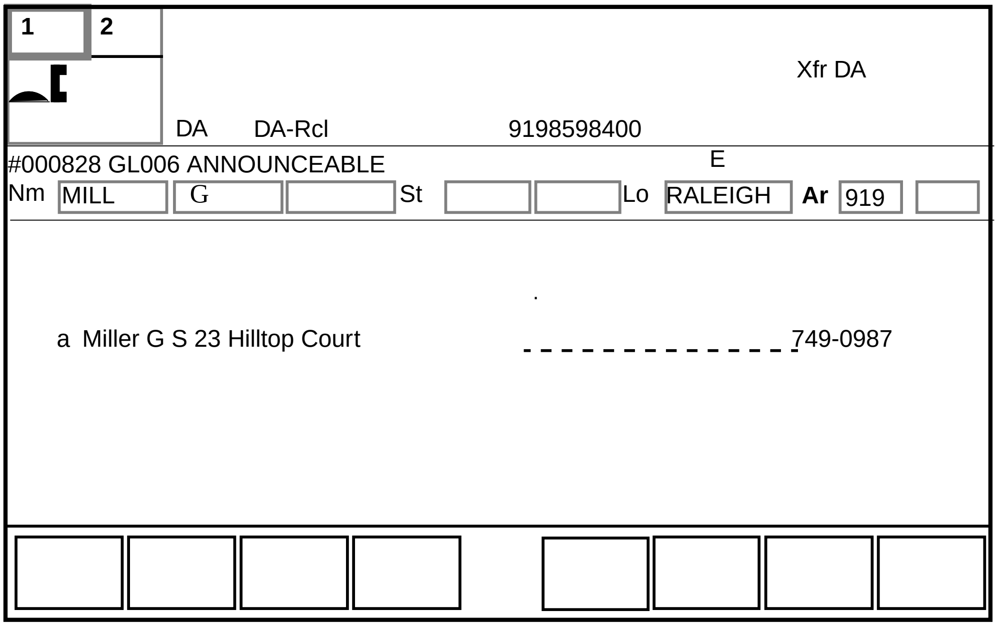
6.6.4.6 Example of a DA recall

The calling party (919-859-8400) dials 411 and requests the number for Greg Miller. The operator releases the call to audio. The subscriber cannot understand the announcement, however, because of noise on the line. The subscriber remains on the line and, after a time-out, again connects to a TOPS position. The operator does the following to complete the call:

1. A call arrives at the position (Figure 51). The listing generated by the previous operator returns and displays to the newly-connected operator.

   Answers the call using the locally-defined answer phrase.
   The subscriber says that noise on the line was so bad that the telephone number was inaudible.

Figure 51. DA recall



2. Presses the **Trbl** key to display the Trouble menu.
3. Types the menu number for noise on the line and presses the **Start** key.
4. Verbally quotes the number to the subscriber. The operator cannot release a recall to audio. By default setting, recalls are verbally quoted. If the office has audio release capability, the line selectors displays.
5. Presses the **Pos Rls** key. The call is released from the position, and the screen clears.

6.6.5 Intercept call types

Intercept calls are typically handled automatically, without operator assistance. Sometimes, however, the automatic equipment fails or cannot provide the needed information. In these cases, the calls are routed to an operator. Table 8 shows intercept call types that can be handled at an TOPS IWS position:

Table 8. Intercept call types

Intercept call type	Description
Int-ONI	Intercept calls originating from an end office unequipped to identify the called number
Int-ANIF	Intercept calls originating from an end office equipped to identify the called number, but whose equipment fails
Int-Cut	The subscriber remains off-hook after hearing the announcement on an automatic intercept call and is routed to an operator who provides any additional information verbally

Table 8. Intercept call types (Continued)

Intercept call type	Description
Int-Rcl	The subscriber remains off-hook after connecting to an operator and is routed to another operator who provides any additional information verbally
Int-Spl	Results of the intercept database search are not suitable for automatic quoting. On call presentation, the operator sees multiple listings and ask the subscriber for additional information. Then, the operator quotes the number verbally.

6.6.6 Processing several requests within a single call

If the subscriber requests several calling numbers during one call, the operator can generate an AMA record for each request processed.

When all billing information is complete for the first requested calling number and the NTDA service screen clears, the operator can proceed to the next requested calling number. If the required billing information is not completed, the request for NTDA service is denied. The database again displays the listing data and the operator input in the NTDA service screen. The operator can enter the missing billing information.

During a series of requests in a single call, the operator can request the last request to audio (if the service provider has this feature). The operator quotes all the other requests verbally.

NTDA calls display as either DA or intercept calls. An NTDA database or an intercept database session is established on a call-by-call basis. If the operator requests an intercept search during a DA call or request a directory search during an intercept call, the database honors the search request if possible. However, this type of mixed search is not recommended, because billing and statistics are handled differently for the different searches. Therefore, a billable DA request within an intercept call is not billed, although an AMA record is generated.

6.6.7 Announcing the selected listing

Audio announcements quote the selected listing. The operator can select an alternate language before releasing the call to audio. If the operator presses the **Alt Lang** key, the alternate language is used only for audio and during the current call.

If all billing requirements are satisfied when the **Audio** key is pressed, the call releases from the position. Otherwise, release to audio is denied, and the operator enters the missing information.

6.6.8 Automation restrictions

If a call arrives at the position with an X in the language indicator field and the no automation icon () displayed, the call comes from a subscriber line that cannot be released to an automated service.

However, if the caller specifically requests to be released to an automated service, the operator can do one of the following:

- Press the NTDA block audio toggle key.
- Press the **Fncts** key, type the menu number for Allow Automation, and press the **Start** key.

  Either action removes the restriction against automation, the no automation icon, and the X.
- Press the **Audio** key.

If an operator handling an OA call accesses DA by selecting NTDA from the Applications menu, the operator enters an administrative search session. In this case, the operator cannot release the call to an automated announcement under any circumstances. If the call comes from a subscriber line that is designated as not to be released to an automated service, the no automation icon appears in the DA window. However, the language field displays the indicator for the primary or secondary language, not the X that indicates no audio.

6.6.9 Releasing a call to audio announcement

If the office does not use automatic position release, the operator manually releases the call to audio. After finding the listing, the operator enters the listing selector for the requested number and presses the **Audio** key to release the call to audio announcement. If the operator presses the **Audio** key while displaying a single listing, the associated listing selector automatically displays in the NM field, and the call is released to audio.

If the operating company uses automatic position release, the position automatically releases to audio when the calling party goes on-hook. If the subscriber goes on-hook, no directory listing is provided, and the operator cannot press the **Ca Call** and **Pos Rls** keys before the call is released. This is because the subscriber might be billed for the call in error, depending on the billing arrangements and operating instructions of the operating company.

6.6.10 Verbal quotation of a requested number

The operator verbally quotes the number to the subscriber if the audio announcement system is unavailable, if handling a call with several requests, or if the no automation icon () displays. To verbally quote a number, the operator does the following:

1. Chooses the listing selector.
2. Quotes the requested number.
3. If the system requires the requested number, enters it.
4. Presses the **Pos Rls** key to release the call from the position.

6.7 Automated services for DA

The following features provide automated services for NTDA operators:

- Automated Directory Assistance Service (ADAS)
- Automated Intercept Call Completion (AINTCC)
- Automatic Directory Assistance Call Completion (ADACC)

6.7.1 Automated DA service (ADAS)

ADAS reduces an operator’s average work time by automating the initial inquiry portion of DA call processing.

The system performs the following eligibility checks before routing a call to ADAS:

- The call must require DA service.
- The incoming trunk group must specify ADAS service.
- DA billing checks must be satisfied for the call.

If the eligibility checks are successful, ADAS software does the following:

1. Greets the caller.
2. Prompts the caller for the locality and the requested listing.
3. Records the caller’s responses.
4. Compresses each response by removing the silences and pauses.

When making the connection to ADAS, ADAS plays back the caller’s responses. When the playback ends, ADAS releases the call. An operator handle the remainder of the process as a traditional DA call.

As with traditional calls, an operator conducts an NTDA database search using a data line connected to an NTDA service node. When the required listing data is identified, the operator releases the call to an audio response unit (ARU) at the NTDA service node.

Usually, the operator does not interact with the caller before releasing the call to the ARU, but calls such as the following do require interaction:

- ADAS is bypassed or fails.
- The customer response is incomplete or ambiguous.
- Additional information is needed to identify a common listing name.

If a call arrives at the position with an X in the language indicator field and the no automation icon ( ) displayed, the call comes from a subscriber line that cannot be released to an automated service.

However, if the caller specifically asks to be release to an automated service, the operator does one of the following:

- Presses the NTDA **No Audio** toggle key.
- Presses the **Fncts** key, type the menu number for **Allow Automation**, and press the **Start** key.

  Either action removes the restriction against automation, the no automation icon, and the X.
- Press the **Audio** key.

However, if an operator handling an OA call accesses DA by selecting NTDA from the Applications menu, the operator enters an administrative search session. Therefore, the call cannot be released to an automated announcement under any circumstances. If the call comes from a subscriber line designated as not to be released to an automated service, the no automation icon appears in the DA window. However, the language field displays the indicator for the primary or secondary language, not the X that indicates no audio.

6.7.2 Automated Intercept Call Completion (AINTCC)

Ordinarily, when a caller dials an intercepted number, the caller reaches a recording that announces the new number. The caller then hangs up and redial the new number. With AINTCC, calls to intercepted numbers automatically connect to the new number. AINTCC can announce the new number to the caller before the connection is made.

AINTCC can automatically complete the following intercept calls:

- automatic intercept call
  The DMS automatically processes and completes the call without the assistance of an operator.
- intercept ONI and ANI failure calls
  For ONI or ANI failure, the called number is not provided. When the call connects to the position, the operator does the following:
  — Gets the called number from the subscriber.
  — Enters the called number.
  — Releases the call to the DAS.
- intercept special calls
  When an intercept special call arrives at the position, it might contain a number of listings. For such a call, the operator selects the appropriate listing and, if possible, releases the call to the DAS.

The following AMA records are generated when an intercept call is automatically connected to the referral number. In the originating end office, an AMA record is billable to the calling subscriber when the call is completed and one of the two parties goes on-hook.

6.7.3 Automatic DA call completion

ADACC allows the operating company to provide DA call completion services without involving an operator.

If the operating company has ADACC and the subscriber dials a DA call, the call is routed to the operator position. The operator initiates an NTDA database search and release the call to the ARU for quotation of the requested number. At this point, the operator is no longer connected to the call. The DMS switch and the DA service exchange messages to determine whether the subscriber qualifies for ADACC service. If the subscriber qualifies for ADACC, the ARU offers to complete the call to the requested number. The ARU provides the subscriber with instructions on how to proceed. The subscriber can choose whether or not to let the DAS complete the call to the requested number.

6.8 International DA (GOS only)

NOTE: To use international DA, the operating company must use GOS and certain specific GOS features.

To route a DA call to a DA operator in another country, the operator does the following:

1. Presses the **Fncts** key.
2. Types the menu number for international DA and the country code.

   If position information includes city codes for that country, the operator types both the city code and the country code.
3. Presses the **Start** key.

   The system determines if there is a direct route to the international DA operator.

If there is	Then
a direct route	the system outpulses the call.
not a direct route	go to Step 4

4. Presses the **Fncts** key.
5. Types the menu number for Alternate Route and presses the **Start** key.
6. Specifies the first route in the list and tries to connect the call.
7. If the operator cannot connect the call on the first alternate route, the operator continues through the list until connecting the call.

7.0 QMSCASE and the assistance system

TOPS QMSCASE allows more experienced operators to combine call handling and service assistance capabilities, using a general operator position.

Customer service expert operators (CSEs) are more experienced operators. Any operator position can serve as a CSE position. For information on CSEs, service assistants, and in-charge managers, refer to the *Force Management Guide*, NTP 297-2251-313.

7.1 Advantages of QMSCASE

QMSCASE adds the following capabilities:

- CSEs do not need to log on to specially datafilled operator positions to perform tasks.
- CSEs can complete subscriber calls after providing assistance (including floating and billing a toll and assistance call, and releasing a DA request to audio),
- CSEs can receive calls directly from subscribers.
- When a CSE receives a call from another operator, full details of the call are passed to the CSE.
- QMSCASE offers the queuing and prioritization benefits of QMS.
- Statistical data can be collected to measure the CSEs performance within the total workforce.
- CSEs can optionally monitor other operators.
- CSEs can optionally initiate and receive pages and directed assistance calls.
- CSEs can optionally receive indication of alarm conditions in the office (QCA, QCW, QCD, QCQ).
- CSEs can optionally receive certain force management (FM) information.
- Assistance call arrival does not activate the audible alarm.
- An operator requesting assistance can either stay on the call and speak with the CSE or release the call to queue for the CSE. If the operator requesting assistance stays on the call, that operator and the CSE share control of the call. Both can key on the call. Either operator can release from the call, leaving the other full control.

7.2 QMSCASE

QMS table datafill controls which of the following QMSCASE properties a CSE can use:

- **INTEROPR**
  QMS operators on the same switch can do the following:
  — initiate a page
  — receive and respond to a page
  — initiate a directed assistance call
  — receive a directed assistance call

  Each of these actions can be performed with a minimum of one operator possessing this capability.
- **MON**
  Monitor another operator if the monitoring operator is in the calls-withheld state and the monitored operator does not have this capability. A display in the monitoring operator's MSA shows which position is being monitored.
- **QINFO**
  Receive information at the CSE position when QCA, QCW, QCD, or QCQ alarm conditions occur in the office. An audible alarm is generated for the QCA, QCD and QCQ states.
- **STATS**
  Can do the following:
  — receive office statistic information, updated every ten seconds
  — see information on positions in the OC, MB, CT, OD, UPC, UPD, and ACS states
  — query to learn which positions are in each state
  — see displays to indicate time and charges, and positions in the OD and OPR SVCS Suspended states. An audible alert generates for the last two states.

7.2.1 Installation QMSCASE

QMSCASE is installed with the IWS base application; no additional steps are necessary.

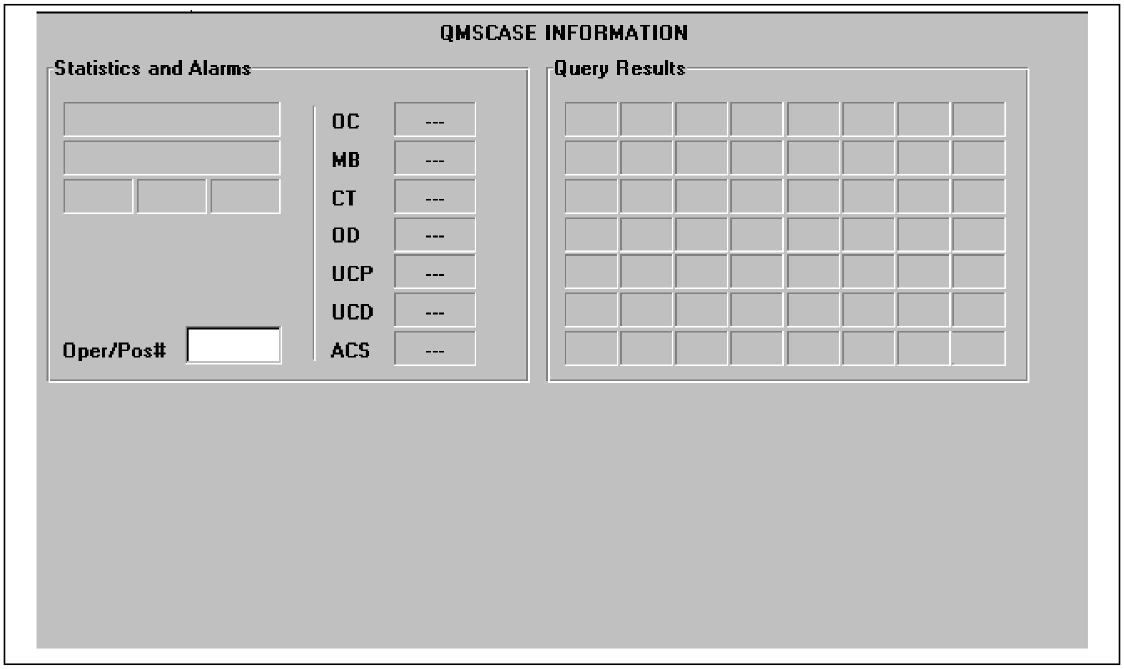
QMSCASE must be added to the **MPXINI.INI** file as a registering application. It should **NOT,** however, be the default registering application. Refer to the *TOPS IWS Base Platform User's Guide* for installation details and processes.

7.2.2 Accessing QMSCASE

A CSE operator can access QMSCASE (if it is datafilled in MPXINI.INI as a registering application) through the Applications menu. A hotkey or softkey can also be datafilled to accomplish this.

Once the window is displayed, the operator has access to all of the IWS menus as well as the QMSCASE softkeys.

Figure 52. QMSCASE Applications window

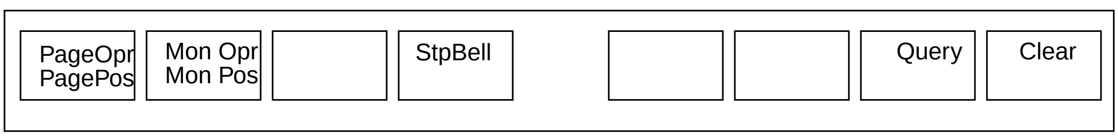


7.2.3 QMSCASE softkeys

QMSCASE offers two levels of softkeys. Some softkeys have two functions, which requires pressing the **Shift** key to access the feature described on top of the softkey label.

To access the second set of QMSCASE softkeys, press the **{Query}** softkey.

Figure 53. QMSCASE default softkey set



7.2.3.1 QMSCASE query softkeys

Figure 54 shows the second level of QMSCASE softkeys.

This level includes eight unshifted softkeys and one shifted softkey that allow the CSE to request specific information about office activity.

This information displays in the **Query Results** window of the Applications window.

The Query Results window can display up to 56 position numbers. Accordingly, this is the maximum number of positions on which information can be returned for any query.

The title of the Query Results window changes based on the type of query requested.

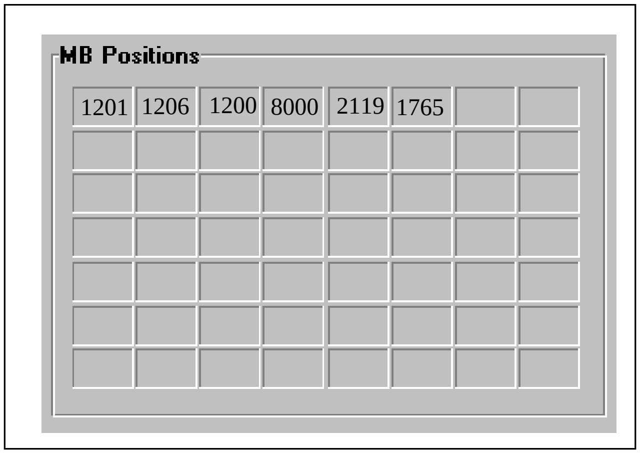
Figure 54. QMSCASE second default softkey set

Qry MB	Qry OD	Qry CT	Qry UCP		Qry UCD	Qry ACS	Qry QCQ	QRy QCD

In Figure 55, the {**Qry MB}** softkey was pressed, and the query results indicate the position numbers of positions either made busy or in the Withhold Calls state.

To use the query softkeys, the CSE must have the statistics and qinfo logon capability. Refer to the *TOPS IWS Base HMI Application Guide* for details on the other query softkeys.

Figure 55. Made Busy query results



7.2.4 Paging with QMSCASE

A CSE with INTEROPR can page another CSE or operator using the **{Page Pos}** or **{Page Opr}** softkey by doing the following:

- Pressing the **{Page Pos}** or **{Page Opr}** softkey. When the cursor appears in the Misc field of the Call Processing window, the CSE types the position or operator number, and presses the **Start** key.
- Pressing the **Fncts** key twice, typing the menu number for either Page Position or Page Operator, and pressing the **Start** key.

The operator can respond to the page by doing the following:

- Making the position busy
- Completing any call in progress
- Accessing a loop
- Typing the menu number for **Paged Assistanc**e
- Pressing the **Start** key to respond to the CSE who initiates the page

The CSE can cancel the page by pressing the {**Page Pos**} or {**Page Opr**} softkey and the **Start** key.

7.2.5 Monitoring

To initiate a monitoring session, the CSE does the following:

- Presses the **Withhold Calls** key or enters the Withhold Calls function
- Presses the **{Mon Pos}** or **{Mon Opr}** softkey
- Types the operator or position number
- Presses the **Start** key

At the start of the next incoming call, the CSE begins to receive call information and hear the conversation between operator and customer.

To end the monitoring session, the CSE activates the **Quit Monitoring** function and presses **Start**.

7.2.6 Operator-to-CSE call transfer

An operator can transfer a call to the CSE for both the operator and CSE to handle.

To transfer a call to a CSE, the operator does the following:

- Presses the **Fncts** menu key
- Types the code for **Directed Assistance**
- Types the position or operator number
- Presses the **Start** key

When an assistance call arrives at the CSE's position, the operator ID and position number of the operator who made the request display.

To request general assistance, the operator does the following:

- Presses the **Fncts** key twice
- Types the menu number for **General Assistance**
- Presses the **Start** key

The operator can do one of the following:

- Stay on the call and talk with the CSE
- Release the call to queue for assistance
- Cancel the request by doing the following:
  - — Pressing the **Fncts** key twice
  - — Typing the menu number for **Release Operator**
  - — Pressing the **Start** key

If the operator remains on the call until the CSE is connected, the CSE's position number and operator ID display at the position. At any time, either the operator or CSE can drop off the call by pressing the **Pos Rls** key.

7.2.7 Processing input from two operators handling a call

When two operators are on a call, both can type input. However, the DMS switch denies the following requests from positions when a call has two operators attached:

- Requests to put the call on hold by pressing **Hold**, **Request CAMA**, **AccLoop 1**, or **AccLoop 2**
- Requests for assistance
- Requests to change the service of the call
- Requests to generate a billing record

When two operators are on a call, position-specific typing applies only to the position where the typing occurs, as follows:

- If either operator types input to make busy or withhold calls, only that operator's position becomes busy-pending or has calls withheld-pending.
- Time input is position-specific.
- If either operator unseats the headset, only that position enters the logout-pending state.

Releasing self

If an operator presses the **Pos Rls** key, that operator is released. The remaining operator has full control of the call.

To mark a call for transfer when two operators are connected, one operator presses the **Pos Rls** key. The call transfers when the second operator also presses the **Pos Rls** key.

A call marked for handoff to an automated system or to be canceled is handed off or taken down when both connected operators press the **Pos Rls** key.

Releasing the other operator

If an operator presses the **Rls Opr** key, the other operator is released. The remaining operator has full control of the call. The DMS switch informs the remaining operator that the other operator is released from the call.

7.3 TOPS IWS assistance system

The TOPS IWS assistance system allows CSEs to do the following:

- Page an operator or position
- Monitor an operator or position
- Receive requests for assistance
- Place an outgoing call
- Make an administrative search of a DA database
- Monitor the status of the entire team
- Query the DMS for individual position or operator status

This section explains the assistance position and the methods used to perform the above tasks. The methods and practices for administering an operator workforce are determined by QMS and the organization of the operator workforce (single or multi-traffic office configuration).

7.3.1 CSEs

TOPS QMSCASE presents a class of operator, called the customer service expert (CSE), who can assist other operators (even completing their calls) as their primary task and optionally serve subscriber-initiated operator traffic as their secondary task. CSEs can serve subscriber-initiated traffic and complete the calls to which they provide assistance. CSEs are at the level below the force supervisor.

In this release, the CSE role will replace the in-charge manager and service assistant roles. The CSE role is operator ID-oriented rather than position-driven, unlike the in-charge (IC) and service assistant (SA) positions. Therefore, a CSE can have multiple operator IDs to perform different functions.

7.3.2 Force supervisor

At the top of the hierarchy, a force supervisor is responsible for high-level decision making and control of the software features that affect the workforce as a whole. The force supervisor typically does not focus on the performance of individual operators, but instead monitors the relative performance of teams of operators grouped in separate traffic offices. These traffic offices can be geographically distant from the central DMS office. The TOPS system supports up to 30 traffic offices.

The *TOPS IWS Force Management Guide* describes the tasks of the CSE and force supervisor.

7.3.3 The assistance system windows

Up to 126 CSE positions can be identified by the DMS switch and position datafill. The number of assistance positions chosen for a workforce typically depends on the number of operator positions, the type of calls handled, and the amount of assistance usually required.

Software specific to CSEs and force supervisors is enabled during logon at the TOPS IWS position. If the logon is successful, the DMS assigns certain capabilities to these unique positions, such as paging and monitoring from a CSE position.

7.3.3.1 CSE windows

The CSE positions display windows, icons, and text, as follows:

- Each window consists of one or more fields used to display information and receive keyboard input.
- These windows are very similar in design to the operator position windows.
- Keyboard input and softkey functionality differ.

The following CSE windows are the same as those of the operator positions:

- Logo
- Logon
- Operator Administration
- Operator Information

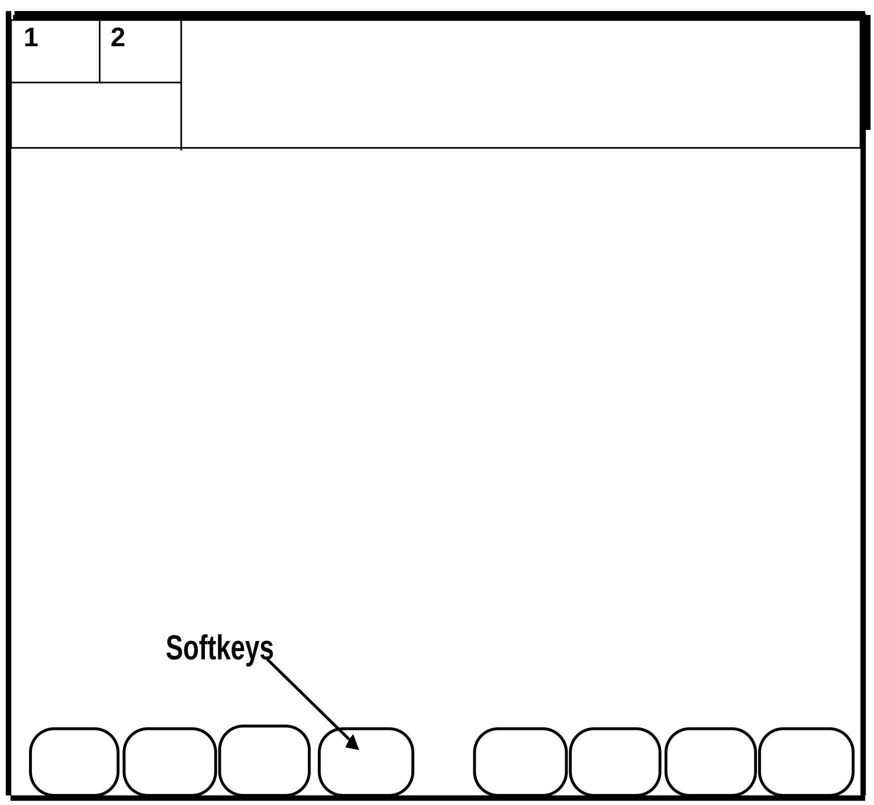
Refer to Chapter 3.0, “Operator Log On and Start Up Tasks,” on page 45 for information about these windows.

7.3.3.2 Operator Information window

The Operator Information window (Figure 56), which resembles the Operator Administration window, displays following successful logon.

This window is composed of the MSA and softkeys. Service- and operator-specific windows display in the Application area.

Figure 56. Operator Information window



7.3.3.2.1 Message status area (MSA)

As with the operator position, the **MSA** is composed of a text display area, two loop areas, and two port status areas. Four lines of text display information to the CSE. Each line contains the following fields:

Line 0

- **Broadcast Message field**
  64 characters in length for the CSE message. This field displays in alert colors if a broadcast message also displays.
- **Pending field**
  includes Make Busy, Logoff, Withhold Calls, and Forced Busy pending messages. The field displays in alert colors if a broadcast message also displays.
- **Time field**
  displays the frozen DMS switch time or the stopwatch when requested

Line 1

- **Transient field**
  displays no action reasons from the DMS switch for approximately three seconds
- **Maintenance field**
  displays position maintenance information such as Link Problems Encountered and Headset Unseated
- **State Info field**
  displays transfer queues of the monitored position or operator during DMS logon of the monitored position or operator
- **Asst CW (ACW) field**
  displays the number of assistance requests in queue. When the queue is full, ACW Full displays on the assistance positions
- **CW**
  displays when calls reach a predefined threshold in the queue
- **CT**
  displays to indicate controlled traffic

- **ST**
  displays to indicate a study register
- **Mon field**
  indicates that a CSE is monitoring an operator

Line 2

- **Logon Denied field**
  displays the reason the DMS logon process failed
- **CSE position state**
  informs the CSE of the current position state according to the DMS switch
- **Application Message I & II fields**
  used by the currently-active application to display messages if there is not enough room to do so within the Application area of the Operator Administration window

Line 3

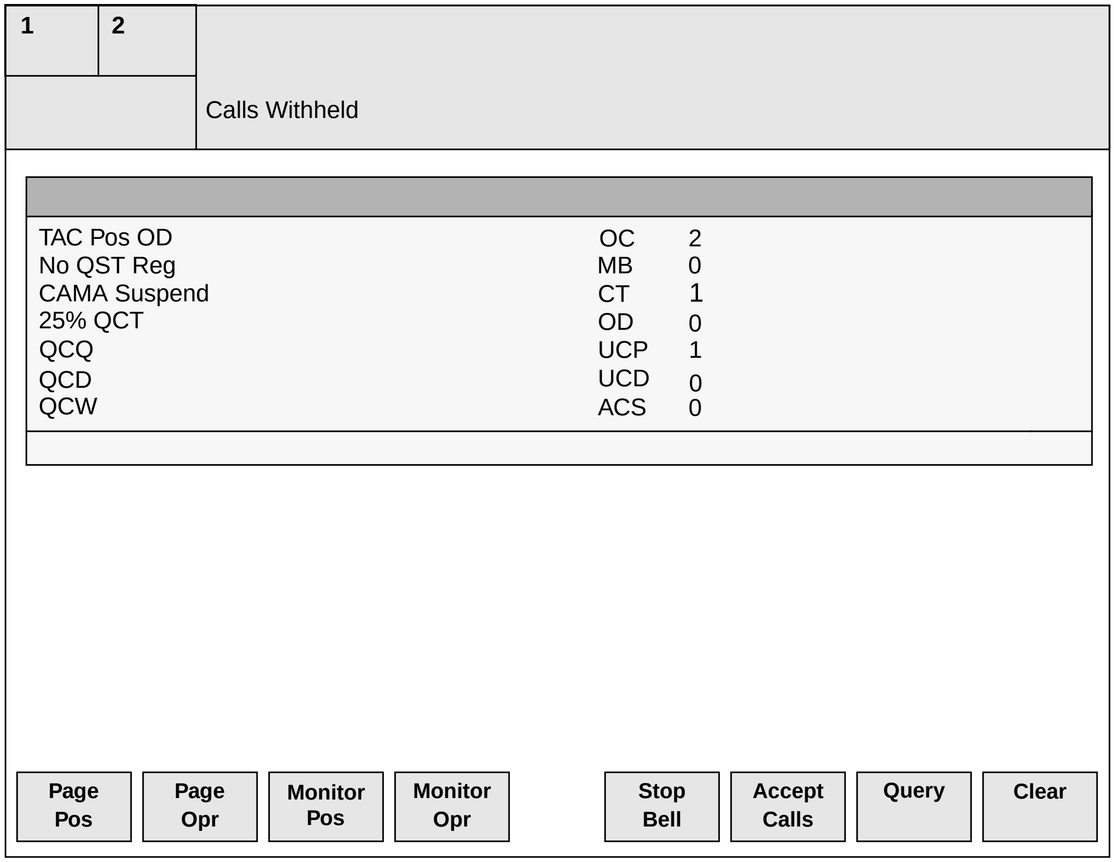
- **Application Message III, IV, & V fields**
  used by the currently-active application to display messages if application message areas I and II are full

7.3.4 Query window

Figure 57 shows the Query window (within the Operator Administration window) displayed. Note the locations of the following alarm displays:

- `TAC Pos OD`
- `No QST Reg`
- `CAMA Suspend`
- `25% QCT`

Figure 57. Query window of the Operator Administration window



Other alarm displays are as follows:

- QCQ indicates that calls are in a queue for which no operator is logged on.
- QCD indicates that calls are being deflected from one or more queues.
- QCW indicates that calls have reached a pre-defined threshold in one or more queues.
- QCA indicates that calls are waiting in a designated alerting queue.

To determine which queues are in the above states, the CSE goes to the QTADS or QFADS TTY and types in the following commands:

- CQ <return>

  to see which queues are holding calls for which no operator is logged on
- CD <return>

  to see which queues are deflecting calls
- CW <return>

  to see which queues have reached a predefined threshold of calls waiting

In each case, the TTY provides the queue numbers corresponding to the query.

On the right side of the CSE window, the following information displays:

- `OC`

  number of positions with a headset seated
- `MB`

  number of positions made-busy or in withhold-calls state
- `CT`

  number of positions in controlled traffic
- `OD`

  number of positions out of order or made maintenance-busy at the MAP
- `UCP`

  number of unoccupied positions with a call in progress
- `UCD`

  number of unoccupied positions with a unreleased terminated call
- `ACS`

  number of positions with a loop accessed and no calling or called party attached

Individual queue data for occupied (OC) and made-busy (MB) positions is not provided since there is not enough room on the screen to display that information for a maximum of 255 queues.

To see this information, the CSE goes to the QTADS or QFADS TTY, uses the optional QMS MIS (Management Information System), or uses QMSCASE.

7.3.5 Assigned Activities window

The Assigned Activities window (within the Operator Administration window) displays the capabilities for which the CSE is logged on, as follows:

- Using QMS queuing, 63 services are supported, with 16 services displayed on a single page.
- Using the **Page Fwd** and **Page Bwd** keys, the CSE can cycle through multiple pages.
- Alternatively, using the **Make Busy** function to display this window.
- While in the Assigned Activities window, the CSE can access only the **Page Fwd**, **Page Bwd**, and **Start** keys, plus any softkeys whose labels are displayed.

Unavailable services for which logon may have failed may also be indicated in light grey text. Nonetheless, this window automatically displays following a successful logon.

7.3.6 Query keyboard

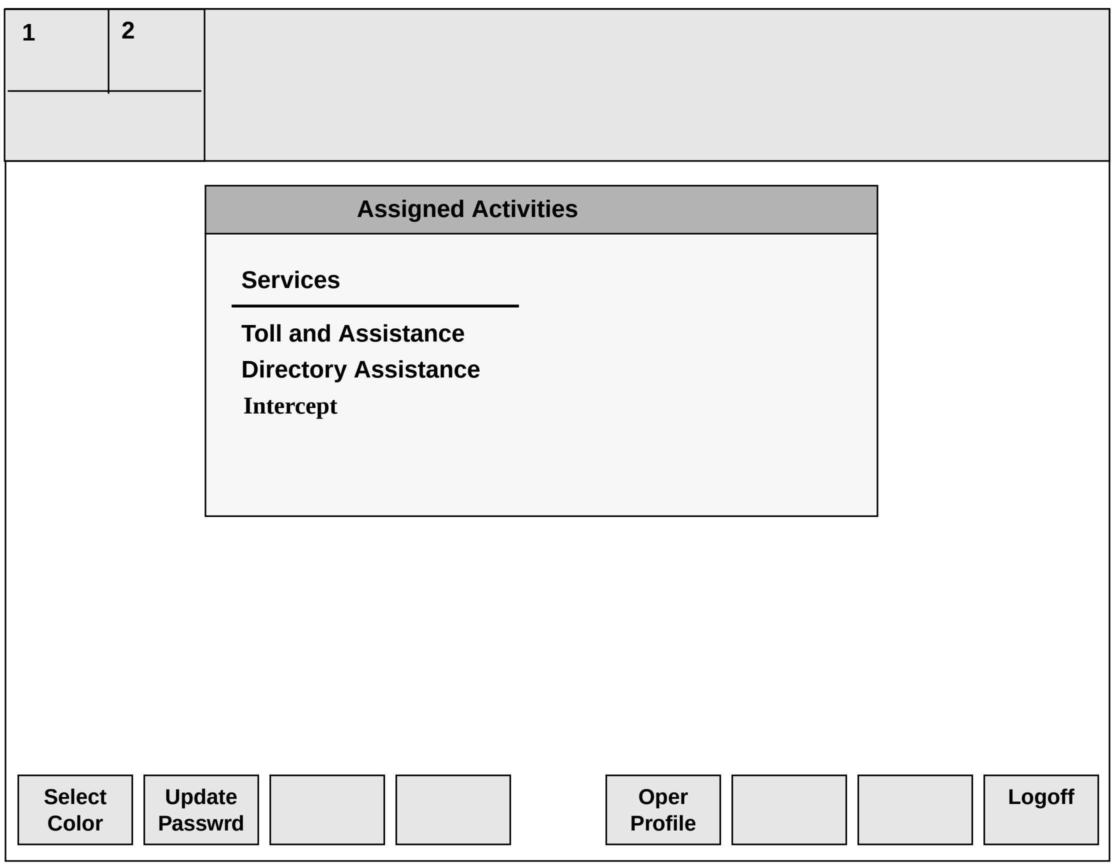
The keyboard is the same for CSE or general operator positions.

7.3.6.1 Assigned Activities window softkeys

The following softkeys (shown in Figure 58) display to the CSE in the Assigned Activities window:

- **{Select Color}**
  changes the window color set. This key presents a second set of softkeys from which a color set can be selected.
- **{Update Passwrd}**
  changes a logon password. This key displays the Password Update window, if the password option is enabled.
- **{Oper Profile}**
  displays an operator profile, including operator ID and position ID
- **{Logoff}**
  log off the DMS switch, returning to the Operator Administration window

Figure 58. Assigned Activities window within the Operator Administration window



7.3.6.2 Softkeys

When the Call Information and Query windows display upon successful logon, the appropriate CSE softkeys display. These keys reflect the available functions for paging, monitoring, and accepting assistance requests.

7.3.6.3 Operator assistance requests

CSEs can provide assistance by answering questions or talking to the customer directly using the following softkeys:

- **{Dir Calls}** or **{Gen Calls}**
- **{Accept Calls}** or **{Calls Withld}**

CSEs signal availability to handle these requests by pressing the **{Accept Calls}** softkey. The {**Accept Calls}** softkey, which toggles as a {**Withld Calls}** softkey, allows the position to take calls.

The {**Dir Calls}** softkey allows the operator to receive only directed requests for assistance. Serving as a toggle, the position changes to a **Gen Calls** state and makes the CSE available for all calls.

See the softkey set displayed in Figure 59.

Figure 59. Softkey set while in a general-calls state

Page Pos	Page Opr	Gen Calls	Calls Withhld	Stop Bell		Query	Clear

7.3.6.4 Service selection when handling assistance requests

When an operator makes a request for assistance, the connection is a voice-only one. Call details, which may have been provided to the original operator, have to be re-keyed by the CSE to assist the customer.

The CSE may use a context change key (if datafilled) or select a service from the Services menu to assist the customer.

On any type of call, there is no billing from a CSE position so, if AMA is required on this call or the call must be connected, the original operator should stay connected.

7.3.6.5 Text strings

The text strings displayed on the CSE softkeys are contained in the file SASFK.LNG on the position hard drive. This file can be manipulated to change the text strings displayed on the screen.

Figure 60 shows the initial softkey set for the CSE position. Seven of the eight softkeys are used in the initial set.

Figure 60. Initial softkey set of CSE position

Page Pos	Page Opr	Monitor Pos	Monitor Opr	Stop Bell	Accept Calls		Clear

7.3.6.6 Paging softkeys for CSE positions

The paging softkeys, {**Page Pos}** and {**Page Opr},** allow the CSE to signal an operator to call the CSE position. The CSE does the following:'

- Presses the **Page Pos}** or {**Page Opr}** softkey followed by the position number or operator number
- Presses the **Start** key

If a CSE pages an operator, the page message displays in the operator's MSA. To connect to the CSE position in response to the page, the operator can do the following:

1. Press the **Fncts** key twice, type the menu number for **Withhold Calls**, press the **Start** key, and complete the current call. (There may be a hotkey for **Withhold Calls**.)
2. Press the **Fncts** key twice, type the menu number for **Access Loop 1** or **Access Loop 2**, and press the **Start** key to access a loop. (There may be hotkeys for **Access Loop 1** and **Access Loop 2**.)
3. Press the **Fncts** key twice, type the menu number for **Withhold Calls**, and press the **Start** key to toggle back to a call-acceptance state.
4. Or one of the following:
   - Press the **OGT** key twice, type the menu number for **Assistance**, and press the **Start** key. Type the number of the CSE position to direct the request to the paging CSE. Then, press the **Start** key.
   - Press the **Fncts** key twice, type the menu number for Directed Assistance, and press the **Start** key.

7.3.6.7 Monitoring softkeys

Monitoring softkeys allow the CSE to monitor an operator, as follows:

- The CSE presses the {**Monitor Pos}** and **{Monitor Opr}** softkeys to begin monitoring.
- To initiate a monitoring session, the CSE position must be in the **Calls Withheld** state.
- To clear the window and display the monitoring softkey set, the CSE does the following:
  - — enters `Monitor Pos` or `Monitor Opr`
  - — types in the position or operator number
  - — presses the **Start** key The CSE begins receiving call information and customer-operator conversation with the next call the operator receives.

7.3.6.7.1 Monitoring limitations and restrictions

Note the following monitoring limitations and restrictions:

- A CSE monitoring an operator can see DMS switch updates only. If updates come from an external database, they do not appear on the screen.
- A CSE cannot key while an operator is keying, because the CSE's keystrokes would interfere with those of the operator.
- Context switches (such as from the Call Information window to another service window) that do not involve the DMS switch are not updated on the CSE position.
- If a monitoring session starts while an operator is currently handling a call, the CSE display for that call may be incomplete, depending on updates from the DMS switch.
- When monitoring an operator, if the Call Information window displays on the CSE position, no operator keystrokes display.
- The CSE may use the Functions, Services, and Outgoing Trunk menu keys to reference menus while monitoring an operator. No other menu activity is permitted.

7.3.6.7.2 Ending a monitoring session

To stop monitoring, the CSE uses the Quit Monitoring function from the Functions menu. This function can be datafilled as a hotkey.

7.3.6.8 Audible alert {Stop Bell} softkey

The Stop Bell function can be datafilled as a hotkey or softkey. The CSE may use the Stop Bell function from the Functions menu to silence an audible alert during a monitoring session, if necessary.

7.3.6.9 {Clear} softkey

Note the following information about {**Clear**} softkey:

- If the CSE presses the {**Page**} or {**Monitor**} softkey, the cursor moves to the data entry field for input of either an operator or position number.
- If the CSE types the appropriate number and presses **Start**, the request goes to the DMS switch.
- To cancel the Page or Monitor function before pressing the **Start** key, the CSE can press the **{Clear}** softkey to clear the data entry field and remove the cursor from the field.
- Pressing the {**Clear**} softkey **DOES NOT** cancel a page in progress or end monitoring.

7.3.7 Using softkeys to answer operator assistance requests

To receive requests for assistance from operators in the team, the CSE must be available to take these requests.

Pressing the **{Accept Calls}** softkey places the operator in an available state (see Figure 61); pressing the **{Calls Withhld**} softkey makes the operator unavailable.

The message `Available` or `Calls Withheld` displays in the MSA.

Figure 61. Softkey set while in an available state

Page Pos	Page Opr		Calls Withhld	Stop Bell			Clear

As with other TOPS products, the CSE receives general requests for assistance on Loop 1 and directed requests on Loop 2. The CSE simply accesses the appropriate loop to connect to the requesting operator.

Also, if the call is a request for DA, there is no Release to Audio from a CSE position. Listings must be verbally quoted.

7.3.7.1 Error recovery when answering assistance requests

The only time during a call that the CSE can use the Call Details function from the Functions Menu window to recover lost messages is at call arrival.

If any messages are lost during the call, the CSE must put the call on hold and reaccess the loop, forcing the DMS switch to resend the call information.

7.3.8 Accessing a loop

To place an outgoing call, the CSE does the following:

1. Selects the Access Loop 1 or Access Loop 2 function from the Functions Menu.
2. With the cursor in the called field, enters the digits of the called number and presses **Start**.
3. When the forward party answers, conducts the conversation as appropriate.
4. Presses **Pos Rls** at the completion of the call.

   The CSE can neither outpulse a call for a customer (that is, connect a calling and called party) nor provide billing for calls.
5. If billing is required, the CSE creates a manual billing ticket.

7.3.9 Administrative database search

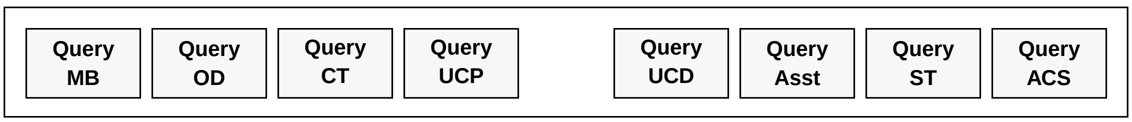
CSE positions can search the database for DA or CNA purposes. This may be for a customer who was transferred by an operator, or with no call for assistance at the CSE position. The latter example may be to confirm search strategies after monitoring an operator in the team.

7.3.10 Query softkeys

The CSE can use the {**Query**} softkey to request more detailed information. The current status of the operator positions in the office is available on a continuous basis, (updated every ten seconds) in the Query window.

Pressing the **{Query}** softkey displays another set of softkey labels, which provide enhanced functionality for the CSE position, as shown in Figure 62.

Figure 62. Query softkeys

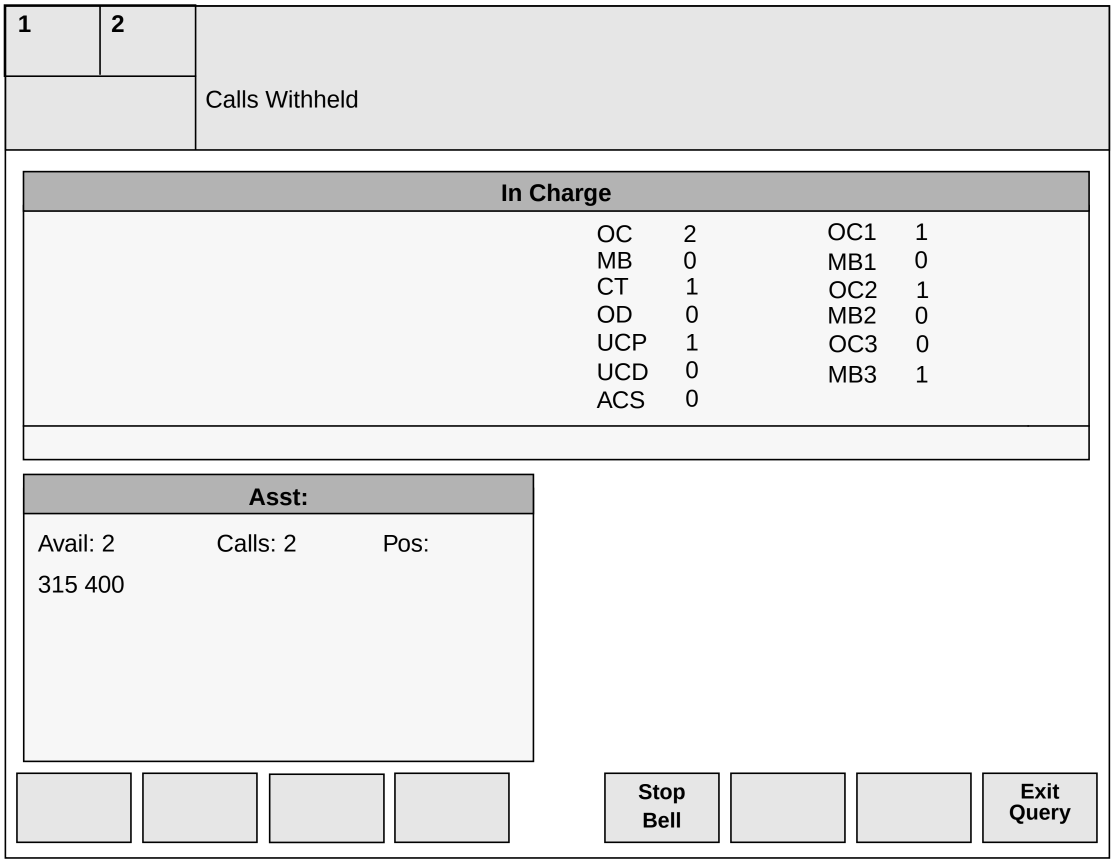


Pressing one of the query softkeys displays the current information in the Query window and returns the softkeys to their previous settings.

Figure 63 shows an CSE window with the Query window displayed. The CSE has requested information on assistance requests.

To exit a query request and remove the Query window, the CSE presses the {**Exit Query}** softkey.

Figure 63. Query window



The following categories can be queried:

- **Query MB**
  occupied positions in an operator-made busy or calls-withheld state
- **Query OD**
  out-of-service positions
- **Query CT**
  operators in controlled traffic mode
- **Query UCP**
  unoccupied positions with a call in progress (headset unseated and operator still logged on)
- **Query UCD**
  unoccupied positions with an unreleased, terminated call
- **Query Asst**
  — number of available CSE positions
  — number of assistance requests actively attached to CSE positions
  — operator position numbers generating assistance requests

- **Query ST**
  operators who are logged on and assigned to a study register
- **Query ACS**
  position numbers that have a loop accessed but with no calling or called party attached

7.3.10.1 CSE position restrictions and limitations

The CSE position provides updated office statistics every ten seconds. Because the status displays are covered by the monitored operator’s screens, the CSE position should not be used to monitor operator performance. The office data continues to update in the CSE window, although it is covered on the screen.

8.0 Queue Management System (QMS)

QMS allows service providers assign specific incoming calls to those operators best qualified to handle specific call types. QMS replaces the previous TOPS call distribution application, ACD (automatic call distribution).

8.1 Advantages of QMS

TOPS QMS offers service providers the following benefits:

- Better customer service. New methods of queuing calls ensure that important calls are handled quickly and that all calls route to the appropriate operators.
- Calls are assigned to queues based on information contained in trunk signaling, trunk group identification, dialed digits, and data matched to QMS screening tables in the DMS switch.
- Calls and operators are matched according to priorities established in operator profiles. When an operator becomes available, QMS checks the operator profile and pulls an appropriate call from the call queues.
- Lets service operators assign primary and subsidiary responsibilities, helping out with several queues when demand warrants. For example, a group of operators can provide DA as a primary responsibility but can help out with toll and assistance service as a secondary responsibility.
- Can prioritize calls in queue, whereby calls within queues can be artificially aged to receive higher priority to reach an operator. Calls in specific queues can therefore be served before others, regardless of time in queue.

QMS establishes call queues to reach specific operators based on information in operator profiles regarding ability to handle certain call types. QMS does the following:

- allows 255 queues
- uses operator profiles as a means to routing certain call types to specific operators
- idles operators with designated profiles, allowing them to handle special call types (queue distribution)
- lets service providers establish call priority

8.2 QMS statistics

The QMS statistical reporting system provides information about the activity in the office for the previous reporting period. QMS statistics also let the force manager detect changes in traffic volumes that may require an immediate adjustment in the size of the operator work force.

8.2.1 QMS statistics information

Note the following information about QMS statistics:

- QMS has no internal call queues, nor any automatic priorities for recalls.
- QMS provides the assignable grade of service (AGS) feature and a priority system based on the call queue and operator queue.
- With QMS, service providers define the priority for recalls as well as all other call queues.

Table 9 explains QMS basic statistics. These statistics print on TTYs as follows:

- QFADS

  prints QMS system reports
- QTADS

  prints QMS traffic reports

Table 9. QMS basic statistics

Data	QMS Basic statistics
IPS	All initial position seizures: • includes delay calls • marks call for the queue in which the call arrives
RPS	All recall position seizures: • includes each call queue and each call type • included on fifteen-minute reports
TPS	All transfer position seizures: • includes all calls transferred from one operator to another operator
CBWV	Total time that logged-on operators are busy handling calls • measured in tenths of seconds and reported in seconds • measured at position release and associated with the queue for the defined period and reported in the ending period
NCWV	Total time that logged-on operators are not handling calls, but are unavailable to accept new calls: • measured in tenths of seconds and reported in seconds • measured at the end of the occurrence and reported in the ending period
IDLT	Total time that logged-on operators are available to handle calls: • measured in tenths of seconds and reported in seconds • measured at the end of the occurrence and reported in the ending period
AWT	CBWV ------------------------------- PS [IPS + TPS + RPS] Reported for system, traffic office, system queues, traffic office queues, system services, traffic office services, system call classes, and traffic office call classes

Table 9. QMS basic statistics (Continued)

Data	QMS Basic statistics
AOP	AOPWV + AOPIDLT ----------------------------- QMS FM PERIOD • AOPWV is measured for each period and includes audit information for NCWV and CBWV that have not ended for the measured period • AOPIDLT is measured for each period and includes audit information for IDLT that has not ended for the measured period
%OCC	AOPWV ------------------------------ AOPWV + AOPIDLT • AOPCBWV and AOPNCWV are included in the AOPWV • Performs an audit to determine AOPWV and AOPIDLT for the reporting period • Is used to calculate %OCC. This calculation is more accurate for the reporting period than manual calculations using CBWV, NCWV, and IDLT reported in that period.
CW	Time calls waited in queue to reach an operator: • measured in tenths of seconds and reported in seconds (rounded to the nearest whole second) • reported for each call queue
ANS	CW ------------------------------ PS [IPS + TPS + RPS] • calls-waiting measurement used is before rounding • reported for each call queue

8.2.2 QFADS and QTADS Report Formats

Note the following information about QFADS and QTADS report formats:

- QMS force management (FM) reports print every 15 minutes.
- After the time displays, the following statistics display:
  - — system and team
  - — call queue service
  - — call class statistics display
- QFADS reports include information on the system and each team, but do not provide statistics that associate teams to call queues, services, or call classes.

- The call class summary displays every fifteen minutes; but, for the individual traffic offices, traffic office statistics related to queues, services, and call classes are available at the QTADS.
- QTADS reports also have system information and information related to the office associated with the QTADS.

Figure 64 shows sample QFADS and QTADS reports.

Figure 64. QFADS report

QFADS REPORT
09:45:00

QMS TEAMS

	IPS	RPS	TPS	CBWV	NCWV	IDLT	AWT	AOP	%OCC
SYST	618	224	80	19695	1700	2200	21.4	26.2	90
TO 1	310	68	4	10782	800	1400	28.2	14.4	89
TO 2	178	44	40	4256	600	500	16.2	6.0	91
TO 3	130	100	36	4657	300	300	17.5	5.8	94

QMS QUEUES

	IPS	RPS	TPS	CBWV	AWT	CW	ANS
CQ 4	160	112	40	11509	13.6	265	0.8
CQ 5	40	0	20	2400	20.0	39	0.7
CQ 6	234	50	0	1223	10.8	355	1.2
CQ 7	126	46	18	2689	15.2	190	1.0
CQ 8	58	16	2	1874	24.8	23	0.3
CQ 9	0	0	0	0	0.0	0	0.0
CQ 10	0	0	0	0	0.0	0	0.0
CQ 11	0	0	0	0	0.0	0	0.0
CQ 12	0	0	0	0	0.0	0	0.0

QMS SERVICES

	SI	SWV	SAWT
SRV 0	463	7037	15.2
SRV 1	318	6868	21.6
SRV 2	306	5791	18.9

QMS CALL CLASSES

	IPS	RPS	TPS	CBWV	AWT
UNDEFINED	0	0	0	0	0.0
DELAY	76	0	0	605	8.0
COIN RECALL	0	112	0	1589	14.1
DA_RECALL	0	112	0	1952	17.4
CAMA	40	0	0	200	5.0
OVERSEAS	14	0	10	2000	83.3
NCN-0MINUS	138	0	44	4256	23.4
CN-0-1PLUS	58	0	4	1362	22.0
NCN-0PLUS	144	0	12	3562	22.8
CN-0MINUS	90	0	10	3162	31.6
INWARDS	44	0	0	367	8.3
DA_LOC	70	0	0	640	9.1
HOTEL	0	0	0	0	0.0
DA_555	0	0	0	0	0.0
CLASS	0	0	0	0	0.0
MDS	0	0	0	0	0.0

QTADS REPORT (page 1)
09:45:00

QMS TEAMS

	IPS	RPS	TPS	CBWV	NCWV	IDLT	AWT	AOP	%OCC
SYST	618	224	80	19695	1700	2200	21.4	26.2	90
TO 1	310	68	4	10782	800	1400	28.2	14.4	89

QMS QUEUES

	IPS	RPS	TPS	CBWV	AWT	CW	ANS
CQ 4	160	112	40	11509	13.6	265	0.8
CQ 5	40	0	20	2400	20.0	39	0.7
CQ 6	234	50	0	1223	10.8	355	1.2
CQ 7	126	46	18	2689	15.2	190	1.0
CQ 8	58	16	2	1874	24.8	23	0.3
CQ 9	0	0	0	0	0.0	0	0.0
CQ 10	0	0	0	0	0.0	0	0.0
CQ 11	0	0	0	0	0.0	0	0.0
CQ 12	0	0	0	0	0.0	0	0.0

TO 1 QUEUES

	IPS	RPS	TPS	CBWV	AWT
CQ 4	156	0	4	4219	26.3
CQ 5	40	0	0	1398	34.9
CQ 6	114	1	0	2238	19.4
CQ 7	0	46	0	629	13.7
CQ 8	0	16	0	394	24.6
CQ 9	0	0	0	0	0.0
CQ 10	0	0	0	0	0.0
CQ 11	0	0	0	0	0.0
CQ 12	0	0	0	0	0.0

QMS SERVICES

	SI	SWV	SAWT
SRV 0	463	7037	15.2
SRV 1	318	6868	21.6
SRV 2	306	5791	18.9

TO 1 SERVICES

	SI	SWV	SAWT
SRV 0	120	3490	29.1
SRV 1	276	7292	24.6
SRV 2	0	0	0.0

QTADS REPORT (page 2)

QMS CALL CLASSES

	IPS	RPS	TPS	CBWV	AWT
UNDEFINED	0	0	0	0	0.0
DELAY	76	0	0	605	8.0
COIN RECALL	0	112	0	1589	14.1
DA_RECALL	0	112	0	1952	17.4
CAMA	40	0	0	200	5.0
OVERSEAS	14	0	10	2000	83.3
NCN-0MINUS	138	0	44	4256	23.4
CN-0-1PLUS	58	0	4	1362	22.0
NCN-0PLUS	144	0	12	3562	22.8
CN-0MINUS	90	0	10	3162	31.6
INWARDS	44	0	0	367	8.3
DA_LOC	70	0	0	640	9.1
HOTEL	0	0	0	0	0.0
DA_555	0	0	0	0	0.0
CLASS	0	0	0	0	0.0
MDS	0	0	0	0	0.0

TO 1 CALL CLASSES

	IPS	RPS	TPS	CBWV	AWT
UNDEFINED	0	0	0	0	0.0
DELAY	20	0	0	257	12.8
COIN RECALL	0	40	0	689	17.2
DA_RECALL	0	0	0	0	0.0
CAMA	24	0	0	101	4.2
OVERSEAS	14	0	10	2000	66.7
NCN-0MINUS	54	0	22	1857	24.4
CN-0-1PLUS	34	0	4	765	20.1
NCN-0PLUS	102	0	6	2361	21.9
CN-0MINUS	68	0	6	2248	30.4
INWARDS	26	0	0	207	8.0
DA_LOC	38	0	0	297	7.8
HOTEL	0	0	0	0	0.0
DA_555	0	0	0	0	0.0
CLASS	0	0	0	0	0.0
MDS	0	0	0	0	0.0

8.3 FM statistics on supervisors

FM statistics are collected and reported on supervisors who are requesting or receiving assistance requests. These statistics are reported as QMS basic statistics on the QFADS and QTADS TTYs, and are made available to the optional QMS MIS system.

When a supervisor begins serving an assistance request, the following statistics are collected:

- CBWV against the queue used to reach the supervisor
- CBWV against the call class of the CT4Q used to reach the supervisor
- Service work volume (SWV) against the service associated with the queue used to reach the supervisor.

When supervisors are included as part of the operator team, team (traffic office) statistics (including AWT) reflect assistance requests as well as subscriber calls. This means that if a typical assistance call takes more or less time than a typical subscriber call, office AWT will be affected.

When a supervisor finishes serving an assistance request, the following actions occur:

- CBWV and SWV stop accumulating.
- TPS is pegged toward the call queue used to reach the supervisor.
- TPS is pegged against the FMCT4Q of the CT4Q used to reach the supervisor.
- Service initiation (SI) is pegged against the service associated with the call queue used to reach the supervisor.

When a supervisor is waiting or unavailable to serve an assistance request, the following statistics are collected:

- IDLT accumulates while the supervisor waits for an assistance request.
- NCWV accumulates while the supervisor is unavailable to handle an assistance request, unless the supervisor is unavailable to handle a subscriber call.

For details on the capabilities of QMSCASE as it relates to force management, refer to the *TOPS IWS Force Management Guide*, 297-2251-313.

8.3.1 QMSCASE queuing datafill

Note the following information about QMCASE queuing datafill:

- QMSCASE capabilities are enabled through QMS datafill in the DMS switch.
- Both general and supervisor operator positions are datafilled as OPR in table TOPSPOS.
- Operator profiles (general and supervisor) are defined in TQOPROF.
- Queues used by general operators for calls and queues used by supervisors for call assistance are defined in tables TQCQPROF, TQCQINFO, QMSCQDEF, and QAPLNDEF.
- Services for both types of operators are defined in tables TQMSSERV and TQSVPROF.
- Table TQCAPROF defines operator (general and supervisor) capabilities.
- Field ASST in tables TQORDERA and TQORDERB is used to choose the order of refinement of calls designated for supervisor assistance queues.
- Field CAPPRNUM (capability profile number) provides the index into table TQCAPROF where the operator’s capabilities are defined.

NOTE: Field ASSTAREA in table TQMSFCQA is used when an operator requests assistance and determines if assistance is provided for each CT4Q. The field also includes a queue where the call is routed for assistance by a supervisor.

For details on datafilling QMSCASE, refer to the Translations Guide.

9.0 Open information access (OIA)

The OIA application provides access to an external database from operator positions. This database provide company-specific information and features, such as the following:

- emergency-handling procedures
- automated emergency tickets
- manual recording of billing information
- scratch pad
- rate quotation information

Because the database is external to TOPS IWS, the database contents, control selections, windows, title bars, and information displayed are specified by the operating company.

9.1 OIA logon

Note the following information about OIA logon:

- The operator logs on to whatever external database is used with the OIA protocol at the time of log on.
- The operator is logged on to the vendor database as long as the operator is logged on to the DMS switch.
- For successful logon to the database, the operator ID and password (optional) entered at position logon must match those datafilled for the operator in the external database.

9.2 OIA logoff

Note the following information about OIA logoff:

- Logoff from OIA occurs when the operator logs off the DMS switch.
- Log off of the external database is also attempted if the position is forced busy from the MAP.
- The Menu/List window displays on the right half of the Operator Information window and provides the following functions:
    - — select menu commands
    - — display output information
    - — display help information
    - — access the portability status (LNP) of a DN

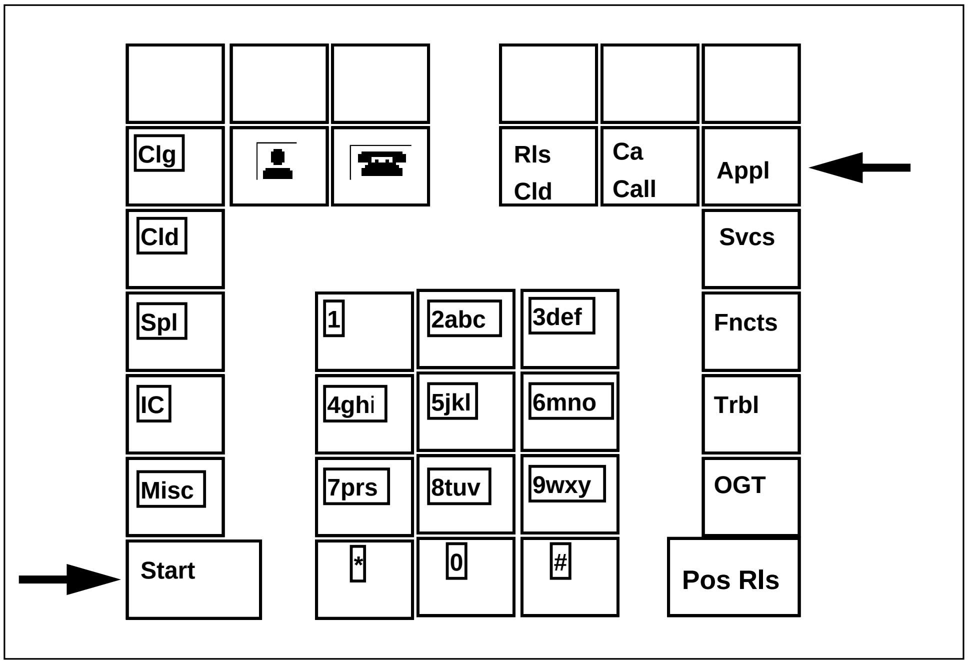
When the operator starts an OIA session, the position displays the Call Headlines area (A), the OIA Call Information window (B), and the OIA menu (C). The Call Headlines area and the OIA Information window display during the entire OIA session, whether or not there is a call at the position and regardless of OIA tasks.

9.3 Accessing the database

To accessing OIA (Figure 65), the operator does the following:

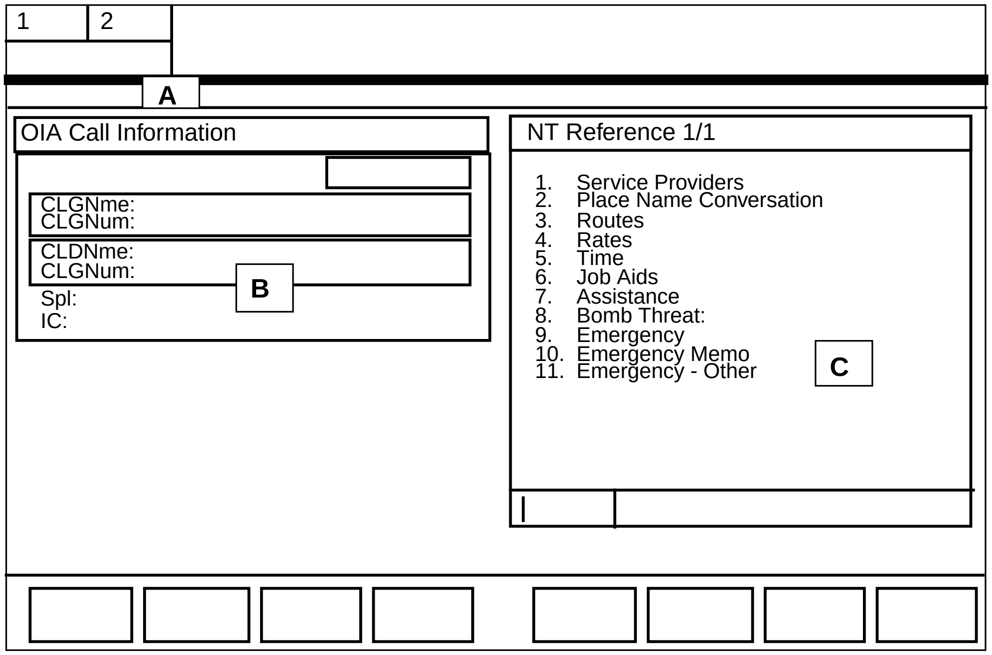
1. Presses the **Appl** key twice.
2. Types the menu number for the OIA application.
3. Presses the **Start** key.

Figure 65. Call processing cluster



The windows of the OIA application replace those of the billing or NTDA application, and the softkeys change (see Figure 66).

Figure 66. OIA application area



It is important to understand the relationship between the applications that may be datafilled in the Applications menu, and the way to access those applications. There are three methods of initiating a session with the database, as follows:

- Manually using the Applications menu
- Using the Applications menu hotkey
- Using automatic session start (requires an optional DMS feature)

To use any of the above-mentioned methods, the OIA application must be datafilled in the XAPPL.TBL file.

Each of these methods supports the initiation of two different kinds of sessions: indirect and direct, which are discussed in the following sections.

9.3.1 Indirect access

Operators use indirect access as follows:

- To access the OIA database indirectly, press the **Appl** key twice.

  This displays the Applications menu in the Menu/List window of the screen and places the cursor in the command input line. The Applications menu displays in the same location as the Functions, OGT, Services and Trbl menus.
- To access the OIA database using the Applications menu, do the following:
  - Press the **Appl** twice
  - Type the OIA application number
  - Press the **Start** key

- To access the OIA database using the Applications menu hotkey, press the hotkey.
- When accessing the database using OIA automatic session start, the DMS switch tells the position to display the highest-level screen for the application; for example, call type or called digits at call arrival to the position.

These scenarios assume that the XAPPL.TBL is **NOT** datafilled to allow extra data entry.

If XAPPL.TBL is datafilled to allow the extra data entry, then for the first two examples, the Applications menu displays and the cursor appears in the second data entry field. To bypass this and proceed directly to the highest-level screen for the application, press **Start** again.

A typical OIA main menu is presented in Figure 67. Note the location of the cursor.

This main menu is specific to each company's need, and so may vary greatly from company to company.

The OIA database typically provides the following kinds of information:

- Rate and route
- Emergency number
- Emergency and manual tickets
- Dialing instructions
- NPA/NXX locality information
- Bulletin board
- Scratch pad

To complete the entry into the database, the operator chooses an options from the main menu, enters the option number at the number keypad, and presses the **Start** key.

9.3.2 Direct access

Alternatively, the operator can use direct access to begin a session.

To allow direct initiation of a session, the OIA application listed in the XAPPL.TBL file must be datafilled to allow extra data to be entered by the operator when the OIA application is selected from the Applications menu, in the second data entry field.

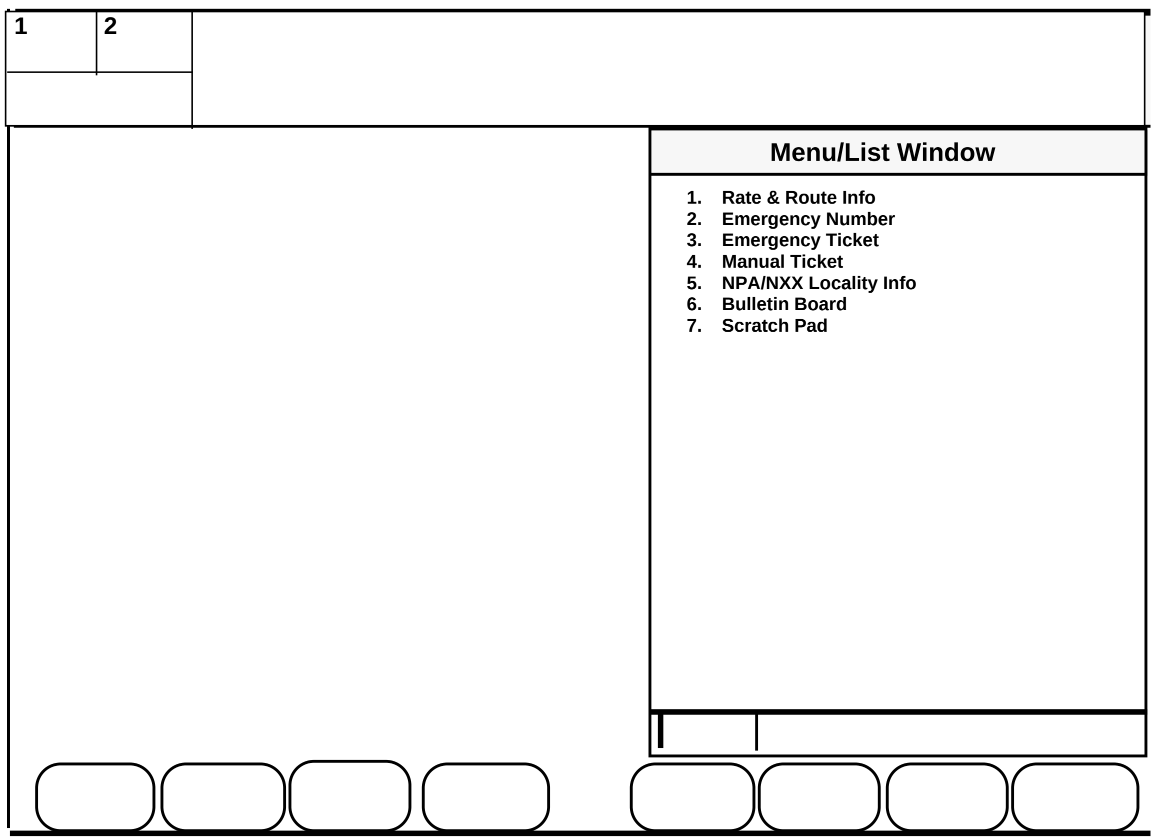
The operator uses direct access as follows:

- WIth the Applications menu, do the following:
  - — Press the **Appl** key.
  - — Type the OIA application number.
  - — Press the **Start** key.
  - — Enter the OIA main menu number
  - — Press the **Start** key.

  Once the operator selects the OIA application number from the Applications menu, that menu displays and the cursor appears in the second data entry field. The operator can the choose an OIA main menu number.
- With the Applications menu hotkey, do the following:
  - — Press the Applications menu hotkey for OIA.
  - — Types the OIA main menu number.
  - — Press the **Start** key.

In this scenario, the Applications menu displays when the operator presses the hotkey. The cursor appears in the second data entry field for entry of the OIA main menu number.

Figure 67. OIA main menu



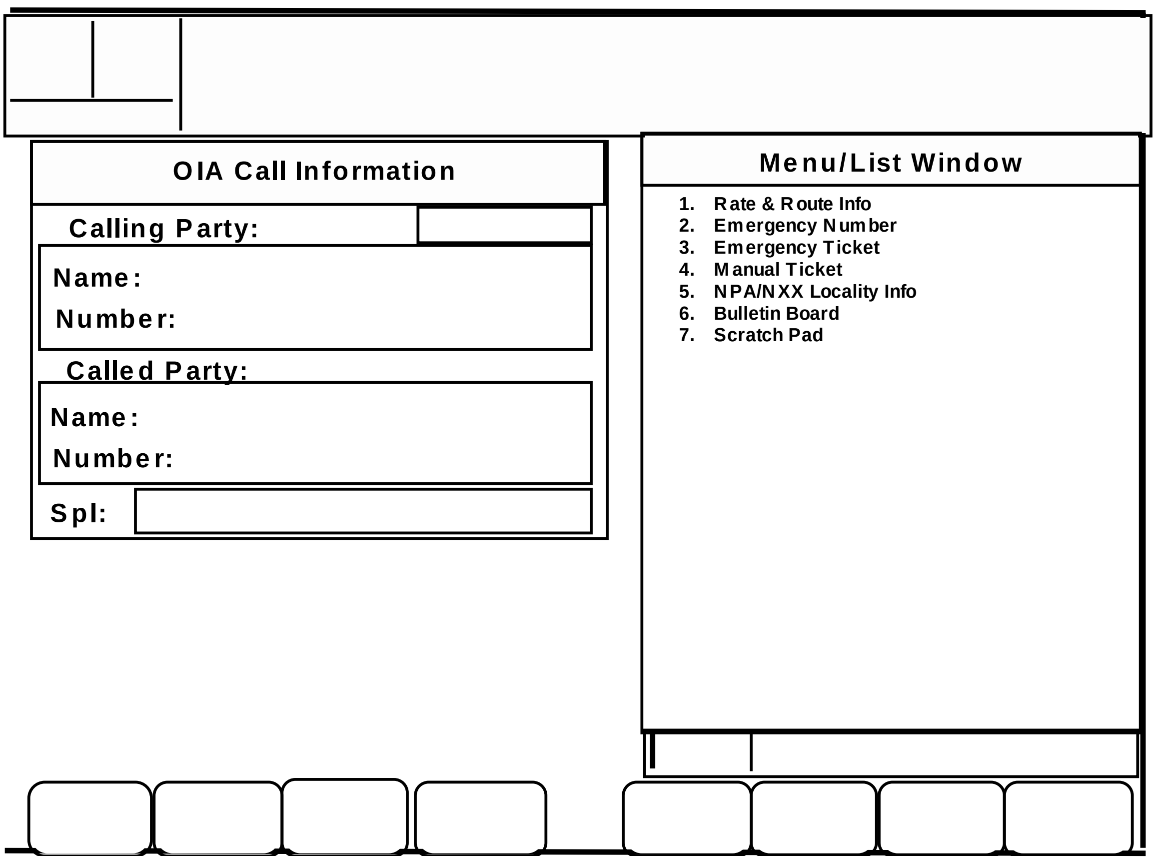
9.3.3 With a call at the position

The operator can access the OIA database under the following two conditions:

- While currently processing a call, using the steps described in Sections 9.3.1 and 9.3.2.
- Without a call at the position, described in Section 9.3.4.

When the OIA database is requested and the appropriate window displays on the screen (shown in Figure 68), call processing information is not disturbed while in a session. Also, call processing data may change while a session is active.

Figure 68. OIA main menu



When the operator exits the OIA database and the appropriate application (such as the IWS billing application or DA) becomes active, full call details return to the screen.

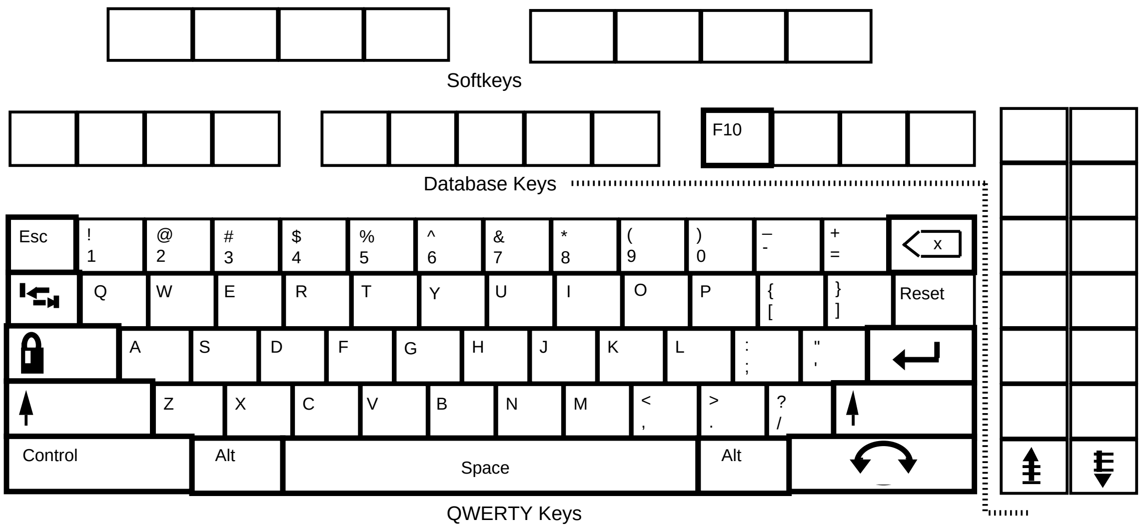
9.3.4 Without a call at the position

The operator can access the database without having a call at the position, using the steps described in Sections 9.3.1 and 9.3.2. The operator uses the **Withhold Calls** function so that an incoming call cannot come to the position.

9.4 Moving around on the keyboard

With an integrated operator information database keyboard, the operator can use a number of the keys on the TOPS IWS keyboard, as shown in Figure 69.

Figure 69. TOPS IWS QWERTY keyboard



Note the following information about the TOPS IWS keyboard:

- The two keys located in the 2 x 7 section of the database keys are paging keys in the database.
- Any of the window panels may provide more than one page of information.
- To move back and forth among the various pages, the operator uses the **Page Fwd** and **Page Bwd** keys.
- If data is entered into a field on any of the panels, the operator presses **Page Fwd** or **Page Bwd** to send the data to the database for processing, just like the **Start** key action.
- The operator can use keys in the QWERTY section of the keyboard to edit (see Table 10).

Table 10. QWERTY key functions

QWERTY key	Function
Tab	• moves the cursor to the next field • moves the cursor to the beginning of the next line in a multi-line input field • does not affect any data in the field
Shift-Tab	• moves the cursor to the beginning of the previous line of a multi-line input field • does not affect any data in the field

Table 10. QWERTY key functions (Continued)

Enter	• clears the line of data to the end of the line • moves the cursor to the beginning of the next line
Field	• moves the cursor between the three-character input area and the 40-character area on the Menu/List and Bottom Width windows • clears any data displayed in the field to which the cursor moves • in the Form and Block Input windows, moves the cursor from the input area in the middle of the window to the input line at the bottom of the window, and vice versa. Moving the cursor to the input line clears any data in the line. Moving the cursor to the input area within the window has no effect on the data it contains.
Reset	• automatically forces an OIA session to end

9.4.1 OIA windows and areas

The OIA application uses the following windows. All of these windows, except the Call Information window, can be manipulated directly by an external database vendor.

- Form Input
- Menu/List
- Bottom Width
- Block Input
- Status
- Call Information (an OIA protocol window that cannot be manipulated by an external database)

9.4.2 Call Information window

The Call Information window does the following:

- Provides call-related data and displays whenever the OIA application is active, even if no call is present at the position
- Displays call information received from the DMS switch
- Displays the call type, service type, call class, calling and called name, calling and called number, ticket number, and any special number associated with the call

- Does not allow any changes unless the operator makes a context change to the toll application, which supplies the information for this window
- Is opened, updated, cleared and closed by the external database for the OIA protocol

OIA uses the Call Headlines area to display the following information:

- SPID or trunk group information
- (A) service
- call type or class
- (B) (optional)
- additional information about the calling number (such as the location) based on the originating line number screening (OLNS)

OIA uses the MSA to display information regarding the external database, in applications fields I, II, III, IV and V.

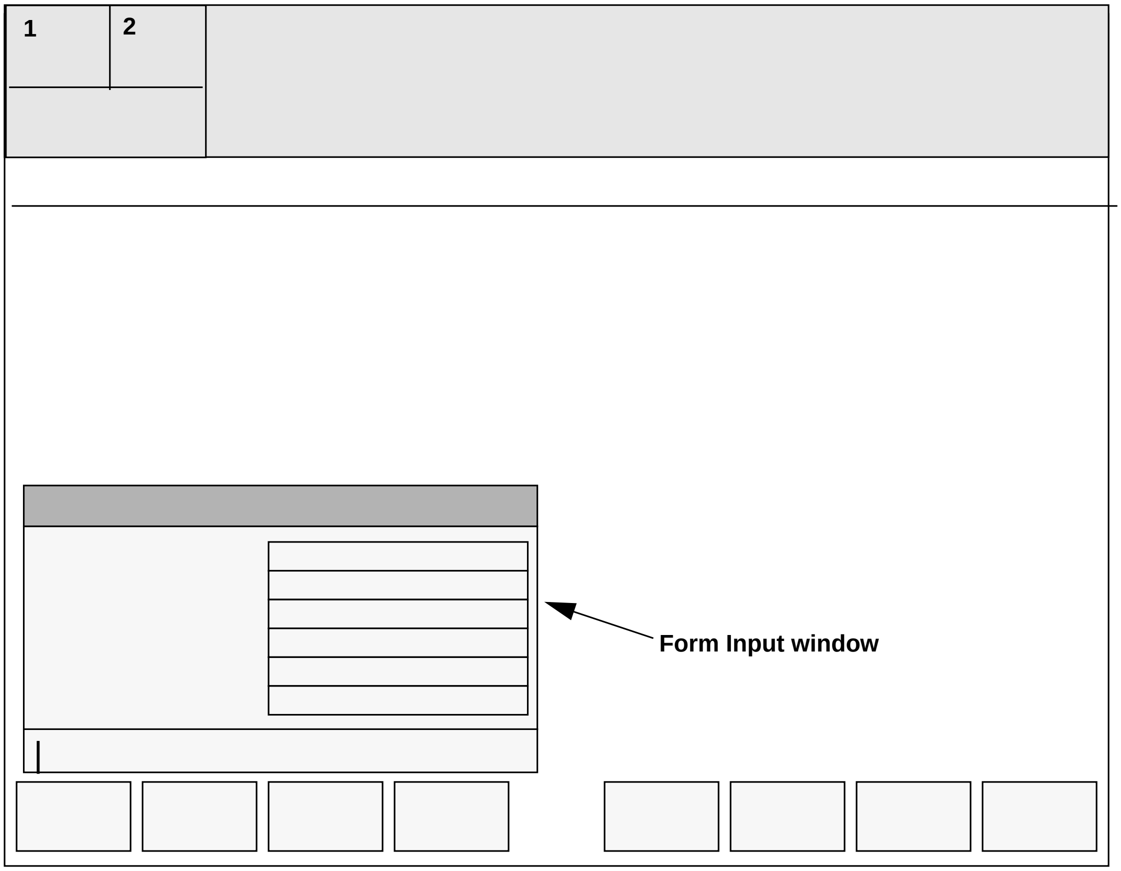
The Call Headlines area displays directly below the MSA; the OIA Call Information window displays on the left side of the OIA screen.

9.4.3 Form Input window

Note the following information about the Form Input window:

- The Form Input window displays on the lower left portion of the screen, as shown in Figure 70.
- The OIA Call Information window is still visible while in an OIA session.
- The Form Input window is divided into two areas. On the left is a six-line output area; on the right is a six-line input area.
- This window is typically used for field-oriented input (emergency number access, or manual or emergency ticket input).

Figure 70. Location of the Form Input window

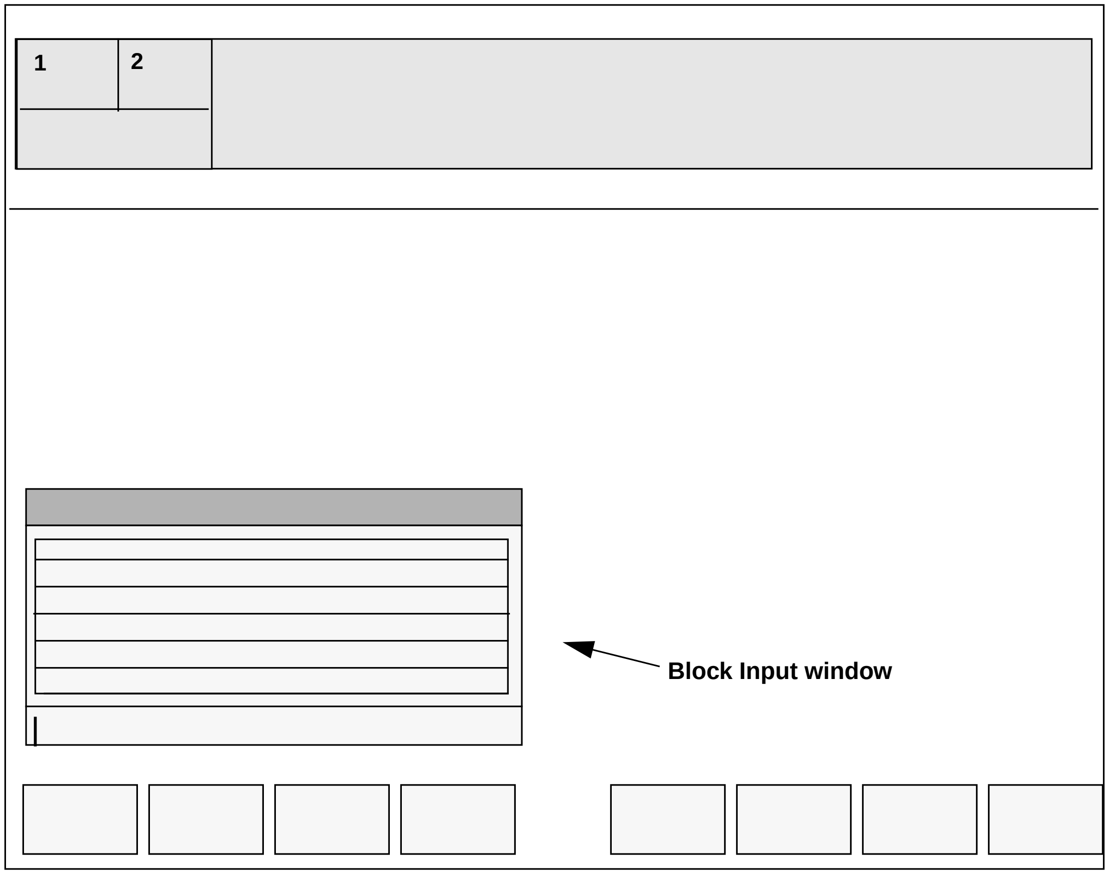


9.4.4 Block Input window

The Block Input window, shown in Figure 71, also displays on the lower-left of the OIA screen. Note the following information:

- The OIA Call information window is still visible when the Block Input window is in use.
- The window consists of six input lines which extend the full width of window.
- It contains an input line across the bottom which may be used as an alternate input area.
- It provides a large input area for the database.
- Typically, this window is used for an operator scratch pad.

Figure 71. Location of the Block Input window

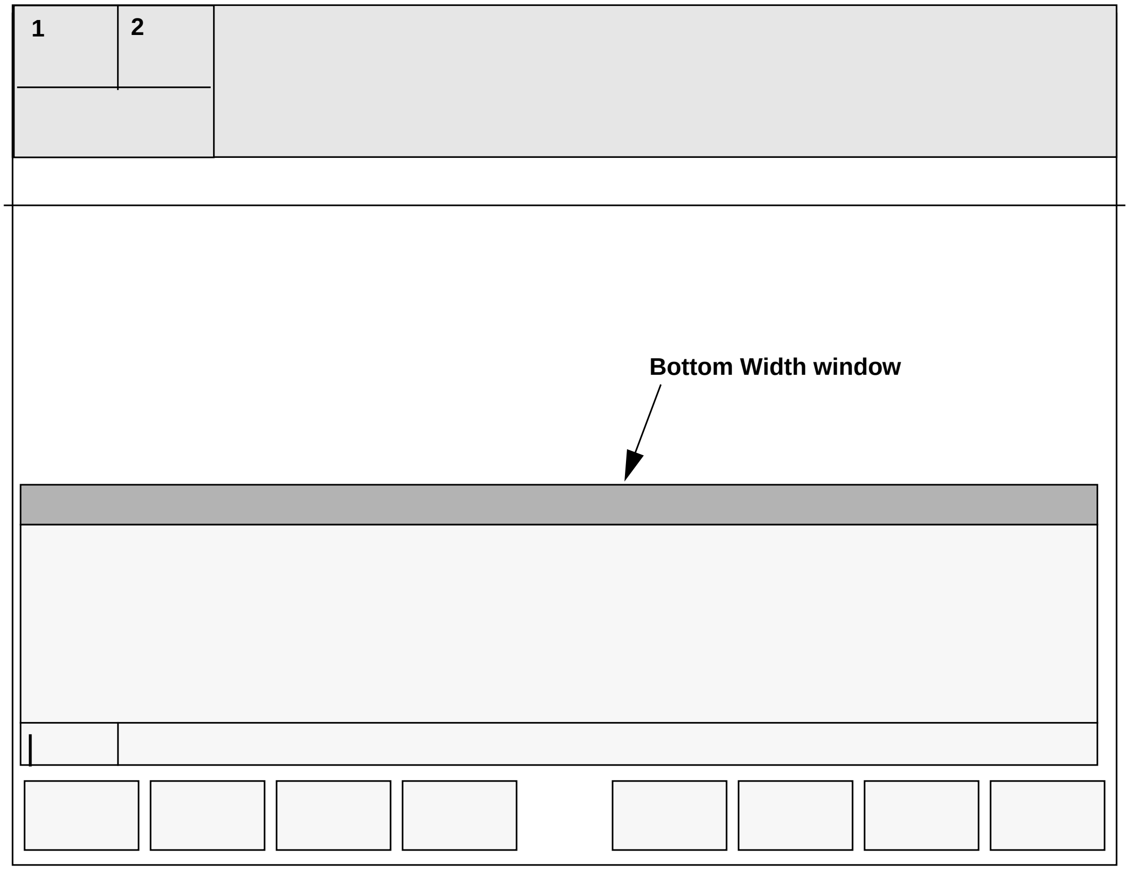


9.4.5 Bottom Width window

The Bottom Width window, shown in Figure 72, displays across the full bottom width of the screen. Note the following information:

- The OIA Call Information window is still visible when the Bottom Width window is in use.
- The Bottom Width window provides a large display area which may be used for data requiring a wide format.
- This window may also be used for menu input selection.

Figure 72. Bottom Width window

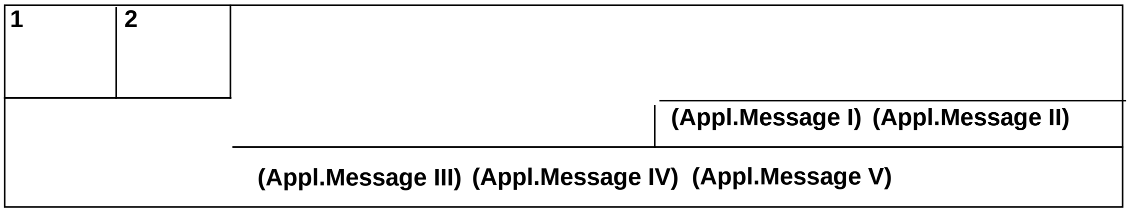


9.4.6 MSA displays

Status information, supplied by the OIA application, displays in the MSA and is supplied by the TOPS IWS Base HMI application, as shown in Figure 73. Note the following information:

- Application Message field I is 25 characters long.
- Application Message Field II is 26 characters long, and may be updated by the external database at any time.
- Application Message Field III is 25 characters long
- Application Message Field IV is where the OIA clock is displayed when a query is launched.
- The OIA application displays call and system information in Application Message V field. This information comes from the DMS switch , not the application.

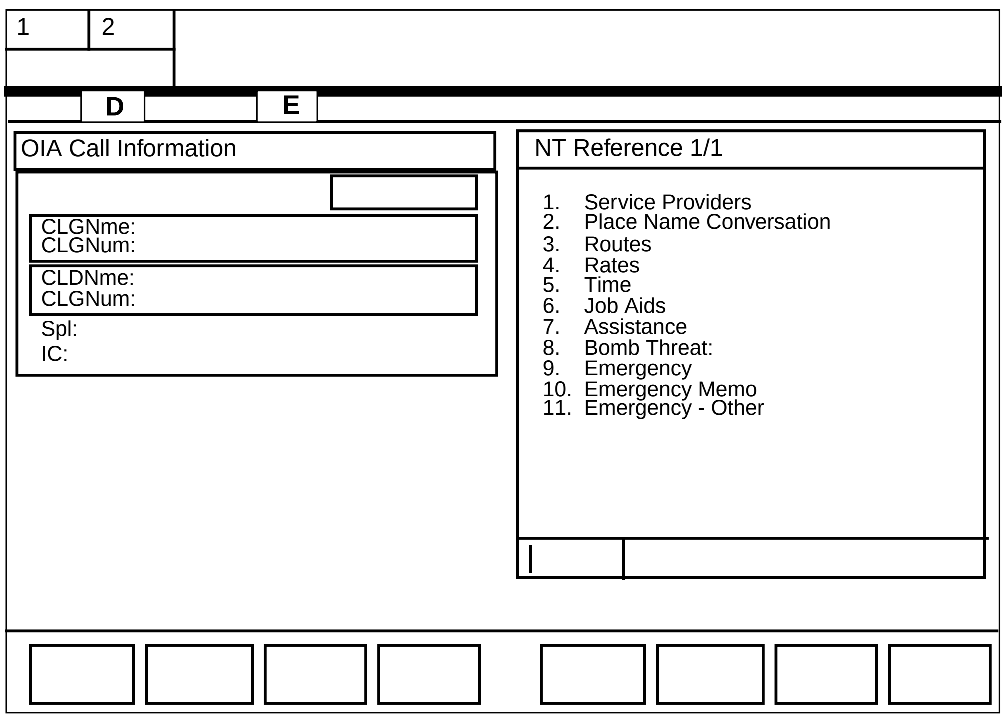
Figure 73. Message status text display



9.5 OIA Call Headlines

With a call at the position, the left side of call headlines (D in Figure 74) displays either the SPID or the trunk group. To the right of the trunk group or SPID, the call headlines area (E) can display additional information about the calling number (such as the location) based on originating line number screening (OLNS).

Figure 74. OIA Call Headlines

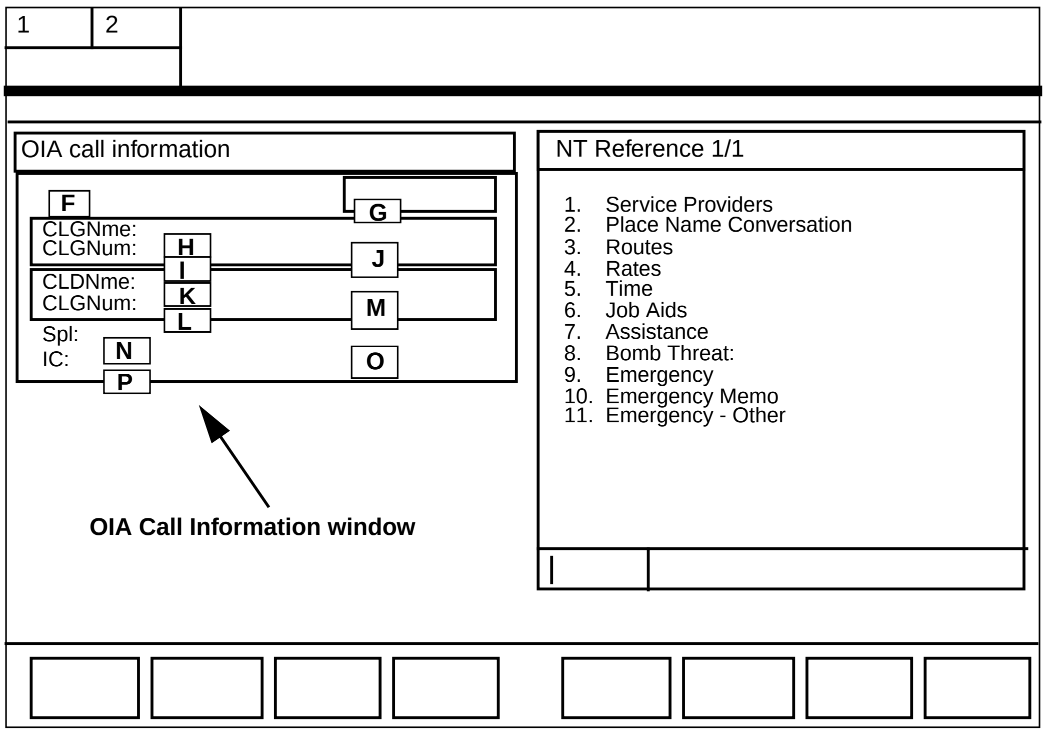


The operator cannot change the information in the Call Headlines.

9.6 OIA Call Information window

The OIA Call Information window, shown in Figure 75, displays information from the DMS switch. The operator cannot change the information in this window.

Figure 75. Location of OIA Call Information window



The upper-left part of this window (F) displays the service, call type, or calling class information (such as `Coin Pre` for a call from a prepaid coin telephone or `Hotel` for a call from a hotel).

If the operating company uses GOS, the field in the upper right of the window (G) can display the ticket number.

The CLGNme field (H) displays the name of the calling party. If the operating company uses GOS, the CLGNum field (I) can display the number from which that party is calling. The area to the right (J) displays an icon that identifies either the billing for a call paid by the calling number or a billing problem.

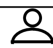
Table 11 shows the icons and describes what they indicate.

Table 11. Calling party icon

Icon name	Icon	Meaning
person		person paid
station		station paid
up arrow		billing problem: with X in field L and a down arrow in field N, invalid billing with ? in field L and a down arrow in field N, missing billing

The CLDNme field (K) displays the name of the called party. If the operating company uses GOS, the CLDNum field (L) can display the called number. The area to the right (M) displays an icon that identifies either billing for a call paid by the called number or a billing problem. Table 12 shows the icons and describes what they indicate.

Table 12. Called party icon

Icon Name	Icon	Meaning
person		person collect
autocollect		• called party automatically accepts billing (800 services) • cyan in non-color-blind mode • dark grey in color-blind mode
station		• station collect • yellow in non-color-blind mode • white in color-blind mode
X	X	invalid billing
question mark	?	missing billing

The Spl field (N) displays a number other than the calling or called number to which the call is billed, such as a third number or a credit card. The area to the right (O) displays an icon that identifies either billing for a call paid by a special number or a billing problem. Table 13 shows the icons and describes what they indicate.

Table 13. Special billing icons

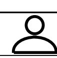
Icon name	Icon	Meaning
person		person, special calling
station		station, special calling

Table 13. Special billing icons (Continued)

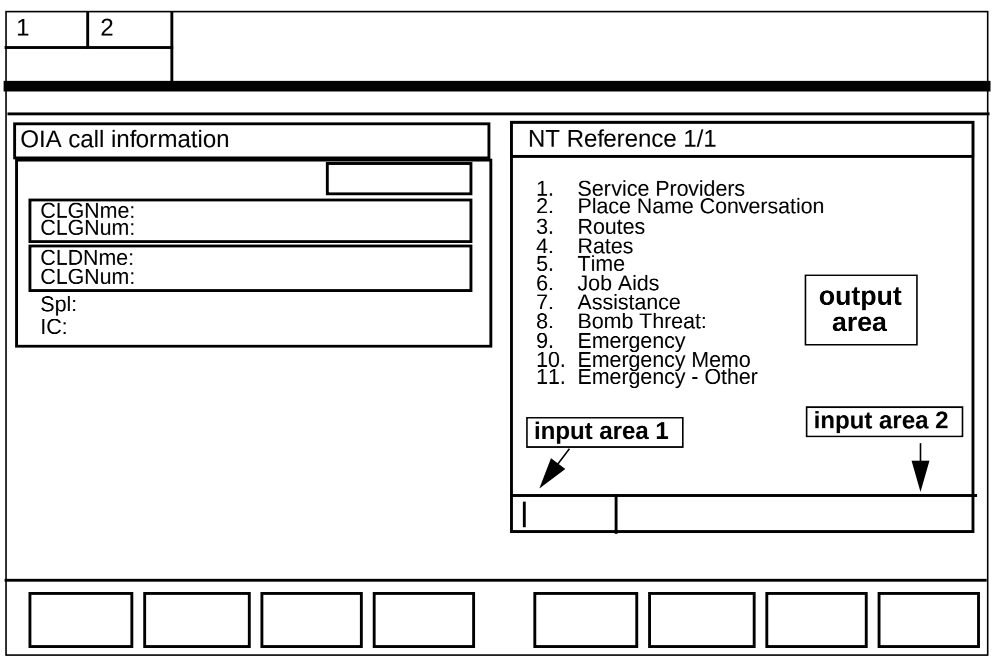
Icon name	Icon	Meaning
up arrow		special called (appears with person or station icon)
down arrow		billing problem: • with an up arrow in field I and X in field L, invalid billing • with an up arrow in field I and ? in field L, missing billing

The IC field (P) displays the name, number, or both name and number of the inter-LATA or inter-zone carrier.

9.7 Using the database menu

The OIA database menu, shown in Figure 76, displays information from the database. The menu list in the output area can offer a list of types of information ton select.

Figure 76. OIA database menu



The external database can also use the output area to display information such as help or default ticket data.

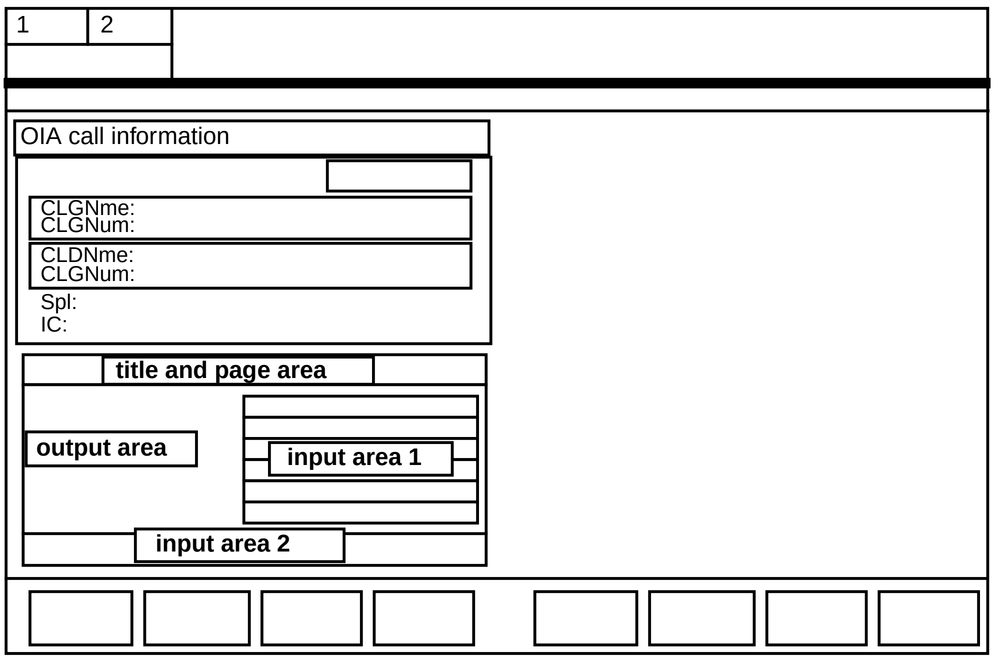
To display information from the OIA database, the operator types the menu number for that item into input area 1 and presses the **Start** key. A window replaces the menu. To display the menu again, the operator presses the **{Main Menu}** softkey. The operating company (or database the operating company uses) determines what can be entered into input area 2.

9.8 Database windows

The OIA application provides several types of windows that the operating company can use to present database information and accept input. Figures 77, 78, and 79 show these windows and indicate when the database displays output and where the operator can enter input. The operating company decides which windows to use and for what purposes. The text for the title and page area comes from the external database. The operating company (or database the operating company uses) determines what can be entered into input area 2.

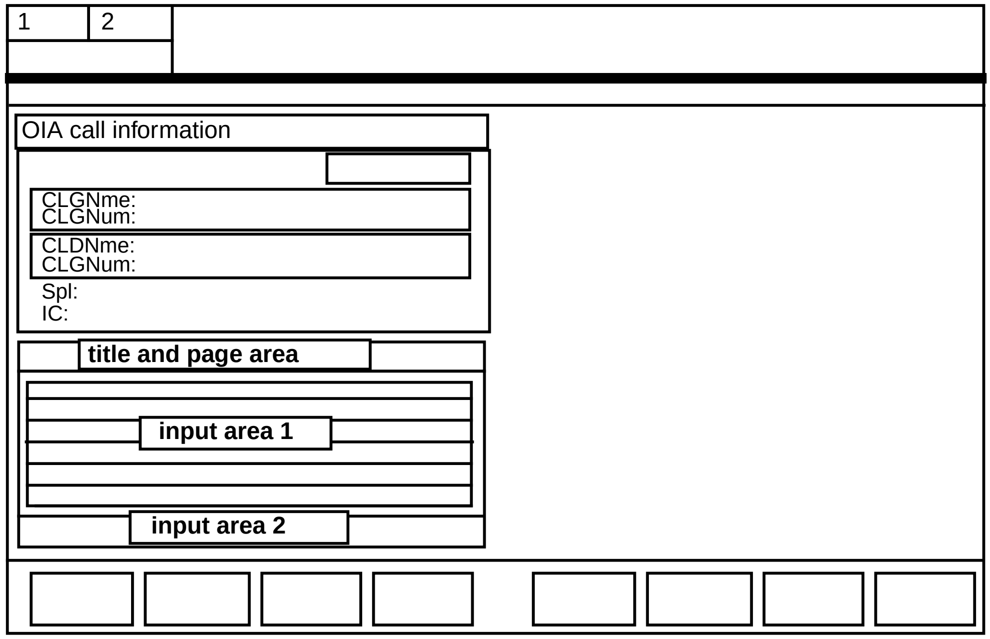
OIA provides a window that the operator can use as a form, shown in Figure 77. The database can provide up to six lines of text in the output area. Input area 1 has six matching lines into which the operator can type.

Figure 77. OIA form window



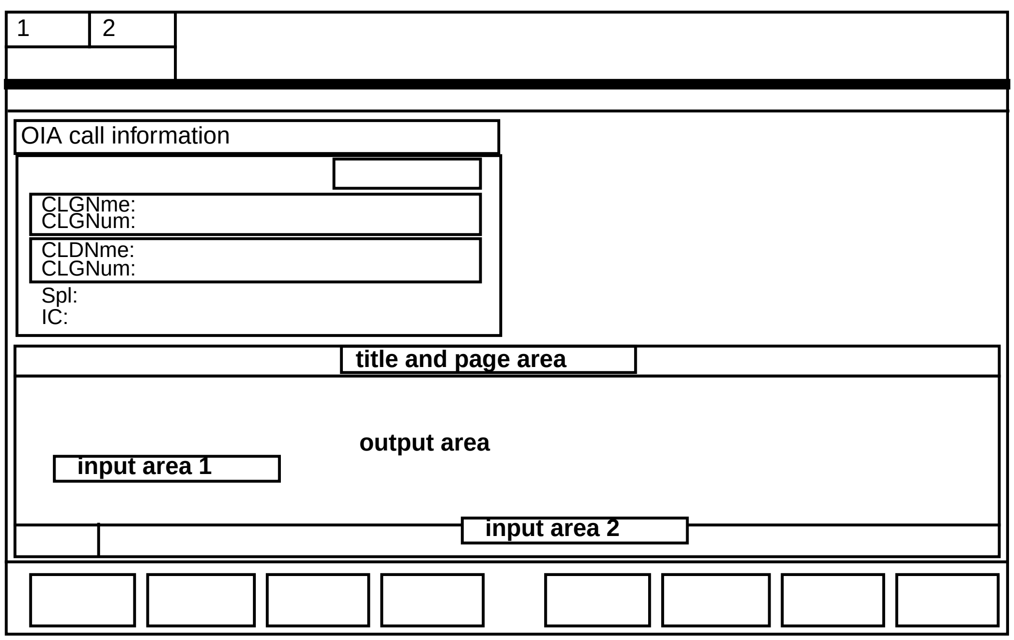
OIA provides a window into which the operator can type information, shown in Figure 78. In the input area, this window contains six lines into which the operator can type.

Figure 78. OIA input window



OIA provides a window in which the operator can display large amounts of output, shown in Figure 79). The database can provide up to six lines of text in the output area. The operator can type in input area 1; for example, to make a selection based on the output.

Figure 79. OIA output window



9.9 Softkeys in the OIA application

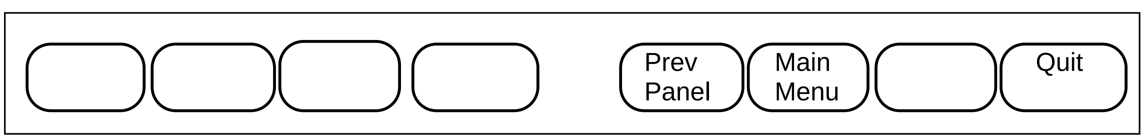
The eight softkeys located at the bottom of the screen may be used in the OIA database. While most of the softkeys used for OIA are decided by the vendor, the OIA interface provides three softkeys, shown in Table 14.

Table 14. Softkeys in the OIA application

Softkey	Explanation
{Quit}	This softkey is always available in the OIA database. Pressing this key sends a message requesting to end the session. The cursor returns to the Call Processing window. Note: Don’t confuse this **{Quit}** softkey with the **{Quit}** softkey that appears on the second page of the Assigned Activities window.
{Previous Panel}	This softkey displays only when a session is active and at least one panel is already displayed. Pressing this softkey redisplays the previous panel.
{Main Menu}	This softkey display only when a session is active and the Main Menu is not currently displayed. Pressing this softkey clears any currently-displayed menu panels and displays the Main Menu.

Figure 80 shows the softkeys and a suggested location. Note that the OIA protocol allows eight softkey functions and does **NOT** support shifted softkeys.

Figure 80. OIA Softkeys



9.10 Exiting the database

An operator can exit the database in two ways: temporary exit or session end.

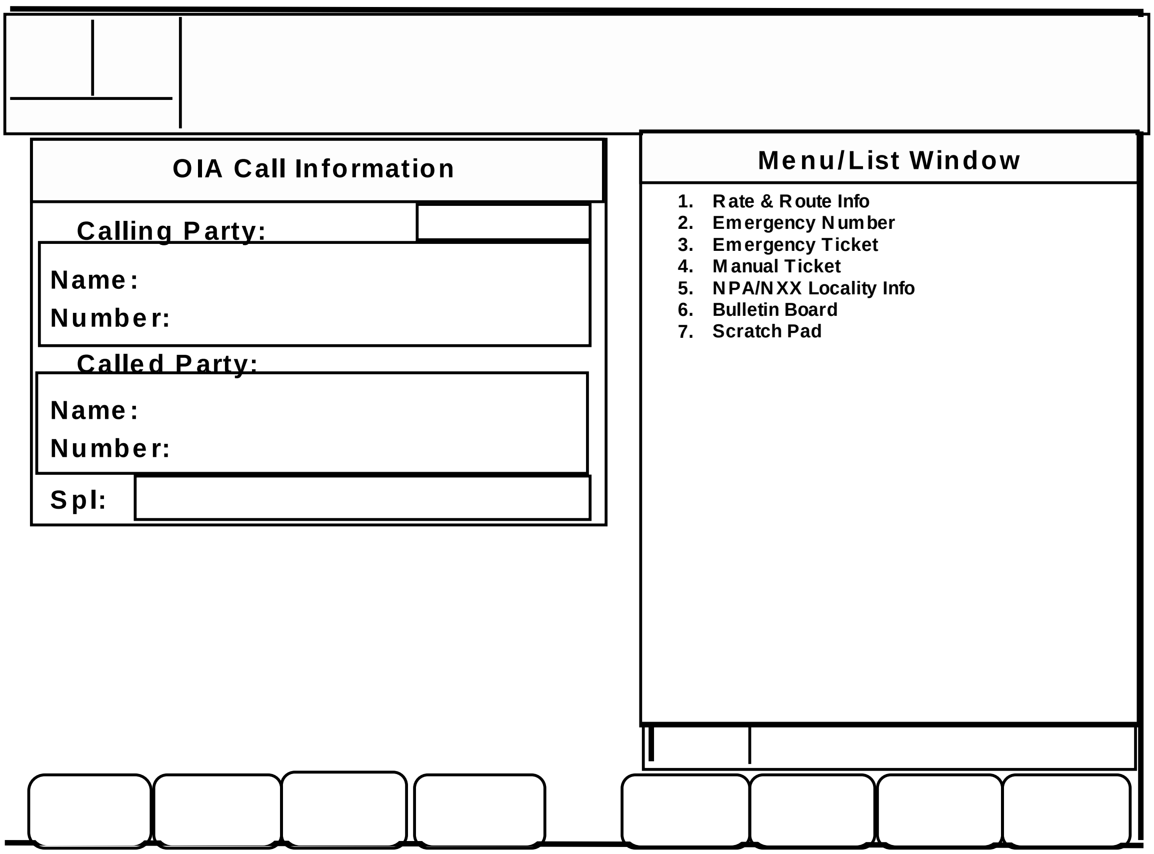
9.10.1 Temporary exit

To temporarily leave the database to perform call processing functions, temporary exit leaves the current panels displayed and the session active. To exit temporarily, the operator does the following:

1. Presses any OA billing key (**Clg, Cld, Spl, IC, Misc**) to suspend a session.

   Figure 81 shows a screen with an active database session that the operator needs to suspend. Pressing the **Misc** key, for example, suspends the session. The database windows are then removed from the screen and replaced by the window appropriate for the application in focus.
2. To return to the database session, the operator presses the **Appl** key once.

Figure 81. OIA session active



9.10.2 Session end

Several keying sequences allow the operator to exit the database and end the current session completely. For example, returning to the Assigned Activities screen from the Operator Information window causes an automatic session termination as does pressing any of the five Call Information area cursor control keys.

Other keying sequences to exit the OIA database include the following:

Quit	Press the **{Quit}** softkey to exit from the database.
Start with no input	Press the **Start** key with no input from the Main Menu window to exit the database.
Pos Rls	Releasing the current call from the position causes an exit from OIA as long as permission is not required. This exit occurs whether actually in the windows or temporarily exited.
Service Switch	Switching services causes an automatic session termination. This overrides the requirement that permission must be granted.
Application Change	Initiating an application session with the Applications Menu for a non-OIA application causes automatic session stop.
Context Change	Pressing a key datafilled to cause a context change to terminates an OIA session. This overrides the requirement that permission must be granted.
Reset	Pressing the **Reset** key causes an automatic session termination. This overrides the requirement that permission must be granted even if temporarily exited from the session.

9.10.3 DMS-initiated OIA session end

If a session is active but no call is at the position, call arrival on either loop causes an automatic session termination. This overrides the requirement that permission for terminated must be granted.

10.0 Basic operator procedures

This chapter explains basic procedures for handling calls, with references to chapters covering specific procedures.

10.1 Answering and acknowledging

Operators use the following basic procedure when responding to assistance calls:

1. Determine if the call is from a customer or from another operator.

If the call is from	Go to
another operator	Step 2
a customer	Step 5

2. Determine if the call is from an outward or inward operator.

If the call is from	Go to
an outward operator	Step 3
an inward operator	Step 4

3. Announce the service provider. Go to Step 6.
4. Announce the service provider and the city in which you are located. Go to Step 6.
5. Recognize the calling party and note the type of call dialed.
6. Obtain the call details.
7. Acknowledge that information and request.
8. Proceed with the call.

If	Go to
there is no response from the calling or called party	Step 9
the request can be completed	Step 10

9. Repeat the answer. If there is still receive no response and nothing is needed or wanted, enter a trouble report, if appropriate.

   Chapter 38.0, “Trouble reports,” on page 467 explains how to enter a trouble report. If the operator enters the trouble report on a remote centralized automatic message accounting (RCAMA) call, the system releases the position. Otherwise, go to Step 10.
10. Press the **Ca Call** and **Pos Rls** keys.

10.2 Automation restrictions

If an operator is handling operator assistance calls and a call arrives at the position with the no automation icon ( ), the call comes from a subscriber line designated not to be released to an automated service. If the caller specifically requests that the call be released to an automated service, the operator can do the following:

- Press the **Fncts** key, type the menu number for Allow Automation, and press the **Start** key. This action removes the restriction against automation.

If an operator is handling DA calls and a call arrives at the position displaying an `X` in the language indicator field and the no automation icon, the call comes from a subscriber line designated not to be released to an automated service. If the caller specifically requests that the call be released to an automated service, do **one** of the following:

- Press the NTDA block audio toggle key.
- Press the **Fncts** key, type the menu number for Allow Automation, and press the **Start** key.

Either action removes the restriction against automation, the no automation icon, and, for DA, the `X`.

If an operator is handling an operator assistance call and access DA by selecting NTDA from the Applications menu, an administrative search session begins. In this case, the operator cannot release the call to an automated announcement under any circumstances. If the call comes from a subscriber line designated not to be released to an automated service, the no automation icon appears in the DA window. However, the language field displays the indicator for the primary or secondary language, not the `X` that indicates no audio.

10.3 Operator assistance call types

Table 15 shows the types of operator assistance calls that can arrive at an operator position. Section 22.1, “Intercept call types,” on page 281 explains the types of DA and intercept calls.

TABLE 15. Call types

Display	Caller or system action	Operator action
`CAMA` or `RCAMA`	Caller dialed the access code + 7 or 10 digits on a station call . If displayed, there is an ANI failure.	Obtain and type the calling number.
`CAMA ?` or `RCAMA ?`	Caller dialed the access code + 7 or 10 digits on a station call. If displayed, there is an ANI failure.	Obtain and type the calling number.

TABLE 15. Call types (Continued)

Display	Caller or system action	Operator action
1+ COIN PRE	Caller dialed 1 + 7 or 10 digits on a prepay coin telephone.	Request and acknowledge the deposit. Press the **Pos Rls** key. The amount and length of the initial period are locally defined.
1+ COIN PO	Caller dialed 1 + 7 or 10 digits from a postpay coin telephone.	When the correct station or person is reached, request the deposit. The amount and length of the initial period are locally defined.
1+ Hotel	Caller dialed 1 + 7 digits from a hotel telephone.	Ask for the room number.
0+ 0+ Hotel 0+ Coin	Caller dialed 0 + 7 or 10 digits. Some special handling is required.	Answer.
0 0 Coin 0 Hotel	Caller dialed 0 for the operator.	Answer.
0 0+ 1+ with ?	Caller dialed 0 for the operator. The system cannot determine call origination.	Ask if the caller is calling from a coin telephone or hotel.
Overtime COIN PRE Overtime COIN PO Overtime (min) COIN PRE Overtime (min) COIN PO	System recalled a dialed 1+, 0+, or 0- coin telephone call.	Request the overtime deposit. Acknowledge the deposit, and press the **Pos Rls** key.
Screen code number	Call arriving from a station with billing restrictions	Refer to position information for handling procedure.
Notify (min), Nfy (min), COIN PRE, Nfy (min), COIN PO	System recall for notification	Acknowledge by giving the number of minutes.
Recall	Coin-paid recall during initial period	Be guided by the recall request.
Alarm	Maintenance alarm condition from a local ANI office	Determine the type of alarm and refer to the appropriate maintenance center.
181 or Inward	Call from another operator	Answer.
TS or TOL STA	Call originating from a toll station	Answer.

TABLE 15. Call types (Continued)

Display	Caller or system action	Operator action
`Intercept`	Call from another operator or caller that is rerouted to the position because the called number is not in service	Answer as locally directed. The call might require transfer to the intercept desk.
`131` or `555`	Call from another operator or caller requiring DA.	Answer as locally directed. The call might require transfer to DA.

10.4 Flash from calling or called party

If the calling or called party flashes the call, the operator does the following:

1. Answers.
2. Remains in on a new connection unless there is a recall or disconnect signal on a help loop.
3. Releases forward on the new call.
4. Cuts out.
5. Manually accesses the held loop and take action as required.

10.5 Billing

Billing in the TOPS IWS environment is pertinent to completing call processing satisfactorily. To handle a call, the operator must answer the following three questions for the IWS to correctly process the call and satisfy the TOPS system:

- Who pays for the call? (calling, called, third party, or credit or calling card)
- At what rate do they pay? (determined in the switch by datafill)
- Is the call complete? (Is billing satisfied? Is all information input? Is the position released to take new calls?)

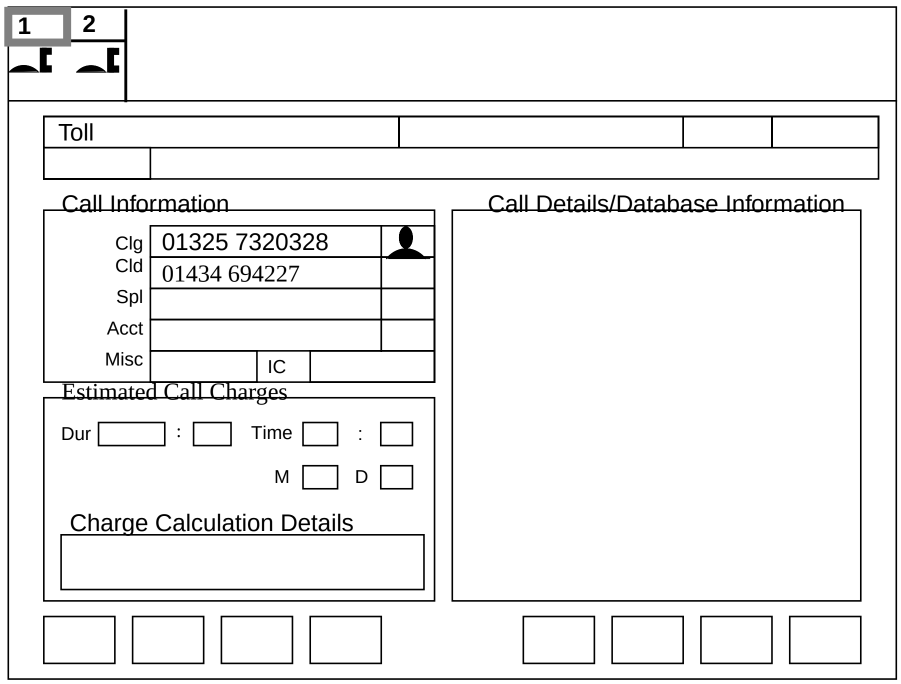
To answer these questions, the operator must understand what the system is saying and how to use the keyboard to talk to the system.

10.6 Estimated call charges

For an operator-assisted call, the operator can estimate the cost of completing the call, as follows:

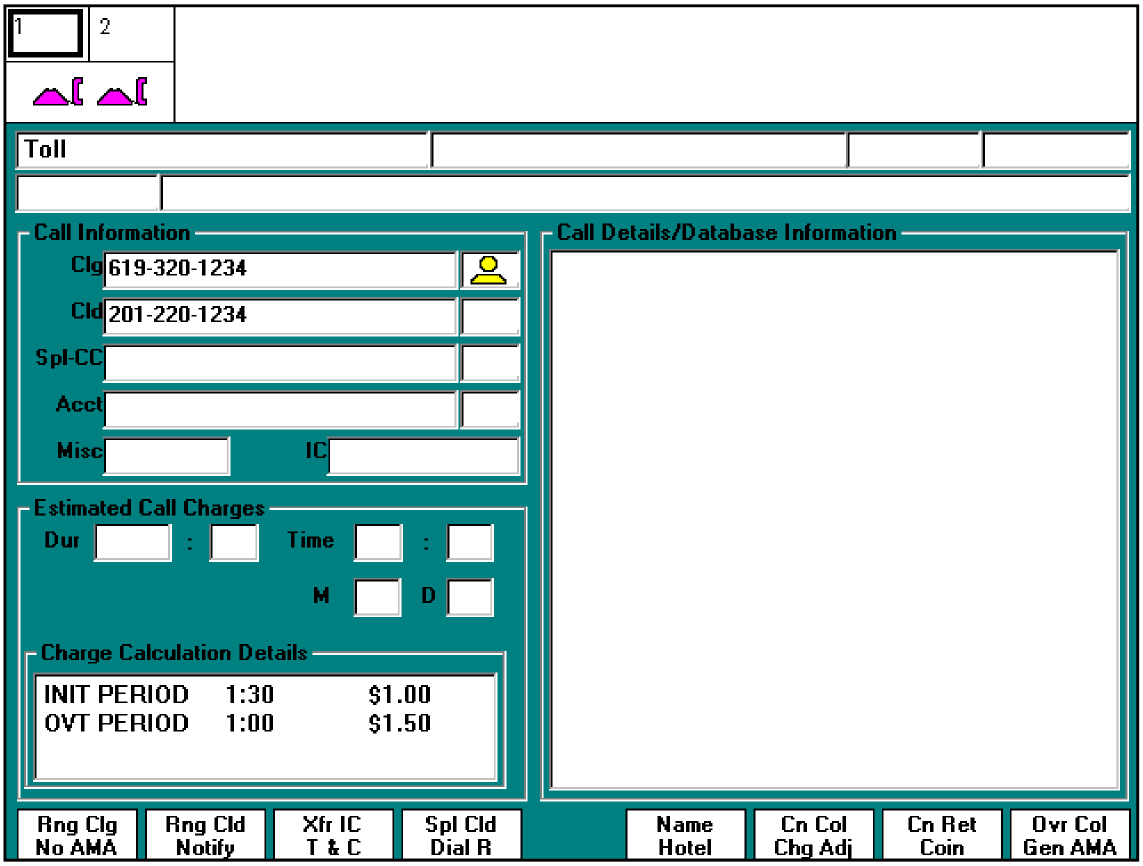
1. Press the **Est** key. The Estimated Call Charges window (Figure 82) appears in the lower left of the screen.

Figure 82. Estimated Call Charges window



2. In the Dur fields, type the hours (0 through 9999) and minutes (0 through 59) for which the caller requests an estimate.
3. In the Time fields, type the current time as the current hour (00 through 24) and minute (00 through 59).
4. In the M field, type the current month as two digits (00 through 12).
5. In the D field, type the current day of the month (1 through 31).
6. Press the **Fncts** key.
7. Type the menu number for Calculate Est Chg.
8. Press the **Start** key. Estimated call charges are calculated at the DMS switch and left of the screen (Figure 83).
9. Quote the estimate to the subscriber.

Figure 83. Estimated Call Charges window



10.7 Internal booked call (GOS only)

Operators use this procedure if the operating company uses GOS features.

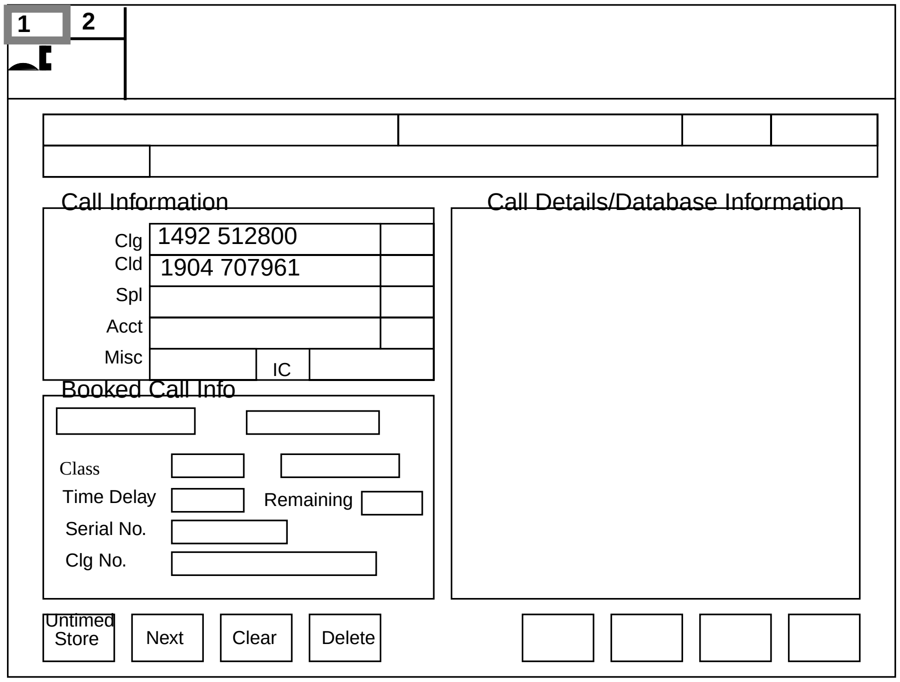
The operator can store a call in the internal booked call database if the call cannot be processed immediately, either because the called party cannot be reached or because insufficient network resources are available. The operator can also book a call if a subscriber calls and asks to make a specific call at a specific future time.

The call can return automatically or can be retrieved manually. If the call still cannot be completed when retrieved, the operator can store it again. The operator can also delete a stored call. However, a coin or restricted call be stored. Storing a call

To store a call for later handling, the operator can do the following:

1. Ensure that the called number is valid and that billing is satisfied.
2. Press the **Booked Call** key. The Booked Call Info window (Figure 84) appears.

Figure 84. Booked call Info window



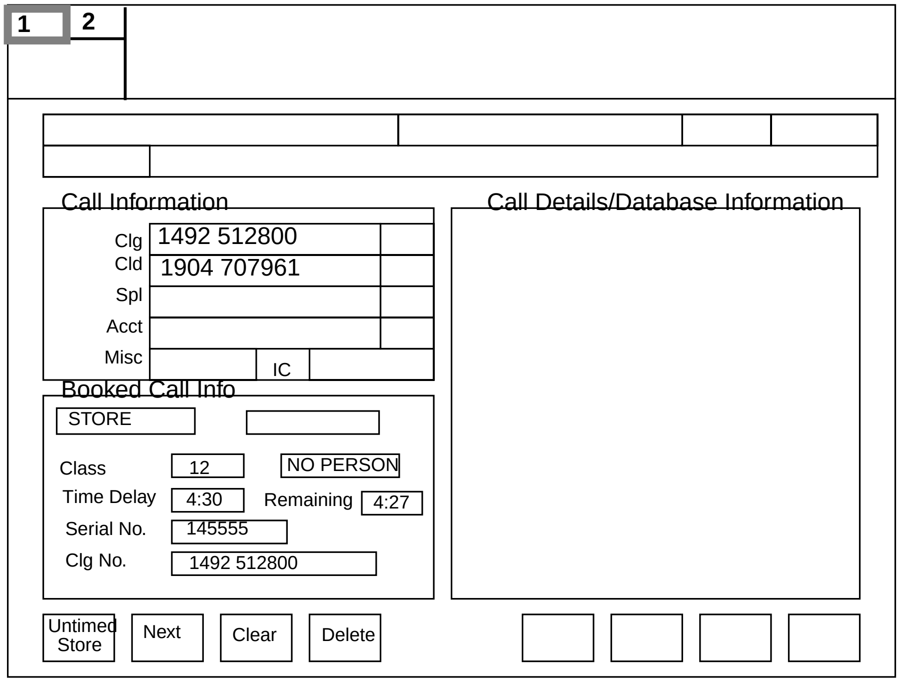
3. Type a one- or two-digit class code in the Class field. The operating company assigns these codes. The field to the left of the code field displays the class that the code represents.
4. Determine whether to store the call as timed or untimed.

If	Go to
the call is stored as timed	Step 5
the call is stored as untimed	Step 7

5. Type the delay time, in `hh:mm` format, where `hh` is hours (0 through 19) and `mm` is the minutes (0 through 59) of the delay.
6. Press the **Start** key. This procedure is now complete for storing a timed call.
7. Press the {**Untimed Store**} softkey. This procedure is now complete for storing an untimed call.

The Serial No. field displays a six-digit string in `ddxxxx` format, where `dd` is the day of the month (1 through 31) and `xxxx` is the number of the stored call. If a call is stored as timed, the Remaining field displays the amount of time remaining in the delay period. The field in the upper left of the Booked Call Info window displays the action taken (in this case, `STORE`). The field to the right displays any errors that occurred. Figure 85 shows an example display when storing a booked call.

Figure 85. Storing a booked call



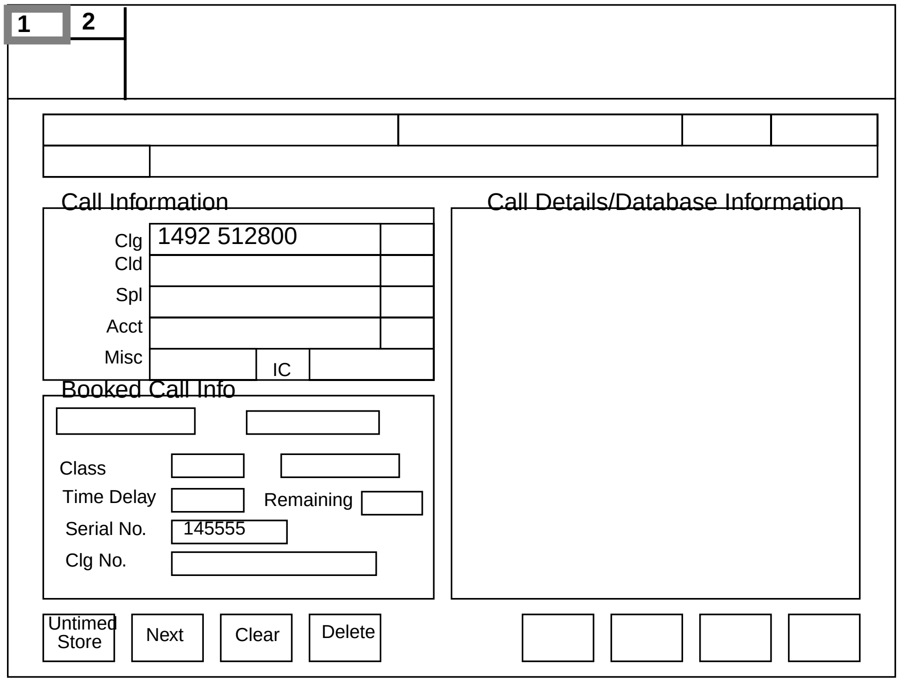
10.7.1 Retrieving a stored call

If a delay time is specified for the stored call, the call returns to the position at the end of that time. A stored call can be manually retrieved, whether or not a specific delay time is specified. To manually retrieve a stored call, the operator can do the following:

1. Press the **Booked Call** key. The Booked Call Info window appears.
2. Either type the calling number in the Clg No. field or type the serial number in the Serial No. field.

   Figure 86 shows an example of the display that appears when information is typed to retrieve a booked call.

Figure 86. Retrieving a booked call



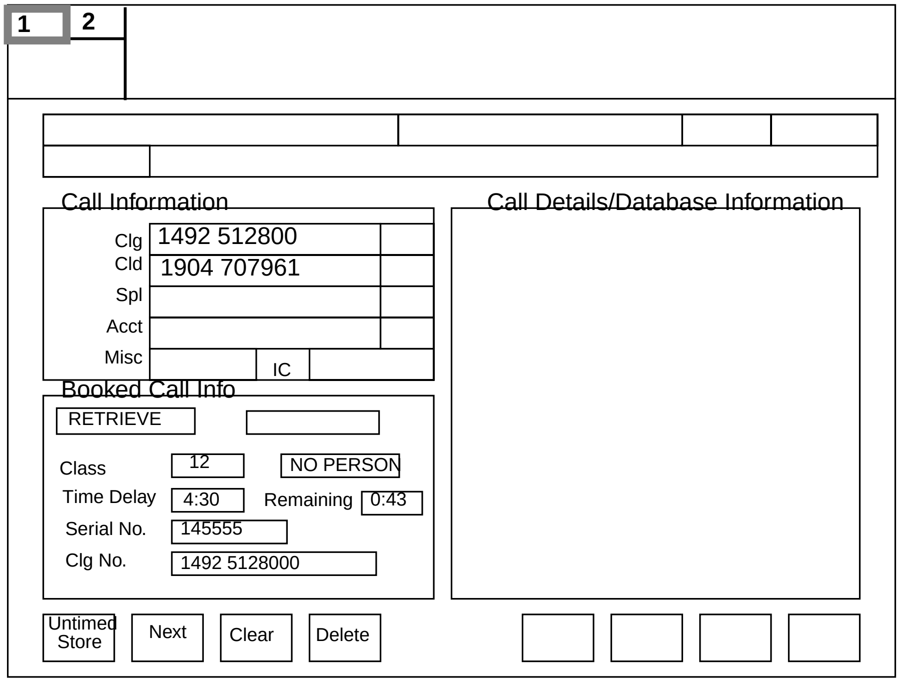
3. Press the **Start** key.

   If the serial number of the stored call was typed, that call returns to the position.

   If the calling number is typed, the oldest stored call for that number returns to the position. If a later call is retrieved for that number, the press the **{Next}** softkey until the appropriate call is retrieved.

   When retrieving a stored call, the Booked Call Info window displays all the information about the booking. The Call Details window displays any associated call information. Figure 87 shows an example of the display when retrieving a booked call.

Figure 87. Displaying booked call information



10.7.2 Line busy

Operators use this procedure if the operating company uses GOS features.

If either the calling line or the called line is busy when attempting to connect the call, the operator can do the following:

1. Press the **Fncts** key, type the menu number for Start Clg TBI, and press the **Start** key.
2. Ask if the party can end the current call and make the booked call. If the party can end the current call, that party hangs up and the operator then connects the booked call.
3. Press the **Fncts** key, type the menu number for Stop Clg, and press the **Start** key.

10.7.3 Deleting a stored call

To delete a stored call from the booked call database, the operator retrieves the call and then presses the **Delete** softkey.

After deleting the call, the operator can do one of the following:

- complete the call
- remove the call information by pressing the **Clear** softkey
- cancel the call and release it

10.8 Handling chronic line trouble (GOS only)

Operators use this procedure if the operating company uses GOS features.

If it is expected that a connection will experience trouble, the operator can monitor the connection to ensure good quality service as follows:

1. Press the **Fncts** key, type the menu number for Split/Join Operator, and press the **Start** key.
2. Connect the parties. The operator’s connection is muted; that is, the operator can listen to the call but not speak.

   If the connection is good, press the **Pos Rls** key to release the call. If the connection is not good, continue to Step 3.
3. Press the **Fncts** key, type the menu number for Muted Notify, type the number of minutes for a recall interval, and press the **Start** key.
4. Press the **Pos Rls** key. This releases the call, but it returns at the end of the interval.
5. When the call returns, the operator can listen but not speak to the parties. Verify that the connection is still good, then press the **Pos Rls** key. The call returns to the position at the interval specified until the parties end the call. At each return, verify the quality of the connection.

   If the connection is good, continue monitoring at each recall. If the connection is not good, continue to Step 6.
6. Press the **Fncts** key, type the menu number for Split/Join Operator, and press the **Start** key. Ask the parties to hang up and place the call again to get a better connection.

11.0 Reaching a called or calling party

This chapter describes how to handle calls when the called or calling party is not available or is not immediately ready to talk.

11.1 Called party unavailable

When the called party does not answer the phone, the operator can do the following:

1. Listen attentively to any report regarding the called party. The report might indicate that the called party is not there, not immediately available to talk, or will be available later.
2. If the calling party requests additional information regarding the called party, such as when the person will be available or where to reach the person, obtain and report that information.
3. If the calling party does not volunteer further directions, ask if the calling party wants to speak to anyone else or wants to leave word. Proceed as directed.

11.2 Line busy (GOS only)

Operators use this procedure if the operating company uses GOS features.

If either the calling line or the called line is busy when attempting to connect the call, the operator can do the following:

1. Press the **Fncts** key, type the menu number for Start Clg TBI (for the calling party) or Start Cld TBI (for the called party), and press the **Start** key.
2. Ask if the party can end the current call and accept the new call. If the party can end the current call, that party hangs up and the operator then connects the new call.
3. Press the **Fncts** key, type the menu number for Stop Clg (for the calling party) or Stop Cld (for the called party), and press the **Start** key.

11.3 Called party not registered

When the called party is not registered, the operator can do the following to report to the calling party:

1. Thank the answering party and release the line.
2. If necessary, relay the report to the calling party.
3. Ask the subscriber to call again later.
4. If the calling party wants to try later, ask when to call. Follow the procedures in Chapter 16.0, “Subsequent attempts,” on page 225.

5. If the calling party requests that the called party be paged, ask whether the calling party wants to wait on the line or be called back.

If	Go to
the calling party asks to wait on the line	Step 6
the calling party wants the called party to call back	Step 7

6. Ask the answering party if you can hold while the party is paged. Proceed as directed by the person at the called telephone.
7. Ask the person at the called telephone to page the called party. Give the name of the called party, the calling number, and the operator number to request for the callback call.
8. Press the **Rls Cld, Ca Call**, and **Pos Rls** keys.
9. Cancel the ticket.

If the call-back option is not available, use the collect option, as locally directed.

11.4 Called party unknown

If the called party is not known at the called number, verify the name and telephone number reached. The operator can do the following:

1. Spell the name to verify that it is understood.
2. Verify the telephone number.
3. Verify the report after hearing the calling party.
4. If the answering party still does not know the called party, end the call and press the **Rls Cld** key.
5. Relay the report to the calling party.
6. Proceed as directed by the calling party.

11.5 Called party can be reached elsewhere

If the called party cannot be reached at the called location and another location is given, the operator can do one of the following:

- If the called party is at a different telephone or place, relay the report to the calling party. Ask if the calling party wants to try calling that location. Proceed as the subscriber directs.
- If the called party is in a different LATA or zone, advise the subscriber to call the inter-LATA or inter-zone carrier operator for assistance.

  If the subscriber asks for dialing instructions to reach the inter-LATA or inter-zone carrier operator, follow the procedures in Chapter 7.0, “QMSCASE and the assistance system,” on page 119.
- If the called party is at an inward wide area telephone service (INWATS) number or foreign exchange number, and the answering party does not volunteer the INWATS or foreign exchange number, request it. Relay the information to the calling party. Give dialing instructions to the calling party or handle the call.
- If the calling party decides to dial the alternative number, press the **Ca Call** and **Pos Rls** keys.

11.6 Room extension is busy

If the room extension is busy, the operator can report this fact to the calling party, as follows:

1. Do one of the following:

If	Go to
the calling party or the private branch exchange (PBX) attendant asks the operator to wait on the line	Step 2
the calling party decides to try the call again later	Step 5

2. Do one of the following:

If	Go to
the calling party will wait on the line	Step 3
the calling party asks the operator to wait on the line, proceed accordingly	Step 3

3. Wait one minute, then do one of the following:

If	Then
the line is available	connect the call
the called party is not reached and no further report is received after one minute	go to Step 4

4. Ask if the called party's telephone is still busy, then do one of the following:

If	Then
the line is available	connect the call
the line is still busy, wait another minute. If the call still cannot be connected	discontinue waiting
there is no response to the question	discontinue waiting

5. Press the **Ca Call** and **Pos Rls** keys.

11.7 Room extension does not answer

If the room extension does not answer, the operator can do one of the following:

- If the calling party specifies a person, ask when the called party is expected and proceed accordingly.
- If the calling party specifies an extension or room number, notify the calling party that there is no answer. Ask the calling party to try the call again later. Proceed as when a called telephone does not answer.
- If the calling party asks to page the called party, follow the procedures in 11.6, "Room extension is busy," on page 183.

11.8 Called party to be available within one minute

If the called party is not immediately available, but the party can come to the phone within the next minute, the operator can do the following:

1. Ask the calling party to remain on the line.

If	Go to
the calling party cannot wait on the line	Step 2
the calling party waits on the line	Step 4

2. Ask the calling party to try the call again later. Do one of the following:
    - If the calling party will try again, explain the situation to the answering party.
    - If the calling party wants to keep trying the call, do so after 30 minutes. Write the call details on a memo. Write a subsequent attempt time of 30 minutes, unless the calling party specifies a different time.
3. Press the **Ca Call** and **Pos Rls** keys to release the call.
4. Remain cut in and wait for the called party.
5. If the called party is still not available after one minute, the operator can do one of the following:
    - If no one is available at the called telephone, notify the calling party. Press the **Rls Cld** key to release the call.
    - If someone is available at the called telephone, ask for the called party.

If	Then
the called party is available,	connect the call
the called party is not available	go to Step 6

6. If either the calling or the answering party asks to continue waiting, do so. Continue waiting (for a reasonable period) as long as the calling party remains on the line.

11.9 PBX attendant does not put party on first

If the calling or called PBX attendant does not put the party on first, the operator can try to start conversation or to otherwise complete the call, as follows:

1. If necessary, regain control of the connection.
2. Ask the called attendant to reach the called party.
3. Do one of the following:
    - If the called attendant cannot or will not reach the called party, ask the calling attendant if the calling party can try the call again later or leave word for the called party to call. Proceed as directed.
    - If the calling attendant does not put the calling party on, ask to cancel the call so that the calling party can try again later.
    - If the called attendant can reach the called party, ask the attendant to put the party on.

11.10 Calling party asks that called party be summoned

If the calling party requests that the called party be summoned, the operator can do the following;

1. Do one of the following:

If	Then
the answering party does not summon the called party	relay the report to the calling party
the answering party summons the called party	go to Step 2

2. Determine if a charge is applicable.

If	Go to
a charge is applicable	Step 3
no charge is applicable	Step 4

3. Inform the calling party and ask if the calling party agrees to the charge. Do one of the following:
   - If the calling party agrees to the charge, tell the calling party that you will call back when the called party reports and tell the answering party that you will call back in a few minutes. Press the **Rls Cld** key and record a memo. Follow the procedures for handling messenger calls.
   - If the calling party does not agree to the charge, release the call by pressing the **Rls Cld**, **Ca Call**, and **Pos Rls** keys.
4. Ask, how long will it take. If the delay exceeds one minute, leave word and tell the calling party that you will call back when the called party reports. If you are to make a subsequent attempt, record the details on a memo. Press the **Ca Call** and **Pos Rls** keys.

11.11 Calling party specifies alternate telephone

If the calling party specifies an alternate telephone where the called party can be reached, the operator can do one of the following:

- If the called party will be available within one minute, wait for the called party.
- If the called party will not be available within one minute, acknowledge and try to reach the party at the alternate telephone. If the called party is not there, ask the answering party to hold the line. Report to the calling party and proceed accordingly.
- If a ticket is required when the party is reached at either telephone, write the number at which the called party was reached when conversation begins.

- If an alternate telephone is specified when a delay report is given, press the **Rls Cld** key, type the alternate number, and proceed as if the alternate number was specified when the call was placed.
- If the alternate telephone is in a different LATA or zone, ask the subscriber to call the operator for the long distance service provider for assistance. If the subscriber asks for dialing instructions to reach the long distance service provider operator, give them.

11.12 Calling party specifies alternate party

If the calling party specifies an alternate party, the operator can do the following:

- If an alternate party is specified and no preference between the two is indicated, announce the call for both parties. If neither party is available, ask if the calling party wants to leave word. If leaving word, do so for either or both parties, depending on the directions given.
- If an alternate party is specified and a preference between the two parties is indicated, announce the call for the preferred party only. If the preferred party is not there or is there but not immediately available, at once announce the call for the alternate.
- If an alternate party is specified when a report of delay is given, proceed as if the alternate were specified when the call was placed. If a subsequent attempt is required, prepare a memo and enter “ag” and the alternate party in the report space.
- If the person answering is acceptable to the calling party as an alternate, acknowledge and, if necessary, start the conversation. If the calling party will talk with anyone, report that. The classification of the call does not change.
- If a delay is encountered in reaching any of the parties, report the delay to the calling party and proceed as directed.

11.13 Answering party offers alternate party

If the answering party offers an alternate party, notify the calling party and ask if the calling party agrees. Do one of the following:

- If the calling party agrees to talk with the alternate, notify the answering party.
- If the calling party does not agree to talk with the alternate, notify the answering party. Proceed as directed by the calling party. If the calling party asks to try again later, enter `only` after the called name.

11.14 Calling party requests change to station call

If the calling party asks to change the call to a station call, the operator explains that on a station call timing starts when the telephone is answered and that a person call cannot be changed to a station call after answer because the starting point is already passed.

11.15 Answering party requests additional information

The answering party might ask for the following information:

- calling place or number
- name of calling party or firm
- department or office of calling party
- which of two or more persons of the same name at the called place is wanted

After obtaining the information, repeat it to the answering party. The connection cannot be split. Whatever is said by either party can be heard by the other. On collect calls, follow procedures in Section 27.6, “Called telephone requests time and charges,” on page 361.

If the calling party requests that a call detail be withheld, explain that to the called party. If the called party insists on knowing calling details explain to the calling party that, because the called party insists on knowing a particular calling detail, the call cannot be completed unless the calling party agrees to supply the requested information. The operator can do one of the following:

- If the calling party agrees to supply the requested detail, proceed with the call.
- If the calling party does not agree to supply the requested detail, explain that calling details cannot be withheld and the call cannot be completed.
- If the calling party hangs up or cancels the call, give the report to the answering party.

11.16 Leaving word at called telephone

A leave-word message allows the original called party to return a person call with charges billed to the original calling party. If the calling party does not want the call returned on a collect basis, ask the calling party to place the call again later. Do not leave word from a screened telephone. Do one of the following:

- If both the calling number and party are known, ask the called party to call the calling party at the calling number, collect.
- If the calling number is known but the name of calling party is not, ask the called party to call the calling number, collect.
- If the calling party wants to be called at a different telephone, ask the calling party for that number and include the number in the leave-word message.

- If the calling party wants to be called at an INWATS number, include the number in the leave-word message.
- If the call is a collect call, tell the called party that the calling party, at the calling number, called collect. Ask the called party to return the call.

11.17 Holding the calling party on line

Assume that the calling party will remain on the line until the called line is answered or until receiving a report. If the calling party cannot hold the line, the operator can do one of the following:

- If the calling party wants to keep trying to reach the called party but does not want to remain on the line, hold the connection to the calling line while waiting for an answer or report.
- If the called line or party is reached, ring the calling party back by pressing the **Fncts** key, typing the menu number for Ring Calling, and pressing the **Start** key twice.
- If further delay is encountered, ring the calling party back by pressing the **Fncts** key, typing the menu number for Ring Calling, and pressing the **Start** key twice. If the calling party does not want to keep trying to reach the called party, release the call by pressing **Ca Call** and **Pos Rls** keys.

11.18 Securing the calling line

Secure the calling line before making any subsequent attempts on a call. To secure the calling line, the operator can do the following:

1. Select an idle loop.
2. Press the **Clg** key, type the calling number, and press the **Start** key. If the office serves more than one NPA, type the calling number in one of the following ways:
    - If the NPA is the same as the operator services center, type the seven-digit calling number. The screen then displays ten digits (the NPA and the seven digits typed).
    - If the NPA is not the same as the operator services center, type the ten-digit calling number.

3. When the calling party is reached, tell the person who answers the calling telephone or PBX station (extension), that you are trying the call. Do one of the following:
    - If the calling party is ready to have the call tried, proceed with the attempt.
    - If the calling party is not ready to have the call tried, ask the calling party to try the call later. If the calling party agrees, discard the memo. Press the **Fncts** key twice, type the menu number for Release Calling, and press the **Start**, **Ca Call**, and **Pos Rls** keys

If there is a delay in reaching the calling telephone or party, proceed as if the delay occurred in reaching the called telephone or party. Try to find out when the calling party will be available. Proceed generally as when obtaining information about a called party.

If the calling party will be available within one minute, remain cut in and wait for the calling party. If the calling party is not reached after one minute, proceed as when the called party will not be available in one minute.

12.0 Verifying telephone reached

This chapter describes when to verify that the DN reached is correct, as in the following situations:

- The answer or report indicates a wrong DN.
- a wrong DN or a cutoff occurred on a preceding attempt.
- The call is a paid call from a coin postpay (Po) telephone (unless the answer indicates that the correct DN was reached).
- The call is a paid call from a coin prepay (Pre) telephone and the initial period deposit exceeds the hopper capacity.
- The call is for a ring-down tributary.

Verify the DN by announcing the called number and asking if it is correct.

When reaching the correct DN, operators announce the call in the following cases:

- The call is for a person, department, office, or branch (unless conversation starts immediately or there is indication that the called party or the specified department, office, or branch was reached). If the calling party starts talking before the announcement is finished, do not continue making the announcement.
- The called telephone answers before all required call details are obtained from the calling party, such as a calling card number or bill-to-third number.
- The calling party is not on the line.
- The call is from a coin Po telephone.
- The call is from a Pre coin box and the initial deposit exceeds the hopper capacity.
- The call is for a a ring-down tributary.

12.1 Announcing a station call

Announce that the call is long distance. If the person answering asks who is wanted or says that the call is for a party who is not there, state that the call is for anyone.

On Po station coin-paid calls, Pre station-paid calls for which the initial period deposit exceeds the hopper capacity, and calls to rural line numbers, announce the called number and ask if this is the correct DN. Then, announce that the call is long distance.

If the person answering will not take a message or answer questions (for example, a young child), do not complete the call. Press the **Rls Cld** key.

Notify the subscriber that no one can accept the call. Recommend that the subscriber call again later. Depending on the subscriber response, do one of the following:

- If the subscriber agrees to call later, press the **Ca Call** and **Pos Rls** keys.
- If the subscriber asks to try later, obtain all the information needed for the memo, including the calling and called numbers, any report received, and the time at which to try again. Press the **Ca Call** and **Pos Rls** keys. This is equivalent to a no-answer condition; the classification of the call does not change.
- If the classification of the call changes (for example, if the calling party asks that word be left for someone who will talk or asks the operator to find out how soon someone can talk), explain that taking such action reclassifies the call as a person call. If the subscriber agrees to changing the classification, change the class-charge to person. Proceed as on a person call. Enter the subsequent attempt time specified by the subscriber. Hold the ticket on the position for an attempt at the time specified.

12.2 Announcing a person call

The following are general guidelines for announcing a person call:

- Ask for the called party and announce that the call is long distance. If the called party is reached but conversation does not start immediately, notify the parties that they can begin talking.
- If the calling party asks for the called party, do not interrupt unless the called party is not available or the calling party encounters problems. After the call is announced, if the party answers and conversation starts immediately, assume the subscriber reached the party and permit conversation to continue without assistance or verification.
- If the called party answers by name only, without initials or other identifying details, or if conversation starts immediately, permit conversation to continue without any further announcement or verification, even if the calling party originally gave additional details.
- If a party other than the called party answers and conversation does not start immediately, do one of the following.
  - — If the calling party asks for the called party, or if the party who first answers agrees to get the called party, wait for a response.
  - — If the person answering is not the called party, announce the call again.
  - — If for conversation does not start, announce the call again or ask for the called party.

12.2.1 Party designated other than by name

If the calling party asks for a called party by a designation instead of a name, announce the call by the designation given. For example, the calling party might ask for the manager or owner of a business.

12.2.2 Alternative party specified

If the calling party asks for either of two names, announce the call for both parties. If the calling party indicated a preference, announce the call for the preferred party only. If the preferred party is not available, ask for the other party.

12.2.3 Call for more than one person

If the calling party asks for several parties, announce the call for both parties, supplemented by any necessary explanation. If the called telephone then indicates that more than one called line is required, give the report to the calling party. Unless the caller's directions are changed, explain that the call will be handled as a conference call. If the calling party still wants the connection, advise the called telephone that you will call back. Press the **Rls Cld** key and connect the calling party with the conference operator.

12.2.4 Call for department, office, branch, extension, room, apartment

If the calling party asks for a department, office, branch, extension, room, or apartment, announce the call by asking for the department, office, branch, extension, room, or apartment.

If the calling party provides both a department, office, branch, extension, room, or apartment and a name, include both in the announcement.

12.2.5 Party to be sent for

If the called party is not the party who answers the telephone, ask if the person who answered can get the called party.

If there is any information such as the name of a department, office, or branch, include this in the announcement.

12.2.6 Announcing the calling party

If the calling party asks who is calling, by name, title, firm name, name of the calling place, or any combination of these items, include that information in the announcement.

12.2.7 Request for omission of calling details

If the calling party requests that some or all of the calling details be left out, omit them.

12.2.8 Person answering requests calling place name

If the person who answers at the called number ask for the name of the calling place, give that information if known. If the name of the calling place is not known, give the operating company name or location.

13.0 Starting conversation, timing, and supervising

This chapter describes procedures for starting a conversation, timing, and supervising.

13.1 Assisting the start of a conversation

Allow the parties to begin conversation if either party attempts to do so. However, if neither party begins talking, prompt them to do so. If conversation still does not begin, determine the cause and, if it is because of unsatisfactory transmission or equipment trouble, try to correct the difficulty.

13.2 Timing at the operator position

Most calls handled by TOPS IWS are timed automatically.

In situations that require holding a connection at the position for the duration of the conversation, manually ticket and machine time. Enter such calls as No AMA, which disengages the automatic message accounting (AMA) equipment.

When conversation begins on a manually timed call, press the **Fncts** key, type the menu number for Time, and press the **Start** key. The time displays using a 24-hour clock (00:00:00 to 23:59:59).

13.2.1 Determining time and preparing ticket

If holding a call at the position and manually calculating the time interval and preparing a ticket, subtract the connect time from the disconnect time to determine the elapsed time to write on the ticket.

This type of timing is needed on an inter-LATA or inter-zone emergency call or when a disconnect signal stops the timing on a call that requires further timing. For example, if either party on a connection flashes for a PBX attendant on a call that is held on loop, the system mistakenly interprets the flashing as a disconnect and stops timing. The operator must then manually calculate the remainder of the time, beginning when the parties resume conversation.

This type of timing is not needed on inter-LATA calls when the site has the TOPS inter-LATA carrier service (TICS) feature and has rating information datafilled for carrier served by the service provider. In this case, automatic timing is performed on an inter-LATA emergency call handled by the service provider for that carrier.

13.2.1.1 Basic timing procedures

Use the following methods to calculate the chargeable time for an uninterrupted connection held on loop:

- Machine-timed call
  If there is no interruption between the start and end of timing, determine the elapsed time from the screen display.
- Manually timed call
  Subtract the connection time from the disconnection time entry. Then, subtract any timing allowance. Count a fraction of a minute as a full minute.
- Ticket entries
  Write the number of chargeable minutes.

13.2.1.2 Timing allowances

Use the following guidelines for making timing allowances:

- Calls held on loop and that are manually ticketed or timed
  Allow 15 seconds for interstate and international calls and on calls for which a charge is paid at a coin telephone.
- AMA- or machine-timed calls
  Make no timing allowance on AMA-timed calls because a flash or disconnection by the called or calling party stops the timing.
- Other calls
  Allow five seconds, except as locally specified.

13.2.2 Starting timing for station calls

On station calls, if no verification or announcement is required, do one of the following:

- For AMA timing, press the **Pos Rls** key as soon as the operator function is complete.
- For manual ticketing and machine timing, hold loop calls on that require manual ticketing and machine timing. When the call completes, enter the elapsed conversation time on a ticket, as follows:
  - — If a class charge key and the **Pos Rls** key are pressed, start of timing begins automatically in the equipment when the called station answers.
  - — If the **Fncts** key is pressed, type the menu number for No AMA, and press the **Start** key, the system does not record the machine timing on the tape.

- If either the operator or the subscriber can dial the called number, press the **Pos Rls** as soon as all other call details are recorded (for example, billing) to start the timing.
- If neither the operator nor the subscriber can dial the called number and it must be entered by a distant operator, press the **Pos Rls** key as soon as the called telephone answers to start the timing.

On station collect calls for which verification or announcement is required, press the **Pos Rls** key when a party at the called telephone agrees to accept the charge.

While waiting for the called or calling party to come to the telephone, if anyone at either telephone speaks to and obtains a response from the other or transmits a message to the other, press the **Pos Rls** key to start timing.

13.2.3 Starting timing on person calls

On person calls, chargeable time starts when the calling and called parties are in exclusive communication with one another. Press the **Pos Rls** key when it is clear that one party spoke exclusively to the other party and received a response, or that one party is transmitting a message to the other party.

When one party answers the telephone or comes on the line and announces a name, number, or title, do not start timing. This is not speaking exclusively to the other party.

The calling party is the person who holds the line or answers at the calling telephone (unless otherwise indicated when the called party is reached).

The called party is the person who the calling party specifies or anyone else with whom the calling party chooses to talk in place of that person. If the call is for a PBX extension or for a department, office, or branch reached through a PBX, and if the calling party does not specify a person, the called party is anyone who answers at that extension, department, office, or branch.

While waiting for either the calling or called party to come to the telephone, if anyone at either telephone speaks to the other and it is not in reference to reaching the called party, ask if the calling party agrees to talk to that person. If the party agrees, press the **Pos Rls** key to start timing.

13.2.4 Timing 0- calls with DA

If a subscriber asks the operator to obtain and dial a number, the operator times the DA and the actual call separately.

If the subscriber calls from a non-coin phone, do the following:

1. Do one of the following:
    - Press the **Cld** key, type the number for DA, and press the **Rls Cld** key.
    - Press the **OGT** key, type the menu number for DA, and press the **Start** key.
2. Connect to DA and obtain the number.
3. Press the **Rls Cld** key.
4. Record the DA charge by doing one of the following:
    - Press the **Charge Adjust** softkey, type the menu number for the DA charge, and press the **Start** key.
    - Press the **Fncts** key, type the menu number for Charge Adjust, press the **Start** key, type the menu number for the DA charge, and press the **Start** key.
5. Complete a DA charge ticket.
6. Complete the call as if the subscriber provided the DN.

If the subscriber calls from a coin phone, do the following:

1. Press the **Clg** key and either the **Sta** key (for a station call) or the **Per** key (for a person-to-person call).
2. Do one of the following:
    - Press the **Cld** key, type the number for DA, and press the **Rls Cld** key.
    - Press the **OGT** key, type the menu number for DA, and press the **Start** key.
3. The charge appears on the display. The charge includes the tax.
4. Obtain the coin deposit for the initial deposit.
5. Connect to DA.
6. Press the **Fncts** key, type the manual number for Start Timing, and press the **Start** key to start timing.
7. Obtain the DA.
8. Press the **Svcs** key, type 0, and press the **Start** key to record the DA charge.
9. Press the **Rls Cld** key.
10. Complete the call as if the subscriber provided the DN.

13.2.5 Timing AMA-billed calls on system recall

On AMA-billed calls, do one of the following:

- If the calling telephone is on-hook when the recall arrives, the screen displays Overtime Coin Pre or Po with the charge and minutes. Press the **Fncts** key, type the menu number for Ring Calling, and press the **Start** key to recall the calling station and secure the overtime charge.
- If the calling telephone is off-hook when the recall arrives, inform the calling party of the end of a notify interval or collect overtime charges.

13.2.6 Timing for flash on a connection held at the position

If a flash occurs on a connection held at the position and no response is received, write the elapsed time on the ticket and press the **Pos Rls** key. If the calling party does not reach the called telephone, do the following:

1. Press the **Rls Cld** key.
2. Re-establish the call.
3. Machine time the call and hold the connection at the position.
4. Do one of the following:
    - If the calling party requests a new call, write the elapsed time on the ticket. Type the new called number. Hold and time the call.
    - If the calling party wants to transfer the connection to another telephone, tell the calling party to hang up and place a new call.

If either party is recalling a PBX attendant or wants to transfer the call to another extension at the PBX, do the following:

1. Write the elapsed time on the ticket and tell the party to signal the PBX attendant.
2. Cut out of the call, disregarding the recall signal.
3. Press the **Fnct**s key, type the menu number for Time, and press the **Start** key. The screen displays the current time at the start of the call.
4. Write the start time in the write-in space of the ticket (include hour, minute, and second).
5. At the end of conversation, press the **Fnct**s key, type the menu number for Time, and press the **Start** key again to display the current time at the end of the call.
6. Write the end time in the write-in space of the ticket (include hour, minute, and second).
7. Subtract the start time from the end time to calculate the total elapsed time. Write the elapsed in the MIN space of the ticket.

13.2.7 Service interruption

If there is a service interruption, such as unsatisfactory transmission, notify the subscriber that an adjustment will be made in the charge. If conversation is restored, start another timing interval when the parties are again talking satisfactorily.

13.2.8 AMA or machine timing started too soon

AMA or machine timing can start incorrectly or too soon in either of the following cases:

- A wrong number is reached.
- Timing starts upon evidence of answer, but it is an ineffective answer.

If the original AMA or machine timing starts too soon and this is discovered before releasing the position, press the **Fncts** key, type the menu number for Cancel Timing, and press the **Start** key. Begin the AMA or machine timing again when conversation proceeds satisfactorily.

13.2.9 Notification with AMA timing

At times, the billed customer may request to be notified during a call after a specified amount of time passes (see Figure 88).

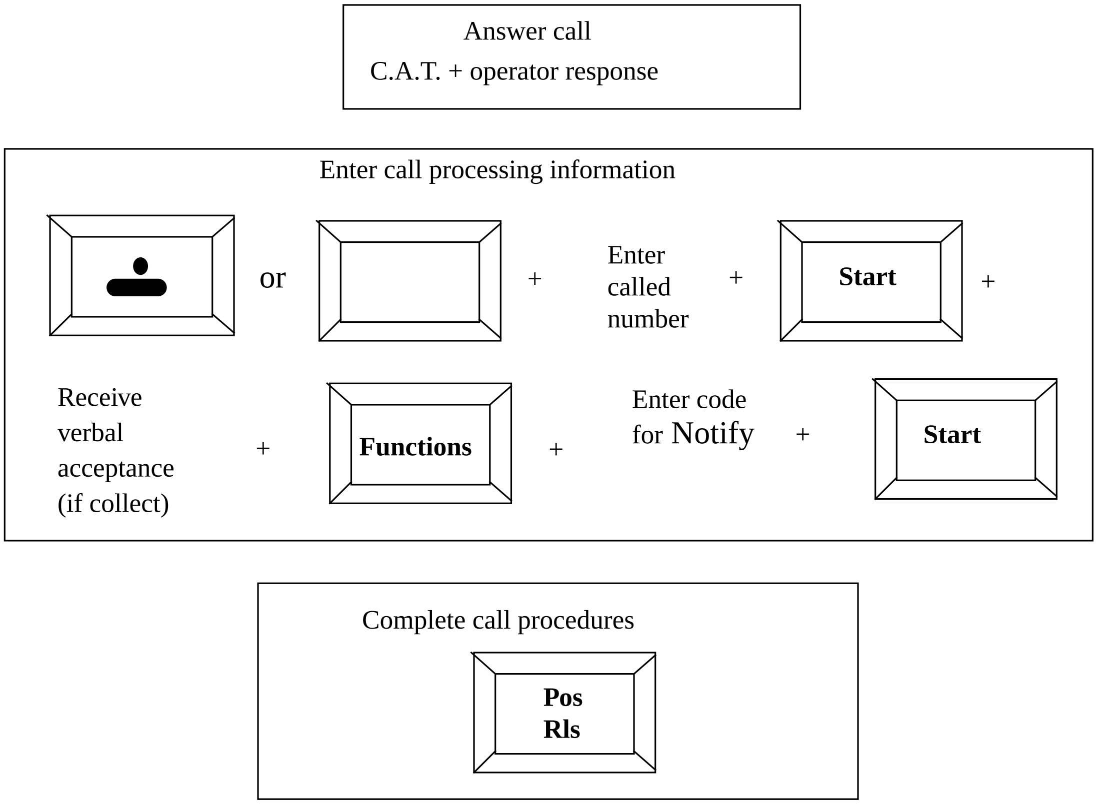
For example, Mariko is calling her cousin Hashi collect. When Mariko's cousin Hashi accepts the charges, he asks for the operator to notify them when five minutes passes.

To establish the notification period (maximum of 59 minutes) for AMA-timed calls, the operator can do the following:

1. Do one of the following:
   - Press the **{Notify}** softkey.
   - Press the **Fncts** key, type the menu number for Notify, and press the **Start** key.
2. Type the notification period, and press the **Start** and **Pos Rls** keys.
3. When receiving the Notify recall display, observe the number of minutes.
4. Tell the subscriber that the time period is up, and press the **Pos Rls** key.

If the system is late in bringing a notification call back to the position, Nfy displays with the number of minutes elapsed. Apologize to the subscriber and report the number of minutes.

Figure 88. Notification processing procedures



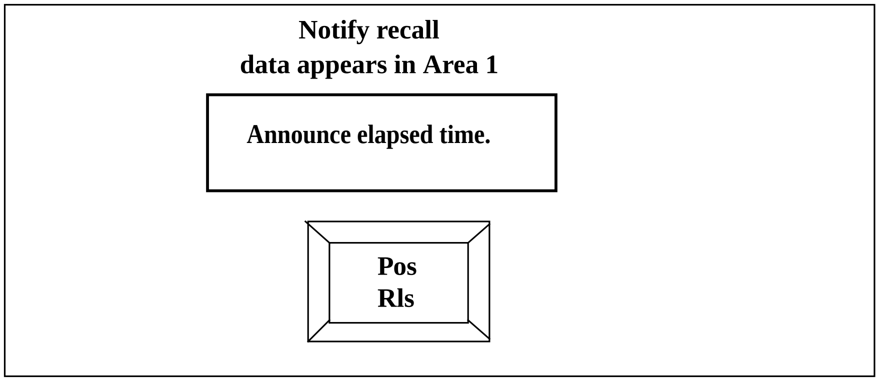
13.2.10 Notification Recall

When a conversation continues for the amount of time the billed customer specifies, note the following:

- “Notify Recall” appears in Area 1 to an available operator’s position.
- When the operator recognizes the call as a recall, the operator announces to the parties that time is up and presses **Pos Rls**.
- However, if the parties request additional time for notification, the operator may enter this as seen above in notification, depending on service provider policy.

See Figure 89.

Figure 89. Notification recall retrieval processing procedures



13.2.11 Notification with billing ticket for held connection

If a billing ticket is required for a connection held at the position, the operator can do the following:

1. Write the time of notification in the SPEC INST space on the billing ticket.
2. Do one of the following:
    - Press the **{No AMA}** softkey.
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
3. Do one of the following:
    - Press the **{Notify}** softkey.
    - Press the **Fncts** key, type the menu number for Notify, and press the **Start key.**
4. Type the notification period and press the **Start** key.
5. Press the **Fncts** key, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
6. When notification is due, Nfy? displays on the screen.
7. Access the loop, observe, and report the number of minutes.
8. Circle the notification request notation on the ticket, and continue to hold the call at the position.

When notification is due on a call held on loop, Nfy displays. If the loop is accessed and Nfy displays with the number of elapsed minutes, the operator is late in notifying the party requesting notification. Apologize to the subscriber and report the number of minutes. Write “Notified” and the actual number of minutes in the report space of the ticket.

If the subscriber is unwilling to pay for the full time because of the late notification, do the following:

1. Express regret for the notification failure.
2. If the subscriber requests credit for any chargeable period beyond the requested notification period, determine whether an allowance of a minute is a reasonable adjustment or whether what the subscriber requests is a reasonable adjustment.
3. Prepare a ticket and write "Credit," the number of minutes allowed, and "TOPS IWS notify failure" in the SPEC INST space. Write all other details.

13.2.12 Noncoin notification with ACTS

Automatic Coin Toll Service (ACTS) can be used as notification on a non-coin call. If a subscriber requests notification and ACTS is available, the operator can do the following:

1. Acknowledge the request.
2. Press the **Fncts** key, type the menu number for Notify, press the **Start** key, type the notification period, and press the **Start** key.
3. Press the **Pos Rls** key.

The digital recorded announcement machine (DRAM) for ACTS notifies the calling party at the end of the specified notification period.

13.3 Time and charges requests

Time and charges requests can be requested when the billed party (either the calling or called party) asks before call processing begins.

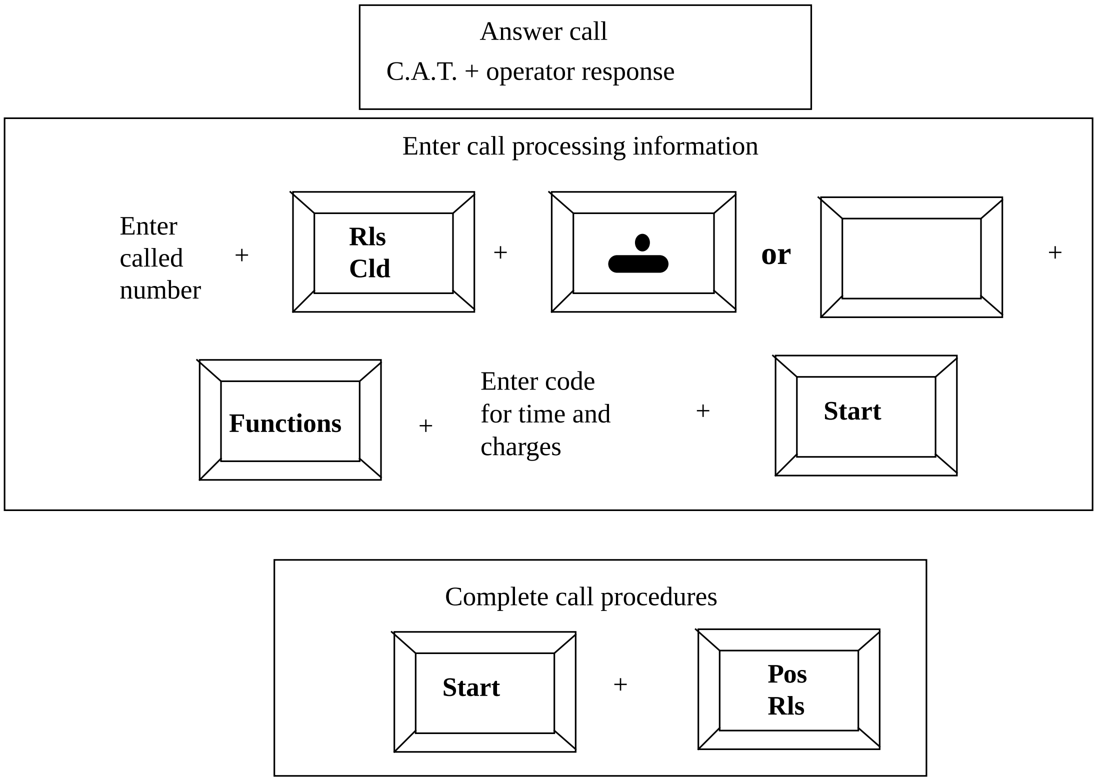
Time is the amount of time the parties are off-hook. *Charges* is the amount the billed party pays for the call.

Note the following information about time and charges:

- The billed party must request Time and Charges information before releasing the call.
- When the call ends, time and charges details display when the billed party remains off-hook.
- Report time and charges information.
- Process a time and charges request like any other call with the addition of telling the switch to provide time and charges data.

Figure 90 shows the steps for handling a time and charges request during the standard processing of any call.

Figure 90. Time and charges



If the calling party or the called party asks that time and charges be quoted at the end of the call, the operator can do the following:

1. Acknowledge the request.
2. Do one of the following:
   - Press the **T & C** softkey.
   - Press the **Fncts** key, type the menu number for time and charges, and press the **Start** key.

   If RS ? displays, a rate step is required. Obtain a rate step number.

   Rate steps are described in section 17.1, “Rates,” on page 229.
3. Press the **Pos Rls** key.

However, this key sequence is not effective under the following conditions:

- If the operator does either of the following twice:
  - — Presses the **T & C** softkey.
  - — Presses the **Fncts** key, types the menu number for time and charges, and presses the **Start** key.

- For the following types of calls:
  - — Autocollect, which displays an outline of an on-hook telephone icon in the called field
  - — Coin and station paid, which displays the word Coin in the type field and a solid on-hook telephone icon in the called field.
  - — Coin and person paid, which displays the word Coin in the type field and the person icon in the called field.
  - — Hotel and station paid, which displays the word Hotel in the type field and the solid on-hook telephone icon in the called field.
  - — Hotel and person paid, which displays the word Hotel in the type field and the person icon in the called field.
  - — Hotel and collect (for a collect call to a hotel), which displays the phrase To: Hotel and the solid on-hook telephone icon in the called field.
  - — No rate (for a disallowed station-paid or person-paid class charge), which displays the phrase No Rate in the type field.

If specifying a time and charges quotation when a call is on loop and is under a No AMA condition, the time and charges display at disconnection.

If the billed party asks that time and charges be quoted to a number other than the calling telephone, the operator can do the following:

1. Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key**.**
2. Press the **Fncts** key, type the menu number for time and charges, and press the **Start** key.
3. Prepare a billing ticket.
4. Press the **Fncts** key, type the menu number for Call Details, press the **Start** key, and type the calling number, the called number, and the number to which charges are quoted.
5. Press the **Fncts** key, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
6. At disconnection, when the loop accesses, the time and charges displays at the position. Quote time and charges information to the appropriate party.
7. If the billed party is not on the line, press the **Fncts** key, type the menu number for either Access Loop 1 or Access Loop 2, and press the **Start** key to access a loop. Enter the billed party's telephone number and press the **Start** key. When the party answers, quote the time and charges, and press the **Pos Rls** key.

13.3.1 Using ACTS for time and charges

Using the DRAM, ACTS provides time and charges quotations to the billed party (either the calling or called party). The time and charges quotation plays at the end of the conversation if the billed party remains off-hook. If the billed party remains off-hook for more than three seconds, the time and charges quotation plays again.

To activate ACTS for the time and charges quotation, do the following:

1. Acknowledge the request.
2. Do one of the following:
   - Press the **T & C** softkey.
   - Press the **Fncts** key, type the menu number for Time and Charges, and press the **Start** key.
3. Ask the billed party to remain off-hook at the end of conversation.
4. Press the **Pos Rls** key at the appropriate time.
5. If the billed party goes on-hook at the end of the call before the time and charges quotation starts, the call goes to an operator for handling. Follow the procedures in Section 37.4, “Requests for time and charges with ACTS,” on page 465.

13.3.2 Special time and charges

When the billed party asks for special time and charges and offers a file or extension number for time and charges identification, do the following:

1. Acknowledge the request.
2. Do one of the following:
   - Press the **T & C** softkey.
   - Press the **Fncts** key, type the menu number for Time and Charges, and press the **Start** key.
3. Press the **Misc** key, type the extension or file number, and press the **Start** key.

If the billed party does not provide a file or extension number after requesting special time and charges, ask what special time and charges are required.

13.3.3 Time and charges with special billing

If a called party requests time and charges for a special billing number, provide the time and charges quotation. If a calling party requests time and charges from a special billing number, explain that time and charges cannot be provided on calls that originate from a special billing number because special billing numbers are primarily designed for detailed cost allocation on 1+ or 011+ calls.

13.3.4 Inaccurate or illegibility ticket

If information on a ticket cannot be read, if the information appears to be inaccurate, or if the conversation is interrupted or transmission unsatisfactory, the operator can do the following:

1. Determine the number of minutes for which charges should be made.
2. Write an explanation in the SPEC INST space, unless the situation is obvious.
3. Write the number of chargeable minutes and show the amount quoted (if computing the charge).

If it cannot be determine if the conversation exceeded the initial period, make the chargeable minutes only for the initial period. However, if the conversation extends into overtime, determine the chargeable minutes. If the subscriber does not receive the equivalent of any normal service, cancel the entire time.

13.3.5 Elapsed time on ticket is several timing intervals

When the elapsed time on the tickets consists of two or more timing intervals, determine the total elapsed time by adding all the intervals. Allow one minute, in addition to the usual timing allowance, for the break and restoration of conversation.

If the number of minutes seems insufficient, make further adjustments so the chargeable minutes are approximately equal to the number of minutes chargeable for normal service.

13.3.6 Subscriber disputes time and claims credit

If a subscriber disputes the chargeable time or charge, question the subscriber, if necessary, to determine the facts.

If a connection on which conversation was interrupted cannot be reestablished for any reason and the calling party claims no satisfaction on the call, do not charge the subscriber for the original connection.

If the billing ticket is available, the operator can make adjustments. If the ticket is not available, the operator ca prepare a credit ticket or do the following to make a credit entry:

1. Do one of the following:
   - Press the **Charge Adjust** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
   - Prepare a credit ticket.
2. Determine the number of chargeable minutes and charge according to the information available.

The charge for service actually rendered is equal to the charge for an equivalent amount of normal service at the regular rate. However, if the subscriber does not receive the equivalent of any normal service, make no charge.

3. Enter an appropriate credit entry if service appears to be abnormal or unsatisfactory for any of the following reasons:
   - equipment or circuit trouble
   - unsatisfactory transmission
   - possible misunderstanding by a subscriber or operator
   - faulty operating or other condition for which the service provider assumes responsibility
4. Base charges on equivalent amount for normal service.

Use the following guidelines for adjustments, given the facts presented by the subscriber:

- Adjust each case as is reasonable on the basis of the subscriber's point of view.
- If there is a possibility that the call was timed longer than the call actually lasted, record the number of minutes for which charges should be made.
- Give the subscriber the benefit of the doubt if the class of service could have been misunderstood.

If convinced that a claim is insincere or groundless, explain that the time or charge is calculated by the system based on the exact duration of the call. If the subscriber insists that a call was timed longer than the call actually lasted or was overcharged but there is no indication of service difficulty, ask the subscriber to contact the business office when the bill arrives.

Customers may call an operator to request credit on a call when they experience trouble and billing occurs.

For example, Mariko tries to call her cousin three times. Each time she dials and hears a voice, the call disconnects and the line goes dead.

The procedure for handling this type of calls is very similar to trouble reporting.

The operator can charge adjust in conjunction with trouble reporting after entering the trouble code. See previous page on Customer Reported Trouble for directions.

To record a **Charge Adjust** for a customer to receive credit, the operator can do the following:

1. Press the **Fncts** key.
2. Enter the code for **Charge Adjust**.
3. Enter the three-digit code for the type of charge adjust that the customer needs (Read on for instructions on this entering this code).

   Most charge adjustments are for single occurrences. However, a customer may report a service difficulty with multiple occurrences.

4. Enter a specific code.
5. Ask the subscriber how many times he or she encountered trouble or for how long the call lasted. To enter this information, do one of the following:
   - Enter the service provider’s one digit charge adjust code (as determined by datafill) and enter the letter `T` plus the digit for the number of occurrences.
   - Enter the letter `M` plus the digits for the number of minutes the call lasted.
6. Press **Start** to send a message to the switch to indicate the code for which credit should be applied.
7. Press **Start** to recycle the call and outpulse to the called party. When the called party answers, verify that the correct DN was reached. Release the call with the **Pos Rls** key.

   If the call cannot be recycled or if the subscriber prefers not to try the call again, press **Ca Call** and **Pos Rls**.

Examples:

Note the following examples:

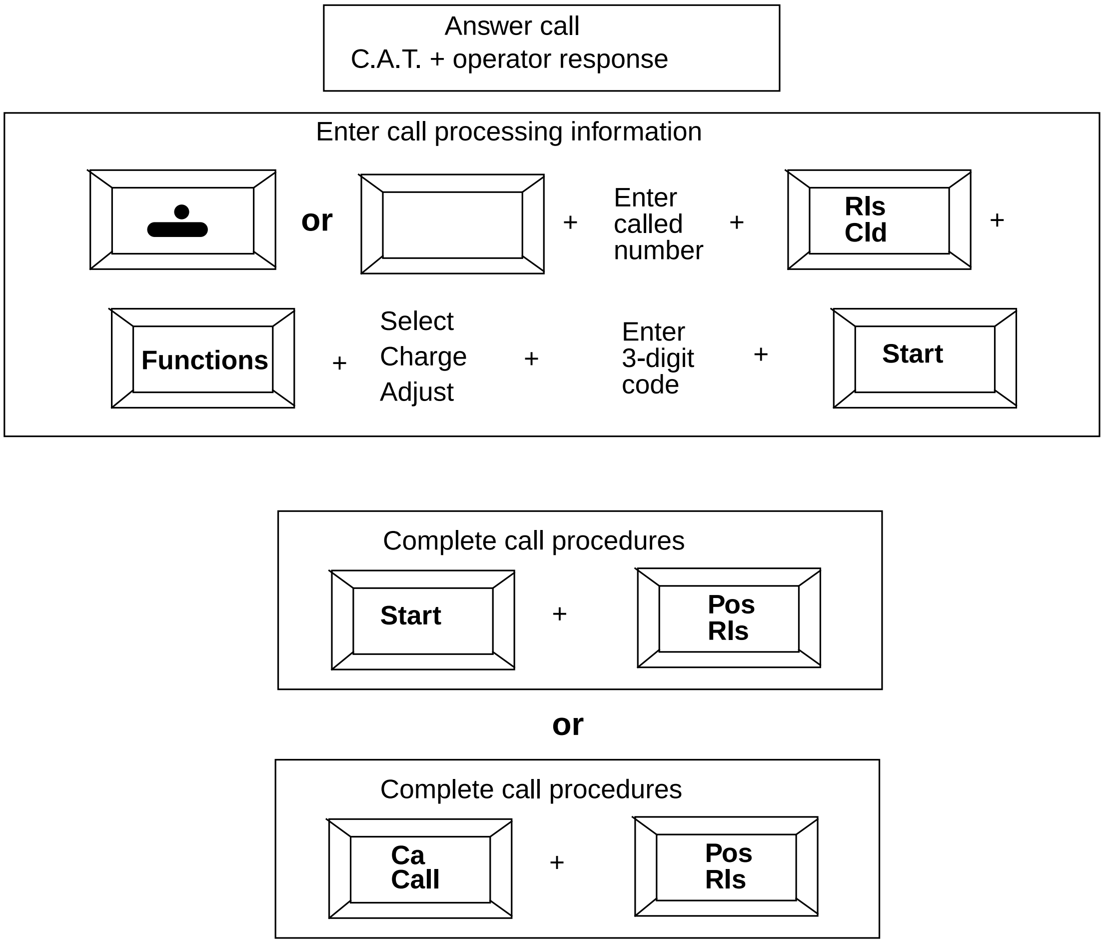
- `1T3`
  1 (service provider code) T (time) 2 (number of times the customer had trouble)

- `1M5`
  1 (service provider code) M (minutes) 5 (number of minutes the call lasted)

On coin calls, `C` indicates Cents, in terms of monetary returns. See Coin calls for examples.

See Figure 91 for Charge Adjust.

Figure 91. Charge Adjust



13.3.7 Station call completes instead of a person call

If the subscriber placed the call by number, without mentioning a name, title, or extension, explain that the station charge is correct.

If uncertain about the original request and a ticket is available, the operator can use the following guidelines for adjustments, based on the facts presented by the subscriber:

- If the calling party mentioned a name, title, or extension while placing the call, change the ticket to person-basis and make any necessary charge adjustment.
- If the calling party talked with the requested person but claims a delay in reaching the person, determine the number of chargeable minutes on the basis of the time that should be chargeable if the call was handled on a person-basis.
- If the caller did not reach the requested person, make further attempts to complete the call or cancel it as directed by the calling party.

If uncertain about the original request and a ticket is not available, use the following guidelines for adjustments, based on the facts presented by the subscriber:

- If the caller did not reach the requested person, make a wrong number credit entry, cancel the original call, and attempt to reach the requested party.
- If the caller reached the requested person, prepare a credit ticket and explain the change from station to person. Write the number of minutes of credit.

13.3.8 Station call completed without satisfaction

If the subscriber claims that an unauthorized person answered, use the following guidelines for adjustments:

- If the call was answered by a person not qualified to talk or if the person who answered refused to talk, ask the subscriber whether to place the call again. Proceed as directed.
- If the call was answered by a person qualified to talk, explain that there is a charge for the call. Qualified persons include:
  - — a member of the household
  - — an employee of a firm that could take a message or answer questions
  - — someone at a secretarial system

13.3.9 Request to change a person call to station

Before the called telephone answers, the calling party can change a person call to a station call.

After the called telephone answers, the calling party cannot ask to speak to any person other than the one originally specified (or to any other extension, station, department, or office reached through a PBX attendant) and cannot change the call classification to station. The call remains a person call.

13.4 Supervising on a machine-timed call

For a machine-timed call, on receipt of calling supervision (an inverted or highlighted calling field) display from the calling telephone or a called supervision (inverted called field) display from the called telephone, do the following:

1. Cut in, if necessary.
2. Write the elapsed time on the ticket.
3. Press the **Pos Rls** key.

Any change in supervision on the held call, with the second loop idle, causes the held call to access the position automatically. If a call is being processed on the second loop, any change in supervision on the held call changes the appropriate loop status icon from the outline on-hook telephone icon to the solid on-hook telephone icon when the help loop status changes to temporary hold. The held call automatically accesses the position when the **Pos Rls** key is pressed on the call being processed. Enter the elapsed time on the ticket and press the **Pos Rls** key.

13.5 Supervising on a manually timed call

On a manually timed call, write the disconnection time on the ticket as soon as either a supervisory signal occurs or the conversation ends or is not proceeding satisfactorily. Then, proceed according to the condition encountered.

14.0 Assistance calls

This chapter describes procedures for handling requests for assistance and information on calls that the subscriber can dial directly.

When a call that a subscriber can dial directly reaches your position on a dial 0 trunk, provide the dialing instructions for the type of service the subscriber wants.

14.1 Local calls

In some locations, Loc displays after the called number. When Loc appears beside the called number, the called number cannot outpulsing. Give the subscriber dialing instructions as locally directed.

To advance the call, the operator can do the following:

1. Press the **Start** key and the appropriate charge class key.
2. Do one of the following:
    - Press the **No AMA** softkey.
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
3. Press the **Pos Rls** key.

14.2 Intra-LATA or inter-LATA calls

To determine if the subscriber is dialing an intra-LATA or inter-LATA point, request the called number or location.

In a GOS environment, global competitive access provides the same functions that equal access provides in the North American environment. However, instead of using a local access and transport area (LATA), global competitive access defines zones. A zone can be any area, from a city to a country to a group of countries. When a call originates in the zone served by your traffic office and terminates to a point outside the zone, it is an *inter-zone* call. Calls that originate and terminate within the same zone are i*ntra-zone* calls. An inter-zone carrier (IC) carrier provides inter-zone service.

14.2.1 Intra-LATA or intra-zone calls

For intra-LATA or intra-zone calls, the operator can do one of the following:

- On station paid calls, tell the subscriber to dial 1, the area code (if required), and the number.
- On operator-handled calls, tell the subscriber to dial 0, the area code (if required), and the number.

14.2.2 Inter-LATA or inter-zone calls

If your operating company provides dialing instructions to subscribers for inter-LATA or inter-zone calls, the operator can do the following:

- On station-paid calls, tell the subscriber to dial 1, the area code (if required), and the number.
- On operator-handled calls, tell the subscriber to dial 0, the area code (if required), and the number.

If your operating company does not provide dialing instructions to subscribers for inter-LATA or inter-zone calls, the subscriber’s inter-LATA or inter-zone carrier (IC) provides the instructions. The operator can do one of the following:

- If the incoming call is to an equal access office, refer the subscriber to the primary long distance company.
- If an incoming call is to a non-equal access office, refer the subscriber to the long distance company.
- If the subscriber questions how to reach the subscriber’s long distance company, refer the subscriber to DA or to his or her telephone bill.
- If locally instructed to do so, give a subscriber specific dialing instructions to reach the long distance company operator by dialing the appropriate code (for example, 00, N11).

14.2.3 Subscriber-owned coin telephones

Handle all calls from telephones identified as subscriber-owned coin telephones as locally directed. For example, ask the calling party to read the dial instructions on the telephone.

14.3 Dialing the calling card number

When a subscriber places a station calling card call and a mechanized calling card service (MCCS) is locally available, SPL # displays at the position. Give calling card dialing instructions before you allow the call to begin outpulsing to the called number. Unless otherwise indicated, assume that the subscriber wants station-paid service.

If a subscriber asks how to place an automated calling card call, the operator can tell the subscriber to do the following:

1. Dial 0, the area code (if required), and the number.
2. Wait for the tone.
3. After the tone, dial the calling card number.

If a subscriber asks how to place an automated calling card call with a restricted PIN or otherwise indicates that the called number is the same as the calling card billing number, the operator can tell the subscriber to do the following:

1. Dial 0, the area code (if required), and the number.
2. Wait for the tone.
3. After the tone, dial the last four digits of the calling card number.

Inform the subscriber of any lower rates that apply to calls that can be dialed.

If a subscriber requests dialing instructions for DA, give the dialing instructions (for example, tell the subscriber to dial 1+ 555-1212 or 411).

On most 0+ calls originating from non-coin telephones, the subscriber receives a tone. If a subscriber questions what the tone means, explain that the tone means that the subscriber can dial the calling card number if the call is from a touchtone telephone.

On 0+ calls from public telephones and locally designated hotels, the subscriber receives an automated announcement in addition to a tone. The announcement is activated one second after the tone if the subscriber has not started dialing. If the subscriber questions the use or application of this announcement, the operator can provide the following explanations:

- The announcement is provided at public and hotel telephones to assist subscribers who are not familiar with using automated calling card service.
- After dialing 0 and the called telephone number, the subscriber can enter the calling card number at the tone, without waiting until the end of the announcement.
- If the subscriber wants to reach an operator to place a person, collect, or other type of operator-assisted call on a 0+ calling card call, the call cuts through automatically about five seconds after the completion of the prompt announcement. However, the subscriber can cut through to an operator by dialing the digit zero (0) immediately after or during the announcement.

14.4 Difficulty reported by calling party

If a subscriber reports trouble reaching a number or difficulty after being connected, express regret and tell the subscriber that you will try to complete the call. Either allow the call to advance or advance it yourself.

If the subscriber indicates trouble other than a busy or no-answer condition in either of the following cases:

- when reaching the called number on a station-paid noncoin call that normally is dialed directly
- on a station calling card on which the subscriber dialed the called number

Provide the dial rate or the subscriber dial station calling card rate as tariffs permit. Report trouble and provide credit for service difficulties.

14.4.1 DIAL-IT 900 service

Calls to numbers that begin with area code 900 are part of a direct-dial service called DIAL-IT 900 Service. This is an announcement-related service and includes programs such as Televote and Question of the Day, in which a subscriber dials 900 and a seven-digit number to reach a recorded announcement and casts a vote on a major issue that is publicized during a television or radio show. This service is available only on a dialed station basis from noncoin telephones, excluding hotel guest telephones.

14.4.2 Calls to 950-YXXX or 10XXX

Carrier access codes 950-YXXX or 10XXX provide an inter-LATA or inter-zone carrier with a universal access code for use by subscribers. An inter-LATA or inter-zone carrier subscriber dials the 950-YXXX or 10XXX universal access code to reach that company’s telephone network.

Such service is available only when a subscriber dials directly from a coin or non-coin telephone. The operator accesses the 950-YXXX or 10XXX number.

On calls from coin telephones, coins are returned to the calling party if automatic coin return is available. Normal coin refund procedures apply when a subscriber requests a refund for coins that did not return.

14.4.3 IC services provided

If a subscriber requests assistance or indicates trouble reaching a 950-YXXX or 10XXX number, express regret. Try the call for the subscriber using standard trouble-reporting procedures. Do not dial 950-YXXX or 10XXX.

14.4.4 IC services not provided

If a subscriber requests assistance or indicates trouble reaching a 950-YXXX or 10XXX number, explain that the number is for subscriber dialing only and that you cannot dial that number for the subscriber. If you do not recognize the 950 number as an inter-LATA or inter-zone carrier access code and you try to advance the call, the call is not routed.

If the subscriber asks that you take some other action, such as reporting the number to repair service, explain that the subscriber must deal directly with the company providing that telephone service.

After a subscriber designates a primary inter-LATA or inter-zone carrier, all inter-LATA or inter-zone calls from the subscriber’s telephone automatically route to the designated inter-LATA or inter-zone carrier unless the subscriber dials a 10XXX access code to reach another company.

If a subscriber asks for assistance with questions about inter-LATA or inter-zone carriers, the operator can give assistance according to the following guidelines:

- If a subscriber asks general questions about equal access or the carrier selection process, refer the subscriber to the local business office.
- If a subscriber asks a question about a specific long distance company, recommend calling the company in question. If the subscriber does not know the number, refer the subscriber to DA.

14.4.5 Calling party reached intercept

If the calling party reports reaching an intercept announcement or operator, explain that no charge applies and there is no need to arrange for credit. In addition, ask if the subscriber needs assistance in reaching the number. Proceed accordingly.

14.4.6 Requests for the business office

Business office is a generic term that refers to the subscriber’s point of contact at the local service provider. The subscriber contacts the business office to secure new service, direct questions regarding current service, discuss calling plan options, or ask billing questions.

The telephone bill issued by the local service provider includes local service charges and, in some locations, charges for inter-LATA or inter-zone calls and other services provided by a different company. The charges from each company are shown in separate sections of the bill and include the telephone number to be called for assistance in billing matters. Refer billing inquiries to the appropriate business office according to local procedures. If locally directed, advise the subscriber that the appropriate number to call for billing inquiries is on the bill.

Business office services are provided by the service provider and by the inter-LATA or inter-zone carrier. In some locations the service provider provides business office services, under contract, for one or more inter-LATA or inter-zone carriers. In other locations, the service provider and the inter-LATA or inter-zone carrier provide separate business office services. For either type of service provider, the operator can do the following:

- On a request for the business office, refer the subscriber to the local business office.
- On a request for the business office of a specific inter-LATA or inter-zone carrier, refer the subscriber to DA or to the bill for the number.

- If locally directed, handle requests for the business office of a contracting inter-LATA or inter-zone carrier the same as requests for a local business office.

If the telephone number for the business office is not provided in your position information, refer the subscriber to DA.

14.4.6.1 Business office open

If the business office is open and the telephone number for the business office is provided in your position information, give the number to the subscriber. Ask if the subscriber wants to dial the call or wants you to connect the call.

If the subscriber wants you to connect the call and an OGT menu selection is available for the business office, press the **OGT** key, type the number for the menu selection, and press the **Pos Rls** key. This automatically routes the call to the correct business office

If the subscriber wants you to connect the call and an OGT menu selection is not available for the business office, the operator can do the following:

1. Press the **Cld** key, type the business office number, press the **Start** key, and type the appropriate class charge.
2. Do one of the following:
    - Press the **No AMA** softkey.
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Pos Rls** keys.

14.4.6.2 Business office closed

If the business office is closed and the telephone number and hours for the business office are in your position information, tell the subscriber the name of the service provider, the business office hours, and the number.

14.4.6.3 Subscriber asks to be called

If the subscriber asks to be called by the business office, comply with the request. The operator can do the following:

1. Prepare a memo ticket of the request, including the subscriber’s name, and the time to be call.
2. Inform the subscriber that the business office will call on the next business day.
3. Send the memo ticket to a supervisor.

The supervisor makes arrangements to send the information to the business office on the next business day.

14.4.6.4 Request for a business office outside the free calling area

Standard charges apply on calls to a service provider business office number outside the designated free calling area.

14.5 Subscriber reports annoyance call

Refer subscriber complaints about annoyance calls to the local business office or law enforcement agency, whichever is appropriate.

If a subscriber reports receiving one or more annoyance calls, express regret and tell the subscriber that the local telephone business office handles this type of report. If the subscriber indicates that a threat involving danger to life or property, kidnapping, or other serious circumstances was made by the caller, the operator can do one of the following:

- Connect the subscriber with the local law enforcement agency according to usual emergency procedure. Inform the supervisor of the call.
- If the subscriber does not want to be connected with the local law enforcement agency, refer the subscriber to a supervisor The supervisor refers the call to security or to whoever is designated to handle such calls. Proceed as locally directed.

14.6 Time and charges requests

If a subscriber requests time and charges on a previously dialed call, explain that the timing for billing of the call is automatic and that it will be very difficult to secure time and charges at this time. Explain that the charge will appear on the bill. Tell the subscriber how to secure time and charges on future calls. If the subscriber insists that you quote time and charges, proceed as locally directed.

14.7 Request to change billing after a conversation

If you receive a request to change the billing after a conversation completes, explain to the subscriber that billing is automatic and that it is very difficult to change the billing after a conversation. Tell the subscriber that such service can be obtained in the future by dialing the digit zero (0) before dialing the telephone number and asking the operator for the special billing.

If the subscriber insists on special billing, the operator can proceed as locally directed, such as doing one of the following:

- Tell the subscriber that you need to check the billing arrangement. Perform validity checks. If appropriate, secure verbal acceptance on collect calls and calls charged to a third number.

- If the equipment or paying party indicates an invalid number or denial of charges, or if you cannot reach the called station or an authorized party at the third telephone, verify that you have the correct bill-to number. If the number does not change, tell the subscriber that you cannot make the change in billing.
- If adequate billing is obtained, record a memo ticket. Mark the calling, called, and bill-to numbers. Mark the Misc designation and record the original time, date, and reason for the change (for example, mark Make Col. after Conv in the SPEC INST designation).

14.8 Connecting a subscriber with a supervisor

To connect a subscriber with a supervisor, the operator can do the following:

1. Press the **OGT** key, type the menu number for Assistance, and press the **Start** key. (If a hotkey is datafilled for this purpose, press the hotkey.)

   Press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
   The call returns to your position when the supervisor releases the call.

14.9 Physically handicapped subscriber requests

On a 0 call, if a subscriber asks you to complete a station-paid, noncoin call that is normally dialed direct, and if the subscriber indicates a physical handicap (for example, if the subscriber is blind), proceed as locally instructed to ensure billing at the dial rate.

On a 0 call, if a subscriber with a physical handicap requests assistance completing an inter-LATA or inter-zone call, connect the subscriber with the long-distance operator as locally directed. For example, obtain the called number, press the **Cld** key, type the called number, and press the **Start** key. A carrier name and carrier access code displays.

- If the system displays Xfr IC, your service provider does not provide services for the displayed inter-LATA or inter-zone carrier. Transfer the call by pressing the **Pos Rls** key. The call automatically routes to the displayed inter-LATA or inter-zone carrier.
- If the system does not displays Xfr IC, your service provider provides operator services. Complete the call by pressing the appropriate class charge key and the **Pos Rls** key.

14.10 Requests for time of day

If a subscriber requests the time of day at another place, the difference in time between your office and another place, or the time of day at your office, proceed as locally directed. For example, give the time and refer the subscriber to DA for the number for time calls.

14.11 Transmission survey call

If the calling party gives a seven-digit number, or an NPA and a seven-digit number, and says that the call is for transmission survey, acknowledge the request and establish the connection. Such calls are placed by service provider employees to appraise transmission quality. The call is timed by AMA. Answer supervision might be received before the first ring.

14.12 Request for services not authorized by tariff

If a subscriber requests assistance for a service that you are not authorized to provide, such as typing additional digits after a connection to a seven- or ten-digit number, explain this to the subscriber. If the subscriber insists, transfer the subscriber to the supervisor.

The supervisor explains to the subscriber that you do not provide the type of service requested. If necessary, further explain that you cannot comply with requests to perform services that are not authorized by the various tariffs under which the company operates. Prepare a record of this contact using the appropriate local form and file it according to local procedures.

14.13 Subscriber inquires about purchasing equipment

If a subscriber asks for a recommendation or suggestion as to where to purchase a telephone set or equipment, explain that you cannot recommend or suggest a supplier.

15.0 Busy line verification requests

This chapter describes procedures for handling busy line verification (BLV) requests.

A subscriber who is repeatedly unsuccessful in completing a call can ask you for assistance in determining whether a called line is actually busy (BY) or out-of-order (OD). The subscriber might have encountered a busy or reorder signal, no answer, or other condition.

15.1 Verifying a line

If a subscriber reports a busy signal or no answer for a line, determine whether the number to be verified or interrupted is within your serving area.

If	Then
the number is within your serving area	follow the procedures outlined in this chapter
the number is outside your serving area	perform a terminating toll center (TTC) lookup, and refer the subscriber to the inter-LATA or inter-zone carrier for the appropriate serving area

If the number is in your serving area, press the **Fncts** key to display the Functions menu. Type the menu number for Busy Verify and press the **Start** key. Then, type the number of the line to verify and press the **Start** key.

15.1.1 Billing for verification

The class charge to which to bill the verification appears. If the customer asks to bill the call to another class, you can change the class charge to any class except collect.

If you try to enter a class for a busy line verification charge and the call screening does not allow the charge, X and arrows appear in the class charge fields.

If the call is station-paid from a postpay coin telephone, secure the appropriate deposit after performing the service, but before giving the report to the subscriber. If the call is from a prepay coin telephone, return the initial period deposit and secure the busy line verification deposit.

For 0+ outward calls, when you receive a verification request for a busy condition with a 0+ or station class charge message displays, press the **Rls Cld** key and verify the number.

15.1.2 Reporting the verification

When you determine if the line is busy or experiencing trouble, press the **Rls Cld** key and report the results to the customer.

If there is an error condition, enter a trouble report. Follow the procedures in chapter 38.0, “Trouble reports,” on page 467.

15.2 Barging in

If the caller requests to be connected to a busy line, you can interrupt the current call on that line. At the Functions menu, type the menu number for Barge In. When you hear the alert tone and conversation, announce yourself and inform the called party of the request to interrupt that call. Press the **Rls Cld** key to disconnect from the interrupted call and tell the caller if the call can be interrupted.

15.3 Verifying ported numbers

If your office uses LNP, the number that a subscriber dials does not necessarily identify the actual number of the line. Therefore, you cannot always use the number in the Cld field of the Call Information window to determine if the actual called number is in your serving area.

To determine whether the number to verify is within the serving area, the operator can do the following:

1. Press the **Fncts** key, type the menu number for LNP Info Called, and press the **Start** key.
2. The message CLDLNP and one of the following messages appears in the Call Details window:

   `nnn-nnn-nnnn`

   This number is the actual line number. Use it to determine if the number is in your serving area.

   `not ported`

   The number in the Cld field is the actual line number. Use it to determine if the number is in your serving area.

   `?`

   The database query failed. Depending on your company’s procedures, you can repeat Step 1, or you can use the number in the Cld field to determine if the number is in your serving area.

16.0 Subsequent attempts

This chapter describes how to handle subsequent-attempt calls. A subsequent-attempt call is needed when the calling party encounters a delay in reaching a party or station and wants to continue trying to reach the party.

16.1 Determining subsequent attempt time

Make a subsequent attempt when the calling party requests one. If the calling party does not indicate the time at which to try the call, use the following guidelines:

- Make the first subsequent attempt thirty minutes after the first report is given, and additional attempts every hour.
- If a different delay is encountered on a subsequent attempt, proceed as on a new call. After the new report, make the first subsequent attempt thirty minutes later and the following attempts every hour.
- On reports of person delay, the subsequent-attempt time depends on the type of delay report received and instructions from the calling party. Do one of the following:
  - If the calling party requests that a call back at a specific time or if the called party is expected at a specific time, call back at that time.
  - If the time to call back is general (such as afternoon, evening, or next day), call back at 2:00 PM (1400 hours) for afternoon, 7:00 PM (1900 hours) for evening, or 9:00 AM for the next morning.
  - If the person who answers the telephone leaves the telephone or goes to look for the called party; if the PBX station (extension) or room telephone is busy (BY), does not answer, or is out-of-order (OD); or if the called party is not registered (NRG), party paged or not paged; make a first subsequent attempt thirty minutes after the first report is given and additional attempts every hour.

Following any report of delay, if the next attempt time falls between 10:00 PM (2200 hours) and 7:00 AM and the calling party does not indicate the time for a call back, ask if the next attempt time is satisfactory.

16.2 Completing a subsequent-attempt memo

When a subscriber wants to make a later attempt on any call for which a delay is encountered, write the subsequent-attempt time on the face of the memo in the space for reports. Use the back of the memo if more room is needed. The operator can do the following:

1. Circle each entry, using a separate line for each additional subsequent-attempt time.
2. Do one of the following:
    - If encountering a trunk, station, or PBX extension delay, write that delay report before writing the time.
    - If encountering a trunk, station, or PBX extension delay on a subsequent attempt, write that different delay report before writing the time.
    - If encountering a person delay, write only the time.
3. Record the time to the nearest minute using a hyphen to separate the hour from the minutes in terms of the 24-hour-clock time. For example, write 12-10 for 10 minutes past noon or write 18-00 for 6:00 PM.
    - If the time at the called location is different from that at the calling location, write the time at the office.
    - If more than one called party's name or more than one called number is on the memo, include the name or number for which the time applies when writing the subsequent attempt time.
    - If encountering a delay in securing the calling telephone or party, Include the word "calling" in the delay report.

Hold at the position all memos that require subsequent attempts on the same day or a future day. Before leaving the position, give subsequent attempt memos to the supervisor.

If there are a number of subsequent attempt memos that cannot be worked on within a few minutes, pass one or more of the memos to an adjacent operator.

16.3 Making subsequent attempts

To make a subsequent attempt, do the following:

1. Secure the calling line.
2. Access an idle loop.

    The call origination field displays either Delay or 0.
3. Press the **Clg** key, type the calling number, and press the **Start** key.

4. Notify the person who answers that the operator is trying the call again. Do one of the following:
    - If the calling party is ready to have the call tried, proceed with the attempt.
    - If the calling party is not ready to have the call tried, ask if the subscriber will try again later. If the customer asks to try later, proceed accordingly.
    - If the calling telephone cannot be reached, make additional attempts as when encountering a delay in reaching the called telephone.
    - If the calling party cannot be reached, try to determine when the calling party will be available. Proceed the same as when obtain information about the called party.
5. Do one of the following:
    - If the called party is reached, let conversation begin and start timing immediately.
    - If there is a different delay from the preceding delay on a subsequent attempt, proceed as on a new call.

16.4 Memo endorsed “do not call until WH”

The operator should not call the calling party to give any report other than WH (We Have the party) unless further directions are needed. For example, if encountering a call coded NF (telephone listing Not Found), NRG (not registered), or UN (Unknown) and the called party cannot be reached until a later day; or if the call may be completed within night hours, the operator can do the following:

1. Reach the calling telephone.
2. Identify the call and give the report.
3. Proceed as directed.

When no further attempt is scheduled and further directions are needed from the calling party, decide whether to make the next attempt.

17.0 Rates, routes, telephone numbers, and charges

This chapter describes how to secure rates and routes, how to secure telephone numbers, and how to calculate and record charges. This chapter assumes access to a rate and route operator. If there is no access to a rate and route operator, secure rate and route information from another source. In most offices, rate and route information is located at the position.

17.1 Rates

Rate information is available in the position information, through a rate operator, or both. A rate is the price for the initial period of a call. A rate is required for rate quoting, for calculating the charge at the end of conversation, and for determining the deposit amount required for a paid call from a coin telephone. It is affected by the following factors:

- Class of service, station (S) or person (P)
- Applicable rate schedule
- Operator-assistance surcharges
- Length of initial period, if applicable
- Distance from the originating rate center to the terminating rate center, as identified by NPA and NXX codes
- Rate period in effect according to time of day and day of week, if applicable. If serving a tributary office in a different time zone, use the time at the tributary office.

Chargeable time starts as described in Section 13.2, “Timing at the operator position,” on page 195.

17.1.1 Class of service

The two major classes of two-point service are station and person. The classes conference, mobile, and marine are not discussed in this document.

In a station call, the calling party agrees to talk with anyone who answers at the called telephone. The calling party does not request a specific person or a specific extension, department, or office through a PBX attendant.

In a person call, the calling party requests a specific person or a specific extension, department, or office through a PBX attendant.

The classification of a call from person to station can be changed at the request of the calling party before the called telephone is reached.

The classification of a call from person to station cannot be changed at the request of the calling party after the called telephone is reached or while the connection remains established. For example, if the calling party asks to talk to any person other than the one originally specified, or to any other extension, station, department, or office reached through a PBX attendant, the person classification of the call remains.

If, at the request of the calling party, the service provider employs a messenger to bring someone to a telephone, the call is classed as person, even if the calling party did not request a specific person. However, if a messenger is sent to bring someone (again, not a specific person) to a telephone because the called line is out of order, the station classification is valid.

17.1.2 Rate steps

Each rate step is an assigned one, two, or three-digit number that identifies a specific mileage band of existing rate schedules. This section explains several methods of obtaining rates.

17.1.2.1 Automatic rating

If the calling and called NPA-NXX are programmed in the TOPS IWS rating memory, charges are automatically calculated for the class of call according to the rate schedule in effect at the time the call originates. If the time differs from the time in the office, the rate system automatically adjusts the time to correspond with the time of day at the tributary office where the call originates.

If the calling and called NPA-NXX information is stored in the rating memory, the rate step displays when the **Fncts** key is pressed, type the menu number for Call Details, and press the **Start** key.

If the rate request is not associated with a forward connection, press the **Cld** key, type the called number, and press the **Rls Cld** key to prevent a forward connection.

17.1.2.2 Semi-automatic rates

When a rate is not available because the rate step is not programmed in the TOPS IWS rating memory or because of a trouble condition, `RS?` and all call details display. In this case, do the following:

1. Press the **Rls Cld** key before the first ring.
2. Obtain the appropriate rate step from the rate operator.
3. Press the **Fncts** key, type the menu number for Rate Step, and press the **Start** key.
4. Type the number for the rate step and press the **Start** key. The charges are automatically calculated for the call class using the rate schedule in effect at the time the call originates.

17.1.2.3 Manual rating

If a rate step cannot be assigned, `RS ?` and all call details display.

17.1.2.3.1 Determining the rate

To bypass the `RS ?` by using a no-charge rate step (0), do the following:

1. Press the **Fncts** key, type the menu number for Rate Step, and press the **Start key.**
2. Press **0**, and press the **Start** key.

On coin-paid calls, the rate operator manually computes charges. To hold the call on loop and enter the charge at the end of the conversation, do the following:

- Press the **Charge Adjust** softkey.
- Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
- Prepare a ticket.

The rate operator requires the following information to determine the rate step:

- The calling NXX and the calling place name. If the traffic office serves more than one NPA, provide the calling NPA-NXX and the calling place name. Use the position information to translate the calling NXX to a place name.
- The called NPA-NXX. If there is no NPA code with the called number, assume that the call is directed to another telephone in the home NPA. If the called number is not seven digits and the called place is in the routing information contains a mark code, provide the mark code.

If the subscriber wants time and charges quoted, float the call for machine timing and AMA recording. If the call returns to the position at disconnect, quote the time and charges.

17.1.2.3.2 Entering the rate information on AMA tape

Enter a no-charge rate step (0) into the system to bypass the `RS ?` display. Start timing when appropriate and release the call for automatic timing unless the call is coin paid. Do the following:

1. Do one of the following:
   - For a time and charges quotation, proceed as locally directed. For example, pass the call to a designated operator to calculate the charge.
   - For a hotel call, a message prints at the hotel billing information center (HOBIC) when the call disconnects. The HOBIC operator calculates the charge and contacts the hotel.
2. Hold coin-paid calls on loop.

3. At call completion, do one of the following:
    - Press the **Charge Adjust** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
4. Enter the information to record the charges obtained for rate and route.

17.1.3 Rate schedules

Rate schedules reflect initial and overtime periods. The *initial* period is the interval of time allowed, or any fraction thereof, at the rate quoted for a connection between points. The *overtime* period is the unit of time used for measuring and charging for time in excess of the initial period.

Besides identifying the location of the calling and called telephones and class of service, the following factors determine the rate:

- Originating place, designated by the originating station NPA-NXX
- Terminating place, designated by the terminating station NPA-NXX. If the office is configured for equal access to long-distance carriers, the following attributes also determine the rate:
    — intra-LATA (or intra-zone) and intrastate
    — intra-LATA (or intra-zone) and interstate
    — inter-LATA (or inter-zone) and intrastate
    — inter-LATA (or inter-zone) and interstate
- Class of service, either station or person
- Time of call origination:
    — weekday or weekend
    — time of day; for example, business hours (8 A.M. to 5 P.M.) or evening hours (5 P.M. to 11 P.M.)
    — daylight savings time or standard time
    — holiday

    For connections that begin in one rate period and end in another, the rate in effect during each minute of conversation is applied. If the office serves more than one time zone, the time for the calling telephone is automatically selected by the system on system-rated calls, as follows:
- Call type (See Section 17.1.3.1, “Call type,” on page 233.)
- Billing type (See Section 17.1.3.2, “Billing type,” on page 233.)

17.1.3.1 Call type

Call types for rate calculations are *dial station* and *operator-assisted*.

Dial station rates apply to direct distance dialing station-paid calls for which the subscriber dials an access code and a seven- or ten-digit telephone number. These rates also apply to operator-handled station-paid calls under the following conditions:

- when a subscriber tries to dial a number and encounters a trouble condition other than busy (BY) or DA
- when a subscriber cannot dial because of a physical handicap
- when a call originates or terminates at a point that is not equipped for direct distance dialing
- when an operator reconnects the subscriber following a request for credit because of a wrong number, cutoff, or poor transmission on a directly dialed call

Dial station rates do not apply to calls that require additional operator assistance, such as calling card, collect, bill-to-third number, and time and charges quoting.

Operator-handled rates apply to all other operator-dialed or operator-assisted calls (including 1+ hotel and 1+ coin calls).

17.1.3.2 Billing type

Billing types for rate calculations are the following:

- Subscriber-dialed, calling card station rates

  These rates apply on station calls originating from noncoin or public telephones, as follows:

  — The subscriber dials 0+ a number. The operator enters the calling card number, the calling number if ANI is not available, and releases the call from the position. The call completes without additional operator assistance.

  — The subscriber dials the called number and calling card number without operator assistance.

  — The subscriber places a calling card station call by dialing an operator when the equipment does not accommodate dialing.

  — The subscriber places a station calling card call under any of the conditions stated previously for application of dial station rates.

- Bill-to-third telephone rates

  A message charge can be billed to a third telephone anywhere in the United States and Canada.

- Reversed charges

  Charges for all service classes can be charged against the called telephone on request if the called telephone accepts the charges. Station or person rates apply on collect calls.

- Splitting message charge

  A message charge cannot be split on calls other than those from coin telephones because of accounting difficulties. The reversal of all or a portion of the overtime charge on a coin paid call is a collection practice and does not affect the rate.

- Messenger charge

  A messenger charge on a paid or collect call charges to the calling telephone. The calling party must agree to the messenger charge before the call is accepted. A messenger charge is the actual amount spent for messenger service and is waived if a called telephone is out of order.

17.1.4 Requests for rates

If the subscriber requests rate information, ask what type of rate the subscriber wants and proceed accordingly. Quote the applicable rate requested and supply further information, as locally appropriate, in response to any questions. If the rate plus an additional charge applies, include the information about that charge in the rate quotation.

If the subscriber requests the rate for a place that has only one rate schedule (that is, one rate that applies at all hours, every day), quote the rate for the first initial period. If there is more than one rate schedule for the place requested, quote the rate currently in effect for the initial period.

If the subscriber requests the rate for a special collect call, tell the subscriber that the charge is paid by the called party.

Unless otherwise indicated, assume that the requested rate is the station service rate in effect at the time the subscriber makes the request. Note the following:

- On a call from a noncoin telephone, if a subscriber-dialed rate applies for calls to the requested place when the request is made, notify the subscriber and add that an operator-handled call takes a higher rate. Quote the station operator-handled rate, if requested.
- If this is not a direct distance dialing office or a subscriber-dialed rate does not apply at the time the subscriber makes the request, quote the current rate for a station call is (rate) for the initial period.
- If the subscriber requests a rate for additional minutes after quoting the initial period rate, consult the appropriate rate schedule and provide the information as locally directed.

If the subscriber cannot provide an NXX when requesting the rate to a location where more than one rate step applies, explain that the rate information passed by the rate and route operator is the rate to a central NXX in that location.

17.1.5 Rate operator

To secure a rate from a rate operator, do the following:

1. Do one of the following:
    - Press the **OGT** key, type the appropriate menu number, and press the **Start** key.
    - Press the **Cld** key, type the number for the rate operator, and press the **Start** key.
2. Request the appropriate information, as follows:
    - If the area code and number for the called number is known, ask for the rate step from the calling place to that area code and number.
    - If the area code for the called number is not known, ask for the rate step from the calling place to the called place.
    - If the called number is to a point in Mexico, include the terminating place name and the requested class. A rate step is not available for calls to Mexico.
    - If the hour in which the rate operator is reached is in a different rate period from the connect hour, include the correct hour in the request.
3. Hold coin-paid calls on loop.
4. After obtaining the rate from the rate operator, press the **Rls Cld** key.
5. Provide the rate information to the subscriber, if requested, and enter it into the machine or onto the ticket, as appropriate.
6. At call completion, do one of the following:
    - Press the {**Charge Adjust**} softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
7. Type the information to record the charges obtained for rate and route.

If the rate operator cannot be reached (for example, a no-circuit condition is encountered), the operator can follow the procedures in Chapter 18.0, “Advancing calls,” on page 247.

17.1.6 External rating system

Real-time rating is required when calculating charges while a call is in progress or immediately at its conclusion. The following types of calls receive real-time rating:

- Calls billed to a coin phone, for which charges are collected as the call progresses.
- Calls billed to a hotel phone that require a room or authorization number, for which charges are reported to a device when the call ends. Sent-paid hotel operator assistance calls receive real-time rating at the end of the call, not while the call is at the operator position.
- Time and charges calls for which time and charges are quoted to the billed party when the call ends.
- Calls billed to an institutional phone that require an authorization number, for which charges are reported to a device when the call ends.

With an interface to an external real-time rating system, service providers can rate calls using a rating system outside the DMS switch. When a billable call arrives at a position, the system determines whether to rate it internally or externally.

Only certain types of calls can be rated externally. For example, ACTS calls are rated externally, but intercept calls are not rated.

External rating can be used in an operator centralization environment and for QMS calls.

17.1.6.1 Operator actions that cause rating queries

The following operator actions cause a call at the operator position to launch a rating query (if enough rating information is present):

- typing or changing the calling or called number
- class charging a call as sent-paid (for coin and hotel calls)
- class charging a hotel call for DA as sent-paid
- marking a sent-paid call as coin
- switching services (for coin or hotel calls)
- generating AMA (for coin or hotel calls)
- entering a new inter-LATA or inter-zone carrier number for a coin call
- enabling or disabling dial rate on a coin call
- releasing a DA call to announcement when automatic DA call completion (ADACC) is possible
- blocking or unblocking the calling number on a coin call

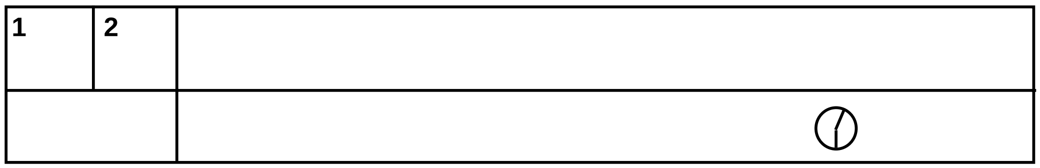
On a call that is already rated, an operator action can change the data used to rate the call, requiring another query to rate the call again.

17.1.6.2 Operator position displays

The operator does not calculate rate steps for externally rated calls, because the external rater does all charge calculation based on the call details sent in the query message. Therefore, no rate step displays.

Whenever an external rating system query is in progress, a waiting indicator displays. The indicator is a clock icon that displays in the application message field of the message and status area. Figure 92 shows the clock icon.

Figure 92. Clock icon



If the attempted query fails, the system displays the message Rating Query Fl (rating query fail) in the static field of the Call Details window. If the system cannot initiate the external rater query, the system shows the message Rating Not Att (rating not attempted) in the static field of the Call Details window. These messages remain in the static field either until on eof the following actions occurs:

- the call ends
- another external rate query successfully launches
- the rate of the current call is changed
- the DMS replaces the contents of the field with a new message
- any key other than the **Ca Call** key is pressed
- Request CAMA is selected from the Functions menu while an external rate query is outstanding
- the DMS switch displays the message Database Verification in Progress for three seconds in the transient field of the Message and status area

17.2 Routes

Routing information is available at the position and through a route operator. Calls to places with an unknown NPA need to be routed. The operator can use one or more of the following types of routes to complete the call:

- directory route, if the calling party supplies a location
- number route, if the calling party supplies a valid telephone number
- operator route, if the call requires routing to another operator

If the calling party provides an NPA and a seven-digit number, use the NPA as the route, unless it is the home area code. The home NPA route is the system default.

Secure routes to points that cannot be reached using an NPA route from a rate and route operator or from position information. If the calling party volunteers routing directions other than an NPA and the route is valid, follow the calling party's directions.

17.2.1 Securing routes from route operator

To secure a route from a route operator, do the following:

1. Do one of the following:
   - Press the **OGT** key, type the appropriate menu number, and press the **Start** key.
   - Press the **Cld** key, type the number for the route operator, and press the **Start** key.
2. After obtaining the route code from the route operator, press the **Rls Cld** key.

   If the route operator cannot be reached (for example, if a no-circuit condition is encountered), the operator can follow the procedures in Chapter 18.0, “Advancing calls,” on page 247.
3. When the route operator answers, provide the details about the route:
   - For a directory route, provide the place name.
   - For a numbers route, provide the telephone number.
   - For an operator route, provide the number for the distant operator, the place name, or both.
4. Identify for the route operator the type of route information provided. The operator should note the following:
   - If a similar name place exists (in position information), do not assume that the similar place is the appropriate one. Do not suggest the similar place name to the calling party until the route operator is reached and determines if there is a place name listed exactly as given by the calling party.
   - Sometimes two or more places have the same name even though they are not listed. Ask the calling party for more information (for example, the country name). If the calling party is uncertain, ask the route operator for more information to help the calling party identify the place.
   - If the route operator reports that the called place is not listed but suggests another place to try, record that information. Try the suggested place and complete the call as usual if the route is successfully secured.
   - If the route operator reports that the called place is not listed and the calling party cannot furnish any further information, cancel the call.
   - If a rate or rate step is required for call completion, the route operator can also supply rating information.
5. Complete the call as though the calling party supplied the routing information.

17.2.2 Using an alternate route (GOS only)

Whether the operator can use this procedure depends on whether the operating company uses GOS and which GOS features it uses.

On a call to another country, if there is no direct route or a connection cannot be made over the direct route, the operator can do the following:

1. Press the **Fncts** key, type the menu number for Alternate Route, and press the **Start** key.
2. Specify the first route in the list and try to connect the call.
3. If the call cannot connect on the first alternate route, try the next route.

17.2.3 Collect calls

To determine if the called telephone is a coin telephone, request this information from the route operator, identifying that the call is collect. If required, request either the numbers or directory route.

17.2.4 Verifying billing permitted in a foreign country

To verify whether a call can be billed to a number in a foreign country (for example, if the call is collect, bill-to a foreign calling card, or bill-to a foreign third telephone number), ask the route operator for the information.

17.2.5 Subscriber requests dialing information

Provide dialing information when appropriate, securing the route and any special dialing instructions from the route operator, if necessary.

17.3 Finding telephone numbers

Telephone numbers can be obtained from the following sources:

- local DA operator
- distant DA operator
- third number

If the subscriber can dial DA, provide dialing instructions as follows:

- Dial 411 for a local DA operator.
- Dial 1-555-1212 for a DA operator within an area code.
- Dial 1, area code (NPA), 555, and 1212 for a distant DA operator in a different area code.

If a subscriber asks for an NPA, either refer the subscriber to a local DA operator or provide the NPA. If the subscriber cannot dial DA, acknowledge the request and establish the connection.

17.3.1 Securing numbers from DA

The charge for distance DA requests can vary for intrastate and interstate telephone numbers. Some traffic offices use a transfer operator for DA requests.

When the DA operator answers, provide all information concerning the called party or place that was provided by the calling party (for example, name, address, and department). If the DA operator asks to speak to the subscriber to obtain additional details (for example, to verify spelling or to suggest possible listings), allow the DA operator to speak directly with the subscriber.

If the subscriber wants the operator to connect DA, advise the subscriber that a higher rate applies to the operator-assisted connection. If the subscriber still wants the operator to connect DA, acknowledge and do the following:

1. Do one of the following:
    - Press the **OGT** key, type the appropriate menu number, and press the **Start** key.
    - Press the **Cld** key, type the number for DA, and press the **Start** key.
2. Obtain the number from DA.

If	Go to
the subscriber completes the call	Step 3
the subscriber asks the operator to complete the call	Step 4

If the DA operator cannot be reached (for example, if a no-circuit condition is encountered), the operator can follow the procedures in Chapter 18.0, "Advancing calls," on page 247.

3. Press the appropriate class charge and press the **Pos Rls** key when the ringing signal sounds.
4. Advise the subscriber that a higher rate applies to operator-assisted calls.

If	Go to
the subscriber decides to complete the call	Step 3
the subscriber still wants the operator to complete the call	Step 5

5. Press the **Rls Cld** key.

6. To record the DA charge, do one of the following:
   - Complete a DA charge ticket.
   - Press the **Charge Adjust** softkey, type the DA charge code, and press the **Start** key.
   - Press the **Fncts** key, type the menu number for Charge Adjust, press the **Start** key, type the DA charge code, and press the **Start** key.
7. Complete the call as though the calling party supplied the called number.

After DA supplies the called number, the operator can do one of the following:

- If the calling party did not hear the number, repeat the number and provide dialing instructions, if necessary.
- If the DA operator reports that the number is not found (NF) or is unpublished, pass this information to the subscriber if it was either not heard or not understood.
- If the call is collect and the DA charge is billed to the called party, follow the guidelines in Chapter 27.0, “Collect calls,” on page 355.
- If the call is to be billed to a third telephone, follow the guidelines in Chapter 29.0, “Calls charged to a third telephone,” on page 375.

On a collect call, determine if the called station is a coin telephone and if billed number screening is not available. Reach the distant DA operator for the called area and ask if the called number is for a coin station.

17.3.2 Securing number from a third telephone

The operator can obtain telephone numbers from a third number at the subscriber’s request. Use the procedure for securing numbers from DA and completing the call. Press the **Cld** key, type the third telephone number, and press the **Start** key to establish the connection.

17.4 Calculating charges

Charges are calculated in the following ways:

- Automatically by the DMS switch (If the call is timed using AMA, the DMS switch automatically computes the time and charges for calls.)
- Manually using a charge table
- By asking the rate operator

Generally, calculate charges only for calls to Mexico or locations having other line charges. To determine the charge manually using the charge table or by asking the rate operator, the operator needs to supply the following information:

- rate step
- class of service
- connect hour
- chargeable time

Some of the following conditions might apply when determining the applicable charge:

- For collect calls, do the following:
  - — Use the rate in effect at the calling station.
  - — If the call requires a special collect rate, use that rate.
  - — If the regular rate plus a collect charge applies, use the calculated rate (regular rate + collect charge = charge).
  - — If charges were refused and the call was then completed as a paid call, use the regular station rate.
- For calls that are billed to a third number, use the rate that applies between the calling and called numbers.
- If the time of day at the location is different from that at the office, calculate the call using the time in effect at the calling place when conversation starts.
- If any of the following applies, obtain computed charges from the rate operator:
  - — The rate step not available.
  - — The chargeable time exceeds the highest number of minutes obtainable from position information.
  - — The computed charge table is not in position information.

The following taxes might apply to telephone calls:

- Federal tax

  Federal taxes apply to telephone charges for calls between points in the United States. Local calls or calls from coin telephones where the amount is equal to or less than the amount set in federal guidelines are the exception.
- Local or state tax

  Local and state taxes apply to telephone charges for calls originating in the state or local area served by the traffic office.

Any tax is charged to the billed telephone for collect and third-number billing. If the call originates outside the country but terminates as a collect call inside the country, the charge is taxable in the same manner as domestic calls.

The rating system computes coin telephone taxes to the nearest five cents. Taxes are not calculated and presented to the operator for noncoin telephone calls that require a time and charges quotation. Tax is included in the amount of charge required for coin-paid calls.

17.5 Ticketing procedures

On a ticket, to record information obtained from another operator (for example, the rate and route or DA operator), use the tables in this section for entering secured information.

Table 16 describes how to enter rate information.

Table 16. Entering rate information

Do	When
Write the rate step and class of service.	The rate step is available for the call.
Write OL, the amount, and the class of service.	A rate step is not available for the call, other line (OL) charges apply, and a monetary amount is provided. Contact the rate operator for the computed charge if the conversation exceeds the initial period.
Write MEXICO, the amount, and the class of service.	A rate step is not available for calls to Mexico, other charges apply, and a monetary amount is provided. Contact the rate operator for the computed charge if the conversation exceeds the initial period.
Write the connect hour.	The connect hour is different from the hour the rate operator was reached
Write the rate and additional charge.	The regular rate plus an additional charge applies to the call. If a call completes to a place different from the place recorded, determine the new rate or rate step and correct the rate recorded on the ticket. If a call is established after the start of a new rate period, determine the new rate or rate step and correct the rate and connection time recorded on the ticket. If a call is carried forward to another day, determine the new rate or rate step and correct the rate and connection time recorded on the ticket when the call is tried.

Table 17 describes the types of entries to make for routes and when to make each type of entry.

Table 17. Entering route information

Do	When
Write the place identification only.	The place identification is the same as the route code.
Write the place identification and route code.	The place identification is different from the route code.
Write the route code only.	The route code is secured, but place identification is not available.
Write the route codes.	More than one route code is secured, indicating that there is more than one place known by the name given. When determining the correct route, draw a line through the incorrect route code
Write the numbers route code.	Normal numbers route codes end in digits without a plus symbol (+), requiring that the call be routed to another operator for dialing.
Write nothing.	• The route operator reports that the called place is not listed. • If the route operator suggests another place try the suggested place. • If the subscriber provides more information, try again to secure a route. • If a route is secured, make the appropriate entry. Otherwise, press the **Ca Call** and **Pos Rls** keys.

Table 18 describes the types of entries to make for telephone numbers and when to make each type of entry.

Table 18. Entering telephone number information

Do	When
Mark the reached DA box.	DA was reached, but the call was not completed
Mark the reached DA box and write the number.	DA was reached, only one number was supplied, and the call was completed
Mark the reached DA box and write the numbers.	DA was reached, more than one number was supplied (for example, a business number and a residential number), and the call was completed

Table 19 describes the types of entries to make for charges and when to make each type of entry.

Table 19. Entering charge information

Do	When
Write the exact chargeable minutes and the charge, including tax.	The call is coin-paid.
Write the exact chargeable minutes and the charge without tax.	The call is noncoin.

18.0 Advancing calls

This chapter describes the number and operator routes that are listed in the *Operating Rate and Route Guide* (a guide containing information such as point-to-point cost per minute of conversation, initial rates, and the routing codes for call completion).

18.1 Number routes

A number route is a combination of digits that represents a direct route to the called telephone or to an operator who can ring it. Some number routes can be dialed by the operator or the subscriber, and others cannot.

18.1.1 Number routes that can be dialed

A route that can be dialed is a combination of digits that represents a direct route to the called telephone. These routes end in the designation 7D or in a plus symbol (+). The 7D or + indicates who can dial the route, as follows:

- An NPA code followed by 7D (for example, 205 + 7D) indicates that both operators and subscriber can dial the NPA code and telephone number.
- An NPA code followed by routing digits and a + (for example, 912 + 046+) indicates that operators can dial the number but subscribers cannot.

18.1.2 Number routes that cannot be dialed

A route that cannot be dialed is a combination of digits that represents a route to a distant operator who can ring the called telephone. These routes do not end in a 7D or + designation. To use a route that cannot be dialed, type the combination and wait for the distant operator to answer. Then, pass the request.

18.2 Operator routes

An operator route is a combination of digits that routes the call directly to a particular operator. Some operator routes can be dialed by the operator and not others.

18.2.1 Operator routes that can be dialed

An operator route that can dial ends in a + and is followed by a code, as follows:

- Use standard route codes to reach other operators, for example:
  - — 121 inward
  - — 131 DA
  - — 181 toll station
- Use special operator codes, such as those in Table 20, to reach operators who provide special services.

Table 20. Special operator codes

Operator name	Offices with 2-digit operator numbers	Offices with 3-digit operator numbers
Universal	1150	1150 1
Conference	1151	1151 1
Mobile	1152	1152 1
Marine	1154	1154 1
Time and charges call back	1155	1155 1
Hotel call	1156	1156 1
Calling card validation on dial pulse equipment	1160	1160 1
Calling card validation on multifrequency equipment	1162	1162 1

18.2.2 Operator routes that cannot be dialed

An operator route that cannot be dialed does not end in a `+`. Usually, it is a three- or six-digit code (for example, `418 + 023`). Type these routing digits and wait for the answer of an inward operator at the terminating toll center (TTC).

18.3 Examples of routes

The following examples show number routes and operator routes and describe how to complete the call:

- Number routes that can be dialed:
  - — For a 7D number route, dial the seven-digit called telephone number, including all numerals. The designation 7D indicates that the entire telephone number consists of seven digits. The digits can be all numerals or two letters and five numerals.
  - — For a 205 + 7D number route, dial 205 and the seven-digit telephone number.
  - — For a 919 + 027 + number route, dial 919, 027, and the telephone number furnished by the subscriber.
- Number routes that cannot be dialed:
  - — For a 704 + 042 + 562 number route, dial 704, 042, and 562 and wait for the operator to answer. Pass the order to the operator.
  - — For a 904 + 024 + 547 number route, dial 904, 024, 547 and wait for the operator to answer. Pass the order to the operator.

The following are examples of operator routes:

- Operator routes that can be dialed:

  For a 912 + 046 + operator route, dial 912, 046, and one of the following:
  - — the service code for the required operator at the TTC
  - — the four- or five-digit uniform code to reach such operators as marine
- Operator routes that cannot be dialed:

  For a 418 + 023 operator route, dial 418 and 023, wait for the TTC inward operator to answer, and pass the number to the operator.

18.4 Completing calls

The operator can do one of the following to complete a number route call:

- If the route can be dialed, and you are handling a subscriber-dialed call or completing a call for the party with a + route, complete the call as outlined in Section 18.1.1, “Number routes that can be dialed,” on page 247.
- For mark sense code or arbitrary NXX or line numbers, type the routing digits and pass the order to the distant operator. Enter the billing information by pressing the **Cld** key, typing the NPA, arbitrary NXX or mark sense code, and line number, and pressing the **Start** key. If there are fewer than four digits in the line number, type sufficient zeros before the line number to make it a 4-digit number. Enter the billing information before starting timing or pressing the **Pos Rls** key.

Do one of the following to complete an operator route call:

- For a route that can be dialed, type the routing digits and the code for the operator. Then, proceed according to the report or order being handled (for example, a call-back call).
- For a route that cannot be dialed, type the routing digits and pass the order for the particular operator (for example, for a marine operator). Then, proceed according to the particular call condition being handled.

18.4.1 Ring-down tributary

A ring-down tributary is an office that is accessed by a toll center operator. Therefore, the distant operator (toll center operator) might answer with a name different from the name of the called place. In this situation, ask for the name of the called place.

18.4.2 Toll station

A toll station is a subscriber telephone that is reached over a toll line. In most instances, the number route directs the operator to dial the digits 181 as the final part of the route. By doing so, the operator reach the operator at the terminating office who can access the toll line over which the called telephone can be reached.

18.4.3 Slow operator answer after dialing

After dialing a routing code or a particular operator, the operator presses the **Rls Cld** key and recycle the order if no answer is received within approximately 25 seconds.

18.5 Outpulsing requirements

If delayed outpulsing is in effect after the calling and called number are known to the system, automatic outpulsing occurs after a set time defined for the traffic office (approximately ten seconds).

To stop automatic outpulsing, press the **Rls Cld** key and either the **Start** or **Pos Rls** key to initiate outpulsing. If delayed outpulsing is not in effect, the **Rls Cld** key does not need to be pressed because the call can be outpulsed after entering appropriate details.

Details can be entered either automatically after receiving a successful query response or manually. Turning off delayed outpulsing can save two keystrokes for calling card calls. This is helpful because, when delayed outpulsing is in effect, automatic outpulsing occurs after ten seconds, and it can take longer than ten seconds to type a calling card call.

If TOPS IWS is set for delayed outpulsing, the operator can type additional information during outpulsing. If TOPS IWS is not set for delayed outpulsing, the operator must enter the additional information before outpulsing occurs.

The operator can do one of the following:

- For a noncoin call, press the appropriate paid class charge key.
- For a coin call, secure the deposit.
- For a hotel call, type the room number.
- For a collect or autocollect call, press the appropriate class charge key.
- For a calling card, special billing number, or billed to third number call, type the billing number.
- For a subscriber dial rate, station paid, or noncoin call on which the dial rate applies, do one of the following:
  - Press the {**Dial Rate**} softkey.
  - Press the **Fncts** key, type the menu number for Hotel, and press the **Start** key.
- For a subscriber dial rate or station calling card call on which the dial rate applies, type the calling card number, and do one of the following:
  - Press the {**Dial Rate**} softkey.
  - Press the **Fncts** key, type the menu number for Hotel, and press the **Start** key.

- For a call on which AMA timing is not applicable, do one of the following:
  - Press the **{No AMA**} softkey.
  - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.

  Outpulsing occurs as soon as the called number or code is typed on the following types of calls:
  - delay calls
  - inward calls
  - calls to other operators who are reached using standard service codes
- For a person call-back call, press the **Fncts** key, type the menu number for Person Call Back, and press the **Start** key.

18.6 Reorder tone received

If a reorder tone is received, press the **Rls Cld** key. Make two additional attempts by recycling the order. If after three reorders another reorder tone sounds, report the trouble and press the **Rls Cld** key. Assume that a no-circuit-available condition exists. Ask the subscriber to try the call later. Proceed according to the subscriber's directions. Report the reorders.

18.6.1 Indication of trouble on line

If the subscriber indicates possible trouble on the line, reach the inward operator at the TTC and request assistance.

18.6.2 Repeated reorders

If encountering a series of reorders on calls handled within a ten-minute period, the operator can ask the supervisor for assistance.

The supervisor determines if other operators are encountering similar delays. If they are, the supervisor reports the condition immediately to the facilities manager or network management as locally directed.

18.7 Delay indicated

If an operator or recorded announcement indicates that there is a delay in obtaining a circuit, do not recycle. Press the **Rls Cld** key and inform the calling party. Then be guided by the information in the report, the calling party requests, and the following guidelines:

- If all circuits are busy, ask the subscriber to try the call later. If the subscriber asks to try later, record a memo, and press the **Ca Call** and **Pos Rls** keys. If the subscriber specifies a time, try the call again at that time. If the subscriber does not specify a time, try again in thirty minutes. If the same delay is encountered, give the report to the calling party and suggest trying again later. If the subscriber asks to try later, do so. If the subscriber does not specify the time, try in one hour.
- If there is a disaster announcement, be guided by the report or announcement. Suggest that the subscriber try again when the situation clears. If the calling party asks to try later, record a memo, and press the **Ca Call** and **Pos Rls** keys. Make the subsequent attempt according to the probable delay indicated. If another delay is encountered after the subsequent attempt, proceed as directed by the calling party.
- If an out-of-order (OD) report is received and no circuit is available, give the report. If the subscriber asks to try again later, record the memo, and press the **Ca Call** and **Pos Rls**. keys. Make a subsequent attempt in thirty minutes, and then proceed as directed by the calling party or in one-hour intervals.
- If the report is a no-circuit (NC) hold, either acknowledge and hold the trunk (if the calling party remains on the line on a new call) or if making a subsequent attempt on a delayed call. If the calling party hangs up while waiting for a new call, consider the call cancelled, unless the subscriber asks to be called later.

18.8 Recorded announcement

If a recorded announcement indicating that the call reached an unassigned area code or central office code is received, the operator can do one of the following:

- On a subscriber-dialed call, display the called number and verify that it is the requested number. If it is, ask the subscriber to verify the number, then try the call again. If the subscriber is calling a different number, try to complete the call to that number.
- On an operator-dialed call, unauthorized code assignment (UCA) or vacant code announcement (VCA) appears after the called number when the area code or central office code is unassigned or unauthorized. Verify the NPA code and the number with the subscriber. If the subscriber gives a different number, try the call again. If the subscriber gives the same number, refer the subscriber to DA to check the number.

When a call at the position is connected to an announcement or tone, an on-hook status displays on the position regardless of where the announcement or tone originated.

If a recorded announcement indicating that the call was blocked because the caller misdialed or the equipment malfunctioned is received, press the **Rls Cld** key and make one additional attempt by recycling. If the same announcement occurs a second time, try to reach the inward operator at the TTC, and pass the number to the operator.

18.9 No-ring condition

If a no-ring condition is received, wait on the line for about twenty seconds and listen for an audible ringing tone, busy signal, station answer, or other report. If no answer is received, report tone, or audible ring by this time, report the trouble by typing the appropriate trouble code. Then, press the **Rls Cld** and **Start** keys to allow the called number to advance again.

If, after waiting about twenty seconds, no audible signal is received, report the second trouble condition. Then, reach the inward operator at the TTC. If the called telephone is served by the operating company, inform the subscriber that there is trouble on the line and that it was reported.

If, while forwarding the number passed by the other operator, a no-ring condition is encountered, type the trouble code and tell the operator that there seems to be trouble on the line and that it was reported.

18.10 Called line busy

If a busy signal is received, the operator can do the following:

1. Press the **Rls Cld** key and tell the calling party that the line is busy and suggest trying the call later.
2. Do one of the following:
    - If the subscriber agrees, press the **Ca Call** and **Pos Rls** keys.
    - If the subscriber asks to try the call later, determine when to make the attempt or offer to call in about thirty minutes. Record the ticket, and press the **Ca Call** and **Pos Rls** keys.

If the called number cannot be reached by dialing and the distant operator gives a busy (BY) report, acknowledge the report. Give the report and proceed after the second BY on a call to a busy number that can be dialed.

If the calling party hangs up without waiting for the busy report, press the **Ca Call** and P**os Rls** keys.

If the line is still busy when making a subsequent attempt, again give the busy report. If the subscriber again asks to try later, call back in about an hour. If the time is not agreeable to the subscriber, proceed as directed by the subscriber.

On an inward call, notify the calling operator that the line is busy. Press the **Ca Call** and **Pos Rls** keys.

18.11 Called telephone does not answer

If a number that can be dialed does not answer after five or six rings or after about thirty seconds, press the **Rls Cld** key. Ask if the subscriber wants to continue ringing or to try the call later.

If a number that cannot be dialed does not answer after about thirty seconds, do one of the following:

- If a no-answer report is received, acknowledge and then press the **Rls Cld** key. Ask the subscriber to try the call later.
- If a no-answer report is received in less than thirty seconds of ringing, ask the inward operator to wait and ask if the calling party wants to continue ringing. Proceed according to the subscriber’s answer.
- If a report is not received thirty seconds after the call is acknowledged by the inward operator, press the **Rls Cld** key and give the no-answer report.
- If the subscriber agrees to place the call later, press the **Ca Call** and **Pos Rls** keys.
- If the subscriber asks to try the call later, ask at what time to try the call again, and proceed as directed. If the calling party does not specify a time, try again in about thirty minutes. If there is no ticket, record one, obtaining the called and calling number.
- If the calling party hangs up without waiting for a no-answer report or without responding to a report, assume that the subscriber abandoned the call. Press the **Ca Call** and **Pos Rls** keys.

18.12 Called line out of order

If an out-of-order signal (OD) report is encountered, notify the subscriber and suggest trying the call later. Then, proceed as if following a no-answer report.

18.13 Intercept report

If a distant operator asks what number is being called, pass that information and add that this is a long distance call. If the operator asks for additional information that is unknown, allow that operator to deal directly with the calling party. Then, as the calling party talks to the distant operator, listen and make necessary notations but do not interrupt. If the calling party does not reply, repeat the question. Provide any assistance required to start conversation between the operator and the subscriber.

If intercept supplies a report without a request for the called number, an automatic intercept system that automatically identifies the called number to the intercept operator was reached.

18.13.1 Recorded intercept report

Press the **Rls Cld** key when the report is understood. If necessary, repeat the report to the subscriber. If the subscriber questions the report, press the **Start** key to recycle the call and wait for the call to be cut through to an intercept operator. If the call does not cut through to an intercept operator, reach the inward operator at the TTC and ask that the operator verify whether the called number is in service. Proceed accordingly.

18.13.2 No intercept facilities or no cut-through to intercept operator

If the terminating office does not have intercept facilities or calls do not cut through to an intercept operator, reach DA and tell the DA operator that the request is for a new or changed number.

18.13.3 Calling party flashes

If the calling party signals and received a report from an intercept operator on a call held at the position, proceed according to the report received.

18.13.4 Handling the intercept report

After receiving an intercept report, the operator can press the **Rls Cld** key and do one of the following:

- If the wrong office was reached or if asked to call the number, compare the called number displayed with the number that the subscriber requests. If the numbers are the same, recycle the order. If the numbers are not the same, verify any routing information and retype the number correctly. If intercept is reached again, reach the distant inward operator and ask for assistance. If necessary, reach DA at the distant place to obtain the called number.
- If the number is changed, proceed with the call using a new number under the following circumstances:
  - — The number was changed.
  - — Another number is taking calls for the called number.
  - — The number is other than the one called. If the subscriber did not hear the number or report, repeat it to the subscriber.
- If the office uses LNP and the number is ported, the number that a subscriber gives does not necessarily identify the actual number of the line. Press the **Fncts** key, type the menu number for LNP Info Called, and press the **Start** key to find the actual number. Type that number as the called number.
- If there is no such number and the calling party does not correct the order, ask for the address name. If the subscriber supplies the address name, proceed as for a new call. If the subscriber cannot give the address name, proceed as directed.
- If the number is not yet connected or if a move or cancellation is indicated, give the report, if necessary, and proceed as directed.
- If the number is disconnected or temporarily disconnected, give the report, if necessary, and proceed as directed. If given additional information, supply it to the subscriber; for example, the called party can be reached at another telephone or the telephone is disconnected for the summer.

19.0 Ticket preparation

TOPS IWS equipment usually automatically records billing details and connection times on the majority of calls processed. In some instances, however, the operator needs to manually ticket a call.

19.1 Types of tickets

At the position, write either a memo ticket or a billing ticket.

Write a *memo ticket* to record the details of a call timed by AMA equipment (for example, a delayed call on which subsequent attempts are to be made). Memo ticket entries include the calling and called details and subsequent attempt times. Memo tickets can also be used for local emergency calls.

Write a *billing ticket* when handling a call that cannot be released for AMA timing or that is held to comply with a special request. Such calls are held on the position and machine timed; for example, calls to points that cannot be dialed and with no arbitrary NXX. Billing ticket include the following information:

- calling and called numbers
- To Person name on a person call
- connect time in the Opr Connect Time designation as follows:
  - — Write the hour in 24-hour-clock time (00 to 23); zero-fill hours left.
  - — Write the minutes as 00 to 59; zero-fill minutes left.
  - — If the time at the tributary office is different from the time in the office, write the time in the office. Accounting correctly rates the call. Connect time starts when someone answers the called telephone (on either a station call or a person call) and the calling and called parties begin exclusive communication.
  - — If manually timing a call, write the connection and disconnection times in the appropriate places using 24-hour clock time. Obtain this time by pressing the **Time** key at connection and at disconnection.
- If the call does not complete, write “CA” to designate a canceled call.
- Write the operator number and the date in the appropriate designations.
- Write the minutes in the Min designation.

Blank tickets or memo paper can be used to make any notations needed to assist with other types of calls for which no memo or billing ticket is required.

19.2 Obtaining call details

Obtain call details as needed, either from the position or from the subscriber. Write them on the memo or billing ticket, together with any other pertinent information.

19.3 Called place and called number information

On all tickets, the operator can write the area code or a mark sense code, as follows:

1. Do one of the following:
    - If the calling party gives an area code and a seven-digit number, write the area code in the To NPA designation. If a compressed NPA designation is provided for the called NPA, write that instead of the three digits. Write the first three digits of the called number in the To NXX designation and the remaining digits of the number in the Number designation.
    - If the calling party gives only a seven-digit number, assume that the called number is in the same area code as the calling number. However, if the number is outside the home area, ask the calling party for the area code.
    - If the calling party gives a place name and a seven-digit number, ask the subscriber for the area code, if unknown. If the subscriber does not know the area code, refer to routing instructions.
    - If the calling party gives a a place name and a number that is not seven digits, enter the code in the To NPA NXX designation. Write a called number with four or fewer digits in the Number designation. If the number has fewer than four digits, zero-fill the remaining spaces.
2. Do one of the following to enter the code:
    - If writing a six-digit code under the called place name or if the route operator provides a six-digit code, write the six digits in the To NPA and To NXX designations.
    - If a three-digit code displays or if the route operator provides a three-digit code, write the three digits in the To NPA designation.
    - If the code identification conflicts with the digits in the To NXX designations, leave the called number as entered. Write the first three digits of the code (area code) in the To NPA designation and mark the Other Place designation. Write the called place name in the To Place designation.

20.0 Call-back calls

This chapter describes how to handle call-back calls.

When the called party is not available on a person-to-person call, the operator can leave a number for the called party to give to the operator when calling back to complete the original call. The call-back number indicates to the completing operator some or all of the service that the calling party requested.

If the call-back number is a one-digit number, the terminating toll center (TTC) operator handles the call. If the call-back number is a multi-digit number, the TTC operator passes call details to the originating toll center (OTC) call-back operator for call handling.

Call-back calls that are completed by a TTC operator are person call-back (PCB) calls. Those completed by the OTC operator are person calls.

20.1 Person call back

In this scenario, a subscriber places a person-to-person call with billing either to the calling number or a special number. The called party is not available, but the calling subscriber asks that the called party return the call through the operator. The calling party leaves his/her name and phone number with the callback operator. When available, the called party calls the operator in that serving area and requests call back service to the calling party.

The operator handling the called party-originated call initiates a call to the operator in the calling party's serving area and passes the call information to that operator. The calling party's operator selects the Person Call Back function and enters the following call information:

- the called party's number as the calling number
- the original calling party's number as the called number
- the appropriate class charge

The system uses the person call back function to identify this (A) subscriber's billing number.

20.2 TTC operator

If a subscriber furnishes a single-digit call-back number, a TTC operator can complete the call. If the subscriber furnishes a multi-digit number, the TTC operator passes the call to an OTC operator.

20.2.1 For a one-digit call-back number

If the subscriber provides a one-digit call-back number, the operator can do the following:

1. If the subscriber did not dial the original calling number, dial the number.
2. Press the **Fncts** key, type the menu number for Person Call Back, press the **Start** key, and press the appropriate keys for the class charge.
3. Press the **Clg** key and the key with the person icon.
4. Announce the call to the first person who answers at the calling telephone. Repeat the announcement to each successive person who answers until the billing arrangements are confirmed or secured.

If	Go to
the call-back digit is 6 (person paid)	Step 5
the call-back digit is 7 (special paid)	Step 7

5. Notify the original calling party that the called party is now available. Ask if the calling party stills wants the call billed to that phone. Go to Step 13.
6. When conversation begins, press the **Pos Rls** key.
7. Secure billing information from the original calling party after announcing the call. If the original calling party does not want to give the billing information with the called party on the line, handle the call manually. Contact the calling party after the conversation ends to obtain the billing information.
8. Prepare a billing ticket, and note that billing details are needed before filing the ticket.
9. Press the {**No AMA**} softkey or do the following:
   a. Press the **Fncts** key.
   b. Type the menu number for No AMA.
   c. Press the **Start** key.
   d. Press the **Fncts** key.
   e. Type the menu number for Start Timing.
   f. Press the **Start** key.
   g. Press the **Fncts** key.
   h. Type the menu number for Hold.
   i. Press the **Start** key.
   j. Press the **Pos Rls** key.

10. At the end of the conversation, request billing information. Ask the parties to hold on the line for acceptance.

    If both parties hang up, recycle the call by pressing the **Rls Cld** and **Start** keys. Request billing information.

11. Press the **Spl** key, type the billing number, and press the **Start** key.
12. Observe the validation responses.
13. If preparing a billing ticket, complete the ticket. Table 21 lists the fields and the call-back information for each field.

Table 21. Call-back ticket fields

Field	Information
Called detail	Type the area code and the DN being called in the To NPA and To NUMBER fields.
Calling details	Type the number of the party returning the call in the FROM NUMBER field.
Class details	Type PCB.
Call back	Type the calling card number or third number in the SPECIAL BILLING DETAILS field, depending on the billing information obtained from the original calling party.
SPEC INST	Type the call-back digit (6 or 7).

14. Complete the other fields in the usual way.

20.2.1.1 Delay encountered (trunk or station)

Proceed in the usual way for any outward call.

20.2.1.2 Party delay

Tell the person who answers at the calling telephone that the called party is now available. If the original calling party is not available, recommend that the caller try again later. Press the **Ca Call** and **Pos Rls** keys.

20.2.1.3 Calling party can be reached at another telephone

Press the **Rls Cld** key and try to reach the party at the other number. If the calling party at the other DN is reached, make any corrections to the billing instructions.

20.2.1.4 Calling telephone appears to be a wrong number

If the calling telephone appears to be a wrong number, the operator can do one of the following:

1. If someone at the number provided by the called party says that no one is calling the called party, verify the number. If the calling number is the number given by the called party, excuse the call and press the **Rls Cld key.**
2. Ask the called party to repeat the calling number. If the subscriber gives the same number again, note that it appears to be a wrong number.
3. If the called party can provide the name and address of the calling party, contact DA and request the number.
4. If the called party cannot furnish the details or DA cannot supply the number, notify the caller. When the subscriber acknowledges, press the **Ca Call** and **Pos Rls** keys.

20.2.1.5 Calling party requests additional services

Comply with the request. If quoting time and charges, determine the time at the originating office and manually rate the call according to the rate period in effect at the originating office.

20.2.2 For a multi-digit call-back number

If a subscriber wants to return a call and furnishes a multi-digit call-back number and an associated place name, or if the subscriber cannot furnish the call-back number, ask the caller to hold the line.

If a memo ticket needs to be written, enter only the details necessary to advance the call (for example, the name of the OTC and the call-back number). The OTC operator secures the call details from the called party. Therefore, if the subscriber volunteers call details, notify the subscriber that the call is being transferred and ask the subscriber to give the information to the OTC operator.

To transfer a call to a OTC call-back operator, the operator can do the following:

1. Type the OTC operator route, 11, and the call-back number.

If	Go to
There is a delay in reaching the OTC operator	Step 2
The OTC operator is reached	Step 6

2. Advise the subscriber to place the call again later.
3. If the party asks to try later, try to reach the OTC operator in thirty minutes.
4. Record a memo ticket to use in making the attempt.

5. Do one of the following:
   - Press the {**No AMA**} softkey.
   - Press the **Fncts** key, type the menu number for No AMA, press the **Start** key, and press the **Pos Rls** key.
6. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key to determine the area code (if serving more than one area code). Announce that the called number (including the area code and the call-back number) is calling the calling number. For example:

   Area 919-991-7139 callback 22 for 246-7749

   If the subscriber is calling from a coin telephone, include the class of the telephone; for example, the called area code and prepay.
7. When the call-back operator speaks to and receives a response from the subscriber, do one of the following:
   - Press the **{No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, press the **Start** key, and press the **Pos Rls** key.

   The call-back operator completes the call and gives any necessary reports to the called telephone.

20.3 OTC operators

If a subscriber furnishes a multi-digit call-back number, the TCC operator passes the call to the operator to complete the call. When the TTC operator passes the called number or other details, accept and enter them. The operator does not ask the called party to provide this information.

The operator answers a call back according to the special-handling number in the call-origination field on the screen display. Table 22 defines the special-handling numbers.

Table 22. Special-handling numbers

Call origination	Display
55	`time and charges`
56	`hotel`
50	`universal`

The operator can do the following:

1. Note the area code that the TTC operator passed.
2. Tell the subscriber the call-back number and ask for the subscriber's name and number.
3. Press the **Clg** key, type the area code and number, and press the **Start** key.

4. Note the called party's name on a memo.
5. If the call is from a coin telephone, do one of the following:
   - Press the {**Coin**} softkey.
   - Press the **Fncts** key, type the menu number for Coin, and press the **Start** key.
6. Ask the subscriber for the calling number left by the operator.

20.3.1 Billing ticket required

If the TTC operator passes a called place name that does not match the routing directions by code, the operator can record a billing ticket, as follows:

1. Write the called place in the TO PLACE space, and write the called number in the TO NUMBER space.
2. Enter all other details, as appropriate.
3. Press the **{No AMA}** softkey or do the following:
   a. Press the **Fncts** key.
   b. Type the menu number for No AMA.
   c. Press the **Start** key, press the **Fncts** key.
   d. Type the menu number for Start Timing.
   e. Press the **Start** key.
   f. Press the **Fncts** key.
   g. Type the menu number for Hold.
   h. Press the **Start** and **Pos Rls** keys.
4. Reach the calling telephone and report that the called party is ready to talk. On hotel calls or requests for time and charges where the calling party gives special billing instructions when the call is originally placed, do the following to complete the call:
   a. Secure the billing information.
   b. Press the **Clg** key, press the key with the person icon, press the **Spl** key, type the billing number, and press the **Start** and **Pos Rls** keys.
5. If the calling party wants to give billing information at the end of the conversation, request billing information.

   If both parties hang up, recycle the call by pressing the **Rls Cld** and **Start** keys. Request billing information.
6. Press the **Spl** key, type the billing number, and press the **Start** key.
7. Observe the validation responses.

8. Complete the ticket. Table 23 lists the fields and the call-back information for each field.

Table 23. OTC ticket fields

Field	Information
Called detail	Type the area code and the number being called in the `To NPA` and `To NUMBER` fields.
Calling details	Type the number of the party returning the call in the `FROM NUMBER` field.
Class details	Type P.
Call back	Type the calling card number or third number in the `SPECIAL BILLING DETAILS` field, depending on the billing information that obtained from the original calling party.
SPEC INST	Type the call-back digits.

9. Complete the other fields in the usual way.

20.3.2 Delay encountered in reaching calling telephone or party

Advise the called party of the delay and recommend trying the call later. However, if the called party wants to try later, try again in thirty minutes. Follow the instructions in Chapter 16.0, “Subsequent attempts,” on page 225.

20.3.3 Calling party can be reached at a different telephone

If the person answering the calling telephone says that the calling party can be reached at a different number, the operator can do one of the following:

- If the number is within the same LATA, zone, or operator services center, acknowledge and try to reach the calling party at the other number.
- If the number is not within the same LATA, zone, or operator services center, explain to the called party that the calling party can now be reached at a different number and advise him or her to place the call with a long distance operator.

20.3.4 Called party at a different number

If the called party is at a different number, the operator can type that number following the call-back number in the SPEC INST space or on a memo. Explain to the calling party that the called party was reached at a different telephone. Ask if the calling party wants to connect the call and proceed accordingly.

20.3.5 Called party cannot furnish the calling number

If the called party cannot provide the original calling party's number but can provide the name and address of the calling party, contact DA and request the number.

If the called party cannot furnish the details or DA cannot supply the number, notify the caller. When the subscriber acknowledges, press the **Ca Call** and **Pos Rls** keys.

21.0 Billing services

This chapter explains TOPS IWS specialized billing services that the operating company can configure.

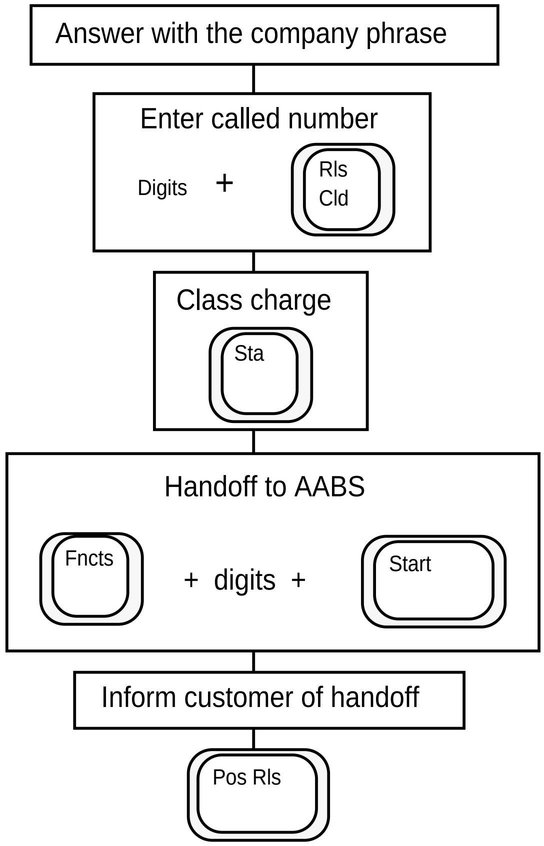
21.1 Automated Alternate Billing Service

Some companies use automated capabilities to hand off calls so that operators take other, more complex calls. For example, certain 0 (zero) calls can be handed off to the voice system to be completed by Automated Alternate Billing Service (AABS).

Figure 93 shows how to use AABS when a customer dials “0” for operator assistance and requests either station collect or station special billing. The operator can do the following:

1. Enter the called digits.
2. Press **Rls Cld** to store the digits to prevent them from outpulsing.
3. Enter the class charge and validate the billing.
4. Hand off the call to AABS for completion by selecting the Handoff to AABS function (or hotkey or softkey, if appropriate) from the **Functions** menu.
5. Press **Start.**
6. Inform the customer that the call is going to an automated system.
7. Press **Pos Rls**.

Figure 93. Handoff to AABS



AABS provides operator assistance without the use of live operators, which reduces operator handling time of calls. AABS automates completion of calling card calls with the use of a voice service node (VSN). AABS also automates station collect and third number billing calls by using voice recognition technology and prompt generation to communicate with the billed party.

With AABS, the DMS switch communicates with a VSN to automate handling of the following call types:

- 0+ dialed station collect
- third number billed
- calling card calls

0+ calls that are eligible for fully automated handling route directly to a VSN. 0- calls (and 0+ calls that cannot be automated) route to an operator for handling. After entering all information necessary to complete the call, the operator can transfer the call to a VSN if billing acceptance is required from the billed party.

AABS can also route calls at the VSN to an operator for call completion handling, if the VSN is unable to obtain billing information from the calling party or if the VSN cannot get billing acceptance from the billed party. When a call is marked for handoff, the operator routes it to the VSN and releases it from the position by pressing the **Pos Rls** key.

21.1.1 AABS handoff

AABS handoff calls are those AABS calls that require some handling before being handed off to a VSN for third or station collect billing acceptance. The operator can enter the required information and select Handoff to AABS from the Functions menu.

AABS handoff calls are billable on all collect or bill-to-third calls routed to the operator, including the following call types:

- 0- and 0+, dial pulse
- ANI failure
- hotel room ID
- AABS-route-to-operator calls

21.1.1.1 Validating handoff to AABS

When selecting Handoff to AABS, the system verifies that the following conditions are met:

- The DN of the calling party is present.
- The DN of the called party is present.
- The call is successfully class charged as one of the following:
  - station collect for collect handoff calls
  - station special call for a bill to a third number handoff with a valid third number in the special number field
- The billed number passes all DMS billing restriction checks. If performing a billing validation authority (BVA) or line information data base (LIBD) query on the billed number, the result must indicate a valid number. If the billed number is marked as requiring manual verification, the format checks made by the DMS switch for manual billing must be passed.
- The call is a carrier call. Equal access checks are made; if any of the following conditions are present, the handoff checks fail:
  - The call is designated for transfer to an inter-LATA or inter-zone carrier: `Xfr IC` displays.
  - The carrier name and number are unknown: `IC` displays beside the called number, but the carrier name and number do not display.

- — The carrier displayed is the OTC carrier. The operator must enter a different carrier number before the call is ready for handoff to AABS.
- — The carrier cannot complete the call: the carrier name and number are flashing.

- The call is from a hotel that requires no charge.
- The call does not have a service mark of DA or intercept.
- If the call is a station collect billed call, the called DN is not an international number. It must conform to the North American dialing plan.
- If the call is billed to a third number, the billed number is not an international number. It must conform to the North American dialing plan.
- The call is not a completed call that returns to an operator (a call for which a billing method was originally determined but that was returned to the operator for assistance). If the operator changes the billing to a third number or station collect, get billing acceptance manually (if it is required). Billing acceptance is also required for part charge recalls.
- The call is not marked for notify.
- The called number is not specified by an **OGT** key.

21.1.1.2 Other handoff marking considerations

An AABS handoff attempt is ignored in the following situations:

- The billing validation query is outstanding (while `AMA Vfy` displays).
- No AMA displays as a result of DMS switch datafill.
- The TOPS Special Verify AWT Enhancement is used, third number billing is specified, and the third number is in the forward port at the time the AABS handoff is attempted. If the TOPS Special Verify AWT Enhancement is used, the called number must be in the forward port.
- The AABS handoff is attempted for a delay call.
- The originating trunk is not a TOPS trunk (for example, inward calls arriving over an intertoll trunk).

21.1.1.3 Overriding the handoff mark

When a call is marked for handoff, it can be unmarked by any of the of the following methods:

- Press the **Ca Call** key.
- Select any of the following items from the Functions menu:
  - Start Timing
  - Cancel Timing
  - No AMA
  - Handoff to AABS, again. This removes the handoff mark from the call, and erases the handoff success display.
- Select a function that sends a database query to validate a billing number. This action removes the handoff mark and erases the handoff success display.

21.1.1.4 Handoff validation display

If all handoff checks are passed, Handoff displays in the Call Details window. If the checks are not passed, `Handoff??` displays in the predefined error color. Other displays update as appropriate to both to indicate that information is incorrect or missing, and to show the action needed to successfully mark the call for handoff.

Handoff checks are performed again when the **Pos Rls** key is pressed. If the checks do not pass, the handoff failure indicator displays again. Other displays update to indicate that information is incorrect or missing, and any handoff mark clears. Make all corrections and select Handoff to AABS from the Functions menu again.

When selecting Handoff to AABS, automatic timing disables for that call, even if toggling the Handoff to AABS function to clear the handoff mark and the AMA status display area clears. Therefore, if a call is initially marked for handoff but then changed to complete the call manually, select one of the AMA status functions before releasing the call.

If a resource failure occurs after a call is marked for handoff and the **Pos Rls** key is pressed, the call remains at position and No Handoff displays. In this case, get billing information manually.

21.1.1.5 Handoff return to operator

After handing a call off to AABS, it can return to an operator position if the VSN has difficulty getting billing acceptance for the call. If this condition occurs, existing displays for AABS third number and collect calls display.

One of the following messages displays:

`Handoff allowed`

The call was handed off to AABS at least once and can be handed off again.

`No handoff allowed`

The call was handed off to AABS at least once and cannot be handed off again. Billing acceptance must be manually obtained.

21.1.2 Routing AABS calls to operators

A call can route to an operator at either the front-end or back-end of the VSN processing. AABS can transfer a call to an operator if any of the following conditions occurs:

- The billing method selection time-out and language selection time-out period elapse.
- A subscriber responds incorrectly to AABS billing method prompts.
- A subscriber at a DTMF telephone dials 0, flashes the switchhook, or times out.

21.1.3 Database query failure

A billed number screening (BNS) or calling card validation (CCV) database failure can be marked in translations to send the call to the operator with an indication in the message and Status area. Upon receiving this indication, proceed as locally directed for database query failures.

Most AABS calls are successfully completed by the VSN and, therefore, never reach an operator. However, sometimes an operator needs to complete an AABS call, such as for failed AABS collect and third-party billing calls.

If a subscriber wants to make a collect call, the call routes to an operator if the VSN cannot:

- properly record the calling party’s and the call is not connected to the called party
- recognize billing acceptance by the called party and the call is connected to the called party

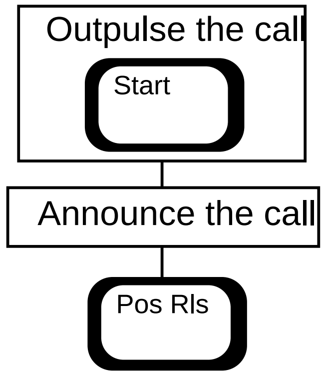
For calls in which the VSN cannot properly record the calling party’s and the call is not connected to the called party**,** the message **0+COL** appears in the Call Headlines Service/Type field. The class charge is already in place and displays in the Cld field.

Because the VSN did not properly record the customer’s name, the operator can do the following to complete the call:

1. First, request the customer’s name.
2. Press **Start** to outpulse the call.
3. Announce the call and press **Pos Rls**.

   See Figure 94.

Figure 94. Failed AABS collect call with no called party connected



For calls in which the VSN cannot recognize billing acceptance by the called party and the call is connected to the called party, the message CLDCON appears in the Service/Type field in Call Headlines. The collect class charge is in place. Note that the called party is connected to the calling party, but the speech path is blocked.

Because the VSN did not recognize billing acceptance, the operator can do the following to complete the call:

1. Request the calling party’s name and press **Start** to outpulse to the called party.

   A simulated outpulsing occurs that includes an abbreviated ringing tone and an inverted CLD (the field grays out, indicating that the digits were sent out and the number is ready to outpulse).
2. Announce the call and press **Pos Rls**.

This section describes the two cases under which AABS bill-to-third party calls may fail.

Case 1: When a subscriber wants to bill a call to a third number but the VSN cannot properly record the calling party's name, the call routes to an operator. The following information displays:

- `0+3RD` displays in the Service/Type field in the Call Headlines area (indicating a bill-to-third call that did not connected).
- The third party number displays in the Spl field. (If this number does not display, use the Call Details function to display it.).
- The class charge displays in the Spl field.

Because the VSN did not properly record the subscriber's name, complete the call as follows:

1. Request the customer's name.
2. Use the Verify Special function from the Functions menu (or an appropriate hotkey or softkey) to obtain billing acceptance from the third party. If the third party does not accept billing, proceed accordingly.
3. After receiving billing acceptance, press **Rls Cld** to release the third party and restore the original called number to the forward port.
4. Inform the calling party that billing is accepted and press **Pos Rls**.

Case 2: If the calling party makes a bill-to-third call with AABS and the VSN does not receive billing acceptance from the third party, the call routes to an operator. Note that he called party is connected to the calling party, but the speech path is blocked.

The following information displays:

- `3RDCON` displays in the Call Headlines Service/Type field.
- The special class charge displays.

Because the VSN did not receive billing acceptance from the third party, complete the call as follows:

1. Request the calling party's name and press **Start.**

   A simulated outpulsing occurs that includes an abbreviated ringing tone combined with an inverted CLD bar.
2. Obtain billing acceptance from the third party.
3. After receiving billing acceptance form the third party, press **Rls Cld** to release the third party from the call and restore the called number in the called field.
4. Announce to the calling party that billing was accepted and press **Pos Rls**.

21.1.4 VSN language support

With Talking Alternate Billing Services (TABS), the VSN can prompt the subscriber for language selections. The VSN then uses the subscriber-selected language during further prompting and to obtain billing acceptance, when necessary.

The language the calling subscriber selects to communicate with a VSN or operator is the *front-end language*. The language the calling subscriber selects for the VSN or operator to communicate with the billed party is the *back-end language*.

21.1.4.1 AABS dual-language capability

AABS dual-language capability provides the following:

- operator handoff to AABS with a choice of languages
- call queue selection based on language for AABS calls referred to an operator

Calls with a non-default language (a language that must be selected) can be handed off to the VSN for billing acceptance. This increases the number of calls that can be handed off to VSN and reduces work time.

Calls that require operator assistance, after handling by the VSN, route to an operator position based on the language that the subscriber selects. This eliminates the time needed to transfer to another language and reduces the subscriber’s call set-up time.

If the language selection option is activated, select either the front-end, or the front-end and back-end, language for a call being handed off. This VSN uses the designated languages to communicate with calling and billed parties when getting billing acceptance.

21.1.4.2 Requesting an operator with language choice

The VSN prompt the subscriber to select languages to be used during the call. The subscriber can choose a front-end language for communicating with the VSN and choose a back-end language for the VSN to communicate with the billed party (if billing acceptance is necessary).

With this feature, the call automatically routes to the operator who understands the language. Without this feature, if a call is received and the operator does not speak the subscriber’s language, the operator transfer the call to another operator who does speak that language.

21.1.4.3 Language selection key function

Use an outgoing trunk (OGT) key function type for language selection. For example, if the subscriber says that the front-end language is French and the back-end language is English (and this combination is assigned the number 48), the operator enters the following:

```
OGT + 48 + Start
```

21.1.4.4 Language validation display

If all language checks pass, the call is marked for language by the DMS switch and an indicator displays. For example, if French is the front-end language and English is the back-end language and the checks pass, the following message displays:

```
Lang:  FRE  ENG
```

If any of the checks fail, the following message appears in flashing text:

```
Lang ?
```

21.1.4.5 Language status display

The language information displays on call arrival. Only the front-end language displays in the LANG category of the Call Details window. The back-end language display field is blank.

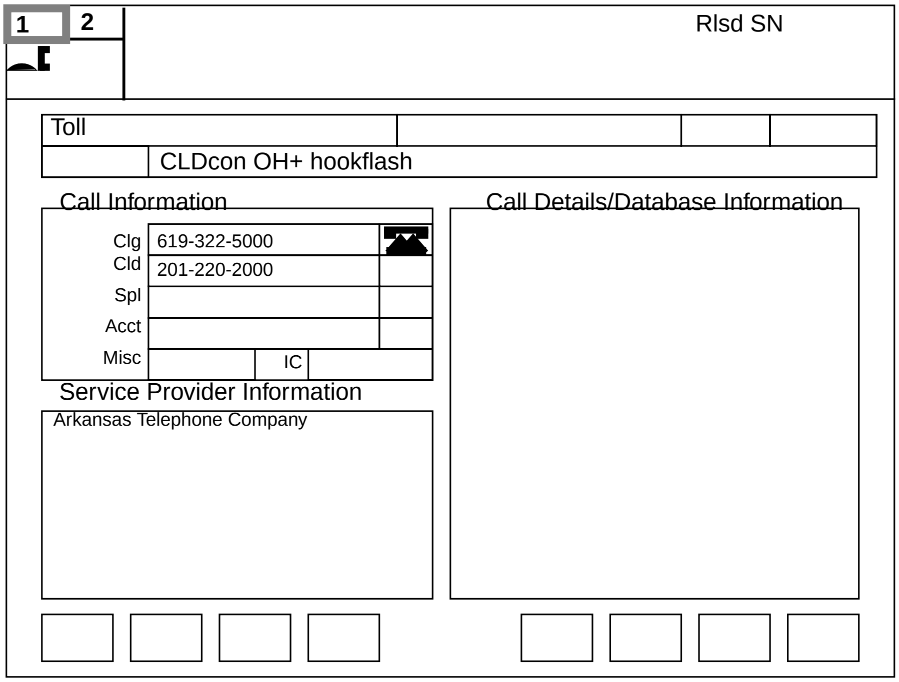
When a handoff call with language specified routes back to an operator and the VSN specifies no language, the language previously specified displays.

21.2 Billing and Access Services calls

Billing and Access Services uses the Intelligent Service Node Provisioning System (IPS) to determine which service options apply to incoming calls. Using Billing and Access Services IPS, a service provider can customize a program of services (such as sequence dialing and billing restrictions for card holders) and options (such as greeting and terminating brands for resellers). The IWS Billing application queries the IPS database automatically for information about calls that arrive from the Billing and Access Services application.

When a Billing and Access Services call arrives at the position, a message in the upper right of the MSA indicates that the call is released from the service node. Call headlines indicate why the call released to an operator. The Service Provider Information window at the lower left of the screen displays the name (the brand) of the reseller. See Figure 95.

Figure 95. Service Provider Information window

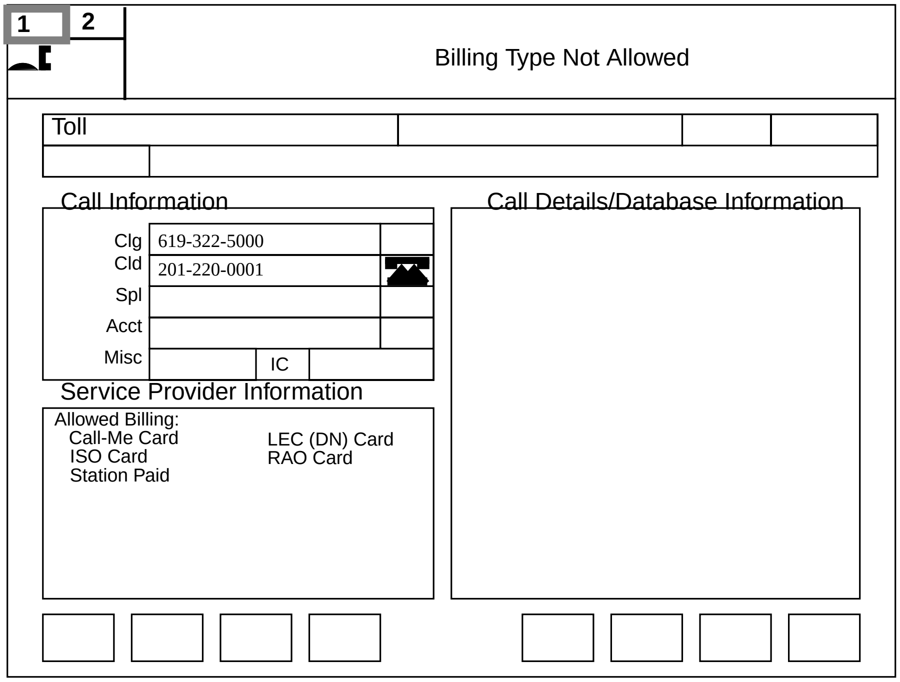


Handle Billing and Access Services calls as follows:

1. Brand (announce) the call according to the reseller information.
2. Type the called and billing numbers and the class charge, and press the **Start** key.

   Billing queries the IPS to determine if it can complete the call. The IPS returns any restrictions or terminating brand information (Figure 96).

Figure 96. Displaying billing restrictions



In this example, the billing type (collect) is not valid.

3. Ensure valid billing according to the information in the Service Provider Information window.
4. At the end of the call, read the terminating brand information and make the appropriate announcement.
5. Press the **Pos Rls** key.

22.0 Handling intercept calls

This chapter discusses how to handle intercept calls.

When an intercept call arrives at the position, one of the following windows appears:

- NTDA window, if billing for the call is not required or is satisfied
- Billing Call Information window, if:
    - the position has the IWS Billing application and billing is not satisfied
    - the position does not have the IWS Billing application and billing is not satisfied (In this case, ask the customer to call operator assistance.)

During the call, the operator can switch back and forth between the NTDA window and the Billing Call Information window, as follows:

- Press the context switch keys on the TOPS IWS keyboard (if datafilled).
- Press the **Appl** menu key twice, enter the number for the desired application, and press **Start**.

If billing is not satisfied and the operator tries release an intercept call from the position, the call does not release and a message displays in the MSA. For example, billing is not satisfied if the requested number or the calling number is missing. To satisfy billing, enter the required data in either the NTDA window or in the Billing Call Information window, whichever is appropriate. When an intercept call is released from the position, all call-related data is cleared from the screen.

22.1 Intercept call types

Most intercept calls are handled automatically, without operator intervention. The new number is retrieved from the database and quoted by an automatic announcement system. Intercept calls are routed to an operator only if the automatic process fails or if the called number is not suitable for automatic quoting. The end office identifies the called number and delivers the call to an position.

The following intercept call types can arrive at an NTDA operator position:

- Intercept operator numbers (Int-ONI)

  When the end office is not equipped to automatically identify the called number. The operator can determine and enter the called number, then initiate an intercept database search.

- Intercept automatic number identification failure (Int-ANIF)

  When the end office is equipped to automatically identify the called number but fails to do so. The operator can determine and enter the called number, then initiate an intercept database search.

- Intercept cut-through (Int-cut)

  When the subscriber stays off-hook beyond the specified post announcement time-out on a normal auto-intercept call. The system routes the call to an operator. The operator determines what additional information the caller requires, retrieve the information from the database, if necessary, and verbally quote the information to the subscriber.

- Intercept recall (Int-rcl)

  When the subscriber stays off-hook beyond the specified post announcement time-out when the subscriber was previously connected to an operator. The system routes the call to another operator. The operator determines what additional information the caller requires, retrieve the information from the database, if necessary, and verbally quote the information to the subscriber.

- Intercept special (Int-spl)

  When the results of the database search are not suitable for automatic quoting; for example, when a disconnected telephone has more than one new listing. On call presentation, the listings display. Ask the subscriber which number is requested and quote it verbally.

When an intercept call arrives, the softkey labels display NPA information. When pressing an NTDA softkey, NTDA fills the appropriate search input fields.

22.2 Processing several requests within a single call

NTDA calls are either DA or intercept calls. An NTDA database or an intercept database session is established on a call-by-call basis. If requesting an intercept search during a DA call or request a directory search during an intercept call, the database honors the search request if possible. However, this type of mixed search is not recommended because billing and statistics are handled differently for the different searches. Therefore, a billable DA request within an intercept call is not billed, although an AMA record is generated.

22.3 Announcing the selected listing

Audio announcements quote the selected listing. The operator can select an alternate language before the call releases to audio announcement. If pressing the **Alt Lang** key, the alternate language is used only for the audio announcement and only during the current call.

If all billing requirements for the call are satisfied when pressing the **Audio** key, the call releases from the position. If information is missing, enter the missing information and then release the call to audio.

22.3.1 Releasing a call to audio announcement

To release a call to audio, enter the search criteria and press the **Int** key for intercept calls.

22.3.2 Verbal quote of requested number

To verbally quote a number to a subscriber when the audio announcement system is unavailable, do the following:

1. Choose the listing selector.
2. Quote the requested number. If the system requires the requested number, enter it.
3. Press the **Pos Rls** key.

22.4 Connecting a forward party

If datafill allows NTDA call forwarding, the operator can do the following to connect a forward party:

1. Press the **Cld** key.
2. Type the requested number
3. Press the **Start** key to forward the call.

When a forward party is attached, the operator cannot enter the requested number for billing purposes. Therefore, the operator should not outpulse calls from NTDA unless absolutely necessary.

22.5 Emergency call connection

When a subscriber indicates an emergency and asks to be connected to the requested number, the operator can do the following:

1. Access the NTDA database
2. Advance the call by typing the requested number and pressing the **Cld** key.

22.6 Call processing examples

Most intercept calls are handled the same way; however, some conditions require special handling. Note the following questions:

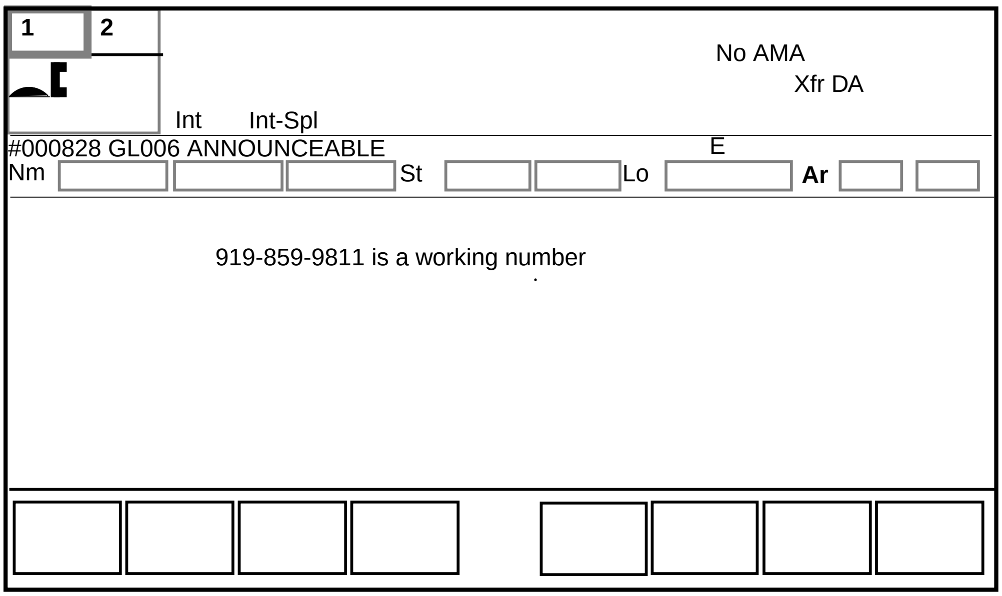
- Is there a listing for the requested number?
- Can the call be released to audio or verbally quoted?
- Does the call require a trouble report?
- Does the call require connection to a supervisor?
- Does the call require billing because the connection from the DMS switch to the DAS is not available?

The following call scenarios are examples of the above situations. The call type displays shown in this document reflect default settings. Actual displays depend on the datafill used for the NTDA office.

22.6.1 Example of an intercept ANI failure call

The calling party (919-859-8400) dials 859-9811. Because there is an ANI failure, the call cannot complete and goes to an NTDA position. The call arrives at the position (Figure 97); Int, Int-Spl, and the intercept report display. Note that the calling number does not display on intercept calls.

Figure 97. ANI failure call



Do the following to complete the call:

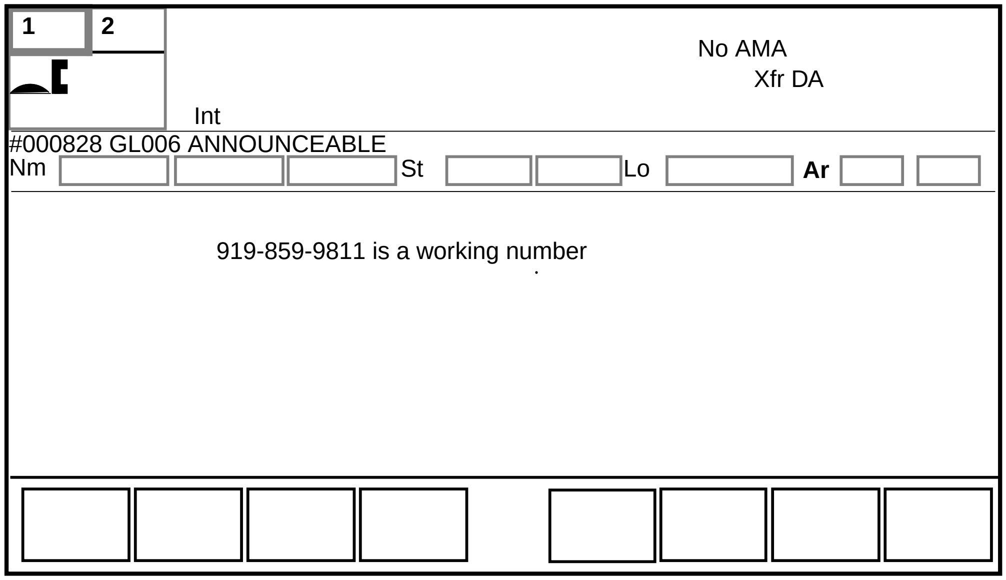
1. Enter the dialed number 859-9811 in the name (Nm) field.
2. Press the **Int** key.

   The call releases from the position and the screen clears.

22.6.2 Example of an intercept cut-through call

The calling party (919-859-8400) dials 859-9811 from a dial pulse phone, receives an audio announcement, and does not hang up. The call arrives at the position (Figure 98); Int and the intercept report display.

Figure 98. Cut-through call



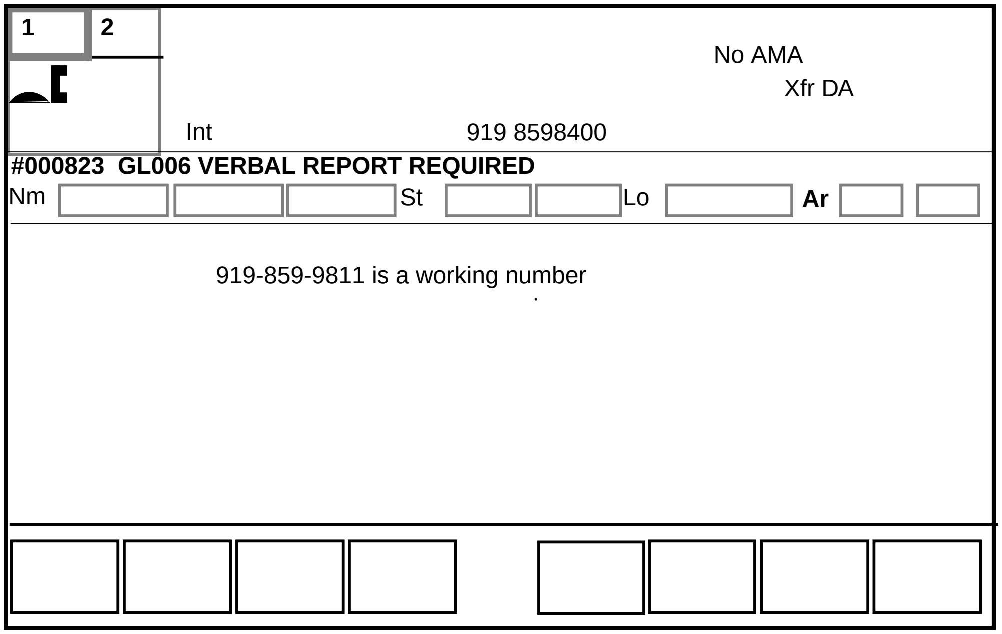
Do the following to complete the call:

1. Ask the subscriber for information to determine why the call returned to the position. (For example, the announcement was inaudible.)
2. If the subscriber did not hang up but encountered no problem, press the **Int** key.
3. The intercept database search initiates. The call releases to the audio and the screen clears.

22.6.3 Example of an intercept recall with verbal quote

The calling party (919-859-8400) dials 859-9811, is connected to audio announcement by an operator, and does not hang up. The call arrives at the position (figure 99); Int, the calling number, and the intercept report display.

Figure 99. Recall with verbal quote



Do the following to complete the call:

1. Ask the subscriber for information to determine why the call returned to the position. (For example, the announcement was inaudible.)
2. Verbally quote the number from the listing area to the subscriber.
3. Press the **Pos Rls** key. The call releases from the position and the screen clears.

23.0 Calling number identification

This chapter describes how to secure the calling number for CAMA and RCAMA calls. For RCAMA, equipment other than that serving TOPS IWS handles the switching and billing functions.

This chapter also describes how to secure the calling number when ANI is not provided or fails.

23.1 Call arrival

When the call arrives at the position, a call arrival tone sounds, the call type displays, and loop supervision.

23.2 ANI calling number display

With ANI, TOPS IWS displays the calling number upon call arrival. Additionally, service providers can display the calling number of a trunk to TOPS call for specified TOPS-supported trunk groups at the operator position on call arrival.

When a call arrives over a TOPS-supported trunk, the calling number displays at the position. The ANI calling number display:

- does not apply to line to TOPS calls or to intercept calls
- adds the option of calling number display
- does not prevent the calling number displaying

Non-coin telephone users accomplish direct distance dialing by dialing an access code before the seven- or ten-digit called number. For such calls, the calling number must be identified. ANI-capable equipment identifies the calling number without operator intervention. If the equipment is not capable of ANI, the call routes to an operator position; the operator then obtain and enter the calling number.

23.2.1 Two-digit ANI identification

With two-digit ANI identification, calls from restricted phones (such as prison phones) display two-digit ANI IDs. The two-digit ANI ID indicates the specific terminal type from which the call originates.

This feature also enhances call processing from intelligent payphones, which is a type of restricted telephone. Calls from these phones can be combined with other operator traffic. The feature treats 1+ and 011+ calls as non-operator calls from normal station phones, therefore having no billing restrictions or operator intervention. The ANI code that identifies the originating terminal type might appear in the AMA record and provide the service provider with an AMA verification record for the call.

23.2.2 ANI not provided or fails

Where ANI is not provided, the call type and appropriate call details display when calls arrive. Where ANI is provided (non-CAMA environment) but fails, one of the following occurs:

- The cursor appears in the Clg field followed by an `X` (to indicate ANI failure)
- The NPA and NXX followed by an `X` where the rest of the number should be.

These calls differ from ONI calls, which show a `?` in the calling field. For example:

```
ONI call  _?
ANIF  _X
ANIF 919 362 X
```

Upon ANI failure, the call type display can be any of the following:

```
0, 0+, or 1+
0, 0+, or 1+ hotel
0, 0+, or 1+ Coin Po (postpay)
0, 0+, or 1+ Coin Pre (prepay)
```

23.2.3 CAMA and RCAMA calls

CAMA and RCAMA calls that require operator number identification (ONI) for the calling number arrive at the operator position with the following displays:

`CAMA or RCAMA`

The equipment cannot identify the calling number.

`CAMA ? or RCAMA ?`

The equipment cannot identify the calling number because of a trouble condition.

23.3 Securing the calling number

If the calling number does not display or is flashing, the operator needs to get the number and enter it.

23.3.1 `CAMA` or `RCAMA` displayed

When either `CAMA` or `RCAMA` (with or without a `?`) displays, ask the caller for the number. Type the calling number. When the seventh digit is typed , the call releases from the position.

23.3.2 Question mark (?) displayed

When a question mark (?) displays in the calling field, the call is an ONI. The ? flashing in the calling field indicates an ANI failure. Do the following:

1. Obtain the calling number.
2. Press **Clg** key.
3. Type the calling number and press the **Start** key.

On hotel calls, obtain the room number. If locally directed to do so, also obtain the name before releasing the position.

If the office serves two NPAs, type the calling number by pressing the **Clg** key, typing the calling number, and pressing the **Start** key. The screen displays the complete ten-digit number.

23.3.3 Number not understood

If the number is not understood, ask for it again. If the number is still not understood, generate a trouble report. Press the **Ca Call** key (if appropriate), then press the **Pos Rls** key.

23.3.4 Wide area telecommunication service number given

If the calling party gives a calling number that is a wide area telephone service (WATS) number, ask for the regular number. Calls charged to a WATS number must be placed over a special line.

23.3.5 Calling number other than seven digits

The calling subscriber might offer a calling number other than seven digits.

If the call arrived with the NPA and NXX displayed in the calling field, use the following procedure:

1. Press the **Clg** key.
2. Type the NXX plus zeros to make a seven-digit number and press the **Start** key.
3. Record the billing details on AMA tape.

When ? displays in the calling field, use the following procedure:

1. Press the **Clg** key.
2. Type 0 and press the **Start** key to determine the arbitrary NXX.
3. Press the **Clg** key.

4. Type the arbitrary NXX plus the calling number.
5. Press the **Start** key.
6. Record billing details on AMA tape.

If the calling number is other than seven digits and cannot be zero-filled to seven digits, machine time and ticket the call.

23.3.6 Subscriber cannot supply calling number

A subscriber might be unable to give the calling number because of missing number card, darkness, or some other reason. In this case, the calling field displays `0`, `0+`, or `1+ coin`, with or without a `?`. Do the following:

1. Press **Rls Cld**, if the subscriber dialed.
2. Prepare a billing ticket and hold the call on loop.
3. Press the **Clg** + 0 + **Start** to display the primary NXX.
4. Type the primary NXX in the FROM NXX field.
5. Ask for the location of the telephone and enter this information in the space for reports. Make other ticket entries as usual.
6. At the first opportunity, report the trouble to repair service.
7. On a collect, calling card, or billed-to-third number call, enter the calling party’s name. Make all other ticket entries as usual.
8. Press the **Start** key to recycle the call if the subscriber dialed.
9. Press the **Fncts** key twice to display the Functions menu.
10. Type the menu number for either No AMA or Start timing.
11. Press the **Start** key.
12. Press the **Fncts** key twice to again display the Functions menu.
13. Type the menu number for Hold and press the **Start** key.
14. Press the **Pos Rls** key.

23.3.7 Special billing telephone number

Some subscribers have special billing numbers that allow detailed cost allocation. A subscriber might give a special billing number, which might have ONI instead of a regular telephone number on outward paid calls placed from the telephone to which the special billing number applies. Also, the called subscriber can request that a charge be transferred to a special billing number on a collect or person call-back (PCB) call.

23.3.8 Recognizing special billing numbers

A special billing number has ten digits. The first digit is 0 or 1, and the last three digits are the revenue accounting office (RAO) code. The revenue accounting office code can be any three-digit number from 001 through 799.

23.4 Invalid calling number

The calling number flashes under the following conditions.

23.4.1 On CAMA calls

If the calling number flashes when entering it for a CAMA call, it failed system validity checks. Request the calling number again. Depending on the subscriber response, do one of the following.

- If the calling party gives a different number, enter it. If the number passes the system validity check, the call automatically releases.
- If the calling party again gives an incorrect number, the seven-digit calling number flashes on the screen. Tell the subscriber that there is a problem and to dial 0 and ask the operator for assistance. Then, press the **Pos Rls** key.

23.4.2 On RCAMA calls

Immediately after typing the seven-digit calling number, the position clears and is ready for a new call. The RCAMA facility, however, is held by the equipment to await the results of the system validity check.

If the system validity check fails, the call is treated as a TOPS IWS recall and connects to an available TOPS IWS position; `RCAMA` displays and the seven-digit calling number flashes. In this case, request the calling number again. Depending on the subscriber response, do one of the following.

- If the subscriber gives a different number, enter it. If the number passes the system validity check, the call automatically releases.
- If the subscriber again gives an incorrect number, the seven-digit calling number flashes on the screen. Tell the subscriber that there is a problem and to dial 0 and ask the operator for assistance. Then, press the **Pos Rls** key.

The call remains at the position through the additional system validity check.

23.4.3 ? in the calling field

If a ? is displayed in the Clg field or if the calling number flashes in the Clg field, the operator can do the following:

1. Request the number again. Ask if it is the number of the telephone that the caller is using. Depending on the subscriber response, do one of the following.
    - If the calling party answers “No,” ask for the area code and billing number again. Enter the area code and the special billing entry.
    - If the calling party answers “Yes,” request the number again. Enter the number.
2. If the calling number flashes a second time (and this is not a special billing number), tell the subscriber to hang up so that you can call back at that number.
3. Call the subscriber back on a delay trunk.

23.4.4 Insufficient digits

If the calling party does not give a sufficient number of digits, ask for the complete number.

23.5 Special requests

If a subscriber makes a special request, handle the request as the situation dictates. If the subscriber asks a question regarding the handling of a call, answer the question if possible and note the following:

- If the calling number is already set up, immediately press the **Clg** key. After handling a special request or answering a question, again request the calling number and proceed with the call.
- If the calling number is not already set up, defer doing so until ready to proceed.

23.6 Request for assistance on CAMA or RCAMA

If the calling party requests assistance or indicates difficulty in reaching the called number, tell the subscriber to dial the operator and report the trouble if it occurs again. Then, proceed with the call.

23.7 Calling party request for the calling number

If the calling party requests the number from where the call is originating, explain that this information cannot be obtained and proceed as locally directed.

23.8 Request for credit, special handling, or charges on CAMA or RCAMA calls

The calling party might request special call handling in the following situations:

- credit for a wrong number, cut-off, or poor transmission
- request for a particular party
- reverse charging
- bill-to-third number

In the situations listed above, state that the operator handles such requests and instruct the subscriber to dial the operator.

If the calling party asks if there is a charge for the call or otherwise indicates uncertainty as to the billing of the call, notify the caller that there is a charge if the telephone answers.

23.9 Indications that subscriber dialed incorrectly

If there are indications that the calling party dialed incorrectly, ask the caller to hang up and dial the number again.

23.10 Requests concerning operator identity on CAMA or RCAMA

If the calling party questions the operator’s identity, explain that you are the operator responsible for obtaining the calling telephone number for billing purposes. If locally directed, also include the service provider’s name and location.

23.11 Calling the assistance position

If uncertain as to how to proceed on a subscriber request, refer the matter to the supervisor.

23.12 Correcting typing errors

Depending on when a typing error is found, the operator can do one of the following.

- If the calling number is typed incorrectly or if the calling party makes a change or correction to the calling number before the last digit is entered, press the **Clg** key and type the number correctly.
- If `CAMA` or `RCAMA` displays and you see an error in the calling number after entering the last digit, prepare a credit ticket.
- If the calling number displays in the calling field and you realize after pressing the **Start** key that you made an error in typing the calling number, press the **Clg** key**,** type the correct number and press the **Start** key again.

23.13 System failure

If the calling number displays in the calling field and `0`, `0+`, or `1+` is flashing, a system failure was detected. The type of call dialed, the type of originating station, or both are not available in the call details.

Secure the details needed to advance the call. If the subscriber is calling from a coin or hotel telephone, press the appropriate key. If the subscriber is attempting a 1+ call from a noncoin, non-hotel telephone, class charge the call. Press the **Fncts** key twice to display the Functions menu. Type the menu number for Dial Rate and press the **Start** key. Otherwise, proceed according to the subscriber request.

24.0 Class-of-call screening

This chapter describes how to use class-of-call screening to handle calls that originate from screened telephones. Class-of-call screening restricts outgoing calls on designated lines to certain types of billing and often require special procedures, indicated by a screening code. Except as modified below or as required locally, follow normal call-processing procedures for screened calls.

24.1 Arrival and handling of screened calls

Screened calls arrive at the position with a screen code displayed. A screen code is a two-digit numeral or an alphabetic entry (for example, HOSP) that follows the call origination.

Process these calls according to required billing restrictions and special handling procedures, as indicated by the screen code. If necessary, refer to the position information to determine the meaning of the displayed screen code, acceptable billing arrangements, and special actions associated with the screen codes.

24.2 Billing restrictions

Table 24 provides examples of screen codes and the billing allowed for each.

Table 24. Screening codes and allowable billing

Code	Allowable billing
`COL`	Collect
`PD COL`	Paid/collect
`C-INMATE or 74`	Collect
`DORM or 76`	Collect, calling card, special calling
`HOSP or 93`	Collect, calling card, special billing, bill-to-third, special called
`HOTEL or 94`	Collect, calling card, special billing, bill-to-third, special called
`noncoin PUBLIC or 98`	Collect, calling card, bill-to-third, special called
`C COIN`	Determined locally

24.3 Class charging

When class charging a screened telephone call, the DMS switch checks the class charge against the acceptable billing for a particular screen code. Do either of the following:

- Press the **No AMA** softkey.
- Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.

When entering an authorized class charge, the class charge displays and the call advances automatically.

If entering an unauthorized class charge, an invalid billing icon displays. Press the **Rls Cld** key if the called number did not ring more than once. Notify the subscriber that the call cannot be charged to that telephone or identify the types of calls that can be placed from that telephone. If the subscriber does not accept the report, refer the call to the supervisor. The supervisor should explain the billing restrictions on the telephone the subscriber is using. Express regret and try to make other billing arrangements.

24.4 Inmate telephones

Incoming calls to inmate telephones are not permitted, and inmates must dial each outgoing call on a 0+ basis. The following access is not permitted for outgoing calls:

- 1+ or 0-
- Calls to 800 service numbers
- Calls to service codes (for example, 611, 911, and all DA codes)
- Calls outside World Zone 1 (WZ1) option. However, where locally authorized, calls to points outside WZ1 might be permitted if the called country accepts collect calls and if the 0-, 1+, 011+, incoming calls, DA, and 0+800 calls remain blocked.

If an inmate requests unauthorized services, tell the inmate to refer such requests to the supervisors at the institution. Do not dial additional numbers for inmates.

24.5 Dormitory telephones

Whether incoming calls to dormitory telephones are permitted is determined locally. Students are permitted the following access for outgoing calls:

- 1+800, 0+800, 0-
- 01+ (if the NXX has direct dial overseas capability and the called country accepts collect calls)
- calls to service codes (for example, emergency and repair calls)
- 1+ or 0+ DA codes

The 0+800 and 0+ DA codes outpulse and complete without operator involvement.

Students are not permitted the following access for outgoing calls:

- 1 + 7 or 10 digits
- 011+

24.6 Hospital, hotel, and noncoin public telephones

The following access is permitted for hospital, hotel, and charge-a-call (noncoin) public-telephone-originated calls:

- 0+ or 0-
- 1 + 800
- 01 + if the NXX has direct dial overseas (DDO) capability
- calls to service codes (for example, emergency and repair calls)
- 1 + DA codes

Subscribers calling from hospital or hotel screen codes can dial local calls directly by dialing a locally assigned access code and the number.

The following access is not permitted for hospital, hotel, and charge-a-call (noncoin) public-telephone-originated calls:

- 1 + 7 or 10 digits
- 011+

24.7 Subscriber-owned coin telephones

In some locations subscriber-owned telephones are identified by the screen display C COIN, which indicates that sent paid calls are not permitted. Billing must be locally determined.

24.8 Cellular mobile telephones

A cellular mobile screening code identifies the cellular mobile company number rather than the number of the vehicle. A cellular mobile subscriber can dial station-paid calls on a direct-dialed, 1+ basis.

Cellular mobile subscribers are permitted the following access for outgoing calls:

- 1+, 0+, and 0-
- 011+ and 01+ if the NXX has DDO capability
- calls to service codes (for example, emergency and repair calls)
- 1+800

24.8.1 Credit requests

On credit requests from a cellular mobile subscriber, ask if the subscriber placed the call with an operator. If the call was placed with an operator, follow standard credit procedures. On a subscriber-dialed call, refer the subscriber to the cellular mobile company for credit.

24.8.2 Repair service

On requests for repair service, refer the subscriber to the mobile service company.

24.9 Emergency calls

In general, follow the procedures described in chapter 32.0, “Emergency, hotel, and APS calls,” on page 395. However, if a subscriber dials 0+ and makes an emergency request from a telephone with an inmate calling screen code, refer the subscriber to the supervisors at the institution.

24.10 Request to leave word

Leave-word service is not provided on calls originating from screened telephones. There is no automatic way to check for billing restrictions on call-back incoming calls. If a subscriber places a person call and wants to leave word, explain that leaving word is not possible because that telephone is designated for outgoing calls only.

24.11 Request for notification

Provide notification for screened telephones in the same way as for non-screened telephones.

24.12 Request for time and charges

The operator can provide time and charges on screened calls following usual procedures. The calling subscriber must remain on the line because the calling telephone might not be able to receive incoming calls.

24.13 Request for a special service operator

When connecting the subscriber calling from a screened telephone to another operator (for example, on mobile, marine, and conference calls), remain on the line to pass on billing restrictions associated with the particular screen code.

24.14 Calls requiring manual processing

When ticketing and timing a call manually, remember the billing restrictions imposed.

24.15 Requests for DA

Follow local tariffs covering DA charging. If the screened telephone is exempt from a charge, do either of the following:

- Press the **{No AMA}** softkey.
- Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.

If the screened telephone is not exempt, secure appropriate billing according to billing restrictions. For requests for 800 service DA; press the **Fncts** key, type the menu number for Auto collect, and press the **Start** key. A collect class charge is not acceptable on DA calls.

24.16 Request for a local number

Process the call normally but impose appropriate billing restrictions. Accounting can recognize and appropriately process calls for which no charge applies. Where local tariffs provide, requests for a local number placed 0+ or 0- are subject to a local operator assistance charge.

24.17 Terminating code screening

Terminating code screening helps screen out fraudulent calls by identifying compromised calling card numbers. This feature allows service providers to screen out potentially fraudulent calls automatically at the service switching point. Calls that are screened out are identified as compromised calling cards.

Terminating code screening includes calls from the following:

- coin and restricted phones
- terminating code screening ported to automated alternate billing service (AABS)
- terminating code screening for AABS collect and third number billed calls

Consider using terminating code screening only after VSN-requested database query processes.

24.17.1 Compromised call override

If the operating company elects to do so, the operator can override the designation of compromised for a call. If the call is compromised, `Res:` displays at the position. When class charging the call again, the call is no longer compromised.

24.17.2 AABS calls filtered based on billed number

Calls that route to the operator or remain at the position because of AABS filtering based on the called number look like any other AABS calls. If the office receiving the call has the AABS Handoff feature, No Handoff displays in the Call Details window and manually complete the call. An AABS filtered call cannot be handed off.

Calls that are terminating code screened and sent to an operator are marked as compromised by the activation of a screen display. This compromised message (RES) is the same as for TOPS terminating code screening.

24.17.3 Expanded terminating code screening

Expanded terminating code screening adds checks to handle the terminating code screening of a collect or third number billed call.

If the operating company uses extended terminating code screening to AABS and the AABS filtering mechanism, calls to the corresponding procedures are added throughout existing AABS code.

24.17.4 Query sent

The terminating code screening procedure and checks occur after making a database query. The AABS billing verification code queries the following databases:

- line information database (LIDB)
- billing verification check (BVC) database

However, in some circumstances, the operator cannot make a database query. For example, the billed number is a special number that can be validated by sending a database query. However, the VSN software indicates that the call must go to the operator, instead of the VSN, to determine billing information.

24.17.5 Sequence call enhancement

Sequence call enhancement is an extension of terminating code screening. Mechanized calling card service (MCCS) sequence calls originating from coin phones are terminating code screened. When a sequence call is terminating code screened and is compromised, the caller receives a message to hang up and dial direct. The call then disconnects. If the caller then dials the call as 0+ or 0-, the call is terminating code screened and marked as compromised and the call routes to an operator, who tells the caller that an alternate method of billing is required.

24.18 ANI failure on a screened line

When automatic number identification (ANI) equipment fails to identify the calling number, request the calling number as follows:

1. Press the **Clg** key.
2. Type the calling number.
3. Press the **Start** key. Any applicable screen code displays.
4. Proceed as appropriate for the screen code.

25.0 Calling card calls

This chapter explains how to handle calls that the subscriber wants to charge to a calling card. These instructions explain how to validate a calling card number manually (as required by equipment limitations) and when mechanized calling card service (MCCS) is in use. Handle calling card calls like other calls, except as noted in this chapter.

A calling card is a credit card. The call are subsequently billed to the subscriber. These cards differ from pre-paid cards, which are debit cards.

Calling cards are accepted on calls originating within the United States or other places as specified in the position information. Subscribers calling the United States from an overseas point other than those specified in the position information use the international calling card format.

Calling card numbers are acceptable billing on both intra-LATA (or intra-zone) and inter-LATA (or inter-zone) calls if they pass the validation checks described in this chapter. The operator does not need to be aware of the issuing company.

25.1 Handling a calling card call

If a calling card call arrives at the position, do the following:

1. Ask the caller for the card number.
2. Press the **Spl** key, type the calling card number, and press the **Start** key. The subscriber can give either the entire calling card number or just the four-digit PIN. If the four-digit PIN is used, the equipment automatically appends the calling number to form the complete calling card number.
3. Ask the caller if this is to be a station call or a person call.
4. If appropriate, press the **Spl** key, press the station or person icon key, press the **Fncts** key, type the menu number for Dial Rate, and press the **Start** key.

25.1.1 Advancing the call

A service provider can specify that, on calls class charged as special calling, if billing information is entered before the billing verification check (BVC) query (before AMA VFY appears on the screen), outpulsing to the called number delays until after screening and the BVC check. As soon as a calling card is accepted as valid or the class charge changes to paid, the called number advances automatically.

25.1.2 Collect call billed to calling card

If the called station or party accepts a collect call but wants it billed to a calling card, class charge the call as special called and proceed as for a calling card call.

If the called station or party does not want to give the calling card number in the hearing of the calling party, do the following:

1. Ask the subscriber to signal when through.
2. Prepare a billing ticket in the usual manner.
3. Do one of the following:
   - Press the **No AMA** softkey.
   - Press th**e Fncts** key, type the menu number for No AMA, and press the **Start** key.
4. Press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key.
5. Press the **Fncts** key, type the menu number for Hold, press the **Start** key, and press the **Pos Rls** key.
6. When the calling party disconnects, obtain the card number of the called party.
7. Press the **Spl** key, type the calling card number, and press the **Start** key.

If the validation response indicates that the calling card has a restricted PIN, proceed as when this occurs on a person special calling call. Do not change the class of the call. Instead, either secure other acceptable billing or re-enter the person collect class of charge.

25.2 Mechanized calling card service

Mechanized calling card service (MCCS) lets subscribers dial billing information without operator assistance. From certain types of telephones, the subscriber can dial an access code (0 or 01) plus the called number. Then, in response to an alert tone or announcement, the subscriber dials a calling card number or 4-digit PIN. The billing number automatically validates and the call outpulses.

However, calling card billing requires operator assistance in the following situations:

- The subscriber does not to dial the calling card, does not know how to dial, or requires assistance for some other reason, such as a person call.
- The call is 0-, 1+ coin, or 1+ hotel.
- The originating station (telephone) or local billing office is not equipped for automated calling.
- The local office is not equipped for automatic number identification (ANI).
- The call is an ANI failure.

Table 25 describes the MCCS display, meaning, and action for each situation.

Table 25. MCCS displays

Display	Meaning	Action
`Special number`	A subscriber dials 0, flashes the switchhook, or dials a calling card number but times out before doing anything else.	Give the subscriber dialing instructions, or request and enter the calling card number.
XXXX	The subscriber enters the PIN. The PIN is masked for security reasons.	None
Clock icon in the ST TMG or CA CALL field	Validation is in progress.	Wait for validation. The clock icon disappears when validation is complete.
`Tmg/Ca?`	The operator pressed the **Fncts** key, typed the menu number for Start Timing, and pressed the **Start** or **Pos Rls** key before validation completed.	Wait a moment and try again.
nnn-nnn-nnnn-nnnn flashing in the special field	The calling card number is not a valid billing number. The PIN is not masked.	Wait a moment and try again. If the number is still invalid, suggest that the subscriber use other billing such as collect, paid, or third number. If the caller does so, proceed based on information returned by the BVC. If the subscriber insists that the calling card is valid, instruct the subscriber to contact the business office that issued the card. Press the **Ca Call** key and the **Pos Rls** key.
999-999-9999 XXXX 999 or 999-999-9999 XXXX in the special field	The calling card is valid and unrestricted. The three digits following the calling card number represent the RAO. The RAO appears if it is available in the BVC.	Unless another response indicates invalid, the RAO availability does not affect the call handling. Outpulsing is automatic. Press the **Pos Rls** key.
999-999-9999 XXXX999R in the special field	The calling card is valid and restricted. Billing is permitted only on a station basis to the number associated with the billing number.	None. If the called number and billing number are compatible and the call is classed station special calling, the call outpulses automatically.

Table 25. MCCS displays (Continued)

Display	Meaning	Action
? in the special field	The operator pressed the **Pos Rls** key but did not enter a special number. Or the call is class-charged as person, but the calling card is valid for only station calls.	Enter the calling card number, or advise the subscriber that the call must be placed as station call.
`999-999-9999-XXXX` in the special field	The calling card does not validate because of database access problems.	Assume that the number is valid and unrestricted. Proceed with the call. Outpulsing is automatic.
XXXX in the special field	The subscriber enters a PIN but not the called number.	Request and key the called number.
XXXX flashing in the special field	The subscriber enters a PIN. The called number is a DA, INWATS, or overseas number.	Request an alternate billing method.
`MAN`	Manual validation is required on inter-LATA or inter-zone carrier call.	Validate manually.
`Restricted IC`	The calling card number is denied because of calling card-carrier restrictions.	Request an alternate billing method.

25.3 Calling card validity checks

Calling card calls require validity checks. The following sections describe the conditions under which these checks are made.

25.3.1 Screening

After class charging either a person or station special calling or person or station special called, validity checks occur for the following:

- correct number of digits
- validity of first four digits, which represents either:
  - — numbering plan area (NPA), in which the fourth digit is greater than one
  - — revenue accounting office (RAO), in which the fourth digit is one or zero
- whether this number is on the list of locally identified fraudulent numbers

If the calling card number conforms to the format specified, the equipment outpulses the number to the BVC database system for another validity check. The database determines if the billing number is for a valid, invalid, restricted, or unrestricted calling card.

If the number is on the list of locally identified fraudulent numbers, the digits and Hot display in the special field.

25.3.2 Sequence calling

Sequence calling lets the subscriber bill a sequence of calls to a calling card number without having to re-enter the number for each call. The subscriber can begin the sequence when the first called party goes on-hook or at the ringing tones or busy tones. The subscriber stays off-hook, presses the # key, and enters another called number. Each subsequent call bills the original calling card number entry.

An optional revalidation query queries the billing validation database on every sequence call. Card issuers can require a new calling card query for the following reasons:

- New validity information may be available on a sequence call.
- The card issuer restricts use according to such criteria as:
  - — called numbers
  - — time of day
  - — the number of times the card is used in a given period of time

When a query is made for a sequence call, this query includes the new called number. If a query fails, standard treatment for calling card validation failure is applied.

25.3.2.1 Terminating code screening

When a sequence call is terminating code screened and compromised, the caller receives a message to hang up and dial direct. The call then disconnects. If the caller dials the call as 0+ or 0-, the call is terminating code screened, marked as compromised, and routed to an operator position. If a compromised call arrives at the position, inform the caller that an alternate billing method is required.

25.4 Calling card validation types

Validation of the calling card number can be automatic, semi-automatic, or manual.

25.4.1 Automatic calling card validation

When entering the billing number, a query goes to the DMS switch and then to the nationwide BVC database. It takes approximately one second for the BVC to reply, at which time the status of the calling card displays at the position.

Refer to Chapter 24.0, “Class-of-call screening,” on page 295 for information about terminating code screening during MCCS.

25.4.2 Semi-automatic calling card validation

Offices without MCCS capabilities can provide a semi-automatic method of validating calling card numbers, as follows:

1. Determine if the called telephone is ringing.

If	Go to
the called telephone is ringing	Step 2
the called telephone is not ringing	Step 4

2. Wait for someone to answer the called telephone.
3. Explain to the called party that there is a slight delay on a long distance call. Ask the called party to hang up so that you can call back in a few minutes.
4. Press the **Rls Cld** key.
5. Press the **Spl** key, type the calling card number, and press the **Start** key.
6. Press the **OGT** key to access the database.
7. Listen for the prompt tone.
8. Press the **Fncts** key, type the menu number for Verify Special, and press the **Start** key.
9. Listen to the recorded validation response. The calling party does not hear the validation response from the database.
10. Press the **Rls Cld** key.
11. Be guided by validation response.
12. Press the **Start** key if the call is person-to-person; or press the **Pos Rls** key for a station call.

25.4.3 Manual calling card validation

When a call arrives at the position with a calling card number that needs to be verified manually, either access a validation database or call an inward operator. If the office uses LNP, first determine the actual number for routing the call.

25.4.4 Ported numbers

If the office uses LNP, the number that a subscriber provides for a line-based calling card is not necessarily the actual number for routing the call. To determine the number to use for manual validation, do the following:

1. Press the **Fncts** key, type the menu number for LNP Info Special, and press the **Start** key.

   The message SPLLNP and one of the following appears in the Call Details window.

   `nnn-nnn-nnnn`

   This number is the actual line number. Use it to manually validate the calling card.

   `not ported`

   The number in the Cld field is the actual line number. Use it to manually validate the calling card.

   `?`

   The database query failed. Depending on the company's procedures, either repeat step 1 or use the number in the Cld field to manually validate the calling card.

25.5 Validating the calling card

If the called telephone is ringing and calling card validation is required, do the following:.

1. Wait for someone to answer the called telephone.
2. Explain to the called party that there is a slight delay on a long distance call. Ask the called party to hang up so that you can call back in a few minutes.
3. Press the **Rls Cld** key**.**
4. Do one of the following to validate the card:
   - Access the validation database, following the procedures in Section 20.5.1.
   - Call an inward operator, following the procedures in Section 20.5.2.

25.5.1 Accessing a validation database

Use office routing codes 1161 and 1162 to reach a database that provides a recorded announcement with the results of the validity check after typing the number. If one of these codes is available in the traffic office and if the called number is not ringing, do the following:

1. Press the **Cld** key.
2. Type a routing code (if the office requires one) and either 1161 or 1162, as locally directed.
3. Listen for prompt tone.
4. Type the calling card number.
5. Listen to recorded validation response for one of the following responses:
   - number valid, restricted or unrestricted, and the revenue accounting office number
   - number valid, restricted or unrestricted, and the revenue accounting office is unavailable
   - invalid

If the response is	Do
valid and unrestricted	Press the **Rls Cld** key and proceed with the call.
valid and restricted	Press the **Rls Cld** key. Determine that the called and billing numbers are associated, and that the call is class-charged as station special calling.
invalid	Press the **Rls Cld** key and ask the subscriber for an alternate billing method.

25.5.2 Calling an inward operator

To validate a credit card number, use office routing code 1160 to reach an inward operator. If code 1160 is available in the traffic office and if the called number is not ringing, do the following:

1. Press the **Cld** key.
2. Type a routing code (if the office requires one) and 1160.
3. State the calling card number to the operator.

4. The inward operator then types the calling card number and gives one of three responses:
   a. number valid, restricted or unrestricted, and the revenue accounting office number
   b. number valid, restricted or unrestricted, and the revenue accounting office is unavailable
   c. invalid

If the response is	Do
`valid and unrestricted`	Press the **Rls Cld** key and proceed with the call.
`valid and restricted`	Press the **Rls Cld** key and determine that the called and billing numbers are associated, and that the call is class-charged as station special calling.
`invalid`	Press the **Rls Cld** key and ask the subscriber for an alternate biling method.

25.6 Inward validation of calling cards

The traffic office can act as a host for inward validation of calling card numbers for operators in offices not equipped for MCCS. When a request from another operator to validate a calling card number arrives at the position and Inward displays, do the following:

1. Ask the operator for the complete calling card number.
2. Press the **Spl** key, type the calling card number, and press the **Start** key.
3. The clock icon displays, indicating that validation is occurring. When the BVC replies, the clock icon disappears and the display updates.
4. Inform the operator of the BVC reply. Upon acknowledgment from that operator, press the **Pos Rls** key.

25.7 Enhanced calling cards

The IWS Billing application provides toll and assistance for subscribers with enhanced calling cards through use of an external calling card database (CCDB) that maintains enhanced calling card holder profiles. IWS Billing provides enhanced calling card services such as the following:

- account codes
- voice mail message waiting indications
- speed dialing
- access to car rental agencies, hotel and airline reservations, and travel agencies

IWS Billing checks multiple databases to ensure integrated billing of both enhanced calling cards and other cards. If a query to the calling card database fails, the application checks the line information database (LIDB).

When a subscriber uses an enhanced calling card, the Intelligent Service Node (ISN) provides automated prompts and completes the call. An enhanced calling card call arrives at the position if any of the following is true:

- The ISN detects an error condition that it cannot handle.
- The caller does not respond to a prompt and times out of ISN.
- The caller requests to leave ISN by taking an explicit action such as pressing 0.
- The call violates one of the restrictions that apply to the card number and PIN.

25.7.1 Providing the calling card number

If the calling card number or PIN does not appear at call arrival, ask the calling party for the information and type it in the special field. Then, press the **Start** key.

Type the enhanced calling card number and PIN (up to 23 alphanumeric characters) in the special (Spl) field. TOPS IWS uses the last four digits as the PIN. For example, in the number 55512123451, the PIN is 3451. The name of the field changes to SplEC, and the display masks the PIN by replacing each digit with an X. Press the **Edit** key to make corrections to the number.

25.7.2 Providing the called number

If the called number does not appear at call arrival, type one of the following, according to the calling party’s request:

- the called number
- d and an enhanced calling card speed dial number (one or two digits)
- s and an enhanced calling card service number (up to 17 digits)

Then, press the **Start** key.

25.7.2.1 Valid services

The Database Display window provides a list of valid services for each enhanced calling card and PIN. To access this database window, do the following:

1. Press the **DB** key to change the softkey display from the toll softkey set to the database softkey set.
2. Press a database softkey to access the specific database information.

25.7.3 Restrictions on enhanced calling cards

TOPS IWS automatically displays violated restrictions on enhanced calling card calls if the call violates any restrictions that apply to the card number and the call provides the following information:

- calling card number
- PIN
- called number

The IWS Billing application displays the restrictions that the call violates in the Violated Restrictions window in the lower left of the screen. The following are examples of restrictions:

- country

  The card and PIN are invalid for calls to specific countries.
- completion number

  The card and PIN are invalid for calls to a specific type of completion number. (For example, the card is not valid for specific area codes.)
- calling-called pairs

  The card is invalid for calls between specific telephone numbers.
- time interval

  The card is invalid during specific time intervals. (For example, the card is not valid between 9:00 and 17:00.)

- call volume

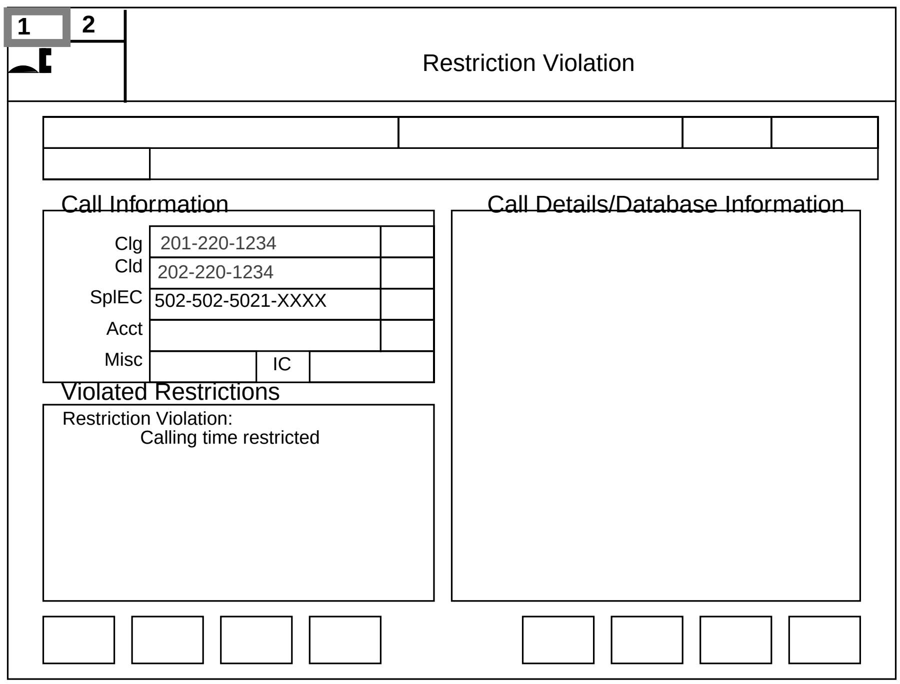
  The card and PIN are valid for up to a maximum number of calls in a day, week, or month.

- service

  The card and PIN are valid for the services listed on the screen.

The screen in Figure 100 shows that the caller tried to use an enhanced calling card at a time of day when the card is not valid.

Figure 100. Violated restrictions window



To manually query restrictions against an enhanced calling card, do the following:

1. Ensure that the enhanced calling card number and PIN are in the SplEC field of the Call Information window.
2. Press the Database Access key.
3. Press the **Restr List** softkey.

   The Database Information window displays the list of restrictions that apply to that enhanced calling card.

25.7.3.1 Overriding restrictions

With QMSCASE, a supervisor with monitoring capability can press the **Ovr** key to override restrictions against an enhanced calling card number. The *TOPS IWS Force Management Guide*, 297-2251-313, provides detailed information about QMSCASE and supervisors.

25.7.4 Completing the call

When all required information is present and no enhanced calling card restrictions exist, press the **Pos Rls** key to send the digits to the CCDB.

25.8 IN fallback (GOS and Billing only)

Whether operators can use this procedure depends on whether the company uses GOS and which GOS features it uses.

The ServiceBuilder intelligent node routes a calling card call to an operator position for conditions that the company specifies, such as the following:

- The PIN is not valid.
- The calling card or DN is suspected of a high incidence of fraud.
- The query fails.
- Screening restrictions apply.
- The call is on one inter-exchange carrier but is using a calling card restricted to another inter-exchange carrier.

At the position, text, in the error text color or mode, in the message and status area indicates why the call requires assistance.

The calling card number appears in the SplCC field. If the calling card number and PIN are not valid, the digits display in the error text color or mode. When the caller enters a PIN, a question mark (?) appears for each digit of the PIN. If the caller does not enter a PIN, only the calling card number appears.

When an IN fallback call arrives at the position, the cursor is in the SplCC field. The operator can edit the information in the SplCC field with the left and right arrow keys and the **Home** and **Backspace** keys. When editing the information, the digits change to black. Always type the PIN, even if correcting the actual card number. Then, press the **Start** key.

26.0 Coin telephone calls

This chapter describes procedures for handling coin telephone calls in traffic offices with or without Automatic Coin Toll Service (ACTS). Except as noted in this chapter, calls originating at coin telephones are generally handled the same way as other calls.

The Call Details window displays the following information:

- `CHG`

  the charge (maximum charge = 99.99)
- `MIN`

  minutes (maximum = 999.99)
- `OC` *`$nnn-nnn-nnnn-nnnn`*

  overcollection amount (maximum = .99)
- `Amt Due $`

  amount due (maximum = 99.99)
- `NFY`

  notify period (maximum minutes = 59)

26.1 Coin collection

The two types of coin telephones are *postpay* (Po) and *prepay* (Pre). Note the following information about them:

- On prepay telephones, the subscriber deposits coins into a hopper (intermediate container) before placing the call.
- On postpay telephones, the deposit slots are connected directly to a collection box. With this type, do not ask for the coins until reaching the called station or party.

A subscriber cannot split the initial charges between coin and an alternate billing method or between alternate billing methods. Suggest that the subscriber reverse or transfer the entire charge.

26.1.1 Securing the initial period deposit on a prepay call

A prepay telephone has an intermediate container, called a hopper. Coins return automatically when a call does not complete. The operator can tip coins in the hopper either into the collection box or down the return chute to the caller, as follows:

- To tip coins into the collection box: Press the **Fncts** key, type the menu number for Coin Collect, and press the **Start** key.
- To tip coins down the return chute: Press the **Fncts,** type the menu number for Coin Return, and press the **Start** key.

At a prepay telephone, if the calling party must make a deposit to obtain a dial tone, the deposit automatically returns when an operator answers. Coins are automatically collected at prepay telephones under the following conditions:

- five seconds before the expiration of the initial period (initial period minutes determined by the service provider)
- when either the calling or called party disconnects after a successful connection
- on a call held on loop (if there are coins in the hopper)
- at the end of the overtime period (if there are coins in the hopper)
- when the **Pos Rls** key is pressed after disconnection

If no deposit was secured for the initial period before the called telephone answers, the operator can do one of the following:

- If the initial period deposit does not exceed the hopper capacity, secure the initial deposit before permitting conversation to start.
- If the initial period deposit exceeds the hopper capacity, secure the deposit after announcing the call. Request the deposit in amounts that do not exceed the hopper capacity.

26.1.2 Securing the initial period deposit on a postpay telephone

On postpay telephones, the deposit slots connect directly to a collection box. Do the following when reaching the called station or party:

1. Advance the call.
2. To display the called number, press the **Fncts** key, type the menu number for Call Details, and press the **Start** key.
3. When the called party answers, verify that the correct number was reached. If the correct number was reached, ask the called party to hold the line.
4. Request the total initial deposit, which is then collected automatically. There is no hopper limitation on a postpay telephone.

26.2 Coin call types

The following sections describe the types of coin calls that arrive at operator positions.

26.2.1 1 + Coin Pre or 1 + Coin Po

The subscriber dials 1 and a seven- or ten-digit number. The screen displays Chg and the amount to be collected for the station-paid initial period, including tax.

26.2.2 0 + Coin Pre or 0 + Coin Po

The subscriber dials 0 and a seven- or ten-digit number, and wants special handling on the call. For example, a subscriber might want to do one of the following:

- reach a particular party
- bill the call to another number
- make the call collect

In this case, press the **Clg** key and either the **Sta** key (for a station all) or the **Per** key (for a person-to-person call). The screen displays `Chg` and the amount to be collected for the station-paid initial period, including tax.

A subscriber cannot split the initial charge between two telephones (for example, between the coin telephone and the called party or the subscriber's home number). If a subscriber requests splitting the charge, suggest that the entire charge be reversed or transferred.

26.2.3 1+ or 0+ (calling number)

Calls arriving over an ONI combined trunk group display NPA-NXX and the kind of call dialed. An audible tone indicates that the call is from a coin telephone.

In this case, press the **Fncts** key, type the menu number for Coin, and press the **Start** key to identify the originating station class (`Coin Pre` or `Coin Po`). Do one of the following:

- On 1+ calls, type the calling number. The charge appears on the display. The charge is the amount to be collected for the station-paid initial period.
- On 0+ calls, press the **Clg** key and either the **Sta** key (for a station call) or the **Per** key (for a person-to-person call). The charge appears on the display. The charge includes the tax.

26.2.4 0 Coin Pre or 0 Coin Po

The subscriber dials 0 for the operator. In this case, dial the called number as usual. Press the **Clg** key, and either the **Sta** key (for a station call) or the **Per** key (for a person-to-person call). The charge appears on the display. The charge includes the tax.

26.2.5 0, NPA-NXX ?

Calls arriving over a combined ONI trunk group display `NPA-NXX ?`. An audible tone indicates that the call is from a coin telephone. In this case, press the **Fncts** key, type the menu number for Coin, and press the **Start** key. Press the **Clg** key and either the **Sta** key (for a station call) or the **Per** key (for a person-to-person call). The charge appears on the display. The charge includes the tax.

26.3 Timing and billing calls

Coin timing occurs on calls released or held at the operator position. Timing starts after whichever of the following occurs last:

- The **Pos Rls** key is pressed.
- The called party answers.

The equipment does the following:

1. Collects the initial deposit five seconds before the end of the initial period
2. Recalls an idle position for the operator to give a verbal announcement of the end-of-initial period

At the end of an overtime interval, the equipment returns the calls to an operator position to secure a deposit for overtime charges.

26.3.1 Automation restrictions

If handling operator assistance calls and a call arrives at the position displaying the no automation icon ( ), the call comes from a subscriber line designated not to be released to an automated service. If the caller specifically asks to be released to an automated service, press the **Fncts** key, type the menu number for Allow Automation, and press the **Start** key. This action removes the restriction against automation.

If handling DA calls and a call arrives at the position displaying both X and in the language indicator field, the call comes from a subscriber line designated not to be released to an automated service. If the caller specifically asks to be released to an automated service, do one of the following:

- Press the NTDA no audio toggle key.
- Press the **Fncts** key, type the menu number for Allow Automation, and press the **Start** key.

Either action removes the restriction against automation, the no automation icon, and, for DA, the X.

If handling an operator assistance call and accessing DA by selecting NTDA from the application menu, an administrative search session is entered. In this case, the call cannot be released to an automated announcement under any circumstances. If the call comes from a subscriber line that is designated not to be released to an automated service, appears in the DA window. However, the language field displays the indicator for the primary or secondary language, not the X that indicates no audio.

26.3.2 AMA-billed calls

Release AMA-billed calls from the position for AMA billing. Equipment coin-timing ensures that coin-paid calls automatically return to a TOPS IWS operator (after a specified elapsed time) for action such as notification. On coin-paid call, the equipment does not accept notification requests of less than the initial period.

To release a call for AMA-billing, do the following:

1. Press the class charge key for the call.
2. Make any announcement required.
3. Do one of the following:
   - On station-paid calls from a prepay coin telephone, determine if the initial-period deposit exceeds the hopper capacity.
   - If the initial deposit **does not** exceed the hopper capacity, obtain the initial deposit and press the **Pos Rls** key.
   - If the initial period deposit **does** exceed the hopper capacity, verify the telephone or party reached before requesting any portion of the initial-period deposit.
   - On calls from a postpay coin telephone, verify the telephone reached, obtain the initial period deposit, and press the **Pos Rls** key.

26.3.3 Manually billed calls

Manually billed calls are held at the position and require a ticket to record billing. Coin timing ensures that call supervision changes occur to direct the operator to enter the call at specified intervals (for an action such as notification. To manually bill a call, the operator can do the following:

1. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
2. Press the class charge key for the call.
3. Make any announcement required.

4. Do one of the following:
   - On station-paid calls from a prepay coin telephone, determine if the initial-period deposit exceeds the hopper capacity.

     If the initial deposit **does not** exceed the hopper capacity, obtain the initial deposit and press the **Pos Rls** key.

     If the initial period deposit **does** exceed the hopper capacity, verify the telephone or party reached before requesting any portion of the initial-period deposit.
   - On calls from a postpay coin telephone, verify the telephone reached, obtain the initial period deposit, and press the **Pos Rls** key.
5. Prepare a ticket with appropriate entries. Enter the total amount collected and the total minutes in the CHARGE and MIN fields. Mark COIN and the usual ticket entries. If the exact amount of the charge is not obtained, indicate the amount over- or underpaid.
6. Hold the call at the position. Press the **Fncts** key, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.

26.3.4 Semi-automatic rating

When the rate step is not available or there is a trouble condition, the RS header display flashes. Unless the called number is ringing, immediately press the **Rls Cld** key. A rate step number is required before obtaining an automatic charge display.

To record semi-automatic ratings, do the following:

1. Determine the rate step number (a one-, two-, or three-digit code) according to local procedure.
2. Press the correct class charge key.
3. Press the **Fncts** key, type the menu number for Rate Step, press the **Start** key, type the rate-step code, and press the **Start** key.
4. Note that the charge and minutes display on the screen; rating and charging are now automatic.

26.3.5 Manual rating when the rate is not available

If a rate is not available because a rate step cannot be assigned (for example, a call with other line charges), do the following:

1. Use rate-step number 0 to assign a no-charge rate step. Press the **Fncts** key, type the menu number for Rate Step, press the **Start** key, type a zero (`0`), and press the **Start** key.
2. Obtain initial-period charges from the rate operator and collect that amount from the subscriber.
3. Note the minutes and amount collected on a memo.
4. When the call returns for notification and coin collection, obtain the computed charge for initial and overtime periods from the rate operator.
5. Deduct the amount already collected and collect the balance.
6. Note the minutes and amount collected on the memo.
7. At call completion, ask the rate operator for the computed charge for the total minutes that the parties talked.
8. Deduct the amount already collected and collect the remaining amount owed.
9. Do one of the following:
   - Press the **Charge Adjust** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
10. Enter information into the system to record charges on the manually rated call.

26.3.6 Subscriber recall

If the screen displays Recall Coin Pre or Recall Coin Po, the calling subscriber flashed within the initial period for assistance. The call details include the minutes and charge. The coins deposited at a prepay telephone are still in the hopper. Do one of the following:

- If the calling party wants to place a new call, tell the subscriber to hang up and dial the call.
- If the recall is due to an equipment problem and conversation is in progress, press the **Pos Rls** key. Timing suspends while the call is attached to an operator's position but resumes when the **Pos Rls** key is pressed.

26.3.7 Charge on return

If the conversation lasts beyond the initial period, the call accrues overtime minutes and charges. Return of coin-paid calls with accrued overtime display one of the following:

`Ovt` *`min`* `Coin Pre` *`charge`*

`Ovt` *`min`* `Coin Po` *`charge`*

where *`min`* is the number of overtime minutes and *`charge`* is the amount the subscriber owes for those minutes.

26.3.7.1 Overtime message and conversation ended

If an overtime message is received and the conversation has ended, the operator can do the following:

1. Determine if the calling party is still on-hook.

If the calling party is	Go to
on-hook	Step 10
off-hook	Step 2

2. Do one of the following:
   - Press the **Ring Calling** softkey.
   - Press the **Fncts** key, type the menu number for Ring Calling, and press the **Start** key.
3. Determine if the calling party answers.

If the calling party	Go to
answers	Step 10
does not answer the ring-back after approximately 30 seconds	Step 4

4. Press the **Fncts** key, type the menu number for Release Calling, and press the **Start** key to stop ringing the calling telephone.
5. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key. Note all the call details on a memo ticket, including the walkaway charge adjustment value.
6. Determine if the traffic office contacts the called party.

If the office	Go to
contacts the called party	Step 7
does not contact the called party	Step 16

7. Press the **Fncts** key, type the menu number for Withhold Calls, and press the **Start** and **Pos Rls** keys.

8. Press the **Fncts** key, type the menu number for either Access Loop 1 or Access Loop 2, press the **Start** key, press the **Cld** key, type the called number, and press the **Start** key.
9. Request billing arrangements from the called party. If the called party provides acceptable billing, prepare a part charge ticket. In the special instructions, note that billing occurred after conversation and that the shortage is noted on the AMA tape.
10. Tell the subscribe the amount of the overtime and ask the subscriber to deposit the charge.

If	**Go to**
the party deposits the amount	Step 16
the subscriber requests that all or part of the remainder be billed either collect, to a third number, or to a calling card	Step 11

11. Enter the billing number and secure acceptance and billing validation. For procedures, see Chapter 27.0, “Collect calls,” on page 355 and Chapter 29.0, “Calls charged to a third telephone,” on page 375.
12. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key to determine if the original call is station or person-to-person.
13. Press the appropriate class charge key.
14. If part of the coin charge is coin paid, do one of the following:
    - Press the **{Charge Adjust}** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.

    Type the one-digit code that identifies a change of billing, press **C** (for cents), type the amount paid, and press the **Start** key.
15. The remaining billing amount is charged to the new billing number.
16. Press the **Pos Rls** key.

26.3.7.2 Overtime message and conversation not ended

If an overtime message is received and the conversation has ended, the operator can do the following:

1. Tell the subscriber that the call is in the overtime period and secure the overtime deposit.

If	Go to
the subscriber deposits the amount	Step 12
the subscriber requests that all or part of the remainder be billed either collect, to a third number, or to a calling card	Step 2

2. Determine the type of billing.

If	Go to
the call is AMA-billed	Step 3
the call is manually-billed	Step 8

3. Type the billing number and secure acceptance and billing validation. For procedures, see Chapter 27.0, “Collect calls,” on page 355 and Chapter 29.0, “Calls charged to a third telephone,” on page 375.
4. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key to determine if the original call is station or person-to-person.
5. Press the appropriate class charge key.
6. If part of the coin charge is coin paid, do one of the following:
   - Press the **Charge Adjust** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.

   Type the one-digit code that identifies a change of billing, press **C** (for cents), type the amount paid, and press the **Start** key.
7. The amount owed and the remainder of the call are charged to the new billing number. The call does not automatically return to an operator position for additional overtime notification. Go to Step 12.
8. Enter the total time and the total amount on the ticket.
9. Type the billing number and secure acceptance and billing validation. For procedures, see Chapter 27.0, “Collect calls,” on page 355 and Chapter 29.0, “Calls charged to a third telephone,” on page 375.
10. Mark COL and YES for billing the additional charge.
11. Mark PT CHG.

12. Ask the parties to resume conversation.
13. Press the **Pos Rls** key. Coin timing resumes when the position is released.

Unless the calling party has changed to alternate billing, the cycle is repeated as often as required by the length of conversation.

If the subscriber questions being interrupted, explain that for their convenience subscribers are notified periodically of the time they have talked. If the subscriber wants to continue without further interruption, comply with the request.

To prepare the overtime ticket, do the following.

1. Record a memo and note the amount due as a reminder to obtain the deposit.
2. Do one of the following:
   - Press the **{Notify}** softkey.
   - Press the **Fncts** key, type the menu number for Notify, press the **Start** key, press **0**, and press the **Start** key.
3. Hold the call on the loop.
4. Add the two amounts and obtain the total amount due at the end of conversation.

26.3.8 Notify and charge on return (AMA)

If the initial period return for notification feature is active, the return of the call for notification at the end of the initial period interval is automatic for all coin-paid calls that are released or held at an operator position. On a coin-paid call that is released, a Nfy Coin Pre or Nfy Coin Po display indicates when notification is due on a coin call. Do the following:

1. Ask the subscriber to signal when the call is over.
2. Press the **Pos Rls** key.

On the standard notification, there is no amount due and no deposit by the calling party. The service provider determines the period of time for standard notification.

Return of coin-paid calls with a nonstandard notification period displays as one of the following:

`Ovt` *`min`* `Coin Pre` *`charge`*

`Ovt` *`min`* `Coin Po` *`charge`*

where *min* is the number of overtime minutes and *charge* is the amount the subscriber owes for those minutes. Tell the subscriber the amount of the overtime and ask for the deposit of the charge.

If the subscriber asks that all or part of the overtime be billed collect, to a third number, or to a calling card, do the following:

1. Type the billing number and secure acceptance and billing validation. For procedures, see Chapter 27.0, “Collect calls,” on page 355 and Chapter 29.0, “Calls charged to a third telephone,” on page 375.
2. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key and the appropriate class charge key.
3. Press the **Pos Rls** key.

The call does not automatically return for coin overtime notification.

With ACTS, return of coin-paid calls for collection of the amount of overtime charge is automatic when either of the following occurs:

- the conversation ends
- a predetermined overtime period ends

Section 26.6, “Automatic Coin Toll Service,” on page 342 describes ACTS.

26.3.9 Notify, charge due on return (manual)

If the call is normally ticketed and machine-timed, do the following.

1. Record a billing ticket, including coin, calling, and called numbers.
2. If semi-automatic rating applies determine the rate step. Press the **Fncts** key, type the menu number for Rate Step, press the **Start** key, type the rate-step code, and press the **Start** key.
3. Secure the coin deposit and note it in the Special Instructions space of the ticket.
4. Do one of the following:
    - Press the **{Notify}** softkey.
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
5. Start timing at the appropriate time, and hold the call on loop.
6. At the end of the initial period, Nfy is displayed in the appropriate loop status area and the Min field displays the number of overtime minutes.
7. Notify the subscriber of the number of overtime minutes and request that the subscriber signal when the conversation ends.
8. Press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
9. At the specified minute of the overtime interval, Nfy is displayed in the appropriate loop status field.

10. When the loop is accessed, observe the number of minutes overtime and secure the coin deposit according to the charge display.
11. Enter the elapsed time and coin deposit on the ticket. Ask the parties to resume conversation.
12. Continue to hold on the loop until the conversation ends.
    - If the conversation ends and the calling party is still off-hook, secure the overtime deposit, enter the elapsed minutes and coin deposit on the ticket, and then press the **Pos Rls** key. As an overlap, mark the total number of minutes and charge boxes on the ticket and file it.
    - If conversation ends and the calling party is on-hook, follow the procedure in Section 26.3.7.1, “Overtime message and conversation ended,” on page 324, beginning with Step 4.

26.3.10 Automatic notification and subscriber requests

If automatic notification at the end of the initial period for coin-paid calls is available and the subscriber asks to be notified, tell the subscriber that notification is handled automatically by the equipment.

If the subscriber requests manual notification, follow these steps:

1. Do one of the following:
    - Press the **{Notify}** softkey, type zero (`0`), and press the **Start** key.
    - Press the **Fncts** key, type the menu number for Notify, and press the **Start** key.
2. Hold the call on loop and prepare a memo.
3. Obtain the total amount due at end of conversation.

If the subscriber requests a specific amount of time for the initial period, follow these steps:

1. Do one of the following:
    - Press the **{Notify}** softkey
    - Press the **Fncts** key, type the menu number for Notify, press the **Start** key, type the requested interval, and press the **Start** key.
2. Float the call in the usual way.
3. The call returns to a position at the new notify interval and displays `OVT XX`, the difference between the initial period and the new notify interval, and the charged.
4. Notify the subscriber of the amount due and collect that amount.
5. Press the **Pos Rls** key.

26.3.11 Failure to secure charges to a third number

On calls charged to a third number, secure acceptance before advancing the call, as described in Chapter 29.0, “Calls charged to a third telephone,” on page 375.

If the third party refuses to accept charges or if acceptance cannot be secured, access the original loop and secure alternate billing. If the call is coin paid, handle as outlined for coin-paid calls.

If billing arrangements cannot be secured, tell the subscriber that the call cannot be connected. Release the position.

26.3.12 Including DA

If a subscriber asks the operator to obtain and dial a number, the operator can do the following:

1. Press the **Clg** key and either the **Sta** key (for a station call) or the **Per** key (for a person-to-person call).
2. Do one of the following:
   - Press the **Cld** key, type the number for DA, and press the **Rls Cld** key.
   - Press the **OGT** key, type the menu number for DA, and press the **Start** key.

     The charge appears on the display. The charge includes the tax.
3. Obtain the coin deposit for the initial deposit.
4. Connect to DA.
5. Press the **Fncts** key, type the manual number for Start Timing, and press the **Start** key to start timing.
6. Obtain the DN.
7. Press the **Svcs** key, type a zero (`0`), and press the **Start** key to record the DA charge.
8. Press the **Rls Cld** key.
9. Complete the call normally.

26.4 Giving credit

Give a credit adjustment to a subscriber who reaches a wrong number or party or who experiences service difficulties.

26.4.1 Wrong number or party reached

If a subscriber reaches the wrong number or party, the procedure depends on the system response, as described in the sections below.

26.4.1.1 1+, 0+, Coin Pre, Coin Po, 1+ ?, 0+ ?

If the subscriber reaches a wrong number or party and the system displays `1+`, `0+`, `Coin Pre`, `Coin Po`, `1+ ?`, or `0+ ?`, do the following:

1. Express regret and obtain the calling number.
2. Press the appropriate class charge key.
3. Do one of the following:
    - Press the **Charge Adjust** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, press the **Start** key, type the information to cancel the original timing, and press the **Start** key.
4. Verify that the number or party is correct before allowing conversation to start.
5. Press the **Pos Rls** key.

26.4.1.2 Recall

Do the following if the subscriber reaches a wrong number or party and the system displays one of the following messages:

```
Recall Coin Pre
Recall Coin Po
```

1. Express regret and determine from the display the length of time that the subscriber was connected.
2. Press the **Fncts** key, type the menu number for Cancel Timing, press the **Start** key, press the **Rls Cld** key, and recycle or re-type the called number.
3. Do one of the following:
    - Secure any additional amount due if the initial period rate increases
    - Enter an overcollection if the initial period rate decreases
    - Return the deposit and obtain the new amount
4. Verify that the correct station or party is reached.
5. Press the **Pos Rls** key.

26.4.1.3 Flash on the connection held at the position

If a subscriber reaches the wrong number or party and the system flashes the connection, the operator can do the following:

1. Express regret and determine from the display the length of time that the subscriber was connected.
2. Press the **Fncts** key, type the menu number for Cancel Timing, press the **Start** key, press the **Rls Cld** key, and recycle or re-type the called number.
3. Press **the Fncts** key, type the menu number for Call Details, press the **Start** key, and check the rate-step code. If the rate-step code is different from the one displayed, request the additional deposit or indicate overcollection, whichever is appropriate.
4. Verify that the correct station or party is reached.
5. Press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key.

26.4.1.4 Notification calls

If a subscriber reaches a wrong number or party and the system displays information in the Nfy and Min fields and one of the following messages:

```
Coin Pre
Coin Po
```

the operator can do the following:

1. Ask the subscriber for the correct number.
2. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key to find out if the subscriber dialed the number correctly.
3. If the subscriber did not dial the number correctly, press the **Fncts** key, type the menu number for Cancel Timing, press the **Start** key, press the **Rls Cld** key, and type the correct number.
4. Check the rate step code. If the rate-step code is the same as the one displayed, the deposit is correct. If the rate-step code is different, request the additional deposit or indicate the overcollection, whichever applies.
5. Reconnect the subscriber and verify that the correct station or party is reached.

26.4.1.5 Giving delay reports

If a delay occurs, report it to the caller. If the deposit was secured for the initial period, return it. If the subscriber asks to leave word and the call is billed to a third number or calling card, do so. However, word cannot be left on a coin-paid call.

26.4.1.6 Subsequent attempts

If a subscriber on a coin-paid call requests a subsequent attempt, notify the subscriber that it is not possible to make subsequent attempts when a call originates from a pay telephone.

If the subscriber is dissatisfied, transfer the call to a supervisor.

26.4.2 Cutoff, poor transmission, or other service difficulty

If a subscriber experiences service difficulty, the procedure depends on the system response, as described in this section.

26.4.2.1 1+, 0+, 0, Coin Pre, Coin Po

If the subscriber experiences service difficulty and the system displays `1+`, `0+`, `0`, `Coin Pre`, or `Coin Po`, do the following:

1. Express regret. Press the **Fncts** key, type the menu number for Call Detail, and press the **Start** key.
2. Press the appropriate class charge key.
3. Do one of the following:
    - Press the **Charge Adjust** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, press the **Start** key, type the information to cancel the original timing, and press the **Start** key.
4. Reconnect the calling and called parties.
5. Press the **Pos Rls** key.

26.4.2.2 Notification calls and recalls

If the subscriber experiences service difficulty and the system displays `Nfy`, `Min`, or `Recall`, and `Coin Pre` or `Coin Po`, do the following:

1. Express regret. Press the **Fncts** key, type the menu number for Cancel Timing, and press the **Start** key.
2. Recycle to connect the calling party to the called party.

26.4.2.3 Flash on the connection held at the position

If the subscriber experiences service difficulty and the system flashes the connection, the operator can do the following:

1. Express regret. Determine from the display the length of time the subscriber was connected.
2. Press the **Fncts** key, type the menu number for Cancel Timing, press the **Start** key, press the **Rls Cld** key, and recycle or re-type the called number.
3. Verify that the correct station or party is reached.
4. Make any notations necessary on the ticket to either cancel the call, if the trouble was reported during the initial period, or cancel a portion of the call, if the trouble was reported during the overtime.
5. Press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key and continue to hold the call on loop.

Overtime Coin Pre or Overtime Coin Po

If the subscriber experiences service difficulty and the system displays `Overtime Coin Pre` or `Overtime Coin Po`, do the following:

1. Express regret. Press the **Fncts** key, type the menu number for Call Detail, and press the **Start** key.
2. Determine the length of time the subscriber was interrupted
3. Do one of the following:
   - Press the **Charge Adjust** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, press the **Start** key, type the information to cancel the original timing, and press the **Start** key.
4. Collect the amount displayed, minus the credit adjustment.
5. Press the **Rls Cld** key and recycle the called number.
6. Reconnect the called party.
7. At the end of conversation or at the next overtime collection period, collect the amount displayed on the screen.
8. Do one of the following:
   - If the call can be released for AMA timing, reconnect the parties. Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key to give credit.
   - If the call is to be held on loop, record a billing ticket to reflect the amount of time talked on this portion of the call and to show whatever credit is to be allowed because of the service difficulty.

26.5 Coin collection guidelines

After requesting a deposit, listen for the coin signals. Enter the denomination of each coin deposited in the Coin space on the ticket or other memorandum. The operator can do one of the following:

- If the call is one to be released, acknowledge the deposit, and release the call.
- If the call is one to be timed and held, enter the total amount collected and the number of minutes on the ticket.

26.5.1 Partial amount received

If signals are received for only part of the amount due, ask for the remainder. If the calling party hangs up without depositing the full amount due, collect any deposit made, ring the calling telephone, and request the amount due.

26.5.2 Indistinct, incorrect, or no coin signals

When signals are indistinct, incorrect, or nonexistent, do the following:

1. Ask the calling party if s/he deposited the amount requested.

If	Go to
the subscriber did not deposit the amount requested	Step 2
the subscriber deposited the required amount	Step 3

2. Request the deposit again.

If	Go to
the subscriber deposits the required amount	Step 9
the subscriber does not deposit the required amount	Step 4

3. Return the deposit and request it again.

If	Go to
the subscriber deposits the required amount and the signal sounds	Step 9
the subscriber claims to have deposited the required amount but no signal sounds	Step 4

4. Determine the problem.

If	Go to
you believe that the subscriber did deposit the amount	Step 7
you do not believe that the subscriber did deposit the amount	Step 6
there is any indication that the telephone equipment is not working correctly	Step 5

5. Report the trouble and release the position.
6. Explain that signals still did not sound and ask for the name and address.
   a. Enter this information with an explanation on the ticket.
   b. Do one of the following:
      - Press the **No AMA** softkey.
      - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
   c. Allow the call to complete but hold and time it at the position.
   d. Refer the call to the supervisor.
7. Determine the billing procedure

If	Go to
the call is one to be released	Step 9
the call is one to be ticketed and machine-timed	Step 8

8. Enter the amount in question and an explanation on the ticket. At the end of conversation, enter the total charge, including the amount for which signals were not received.
9. Proceed with the call as usual.

26.5.3 Refunds and adjustment

If a subscriber requests a credit or refund, provide the dialing instructions. If the subscriber wants to be connected to the refund center, acknowledge and comply with the request.

If a refund is warranted, to try to return the money mechanically, press the **Fncts** key, type the menu number for Coin Return, and press the **Start** key.

If the calling party says that the coins did not return, try again to return the deposit. See Chapter 38.0, “Trouble reports,” on page 467 for directions for generating a trouble report.

If coins cannot be returned mechanically, do one of the following:

- Request the details and prepare a coin refund voucher to provide a refund by mail.
- Connect the subscriber to a refund control center.

To connect the subscriber to a refund control center, do the following:

1. Inform the subscriber.
2. Press the **Cld** key, type the menu number for RCC number, and press the **Start** key.
3. Do one of the following:
    - Press the {**No AMA}** softkey, type the menu number for No AMA, and press the **Start** key. At the first ring and press the **Pos Rls** key. At the first ring, press the **Pos Rls** key.
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key. At the first ring, press the **Pos Rls** key.
    - Press the **OGT** key, type the appropriate menu number, and press the **Start** key. Specify a class charge. Press the **Pos Rls** key.

If a credit adjustment is warranted, allow credit and connect the subscriber. If locally directed, obtain a deposit or other billing arrangements before completing the call.

If a subscriber requests a credit or refund, provide the dialing instructions. If the subscriber asks to be connected to the refund center, acknowledge and comply with the request.

26.5.3.1 Call not completed

If a subscriber deposits coins, the call is not completed, and the coins cannot be returned mechanically, offer to try another number or to refund the money by mail.

If the subscriber cancels the call later, arrange for a refund.

Report to repair service that a deposit cannot be returned mechanically. See Chapter 38.0, “Trouble reports,” on page 467 for the procedure.

26.5.3.2 Overcollection of initial or overtime deposit

Overcollections can occur for the initial deposit or for overtime. The limit for overcollection that can be recorded on an operator position keyboard is 99¢.

26.5.3.2.1 Initial overdeposit

If the subscriber deposits more money than required, do the following:

1. Offer to return the coins so that the subscriber can deposit the correct amount.
2. If the subscriber does not have the coins to make a correct deposit, offer a credit toward overtime.
3. Do one of the following:
    - Press the **Over Collect** softkey.
    - Press the **Fncts** key, type the menu number for Over Collect, and press the **Start** key.
4. Type the overdeposit amount, and press the **Start** key.
5. Press the **Pos Rls** key.

26.5.3.2.2 Overtime overdeposit

When an overtime coin call returns to the position, the overdeposit amount automatically deducts, and the required deposit displays. Secure the overtime charge, and do the following:

1. Press the **Fncts** key, type the menu number for Over Collect, press the **Start** key, type the amount of the overdeposit, and press the **Start** key.
2. Do one of the following:
    - Press the {**Chg Adj}** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
3. Type the one-digit code that identifies the overcollection, `C` (for cents), the amount of the overcollection, and press the **Start** key.

If a deposit is mistakenly collected on standard notification, the system displays an overcollection, but manually subtract that amount from the amount due.

26.5.3.3 Undercollection and part charge

If no portion of the amount due on a paid call from a coin telephone can be returned, an undercollection exists. Do the following:

1. To make an undercollection entry on an AMA-timed call, do one of the following:
    - Press the **{Chg Adj}** softkey.
    - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.

2. Secure the name and address of the billed party.
3. Ask the subscriber to mail the amount due to the business office or to call later and deposit it.

26.5.3.4 Calling party reports finding money

If the calling party reports finding money or wants to deposit an amount to cover undercollection on a previous call, do the following for disposition of the coins:

1. Acknowledge, then request that the coins be deposited.
2. Enter the calling number and connect time on a memo ticket.
3. Secure and collect the deposit and record an explanation on the ticket.
4. Do one of the following:
   - If the amount collected is to cover an undercollection on a previous call, secure the calling party’s name and address. Enter this information on the memo.
   - If the calling party reports finding the amount collected, note that on the memo.

26.5.3.5 Deposit collected or returned in error

On prepay calls, if a deposit is collected when it should be returned, arrange for a refund. If a deposit is returned when it should be collected and the calling party is off-hook, request the deposit again and then collect it. If the calling party is on-hook, ring the calling telephone, make the necessary explanation, ask the person answering to redeposit the money, and then collect it.

26.5.4 Change of AMA-billing that requires a ticket

To prepare a memo ticket in addition to the appropriate change-of-billing charge-adjust entry for each occurrence of AMA-timed calls, do the following:

1. Before entering a charge adjust entry to change the billing, do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
2. Press the **Fncts** key, type the menu number for Call Details, press the **Start** key, and prepare a billing ticket.
3. Include any rate information available when the call arrives at the position.

4. Determine the billing change.

If the change is to	Go to
a third-party number	Step 5
anything else	Step 9

5. Write the place name and bill-to third number in the BILL TO space.
6. Write the place name and bill-to-third number under (amount) charged to a third telephone in the SPEC INST space.
7. Enter the minutes owing and the approximate connect time.
8. Mark COIN, PT CHG, and MISC. Go to Step 12.
9. Enter the total number of minutes and the amount of the undercollection (including tax). If the call is machine-timed, write “under (amount of deposit due including tax).”
10. Enter the total number of minutes and the amount of the undercollection (including tax). If the call is machine-timed, write “under (amount of deposit due including tax).”
11. Enter the full number of chargeable minutes and only the amount actually collected (including tax).
12. Record all other ticket details in the usual way.
13. Press the **Fncts** key, type the menu number for Hold, press the **Start** key, and press the **Pos Rls** key.
14. At call termination, determine the elapsed minutes and charge. Enter the total minutes and total amount.

26.5.4.1 Calling party unable to make alternate billing arrangements

When a call at the position displays Overtime but the coin subscriber cannot or will not make alternate billing arrangements, do the following to terminate the call:

1. Press the **Rls Cl** key.
2. Explain to the called subscriber that the call is terminated.
3. Do one of the following:
   - Press the **Chg Adj** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
4. Type the one-digit code that identifies an undercollection, press **C** (for cents), type the amount of the undercollection, and press the **Start** key, and press the **Pos Rls** key.

If no other billing arrangement can be made, either arrange to send a bill to the caller's address or the ask the caller to return and deposit the coins later. Do the following to prepare the ticket:

1. Write the amount, the name, and address in the SPEC INST space. Indicate UNDER/SHORT and MISC.
2. Tell the subscriber that further conversation is not permitted on this call without payment for the overtime.
3. Tell the called party that the call is terminated.
4. Note in the SPEC INST space on the ticket if the calling party requested address-name billing or will deposit coins later.

26.5.4.2 Coin Col? message

The `Coin Col?` message occurs when the following actions occur:

- Coins are not collected automatically from the hopper when a call returns for notification.
- Coins are not collected automatically from the hopper when a call returns for an overtime deposit.
- The initial or overtime deposit is greater than the hopper capacity and the operator cannot collect coins manually.

When the initial or overtime deposit is greater than the hopper capacity and coins cannot be collected manually, the operator can do one of the following:

- Press the {**Coin Collect}** softkey.
- Press the **Fncts** key, type the menu number for Coin Collect, and press the **Start** key.

When a Coin Col? message displays, do the following:

1. After waiting a few seconds, attempt to collect the coins several times.
2. If the coins still cannot be collected, determine when the problem occurred. and do one of the following:
    - If the problem occurred on *notification*, try to collect the coins manually while notifying the subscriber.
    - If the problem occurred on an *initial deposit*, ask the subscriber to bill the entire call another way (collect or third number) and arrange a refund for the money already deposited
    - If the problem occurred on an *overtime deposit*, ask the subscriber to bill amounts not yet deposited another way (collect or third number).
3. Type a charge adjust entry to change the billing.

If the XXXX message occurs frequently, notify local management of the equipment problem.

26.5.4.3 Coin Ret? message

The `Coin Ret?` message occurs when the operator cannot do one of the following to return coins manually:

- Press the **Coin Collect** softkey.
- Press the **Fncts** key, type the menu number for Coin Return, and press the **Start** key.

When the `Coin Ret?` message displays, do the following:

1. After waiting a few seconds, try to collect the coins several times.
2. If the deposit still cannot be returned, tell the subscriber that there is a problem. Arrange for a refund or allow a credit for the amount on another call.

If the `Coin Ret?` message occurs frequently, notify local management of the equipment problem.

26.6 Automatic Coin Toll Service

ACTS automatically handles toll calls from coin telephones, using a digital recorded announcement machine (DRAM) and a coin detection circuit (CDC). The DRAM makes announcements to the subscriber and prompts for coin deposits. The CDC automatically counts coins by analyzing the dual-frequency tones generated by the coin phone.

ACTS handles 1+ station-paid calls dialed on prepay telephones, thus eliminating operator involvement. ACTS also handles other types of coin telephone calls (overtime prepay and postpay). However, because ACTS does not provide completely automated service on all types of coin calls, operator service is still needed in many cases.

ACTS provides the following services for coin telephone calls:

- initial contact, including:
    - — initial deposit request (1+ station-paid calls from prepay coin telephones)
    - — coin prompts
    - — deposit acknowledgments
- initial period notification
- charge due contacts, including:
    - — deposit requests on overtime recalls
    - — deposit request at the end-of-conversation recall
    - — coin prompts
    - — deposit acknowledgments

- time and charges (T&C) quotations
- ring calling of an on-hook telephone (when a subscriber owes money but walks away)

Through DRAM, ACTS also provides services for noncoin telephones, including time and charges quotations and initial period notification. Because a subscriber must request these services, operator assistance is needed on initial contact.

26.6.1 Call processing

After the DMS switch rates the call, a CDC attaches to the calling coin telephone and passes initial period and charge information to the DRAM. The DRAM then makes an announcement to the calling coin telephone. When the subscriber deposits a sufficient number of coins (which are counted by the CDC), the DRAM plays a "Thank you" announcement, and the called number outpulses automatically.

ACTS continues to handle the call until the end of conversation or until the subscriber signals for an operator by timing out or by flashing. (A subscriber flashes by briefly pressing the switchhook.) In most cases, even when operator handling is needed, the call can be continued with ACTS after the operator provides assistance.

26.6.2 ACTS call types

Because ACTS coin call can be 1+, 0+, or 0- calls dialed on prepay or postpay telephones, an ACTS coin call is one of the following types:

- prepaid calls
  - 1+ Coin Pre
  - 0+ Coin Pre
  - 0- Coin Pre
- postpaid calls
  - 1+ Coin Po
  - 0+ Coin Po
  - 0- Coin Po

26.6.3 Call arrival display

The Call Details window displays the following information:

- `CHG`

  the charge (maximum charge = 99.99)
- `MIN`

  minutes (maximum = 999.99)
- `ACTS`

  Automatic Coin Toll Service is present
- `OC $`

  overcollection amount (maximum = .99)
- `Amt Due $`

  amount due (maximum = 99.99)
- `NFY`

  notify period (maximum minutes = 59)

Besides displaying call type messages (such as `1+ Coin Po` or `0+ Coin Pre`), ACTS also displays call charge messages. Table 26 shows examples of these messages and their meanings.

Table 26. Example ACTS messages

<table>
<tr><th>Display</th><th>Meaning</th></tr>
<tr><td><code>ACTS</code></td><td>CDC is attached and ACTS can handle the call.</td></tr>
<tr><td><code>ACTS!!</code></td><td>CDC is not attached, but ACTS can handle the call after initial assistance is provided. CDC is attached when the call is class charged.</td></tr>
<tr><td><code>Amt Due 1.80</code></td><td>The amount displayed is the remaining charges on the call. The CDC updates this display when one of the following occurs:
The subscriber deposits coins.
The operator does one of the following:
— Press the Fncts key, type the menu number for Coin Collect or Coin Return, and press the Start key.
— Press the Fncts key, type the menu number for Call Details, press the Start key, press the Clg key, and press the key with either the station icon or the person icon.</td></tr>
<tr><td><code>Chg 1.25 1.00 Min</code></td><td>The charge displayed is the total charge due for the displayed number of minutes for the call.</td></tr>
<tr><td><code>OC .70</code></td><td>The overcharge amount displayed is the amount that the subscriber overpaid.</td></tr>
</table>

26.6.4 General operator service

This section describes the services that operators provide on subscriber-dialed ACTS coin calls from a prepay or postpay coin telephone. If any of the following is true, go to the appropriate section.

- There are ACTS limitations. See Section 26.6.4.1, "Calls with ACTS limitations," on page 346.
- The subscriber times out. See Section 26.6.4.2, "Timing out," on page 347.
- The subscriber flashes the switchhook. See Section 26.6.4.3, "Switchhook flashing," on page 347.
- The subscriber goes off-hook during an announcement for charges due. See Section 26.6.4.4, "Calling party goes on-hook during an announcement for charges due," on page 347.
- The CDC is not available. See Section 26.6.4.5, "Coin detection circuit is not available," on page 347.
- The subscriber requests an alternate billing method (not coins). See the Chapter about that billing method.

A 1+ call from a prepay telephone requires no operator assistance. However, a 0- call from a prepay telephone or a 1+ or 0- call from a postpay telephone, does require operator assistance. In this case, do the following:

1. Verify the called party.
2. Request the deposit.
3. Continue the call with ACTS.

After asking the subscriber to deposit the amount due, the operator is free to handle CAMA calls. When the called telephone is secured, the CDC attaches to count the coins automatically as the subscriber deposits them.

After requesting a coin deposit, the operator can request and process CAMA calls while waiting for the subscriber to finish depositing coins. After informing the subscriber of the deposit amount, the operator can do the following to request CAMA calls:

1. Press the **Fncts** key, type the menu number for Request CAMA, and press the **Start** key to receive a CAMA call.
2. Obtain and enter the calling number of the CAMA call. After the CAMA call outpulses, the ACTS coin call returns to the position.
3. If either the total amount for the ACTS call is satisfied or an overdeposit is received, the Amt Due display updates.
4. Resume handling the ACTS coin call or request more CAMA calls.

26.6.4.1 Calls with ACTS limitations

When one or more of the following limitations is present, ACTS does not provide fully automated service.

26.6.4.1.1 Calling telephone not ACTS-compatible

A calling telephone is not ACTS compatible if neither ACTS nor ACTS!! displays after class charging the call. Handle the call as a non-ACTS coin call.

26.6.4.1.2 ANI failure

If ANI fails, the call arrives with a question mark (?) blinking in the calling field. Do the following:

1. Request the calling number.
2. Press the **Clg** key, type the calling number, and press the **Start** key.
3. Press the **Pos Rls** key. ACTS resumes handling after releasing the call.

26.6.4.1.3 Call cannot be machine-rated

When a call cannot be machine-rated (when a rate step is not assigned to the call), RS displays in flashing mode. Do the following for semi-automatic rating:

1. If the called telephone did not ring more than once, press the **Rls Cld** key.
2. Obtain the rate step code according to local procedure.
3. Press the **Fncts** key, type the menu number for Rate Step, press the **Start** key, type the rate step code, and press the **Start** key.

   The charges due for the initial period display.
4. Request the deposit and handle the call according to the call type.
5. Press the **Pos Rls** key. When the call is rates, ACTS resumes handling.

26.6.4.1.4 Charge exceeds hopper capacity

If the cost of the call exceeds the telephone hopper capacity, do the following:

1. Enter the class charge.
2. Request the deposit. ACTS handles subsequent contacts.

26.6.4.2 Timing out

If a call times out, request a deposit for the amount not yet collected when on of the following occurs:

- A subscriber fails, upon initial contact, to begin depositing coins within the time period that the service provider specifies.
- The subscriber does not deposit coins within two consecutive timing periods during either initial contact or subsequent charge-due contacts.
- A subscriber fails to deposit all coins within a specified time period.

26.6.4.3 Switchhook flashing

Flashing occurs when the subscriber presses the switchhook for an instant to recall an operator. The operator provides assistance, returning or collecting coin deposit as appropriate.

26.6.4.4 Calling party goes on-hook during an announcement for charges due

If the calling party goes on-hook during an announcement for charges due, the call arrives at the position displaying an inverted calling bar, indicating that the calling party is on-hook. Do one of the following to ring the subscriber back and request the deposit:

- Press the **Ring Calling** softkey.
- Press the **Fncts** key, type the menu number for Ring Calling, and press the **Start** key.

26.6.4.5 Coin detection circuit is not available

When the coin detection circuit (CDC) is not available, an `ACT!!` message displays. Do the following:

1. Press the **Clg** key and the key with either the station or person icon to connect the CDC by class charging the call.
2. Relay the charges to the subscriber for the initial period and request the deposit.

26.6.5 1 + coin pre calls

The subscriber dials a 1 and a number from a prepay coin telephone. If ACTS displays, the subscriber either timed out or pressed the switchhook. Do the following:

1. Request the amount due.
2. Acknowledge the subscriber's deposit.
3. Press the **Pos Rls** key. The call floats and ACTS resumes handling the call.

If ACTS is displayed with a question mark (`?`), the CDC is not attached to the calling coin telephone. Do the following:

1. Press the **Clg** key and the key with the station icon.
2. Request the amount due.
3. Count the deposit as it is deposited and make the appropriate acknowledgment.

26.6.6 0 and 0+ coin pre calls

If the subscriber dials either 0 or 1 and a number from a prepay telephone, class charge the call to find out whether the calling telephone is ACTS-compatible. If the calling telephone is ACTS-compatible, provide initial assistance and then allow ACTS to resume call handling. Do the following:

1. Request the billing method.
2. Acknowledge subscriber's request.

If the calling party requests	Go to
coin payment	Step 3
alternate billing	the chapter about that form of billing

3. Obtain the called number.
4. Press the **Clg** key, type the called number, and press the **Start** key.
5. Press the **Clg** key and the key with either the station or person icon (according to subscriber request).

   ACTS and Amt Due display, signifying that the CDC is connected.
6. Request the deposit. If the call was class charged as person-paid, verify the called party before requesting the deposit.
7. Acknowledge deposit when Amt Due displays `0.00`.

8. When the called party answers, the procedure depends on the call of the class.

If the class is	Then
person paid	Announce the call and go to Step 7.
station paid	Go to Step 7.

9. Request the deposit.
10. When Amt Due displays `0.00`, acknowledge the deposit.
11. Press the **Pos Rls** key. The call floats and ACTS resumes handling.

26.6.7 1 + coin po calls

If the subscriber dials a 1 and a number from a postpay coin telephone, after providing initial assistance, allow ACTS to resume handling.

If ACTS displays, the CDC is attached. If ACTS displays with a question mark (`?`), the CDC is not attached to the calling coin telephone.

To complete the call, do the following;

1. Reach the called station.
2. Request the deposit. The call outpulses when the amount due is satisfied.
3. Acknowledge the subscriber’s deposit.
4. Press the **Pos Rls** key. The call floats, and ACTS resumes handling.

26.6.8 0 and 0+ coin po calls

If the subscriber dials either 0 or 1and a number from a postpay telephone, class charge the call to find out if the calling telephone is ACTS-compatible. If the calling telephone is ACTS-compatible, provide initial assistance and then allow ACTS to resume call handling. Do the following:

1. Request the billing method.
2. Acknowledge subscriber’s request.

If the calling party requests	Go to
coin payment	Step 3
alternate billing	the chapter about that form of billing

3. Press the **Clg** key and the key with either the station or person icon (according to the subscriber’s request). ACTS and Amt Due displays, and the CDC connects.
4. Request the deposit. If the call was class charged as person-paid, verify the called party before requesting the deposit.

5. Acknowledge deposit when Amt Due displays `0.00`.
6. When the called party answers, the procedure depends on the call class.

If the class is	Do
person paid	Announce the call. Go to Step 7.
station paid	Go to Step 7.

7. Request the deposit.
8. When Amt Due displays `0.00`, acknowledge the deposit.
9. Press the **Pos Rls** key. The call floats, and ACTS resumes handling.

26.6.9 Part charges

The calling party might request that charges on a coin call be split between coin-paid billing and some other type of billing (such as station collect or a calling card). Split billing is possible only after the initial period is paid completely with a coin deposit. To split the billing for any or all of the overtime period, do the following:

1. Acknowledge the request.
2. Press the **Fncts** key, type the menu number for Call Details, and press the **Start** key.
3. Request a deposit.
4. Acknowledge the deposit and do one of the following:
    - Press the **Coin Collect** softkey.
    - Press the **Fncts** key, type the menu number for Coin Collect, and press the **Start** key.
5. Type the applicable billing number (such as SPL 212 2201234).
6. Press the appropriate class charge keys (such as the **Spl** and **+ Clg** keys).
7. Inform the subscriber that the change is entered.
8. Press the **Pos Rls** key.

When an overtime recall occurs, the subscriber can designate another form of billing. To use an alternate billing method after the initial period, do the following:

1. Acknowledge the request.
2. Do one of the following:
    - Press the **Coin Collect** softkey.
    - Press the **Fncts** key, type the menu number for Coin Collect, and press the **Start** key.

3. Type the applicable billing number (such as `SPL 212 2201234`).
4. Press the appropriate class charge keys (such as the **Spl** and **+ Clg** keys).
5. Inform the subscriber that the change is been entered.
6. Press the **Pos Rls** key.

26.6.10 Time and charges requests

Using the DRAM, ACTS provides time and charges quotations to either the calling or called party (the paying party). The quotation is played at the end of conversation as long as the paying party remains off-hook. If the paying party remains off-hook for more than three seconds, the quotation plays again. To quote time and charges, do the following:

1. Acknowledge the request.
2. Do one of the following:
    - Press the {**Time & Charges}** softkey.
    - Press the **Fncts** key, type the menu number for Time and charges, and press the **Start** key.
3. Ask the paying party to remain off-hook at the end of conversation.
4. Press the **Pos Rls** key.

If the party who requests the time and charges quotation goes on-hook at the end of the call before the quotation starts, the call goes to the operator for handling. For more information, see Chapter 37.0, “Time and charges requests,” on page 461.

26.6.11 ACTS overdeposits

If a subscriber makes an overdeposit on an initial or overtime period, ACTS credits the amount to the next period and gives the subscriber an appropriate message. If an overdeposit occurs while the call is connected to an operator’s position, OC displays. If the deposit is for an initial or overtime period, tell the subscriber that the amount will be credited to the next overtime period.

However, if the overdeposit occurs at the end of conversation, the subscriber must flash the operator to request a refund. In such a case, follow local instructions.

26.6.12 Noncoin notification

On a noncoin call, a subscriber might request notification after a specified number of minutes. Do the following:.

1. Acknowledge the request.
2. Do one of the following:
   - Press the {**Notify}** softkey.
   - Press the **Fncts** key, type the menu number for Notify, press the **Start** key, type the number of minutes, and press the **Start** key.
3. Press the **Pos Rls** key. The DRAM notifies the calling party when the specified number of minutes elapses.

26.6.13 Handling CDC malfunction

If a CDC is not counting coins correctly, override the CDC by counting coins manually. Follow the procedure below for the initial contact with the subscriber that is encountering ACTS service difficulties.

1. Ask the subscriber to stop depositing coins.
2. Do one of the following:
   - Press the {**Coin Return}** softkey.
   - Press the **Fncts** key, type the menu number for Coin Return, and press the **Start** key to return any deposit.
3. Request a new deposit and count coins manually.
4. To enter a trouble code, press the **Trbl** key, type a trouble code (for example, 60), and press the **Start** key. This marks the CDC as malfunctioning.
5. Press the **Pos Rls** key.

26.6.14 Fraudulent coin deposit

When a fraudulent coin deposit is suspected, enter a trouble code and override the CDC by manually counting coins. Do the following:

1. Ask the calling party to stop depositing coins.
2. Do one of the following:
   - Press the {**Coin Return}** softkey.
   - Press the **Fncts** key, type the menu number for Coin Return, and press the **Start** key to return any deposit.
3. Handle the call according to the call type.

4. Request a new deposit and count coins manually.
5. To enter a trouble code, press the **Trbl** key, type a trouble code (for example, 1), and press the **Start** key.
6. Press the **Pos Rls** key.

26.6.14.1 Walkaway

A walkaway occurs when a subscriber leaves the coin telephone without paying charges due. A walkaway can occur during ACTS processing or operator handling. If the call is being processed solely by ACTS, ACTS notes the walkaway. When the call is connected to an operator position, do the following:

1. Do one of the following:
   - Press the {**Charge Adjust}** softkey.
   - Press the **Fncts** key, type the menu number for Charge Adjust, and press the **Start** key.
2. Type a trouble code (for example, 1), press **C**, type the amount due, and press the **Start** key.
3. Enter other trouble conditions as needed.
4. Press the **Pos Rls** key.

26.6.14.2 Subscriber goes on-hook (ACTS ring-back)

When a calling party goes on-hook during a coin-paid call (but not during a DRAM announcement) for which charges are due, a ring-back signal goes to the calling telephone. If the calling party answers within thirty seconds, a charge due announcement plays. However, if the party does not answer, the walkaway and the amount collected record onto AMA tape. No operator is connected, because it is unlikely that the subscriber will respond.

26.6.14.3 Subscriber goes on-hook during DRAM announcement

If a subscriber goes on-hook during a DRAM announcement, the call connects to an operator position. Do the following to request the deposit:

1. Press the **Fncts** key, type the menu number for Ring Calling, and press the **Start** key.
2. Request the deposit.
3. Press the **Pos Rls** key.

27.0 Collect calls

This chapter describes call-handling procedures for collect calls that are class charged as either station collect or person collect and that require the operator to announce the call. This chapter also describes procedures for special collect toll calls. Special collect toll service permits a subscriber to receive automatic station collect calls from telephones within designated service areas.

27.1 Billed number screening

Billed number screening allows a subscriber to designate, through a nationwide database system, specific line numbers that do not accept collect calls. Table 27 defines the screen messages associated with billed number screening.

Table 27. Billed number screening displays

Display	Definition
`999-999-9999` in the Called field and the clock icon	The clock icon appears after entering a COL class charge, indicating that a database query is taking place. Outpulsing of the called number is delayed. Only the **Ca Call** key is operable. Outpulsing of the forward number occurs and the clock icon disappears when the query is completed, indicating that the call can be billed collect.
`999-999-9999` and ? in the Called field and COIN	Collect billing is denied for the coin telephone. The call outpulses when the database responds. Do the following: 1. Announce the call to the called telephone or party. 2. Ask the called party to return the call to the calling number or provide alternate billing.
Up-arrow icon in the calling field, down-arrow in the special field, X in the called field	The called number does not accept collect calls.

27.1.1 Public telephone check

Billed number screening also provides a public telephone check, which allows service providers to enter all public telephone numbers in a database system. For a public telephone check, automatically access this database when class charging a call collect, to notify if collect and third-number billing cannot be applied to the call.

27.1.2 Check for acceptance of collect calls

The database's billed number screening query indicates on the screen if the call is to a nonworking number. If the number is a working number, the query indicates whether the called number accepts collect calls.

If X displays in the called field, an up-arrow icon displays in the calling field, and a down-arrow icon displays in the special field, the called number does not accept collect calls and the called digits do not outpulse. In this case, do one of the following:

- If the calling party decides to pay for the call, proceed accordingly.
- If the calling party questions the denial, explain that the called party requests that collect calls not be placed to that telephone number. Ask the subscriber to provide alternate billing. If the subscriber agrees to other billing, proceed accordingly.

27.1.3 Manual public telephone check

If billed number screening is not available, make a manual check on collect calls as locally directed. For example, call DA for the called number or refer to position information. To determine if a called number belongs to a coin telephone, follow local procedures.

27.2 Announcing a call

When reaching the called telephone, announce the name of the calling party and that the calling party is calling collect. Ask if the called party will pay for the call.

Announce the call to the first person who answers the called telephone. If asked who or what place is calling, give the information if known.

Repeat the announcement to each successive person who answers until the charge is accepted, as follows:

- If the person who answers, or any succeeding person accepts the charge, consider this a valid acceptance. There is no need to announce the call as collect again.
- If a subsequent attempt is made at a later time, announce again that the call is collect.

On a station call, if the party answering the called telephone refuses to talk, is not qualified to talk, or says there is no one there to talk, do the following:

1. Acknowledge the report.
2. Press the **Rls Cld** key, type the menu number for Ca Call, and press the **Pos Rls** key.

   If a ticket is required, type an explanation in the space for reports (for example, "refuses to talk") and cancel the call.

On a person collect call, if the called party is not available to speak, thank the called party and press the **Rls Cld** key. Ask if the calling party will speak to anyone else or will place the call later. If leave word is requested, leave word in the usual way.

27.2.1 Collect call terminating at a recording device

If the call reaches a recorded announcement that does not indicate that a message can be accepted on a collect basis, press the **Rls Cld** key. Then, tell the calling party that acceptance of the charge could not be secured, explaining that a recorded announcement was received from the called telephone. Use the wording of the recorded announcement as far as possible. Do one of the following:

- If the calling party decides to pay for the call, proceed as on a new paid call. Press the **Start** key to re-establish the connection to the called line.
- If the calling party insists that the call be completed, refer the call to the supervisor. If the situation warrants that the call be completed (for example, the calling party is the subscriber for the called number), make the connection.

27.3 Charges accepted

In accepting the charge, the person at the called telephone might ask for a department, extension, or name for special information for billing the call. Give the information and accept the special billing number. Then, do the following:

1. Change the charge classification changes from collect to special called, station or person.
2. Press the **Spl** key, type the special number, and press the **Start** key. Validity checks apply for keying calling card, special billing, and third-telephone numbers.

27.3.1 Position release after acceptance of charge

On a station call, press the **Pos Rls** key when charges are accepted. If the call is a person call, press the **Pos Rls** key when the calling and called parties speak to each other.

27.3.2 Collect call to hotel

If dealing with a hotel, the operator can do the following:

1. Press a collect or called class charge key.
2. Press the **Fncts** key, type the menu number for Hotel, and press the **Start** key.
3. Obtain and type the room number. If locally directed, obtain the name and type the first four alphabetic characters.

27.3.3 Extension or room number supplied by called telephone

If the called telephone gives an extension, room, apartment, or booth number, the operator can do one of the following:

- If recording a ticket, write this information after the called party's name.
- If not recording a ticket, press the **Misc** key, type the extension or room number, and press the **Start** key.

27.3.4 Billing to calling card number at call completion

If the called party wants to bill the call to a calling card number at call completion, do the following:

1. To prepare a billing ticket, press the **Fncts** key, type the menu number for Call Details, and press the **Start** key. Type `billing info needed` in the SPEC INST space.
2. Ask the called party to remain on the line at call completion.
3. Do one of the following:
    - Press the {**No AMA}** softkey:
    - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
4. Press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key to start timing the call.
5. Press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
6. At call termination, request the card number.

If	Go to
the called party is on the line	Step 8
both parties hang up	Step 7

7. To recycle the called number at call completion, press the **Rls Cld** and **Start** keys. Request the card number. Go to Step 8.
8. For a validity check, press the **Spl** key, type the calling card number, and press the **Start** key.
9. Write the calling card number on the billing ticket, and press the **Pos Rls** key.

27.4 Charges not accepted

If the person answering on a station call, or if the called party on a person call will not accept the charges, press the **Rls Cld** key to release the called telephone.

After releasing the called number, ask if the calling party will pay for the call. If the calling party agrees, contact the called party again by pressing the **Start** key and proceed as on a non-collect call.

If the calling party does not offer an alternate means of billing, press the **Ca Call** and **Pos Rls** keys.

27.4.1 DA charges still apply

If the charge is not accepted or if the call is canceled on a call on which a DA charge applies, the calling party is responsible for that charge. Complete a billing ticket to arrange for alternate billing (such as paid, calling card, or third number) for the DA charge.

27.4.2 No one available to accept charges

On a station call, if the person at the called telephone says there is no one there to accept the charge or that the charge will be accepted later, consider this as a refusal to accept the charge. If preparing a report, include this information with the report.

27.4.3 Special request, change from station to person charge

On a station call, the calling or called party might ask the operator to do one of the following:

- reach a specified person to accept charges
- find out when someone is expected who can accept it
- call a different telephone to accept charges at the called telephone

Explain that the call changes from station to person billing. If the subscriber agrees, change the charge classification and proceed as on a person call. If the subscriber does change the call to a person call, suggest placing the call again later.

27.4.4 Request to hold line for acceptance

If the called party asks the operator hold the line for acceptance, do the following:

1. On a station call, if the person who answers the called telephone indicates that someone else is responsible for deciding whether the charge is acceptable, continue to hold the line.
2. At the end of about one minute, if no one accepts or refuses the charge, ask the person at the called telephone to accept the charge.

If	Then
the person at the called telephone accepts the charge	Connect the call.
no response is received	Go to Step 3.
the person at the called telephone wants to continue waiting	Go to Step 4.

3. Notify the calling party. Ask the calling party to either change the billing (to either subscriber-paid or person collect) or call again later.

If the calling party	Then
agrees to try again later	Release the call.
changes the billing	Follow the procedure for that type of call.
wants to continue waiting	Go to Step 4.

4. Explain that the connection is normally not held except on a person call.

27.4.5 Subscriber will accept person call only on a station basis

On a person call, if the person at the called telephone does not accept the charge but will accept a station call, consider this a charge not accepted. Then, if the calling party wants the call completed as a station collect call, explain that this cannot be done. Suggest that the calling party hang up and make the call as station collect.

27.4.6 Called party gives an alternate number

If the called party refuses to accept charges for a collect call, but gives an inward wide area telephone service (INWATS), foreign exchange, or other toll-free number, ask the calling party to call that number. Give dialing instructions or handle the call normally. The operator can do one of the following:

- If the calling party chooses to dial, press the **Ca Call** and **Pos Rls** keys.
- If handling the call, press the **Rls Cld** key and proceed for a call to that type of number.

27.5 Request for collect call after advancing call

Do one of the following:

- If the called telephone does not answer after the call advances, follow the procedures in Section 27.1.2, “Check for acceptance of collect calls,” on page 356. If a check is required, press the **Rls Cld** key. Otherwise proceed as for a collect call, securing acceptance of the charge.
- If the called telephone answers and the call is non-coin-originated, proceed as for a collect call. Press the collect class charge key and secure acceptance of charge.
- If the call is coin-originated and a check is required, consult position information. If a further check is necessary, ask the called party to hang up so that you can call back, Press the **Rls Cld** key, hold the calling party on the line, and proceed as if the call was originally placed collect.
- If a subscriber asks to make a completed call collect, follow the procedures in Chapter 14.0, “Assistance calls,” on page 213.

27.6 Called telephone requests time and charges

If the called party requests a time and charges quotation, do the following:

1. Press the **Collect Class Charge** key.
1. Do one of the following:
   - Press the {**Time & Charges}** softkey.
   - Press the **Fncts** key, type the menu number for Time and charges, and press the **Start** key.
2. Ask the called party to remain on the line at the end of the conversation for the time and charges quote. Either a digital recorded announcement matching (DRAM) or an operator provides the quote.
3. Press the **Pos Rls** key.

Do one of the following:

- If a subscriber requests time and charges on a completed inward collect call, explain that billing is automatic and that it is very difficult to obtain time and charges. Then, give the subscriber the initial period and additional period rates on the call. If the subscriber insists on knowing the charge, attempt to obtain the charge. Explain that it will take time and may not be successful. Then, refer the matter to the supervisor.

  The supervisor arranges for whatever action is possible to obtain the charge from the calling office and ensures that the subscriber is called back and given a report.

- On a station call, the person at the called telephone might ask to whom the calling party wants to talk or what department is wanted before accepting the charge. Explain that the call is for anyone. If the called party still wants the information explain that, if it is given, the call becomes a person call. If the called party agrees, obtain the information from the calling party and proceed as on a person call. Otherwise, proceed as directed by the calling party.
- On a station or person call, if the person at the called telephone asks about the purpose of the call or makes a similar inquiry, explain that this information is not available.
- On a collect call, if the answering party indicates that no one there can accept the charge (or that it is not their policy to accept collect calls) and requests the calling number or names for a later call back, explain that word cannot be left on collect calls. This procedure also applies when the called party wants to call back on the OUTWATS line.

27.7 Collect call to a coin telephone

Reach the called telephone and announce the call as for a normal collect call. If the called party does not accept the charge, proceed as when encountering the same condition on a collect call to a non-coin telephone. If the called party accepts the charge, ask how to bill the call.

27.7.1 Billed to third number

To bill a collect call to a third number, do the following:

1. Press the **Cld** key, the key with either the person or station icon, and the **{Spl Cld}** softkey.

   This marks the call as either station special called or person special called.
2. Press the **Spl** key, type the third number, and press the **Start** key.
3. Press the **Pos Rls** key.

27.7.2 Billed to a calling card

To bill a collect call to a third number, do the following:

1. Press the **Cld** key, press the key with either the person or station icon, and press the {**Spl Cld}** softkey.

   This marks the call as either station special called or person special called.
2. Press the **Spl** key, type the calling card number, and press the **Start** key.
3. Press the **Pos Rls** key.

27.7.3 Called party wants to deposit coins

If the called party asks to deposit coins to pay for a collect call, explain that the call cannot be completed with that payment type. Report the name and telephone number of the calling party and recommend that the called party hang up and then call the original calling party. Press the **Ca Call** and **Pos Rls** keys.

If the calling subscriber cannot receive a call back because the coin telephone is for outgoing service only, ask the called party to pay another way. Do one of the following:

- If the called party does not want to pay for the call another way, ask the calling party to pay for it.
- If the calling party cannot deposit coins or bill the call to a calling card or third number, explain that the call cannot be completed. Ask the called party to hang up. Press the **Rls Cld** key. Ask the calling party to place the call later with other billing arrangements or from another telephone.

Press the **Ca Call** and **Pos Rls** keys.

27.7.4 Calling telephone is non-published

If the calling number is non-published and the subscriber does not want it to appear on the bill that the called party receives, acknowledge the information and record a billing ticket. Write the calling NXX in the From NXX field and write the calling number in the write-in field followed by NONPUB. Machine-time and hold the call on loop.

27.8 Special collect toll calls

Special collect toll service permits a subscriber to receive automatic station collect calls from telephones within designated service areas. The calling party is not required to request reversal of the charges. The calling party places the call with an operator by using a special collect number. Note the following special conditions:

- If the call is from a coin telephone, proceed as on a call from a noncoin telephone. No deposit is required.
- If encountering a delay and a memo is required, record the memo before releasing the position.
- Special numbers are assigned to official lines. When the calling party asks to connect to the repair service or business office and a special collect number is assigned to the service requested, proceed in the usual manner.

27.8.1 Identifying special collect number

The subscriber is assigned a special collect number in addition to a regular telephone number. The special collect number consists of four or five digits and is identified by one of the following prefixes:

- WATS
- Zenith
- Enterprise
- Commerce

These calls are usually classed as autocollect. For these calls, release the position without pressing the **Fncts** key, type the menu number for autocollect, and press the **Start** key. If no class charge key is entered before entering the four- or five-digit number, an outlined on-hook telephone icon displays in the called field.

27.8.2 Receiving a request for a special collect number

When a subscriber requests a special collect number such as WATS, Enterprise, Zenith, or Commerce service, do the following:

1. Acknowledge the request.
2. Press the **Cld** key, type 800 and the five-digit number or 8000 and the four-digit number, and press the **Start** key.
3. Press the **Fncts** key, type the menu number for autocollect, and press the **Start** key.

27.8.3 System handling of special collect numbers

When typing 800 or 8000 and the four- or five-digit special number, the system signals the DMS switch to search its tables for a regular seven- or ten-digit number to outpulse. The called number display shows the digits typed, not the number outpulsed.

27.8.4 Authorized calling office

If the calling office is authorized to use the special collect number, the called number displays. Press the **Fncts** key, type the menu number for Start Timing, and press the **Start** and **Pos Rls** keys to complete the call.

27.8.5 Unauthorized calling office

If either of the following is true, UCA (unauthorized or unusual code assignment) displays after typing the special number:

- the calling office is not authorized to call the special collect number
- there are special instructions for that special collect number

If the calling office is not authorized to call the special collect number, inform the subscriber. Recommend that the subscriber dial the regular number. If the subscriber does not know the regular number, suggest that the subscriber check the telephone directory or call DA. If the subscriber says the special collect number worked correctly before, refer the subscriber to that subscriber's inter-LATA or inter-zone carrier for assistance. The special number might be an inter-LATA or inter-zone number.

If there are special instructions for the special collect number, proceed according to those instructions.

27.8.6 Vacant code announcement

If no record is available for the keyed number, VCA (vacant code announcement) displays after the typed digits. Notify the subscriber that there is no record of that special collect number. Recommend that the subscriber dial the regular number. If the subscriber does not know the regular number, suggest that the subscriber check the telephone directory or call DA.

If the subscriber says the special collect number worked correctly before, refer the subscriber to that subscriber's inter-LATA or inter-zone carrier for assistance. The special number might be an inter-LATA or inter-zone number.

27.8.7 Special number changed to INWATS service

If position information indicates that the special number changed to INWATS service, tell the subscriber that the number changed. Explain that the number is now an INWATS number that can be reached by dialing the access code, 800, and the seven-digit number.

28.0 Credit adjustment requests

This chapter provides procedures for authorizing credit when subscribers report service difficulties (wrong number, cutoff, or poor transmission). These credit procedures apply only to intra-LATA or intra-zone calls.

Unless the subscriber indicates otherwise, assume that station calls for which credit is requested are originally dialed directly by the subscriber. Determine if the call is an inter-LATA or inter-zone call, or an intra-LATA or intra-zone call. If the call is an intra-LATA or intra-zone call, follow the procedures in this chapter for the specific service difficulty (wrong number, cutoff, or poor transmission). If the call is an inter-LATA or inter-zone call, refer the subscriber to his/her inter-LATA or inter-zone carrier.

In general, do the following:

- Offer to reconnect all service difficulties except station-paid noncoin calls on which one wrong number is reported.
- Express regret for the difficulty encountered and arrange credit.
- Ensure that the quality of a reconnection is satisfactory and that the correct number or party is reached.

To give credit, do the following:

- Cancel timing.
- Make a credit entry on AMA tape.
- Use a credit ticket.

28.1 Cancelling timing

To cancel call timing, press the **Fncts** key twice, type the menu number for Cancel Timing, and press the **Start** key. When possible, use this method to give credit immediately so that a credit entry is not needed.

28.2 Making credit entries on AMA tape

When cancelling timing is not appropriate, make a credit entry on AMA tape so that the accounting department can give credit. Record credit details on the AMA tape. When appropriate, also record the following details on the AMA tape:

- calling card number
- dial rate indication

To enter credit adjustment details on AMA tape, the operator can do the following:

1. Record the following information to identify the call to which the credit applies:
   - calling number
   - called number
   - class charge
2. Do one of the following:
   - Press the {**Chg Adj}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key.
3. Type a one-digit identification code to define the reason for credit, and press the **Start** key.

If	Go to
more than a one-minute credit for poor transmission is given	Step 4
the credit applies to more than one call to the same number	Step 6

4. Type the one-digit code to identify poor transmission, press **M**, type the number of minutes of credit applied, and press the **Start** key.
5. Do one of the following:
   - Press the {**Chg Adj}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key**.**

   Go to Step 7.
6. Type the code, press **T**, type the number of occurrences, and press the **Start** key. This marks AMA for multiple credit entries.
7. Type a trouble report. For more information, refer to Chapter 38.0, “Trouble reports,” on page 467.

28.2.1 Re-establishing a connection

If a connection is re-established, the information entered into the system to establish the call must correspond with the credit request. Therefore, the operator types the credit information into the system before releasing the position. The operator presses the **Cld** key, types the called number, and presses the **Start** key to route the call and identify the called number for the credit request entry.

28.2.2 Not re-establishing a connection

If a connection is not re-established, the operator enters only the call details into the system for credit request identification. No network connection is established to the called party. In this case, the operator presses the **Cld** key, types the called number, and presses the **Rls Cld** key to record the called number on AMA tape but prevent a forward connection.

28.2.3 Applying credit adjustments to a third number

If a subscriber requests credit on a call originating from a telephone other than the one currently being used, the operator can do the following to provide credit:

1. Press the **Fncts** key twice, type the menu number for Access Loop 1, and press the **Start** key to access another loop.
2. Press the **Clg** key, type the third number, and press the **Start** key.
3. Press the **Cld** key, type the called number, and press the **Rls Cld** key.
4. Type the credit information.

This procedure prevents a forward or backward connection.

28.2.4 Hotel calls

Credit adjustments on calls from hotel telephones print on the service provider’s TTY for quoting to hotels when entered on AMA tape. A hotel with its own rating system does not receive TOPS IWS credit adjustments. Record the room identification on AMA tape.

28.3 Writing a credit ticket

When credit cannot be entered on AMA tape, the operator can fill out a credit ticket under the following conditions:

- credit adjustment applied to a call placed other than the current day
- credit adjustment applied to a call that was originally ticketed
- credit adjustment applied to a re-established call that is ticketed
- CAMA and RCAMA credit ticket

Unless the subscriber indicates otherwise, assume that the credit request is for one call that was originally dialed by the subscriber. Record the following information on the ticket:

- calling details
- called details
- billing and class details

- dial rate, if the dial station or subscriber-dialed calling card station rates apply
- current time
- date, if the credit request is for a previous day
- credit details:
  — type of service difficulty
  — number of occurrences

If re-establishing the call, write the conversation time on the credit ticket. Do not cancel the ticket if the call does not complete.

28.4 Giving credit for a wrong number

Cancel calls identified by a subscriber as having reached a wrong number if the conversation length is brief (as determined by the service provider). For longer calls, do the following to give credit:

1. Express regret, offer credit, and make the connection.
2. Do one of the following:
   - Press the {**Chg Adj}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key.
3. After entering all details, type a one-digit identification code to define the reason for credit and press the **Start** key. The reason is wrong number entry (WNO).
4. Ensure that the subscriber reaches the correct number.
5. Press the **Pos Rls** key to release the call for AMA timing.

28.5 Giving credit for a cutoff

Make an adjustment of one minute for each cutoff occurrence. This adjustment allows for the subscriber’s inconvenience and time required to begin the conversation again. Additionally, combine the number of portions of the call and rate the call again. Do the following:

1. Express regret, offer credit, and reconnect the subscriber to the called party.
2. Do one of the following:
   - Press the {**Chg Adj}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key.

3. After entering all details, type a one-digit identification code to define the reason for credit, and press the **Start** key. The reason is cutoff (CTO).
4. Ensure that the subscriber reaches the correct number.
5. Press the **Pos Rls** key to release the call for AMA timing.

28.6 Giving credit for poor transmission

Make a standard adjustment of one minute for each occurrence of poor transmission.

If the subscriber questions the standard one-minute credit, explain that a one-minute credit allowance provides accurate credit for most subscribers.

If the subscriber claims several minutes of poor transmission, arrange for that amount of credit. Recommend that the subscriber hang up immediately and call for credit in the future.

To give credit for poor transmission, the operator can do the following:

1. Express regret, offer credit, and reconnect or make the connection.
2. Do one of the following:
   - Press the **{Chg Adj}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key.
3. After entering all details, type a one-digit identification code to define the reason for credit, and press the **Start** key.
4. Do one of the following:
   - If the call has satisfactory transmission, press the **Pos Rls** key to release the call for AMA timing.
   - If transmission is still unsatisfactory, explain the situation to the subscriber. Either cancel the call or make further attempts, as directed. If the parties want to continue conversation, let them do so as usual.
   - If a busy condition, reorder, or no circuit (NC) reorder announcement is encountered, repeat the attempt after about thirty seconds. If the call still cannot be completed, credit for the call. Advise the subscriber to call again later.

28.7 Receiving flash on loop to report trouble on line

If a subscriber flashes on a connection held on loop to report a service difficulty, the operator can do the following to give credit:

1. Press the **Fncts** key twice, type the menu number for Cancel Timing, and press the **Start** key.
2. Enter a trouble report, if appropriate.

3. Press the **Rls Cld** and **Start** keys to recycle the call.
4. When a satisfactory connection is established, press the **Fncts** key twice, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.

28.8 Receiving flash on loop to report a cutoff

If a subscriber flashes on a connection held on loop to report a cutoff and the total chargeable time is not cancelled, the operator can do the following:

1. If the billing is recorded on a ticket, mark the elapsed time. If this is not a re-established connection, write the conversation time, mark the credit details, and press the **Rls Cld** key.
2. Press the **Start** key to recycle the call.
3. When a satisfactory connection is established, press the **Fncts** key twice, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.

28.9 Credit request at time and charges recall

If the call is one minute or less at time and charges recall and the subscriber does not request reconnection, enter a charge adjust entry to give credit, then press the **Pos Rls** key.

If the call is more than one minute at time and charges recall and the subscriber does not request reconnection, do one of the following:

- For a wrong number, credit the call according to the procedures in section 28.4, “Giving credit for a wrong number,” on page 370. Type a charge adjust entry to give credit, and press the **Pos Rls** key.
- For a cutoff or poor transmission, type a charge adjust entry to give credit. Press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key to obtain the rate step. Manually calculate the charge, quote the time and charges, and press the **Pos Rls** key.

If the call is one minute or less at time and charges recall and the subscriber requests reconnection, do the following:

1. Type a charge adjust entry to give credit.
2. Press the **Fncts** key twice, type the menu number for Call Details, press the **Start** key, and record a billing ticket. If a special calling or special called class charge displays on the screen, request special billing details from the subscriber and write them on the ticket.

3. To reach the called telephone, do one of the following:
   - Press the **Start** key.
   - Press the **Cld** key, type the called number, and press the **Start** key.
4. Verify that the correct station or party is connected.
5. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.
6. Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
7. At the end of conversation, access the loop to display the time and charges to write on the ticket.

If the subscriber request reconnection and either the call is more than one minute at time and charges recall or the call was cut off or experienced poor transmission, do the following. Note that credit is not given for full elapsed time at time and charges recall and reconnecting, if the call was cut off or experienced poor transmission.

1. Type a charge adjust entry to give credit.
2. Make a note of the elapsed time in the write-in space on a billing ticket.
3. Press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key.
4. Write the details on the billing ticket. Write the allowance (for example, allow 1 MIN CTO) in the write-in space.
5. If a special calling or special called class charge displays on the screen, request special billing details from the subscriber and write them on the ticket.
6. Press the **Start** key to recycle the call.
7. Verify that the call reaches the correct party.
8. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
9. Press the **Fncts** key twice, type the menu number for Start Timing, press the **Start** key, press the **Fncts** key twice, type the menu number for Hold and press the **Start** and **Pos Rls** keys.

10. At the end of conversation, access the loop to obtain the call duration to write on the ticket. Disregard the charge displayed on the screen. Add the elapsed periods and subtract the allowance. Calculate the charge manually and write the total minutes and charge.
11. Press the **Pos Rls** key.

28.10 CAMA and RCAMA credit ticket

If the subscriber reports giving a wrong calling number on a CAMA or RCAMA call, try to remove the charge from the bill. Ask the subscriber for the correct calling number. Prepare a credit ticket as locally directed.

28.11 TTY station tone credit request

If the subscriber reports receiving a tone identifiable as a TTY tone, proceed as if it were a wrong number credit request.

29.0 Calls charged to a third telephone

This chapter explains how to handle calls that are billed to a third telephone number by either the calling or called party. A call is charged to a third telephone if the charge is transferred to a telephone other than the calling or called telephone. Calls charged to a third telephone are handled as paid calls.

29.1 Charging to a third number

The operator can charge calls to a third telephone number according to the following guidelines:

- At the request of either the calling or the called party, transfer a charge to a third telephone anywhere in the United States (including Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands) or Canada.
- At the request of the called party or on a person call-back call, transfer a charge to a special billing number.
- A charge cannot be transferred to a coin telephone.

The following types of numbers are acceptable for third-party billing:

- telephone numbers: NPA + seven-digit number
- special billing numbers: 0XX+XXXX RAO and 1XX+XXXX RAO

  where RAO is the revenue accounting office

Obtain the area code and third telephone number or the ten-digit special billing number if the calling party authorizes billing. Then, type either a ten-digit bill-to telephone number or special billing number, or a numbering plan area (NPA) code and a seven-digit number. The automatic message accounting (AMA) record includes the calling, called, and charge numbers.

If the subscriber provides a place name instead of an area code (NPA), do one of the following:

- If the correct NPA code is known, prefix the NPA code to the bill-to number and type the digits.
- If the correct NPA code is not known, secure the NPA code from the position information or from the rate and route operator, and type in the digits.
- If the subscriber states the third number as a place name and the number is not seven digits, press the **Rls Cld** key. Refer to position information or to the route operator for the NPA code and arbitrary NXX. Zero-fill the line number if necessary. To enter the ten-digit third number press the **Spl** key, type the ten digits, and press the **Start** key.

29.1.1 Third telephone number entry

To set up billing to a third telephone number for either the calling or called party, do the following:

1. Use one of the following applicable class charges:
   - person special called
   - station special called
   - person special calling
   - station special calling
2. Press the **Spl** key, type the ten-digit third number, and press the **Start** key.
3. To change the class charge from bill-to-third to PAID, press the appropriate class charge key.

29.1.2 Special billing telephone number

If the called party asks to charge a call to a special billing number, do the following;

1. Request the ten-digit number.
2. Press the **Spl** key, type the ten-digit number, and press the **Start** key.

29.2 Charging to a ported number

If the office uses LNP, a third number to which a subscriber asks to bill the call does not necessarily identify the actual line number validated. To determine the number to use for validation, do the following:

1. Press the **Fncts** key twice, type the menu number for LNP Info Special, and press the **Start** key.
2. The message `SPLLNP` and one of the following appear in the Call Details window:

   `nnn-nnn-nnnn`

   This number is the actual line number. Use it to validate the third number.

   `not ported`

   The number in the Cld field is the actual line number. Use it to validate the third number.

   `?`

   The database query failed. Depending on the company's procedures, repeat Step 1 or use the number in the Cld field to validate the third number.

29.3 Preparing a ticket when required

If a ticket for billing to a third number needs to be prepared, the operator do the following:

1. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
2. Record a billing ticket.
3. Type the area code and the third telephone, or the ten-digit special billing number, in the Special Billing Details area.

   If the person requesting the transfer is the called party, write “req by called party” and the name of the called party in the space for reports.
4. As an overlap, secure and write the calling and called numbers and NPA codes that display on the screen.
5. Start timing. Hold the call on loop. (Follow the procedures in section 13.2, “Timing at the operator position,” on page 195.)
6. File the ticket for forwarding to the accounting department according to the final disposition of the call.

29.4 Validity checks of third numbers

The system performs the following validity checks of third-number billed calls:

- format check
- fraudulent list check
- billed number screening
  - — check for denied third-number billing
  - — public telephone check

If no restrictions apply as a result of the validity checks, release forward and obtain acceptance from the billing number.

29.4.1 Format check

When typing the ten-digit number as **Spl**, TOPS IWS automatically checks if the first digit is 0 or 1. If the number begins with 0 or 1, this is a special billing number. Otherwise, the number is a third number.

TOPS IWS checks for valid NPA-NXX or valid RAO for a special billing number. If the ten-digit number does not pass the validity check, the number flashes. Press the **Edit** key to revise the number if the subscriber provided incorrect digits.

29.4.2 Fraudulent list check

The equipment provides for a list of identified fraudulent numbers (maximum of 64). Third numbers, special billing numbers, and calling card numbers are checked against the list.

If a third number or special billing number that matches one of the posted numbers is typed, the designation Hot appears on the screen, following the number. Request the number again. If the subscriber gives the same number, explain that the number is not acceptable for billing.

29.4.3 Billed number screening

The billed number screening (BNS) feature lets a subscriber designate that third-number billing is not accepted at the specified number. If a calling party attempts to bill a call to that third number, the call is denied. BNS includes a public telephone check to prevent third-number billing to public telephones.

If class-charging and typing a number as special calling or special called, BNS queries the billing validation center (BVC). During the query, the clock icon displays to indicate that a billing verification is in progress. The clock icon disappears when the query ends (after approximately two seconds). During a query, only the **Ca Call** key is operable.

Table 28 shows the screen displays in the special field after a query, defines the displays, and tells how to respond.

Table 28. VC query results and operator actions

Display	Definition	Operator action
`999-999-9999`	The third-number billing is valid.	Proceed with the call. Obtain acceptance of billing.
the number that the operator typed	One of the following: • The third number is a public telephone or non-working number. • The third number does not accept billing on a third-number basis. If typing this billing before outpulsing begins, no outpulsing occurs.	Tell the subscriber that charges cannot be billed to that number. Request alternate billing.

Outpulsing of a call is based on the following criteria:

- If typing the billing information before outpulsing begins to the called number, the call does not outpulse until the BVC returns a valid billing response. If an invalid billing response returns, no outpulsing occurs.
- If typing the billing information after outpulsing begins to the called number, the call continues to outpulse even if the billing number screening response indicates invalid billing. If an invalid response is received, the operator cannot start timing or release the call from the position until typing valid billing information. In this case the operator presses the **Rls Cld** key. If the called telephone rings and the called party answers, tell the called party that you have a call and will call again in a few minutes. After the called party hangs up, press the **Rls Cld** key.

The billing number screening query indicates that the third number is not a valid billing number if the number is a public telephone, non-working number, or number for which third-number billing is denied. In this case, inform the calling party that the number is not a valid billing number and attempt to secure alternate billing. Do one of the following:

- If the calling party provides alternate billing, process the call according to the call type.
- If the calling party does not provide alternate billing, explain that the call cannot be completed without proper billing arrangements.
- If the calling party does not provide alternate billing and asks to complete the call because the call is urgent or an emergency, refer the subscriber to the supervisor.
- If the calling party disputes the invalid billing status, states that no such arrangements were made, or that denial of third-number billing is in error, arrange for alternate billing of the call and refer the subscriber to the local business office.

29.5 Securing acceptance

If the call originates from a noncoin telephone, transfer the charge to the third telephone without securing acceptance.

If the call originates from a public telephone, obtain the calling party’s name and secure acceptance from the third party before establishing the connection. This procedure also applies when the calling party requests the following from a public telephone:

- third-number billing on reconnections due to service difficulty
- change of billing to a third number after conversation with the called party
- billing overtime charges to a third number

For calls originating from public telephones that are billed to a third number, secure positive verbal acceptance from the third number at all times. If the third number is in a different LATA or zone, secure acceptance as usual.

29.5.1 Reaching the third telephone

Before trying to reach the third telephone to secure acceptance of charges, the operator can do the following:

1. Type or record the third number.
2. Press the appropriate class charge keys.
3. As an overlap, secure the calling party’s name.
4. Be guided by the position displays resulting from validity checks. If appropriate, arrange for alternate billing.
5. Immediately press the **Rls Cld** key when the call is outpulsing, unless the called telephone is ringing. In this case, if the called station answers, advise the called party that you have a call to that number and will call again in a few minutes. After the called station hangs up, press the **Rls Cld** key.
6. After the called number releases and before securing acceptance, tell the subscriber that you will obtain acceptance and then connect the call.
7. Do one of the following:
    - If the party requesting third-number billing states that no one is present at the third telephone or that no one there is authorized to accept the charge, explain that the call cannot be billed to that number if there is no one available to accept the charges. Suggest alternate billing or ask the subscriber to try the call again later.
    - If the subscriber questions the need for securing acceptance billing to a third number, explain that a call cannot be billed to a third number without verbal acceptance of the charges to prevent unauthorized billing.
    - If the subscriber expresses dissatisfaction with the practice of securing acceptance billing to a third number, suggest that the subscriber obtain a calling card from the business office.
8. To place the calling party on temporary hold, access another loop.
9. Type the ten digits of the third number and press the **Start** key.
10. Press the key with the station icon to classify the billing.
11. Press the **Fncts** key twice, type the menu number for Vfy Spl, and press the **Start** key.
12. Reach the third number, identify yourself, and attempt to secure acceptance.

13. After securing acceptance, press the **Rls Cld** key.
14. Press the **Pos Rls** key.

29.5.1.1 Automatic answering set reached

If an automatic answering device is reached, secure alternate billing unless the recorded announcement states that bill-to-third number calls are accepted.

29.5.1.2 Intercept reached

If an intercept is reached that includes reports that the number is changed or that calls are temporarily being taken by another number, type the appropriate third number into the equipment, note the validity check response, and secure acceptance before advancing the call.

29.5.2 Requesting acceptance

If a third party is reached, notify that party of the subscriber's request for third-number billing. If the third telephone accepts the charge or refuses the charge, follow the procedures in section 29.5.3, "After reaching a third number," on page 382. If the third-number party requests further information, comply with the request if possible.

If the third party cannot be reached, the operator can use the following procedure to determine how to bill the call:

1. Press the **Pos Rls** key to release the loop used to reach the third number. The loop on hold automatically accesses the position.
2. Report the condition to the calling party. Then, do one of the following:
    - If the calling party will try again later, press the **Ca Call** and **Pos Rls** keys.
    - If the calling party offers alternate billing, handle the call for the type of billing requested.
    - If the calling party offers more third numbers as alternate billing, attempt to secure acceptance for each of the third numbers in the usual manner
    - If the calling party asks to complete the call anyway, explain that a call cannot be placed on a bill-to-third number basis when acceptance cannot be obtained before the call connects, to prevent unauthorized billing. Suggest alternate billing.
    - If the calling party does not provide alternate billing, say that the call cannot be completed without an acceptable means of billing.

3. If the subscriber insists on completing the call and billing it to the third number without acceptance, refer the call to the supervisor. The supervisor does one of the following:
   - Explains to the subscriber that the call cannot be placed without some acceptable means of billing, and suggests alternate billing.
   - If the bill-to-third number is valid and if the supervisor judges that the circumstances warrant connection, the supervisor dials the operator to place the call.

   If locally directed, the supervisor requests the name under which the telephone at the third number is listed. The supervisor verifies the listing with DA before offering to have the operator place the call. Then, the supervisor records a memo ticket as locally directed. If the call is one on which the system denied a bill-to-third number, the operator must manually ticket and machine-time the call.

29.5.3 After reaching a third number

The following sections describe how to proceed after reaching a third number.

29.5.3.1 Charges accepted

If you secure acceptance of the charge and can type the number, follow this procedure:

1. To release the third number, press the **Rls Cld** key.
2. Advance the call and notify the subscriber that you will try the call.
3. For a person call, make any announcement necessary.
4. Press the **Pos Rls** key.

If you secure acceptance of the charge but cannot type the number, do the following:

1. Write “OK” following the telephone number in the BILL TO space and separate it from the number by a dash.
2. To release the third number, press the **Rls Cld** key.
3. Write any other details that are required on the ticket.
4. Handle the call as any other that you manually ticket and machine-time.

If the calling party requests a transfer of charge and you secure acceptance of the charge, but cannot type the number, do the following:

1. Release the delayed call trunk.
2. Press the **Start** key to recycle the call and reach the called station.

29.5.3.2 Charge is not accepted by third telephone

If the charge is not accepted by the third number, do the following:

1. Do one of the following:
   - If the third party does not accept charges, verify that the correct third number was reached before releasing the connection.
   - If the party at the third telephone indicates that third-number billing requests should not be made to that telephone, suggest contacting the business office through which the bill-to-third denied request was made.
2. Press the **Rls Cld** key.

29.5.3.2.1 Calling party requested transfer of charge

If the third-number billing requested by the calling party is denied, do the following:

1. Explain why the request for third-number billing is denied.
2. Obtain a deposit or otherwise arrange to bill the call. For example, acceptable arrangements include billing the call collect, charging it to another third telephone, or charging it to a calling card.
3. If the subscriber gives another third number, secure acceptance of the charge.
4. Do one of the following:
   - If securing alternate billing arrangements, establish the connection.
   - If not securing alternate billing arrangements and the calling party refuses to deposit the amount due or otherwise arrange to bill the call, press the **Ca Call** and **Pos Rls** keys.

29.5.3.2.2 Called party requested transfer of charge

If the called party requests third-number billing and is denied, do the following:

1. Press the **Rls Cld** and **Start** keys to recycle the call.
2. Inform the called party that charges cannot be billed to the third number.
3. Ask if the called party will accept charges or provide alternate billing. Proceed according to the response and the procedures for the type of alternate billing provided. Because your connection cannot be split, both parties can hear you tell the called party that the third telephone did not accept the charges.
4. Do one of the following:
   - If the called party refuses to pay for the call, press the **Rls Cld** key. Ask if the calling party will pay for the call.
   - If either party requests alternate billing, proceed accordingly.
   - If the call is to be cancelled, press the **Ca Call** and **Pos Rls** keys.

29.6 Call is urgent or an emergency

On a bill-to-third number call from a public telephone, if the subscriber indicates that the call is urgent or an emergency, do one of the following:

- If the call is to an official public emergency agency, proceed as described in Chapter 29.0, “Calls charged to a third telephone,” on page 375.
- If the nature of the emergency volunteered by the subscriber or the manner in which the call is placed indicates that the call should be advanced immediately, do not delay the call to secure acceptance or billing information. If necessary, wait until the call completes.
- If a billing ticket is recorded and billing arrangements are not secured, prepare an undercollection ticket if the call originates from a coin telephone. If the call originates from a noncoin telephone, record the connect and disconnect times. In addition, mark the MISC designation and type `CPT-Chg Ref.-No Alt Blg` in the SPEC INST: space. Refer this ticket to the appropriate department, as locally directed.

29.7 Reconnection due to service difficulty

If a call originating from a public telephone reports a service difficulty for a previous call that was a bill to a third number call and requests reconnection, secure verbal acceptance of charges from the third number before completing the reconnection.

29.8 Third telephone is a hotel

If the calling party asks to bill the call to a hotel room number, ticket the call manually. If the call originates from a public telephone, prepare a ticket and secure acceptance from the hotel room number in the normal manner. Machine-time and hold the call to quote time and charges to the hotel.

29.9 Change billing to third number after conversation

Proceed as described in Section 14.7, “Request to change billing after a conversation,” on page 219.

29.10 Billing overtime charges to a third number

Proceed as described in Section 26.3, “Timing and billing calls,” on page 320.

If the call is a charge due recall and the conversation is still in progress, do the following before allowing conversation to continue while securing acceptance of the additional charge:

1. Obtain the calling party’s name and ask the calling party to stay on the line while you obtain acceptance of the charge.
2. Tell the called party that you will call back.
3. Press the **Rls Cld** key, access the opposite loop, and secure billing validation and acceptance of the charges from the third telephone in the normal manner.

Do one of the following:

- If third-number billing is accepted, press the **Rls Cld** key, recycle the call, and start conversation. Manually ticket and machine-time the call.
- If third-number billing is refused or cannot be reached, tell the calling party that you cannot bill the call to a third number. Request alternate billing.
- If satisfactory billing arrangements are not made, reach the called party and explain that, because billing cannot be arranged, you are cancelling the call.

If the call is a charge due recall and the conversation ends, do the following to secure acceptance of the charge:

1. Obtain the calling party’s name and ask the calling party to stay on the line while you obtain acceptance of charges.
2. Press the **Rls Cld** key and secure acceptance in the usual manner.
3. If charges are accepted, enter the charge adjustment.

30.0 Call delay reports

This chapter describes procedures for giving reports of delay (such as no answer, busy, or the called party is unavailable).

30.1 Giving reports

Give reports to the party holding the line and do one of the following:

- If the calling party hears the delay report, do not repeat it. Ask for further directions immediately if the calling party does not volunteer them.
- If the calling party does not hear or understand the delay report, repeat the report or any part of it.

On subsequent reports, give the area code and number that the subscriber called and report the current condition (for example, no answer or busy).

Postpone giving a report of delay if a more complete report will be available shortly.

30.1.1 Converting time at called place to calling place

Unless the subscriber is aware of the difference in time, convert the time mentioned in a report to the corresponding time at the calling place and use it in reporting to the calling telephone.

30.2 When the calling party is not holding the line

Do one of the following:

- To identify the call, give the area code and number that the subscriber called.
- To identify the called place, obtain that information from the route operator.
- To identify yourself, give the name of the service provider.

30.3 Trunk or station delay

When encountering a no-circuit (NC), busy (BSY), no-answer, or out-of-order (OD) condition on either a station or person call, give the report. Ask the calling party to make the call again later. However, if the calling party asks to try later, make subsequent attempts at the time specified.

30.4 Party delay

Whenever party delay report is received, accept the report as given and proceed. Agree to make subsequent attempts when requested to do so.

30.5 Unable to make subsequent attempt

If making a subsequent attempt, record a memo. Then, before releasing the calling party, make certain that the subscriber understands the next action to be taken, who is responsible for the next action, and at what time.

31.0 Equal access calls

This chapter describes how to handle calls that require routing through an inter-LATA carrier (IC). Information in this chapter applies to handling international calls and inter-LATA calls, except where noted.

Equal access means that subscribers can reach any inter-LATA carrier by dialing the same number of digits. An *inter-LATA* call is one that originates in the LATA served by the traffic office and terminates to a point outside the LATA. The call types routed to an inter-LATA carrier for completion are 0-, 0+, and 1+.

TOPS IC Service (TICS) allows an inter-LATA carrier to use the service providers traffic office operator services on a contractual basis.

31.1 Global competitive access calls (GOS only)

In a GOS environment, global competitive access provides the same functions that equal access provides in the North American environment. However, instead of using a LATA, global competitive access defines zones. A zone can be any area, from a city to a country to a group of countries. An *inter-zone* call is one that originates in the zone served by the traffic office and terminates to a point outside the zone. A carrier that provides inter-zone service is an inter-zone carrier (IC). TICS is not available in global competitive access.

31.2 Call handling

If the service provider does not have an agreement with an inter-LATA or inter-zone carrier to provide operator services, do one of the following for calls that arrive at the position:

- Transfer the call to the inter-LATA or inter-zone carrier designated on the screen.
- Transfer the call to an inter-LATA or inter-zone carrier requested by the subscriber.
- Refer the subscriber to an appropriate inter-LATA or inter-zone carrier.

To provide service for inter-LATA or inter-zone calls, the operator can do the following:

1. Determine if the call is an inter-LATA or inter-zone call.
2. Do one of the following:
    - Transfer the call.
    - Complete the call.
    - Change carriers.
    - Give dialing instructions.
    - Forward the call.
3. Provide service.

If a subscriber requests an unavailable service, refer the subscriber to the appropriate inter-LATA or inter-zone carrier business office. Provide specific dialing instructions as locally directed.

31.3 Displays for inter-LATA or inter-zone calls

The system displays messages as follows:

- to indicate that a call requires inter-LATA or inter-zone handling
- to identify the inter-LATA or inter-zone carrier
- to indicate the type of originating office
- to warn of restrictions

31.3.1 IC message

`IC` displays on the screen, to the right of the called number on any call type to indicate that the call requires inter-LATA or inter-zone routing. If `IC` does not display, handle the call as an intra-LATA or intra-zone call. Whether or not `IC` displays depends on the call type.

31.3.1.1 0- calls

When a 0- call arrives, obtain the called number. Press the **Cld** key, type the called number, and press the **Start** key. If the call requires inter-LATA or inter-zone routing, `IC` displays; the carrier access code (CAC) and carrier name also display.

31.3.1.2 0+, 1+ calls

When a 0+ or 1+ call handled by the traffic office for an inter-LATA or inter-zone carrier arrives at a position, the following items display:

- `IC`
- carrier access code
- carrier name

If the service provider offers automated call handling on 0+ calls, the call routes to the mechanized coin collection service or an equivalent system. The 0+ call routes to an operator position only for the following reasons:

- subscriber request
- MCCS/ACCS failure
- manual validation requirement. If manual validation is required, the call is arrives with the carrier name, carrier number, and calling number displayed. In addition, MAN displays in the special field.

International calls are also screened to determine if they are inter-LATA or inter-zone calls. International calls do not always come as carrier calls because the format of international calls at the operator position varies depending on datafill.

31.3.2 Carrier access code and carrier name messages

A subscriber selects an inter-LATA or inter-zone carrier either for all calls originating from the telephone being used or by dialing a carrier access code (CAC) as part of the telephone number (for example, 10123-1-919-555-1234).

The CAC and the carrier name (for example, `123 CARRIER`) display to the right of IC. If a subscriber designates an inter-LATA or inter-zone carrier to handle inter-LATA or inter-zone calls, the CAC and name for that carrier display when a 0+ or 1+ call arrives at a position or when the operator enters an inter-LATA or inter-zone number for a 0- call. If an inter-LATA or inter-zone carrier is not designated, either nothing displays or the service provider's default carrier displays. If nothing displays, the operator selects an inter-LATA or inter-zone carrier and enter the CAC.

31.3.3 NEA messages

If NEA displays to the right of the calling number, the call originated from a non-equal access end office. If NEA does not appear, the call originated from an equal access end office, TICS automatically assigns a carrier. If TICS is not available, assign a carrier.

The NEA display does not appear in global competitive access.

31.3.4 RES message

If `RES` displays to the right of the calling number, the calling number is restricted from making inter-LATA or inter-zone calls. Inform the subscriber that the telephone being used cannot make inter-LATA or inter-zone (long-distance) calls.

31.4 Determining what service to provide

Determining whether to complete a call, transfer a call, or change carriers depends on whether `Xfr IC` displays at the top of the screen, as follows:

- If `Xfr IC` does not display on an inter-LATA or inter-zone call, the service provider offers operator services for a carrier. Complete the call or change the carrier at the subscriber’s request if the called party is not yet connected.
- If `Xfr IC` displays on an inter-LATA or inter-zone call and the service provider does not provide operator services for a carrier, release the call to the carrier indicated or change the carrier at the subscriber’s request.

31.5 Completing inter-LATA or inter-zone calls

Depending on the agreement between the service provider and the inter-LATA or inter-zone carrier, operators can validate a calling card, a third number, or collect billing numbers manually. If `MAN` displays, follow local practices.

The agreement between the service provider and inter-LATA or inter-zone carrier determines how you class charge inter-LATA or inter-zone calls. The message `No Rate`, a question mark (`?`), or both display in the calling, called, or special field in the following cases:

- On a call from a public station, `No Rate` and a flashing class charge message display when you enter a disallowed station-paid or person-paid class charge.
- On a call from a public or private station, `No Rate` displays when rating is not allowed and you press the **{Time & Charges}** softkey.
- On a call from a public or private station, a normal flashing class charge message displays when one of the other class charges entered is not allowed, (including class charge messages associated with calling card, third number, or collect billing).

If the class charge is not allowed, either arrange for other billing or change carriers. Refer to local practices for specific class charging procedures.

If you enter an invalid class charge, `X` displays in the called field, the up-arrow displays in the calling field, and the down-arrow displays in the special field. Billing restrictions imposed by the inter-LATA or inter-zone carrier determine whether a class charge is invalid.

If TICS is available and the service provider provides operator services for an inter-LATA carrier, handle inter-LATA calls in the same general manner as regular calls (for example, coin, non-coin, and hotel).

31.6 Transferring inter-LATA or inter-zone calls

If a call requires transferring to an inter-LATA or inter-zone carrier, `Xfr IC` displays on the screen. Press the **Pos Rls** key to transfer the call.

When `NEA` displays on 0- inter-LATA calls, do not enter the CAC. If you transfer a call with called number digits, `Xfr IC` displays after you enter the called number. If you transfer a call without called number digits, `Xfr IC` displays after you press the **Xfr IC** key.

For 0- inter-LATA calls with no NEA display, press the **IC** key, type the carrier access code and press the **Start** key. `Xfr IC` displays after you enter the CAC.

If you relay information to an inter-LATA or inter-zone carrier operator, use the appropriate outgoing trunk menu selection before releasing your position. Quote whatever call details are needed (for example, subscriber information and billing restrictions).

31.7 Forwarding inter-LATA or inter-zone calls

In general, forwarded inter-LATA or inter-zone calls (0+, 1+ non-operator assisted calls) do not arrive at an operator position. Forwarded calls route directly to the appropriate inter-LATA or inter-zone carrier. However, ANI failure, CAMA, and remote CAMA calls do arrive at the operator position, if operator services are provided for an inter-LATA or inter-zone carrier. In such cases, obtain and enter the calling number. The call outpulses automatically.

31.8 Changing inter-LATA or inter-zone carriers

If a subscriber asks to change the inter-LATA or inter-zone carrier or the requested inter-LATA or inter-zone carrier cannot handle the call, do the following to complete the call:

1. Obtain the CAC for the inter-LATA or inter-zone carrier to which the call is to be routed.
2. Press the **IC** key, type the carrier access code, and press the **Start** key.
3. Transfer or complete the call.

If the CAC and carrier name are valid, they appear on the screen in steady mode. If the CAC is invalid, the CAC display flashes. To correct an invalid CAC entry, repeat the procedure using a valid CAC.

32.0 Emergency, hotel, and APS calls

This section describes call handling procedures for emergency calls, hotel and motel calls, and attendant pay station (APS) calls.

32.1 Emergency calls

Emergency calls involve such matters as serious accidents, illness, or death; earthquakes, hurricanes, tornadoes, fires, floods, wrecks, or other disasters; maintenance of essential public services; and incidents requiring the aid of ambulance or life-saving services. Emergency calls usually appear at the operator position as 0-, coin pre, or coin po.

Calls from the police, fire departments, doctors, hospitals, and government authorities may be treated as emergency calls as well, in accordance with local operating company procedures.

When handling emergency calls, do the following:

- Establish the connection as quickly as possible.
- Have the calling party stay on the line.
- Give the call your undivided attention as long as necessary.
- Notify a supervisor.

As soon as you identify an emergency call, do the following:

1. Request the city where the emergency is located.
2. Check the operator position information of the Operator Reference Database (ORDB) or multileaf for the appropriate agency servicing the requested location, if necessary (such as the fire department, police department, or ambulance).
3. Select the Time function (or hotkey) from the Functions menu.
4. Ask the calling party to stay on the line while you enter the agency's number in the Cld field.
5. Press Start.
6. Since there is no charge for this call, use the No AMA function (or softkey) from the Functions menu.
7. Begin preparing a memo ticket while the call outpulses, but stay on the connection until the agency answers.
8. When the agency answers, start timing and put the call on hold.
9. Use the Start Timing function (or hotkey) from the Functions menu, followed by the Hold function (or hotkey) from the Functions menu.

10. Press the **Pos Rls** key to put the call on permanent hold and to take other calls on the other loop.

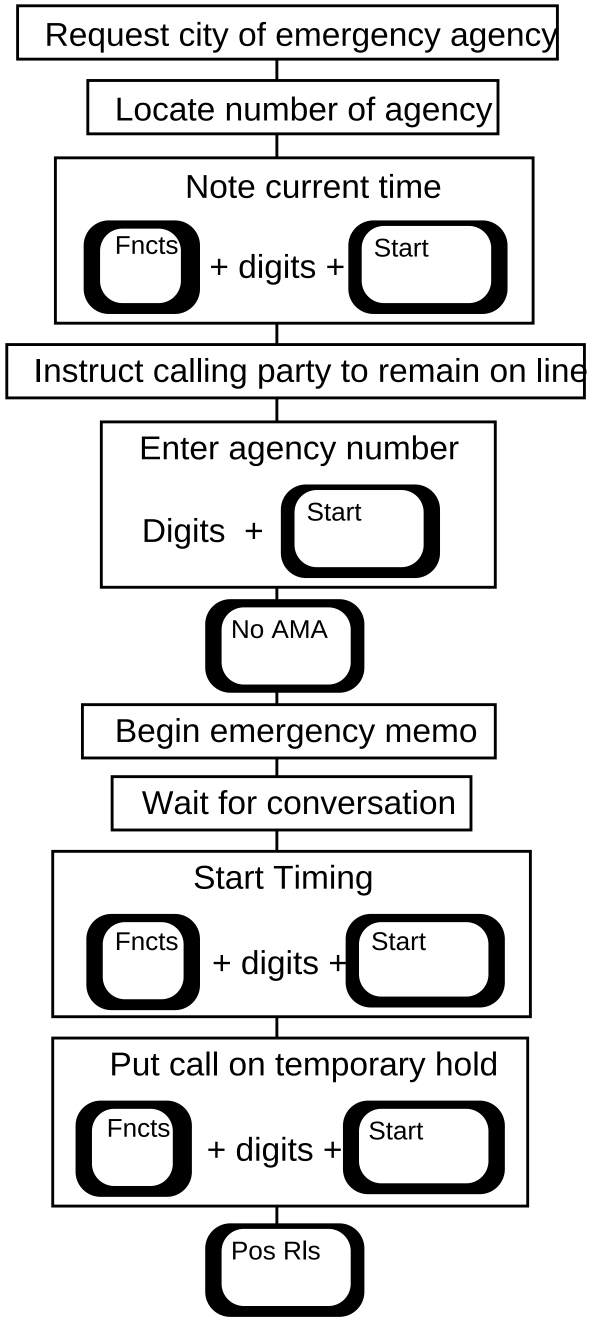
    When either the customer or agency hangs up, the call reaccess the position when the position is idle.

    If you are processing a call on the other loop when the customer or agency hangs up, a black box appears around the hold display in the Loop 1 status area, indicating that the call is complete.

    The elapsed time displays in the Call Details window when the call returns to the position.

Figure 101 shows these steps.

Figure 101. Emergency call handling procedures



32.1.1 Completing an emergency ticket

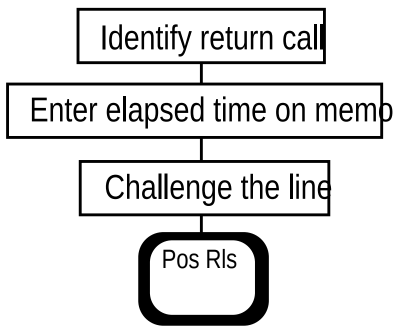
Your operating company may have a policy of completing an emergency ticket after the handling of an emergency call. If so, complete the emergency ticket and check to be sure that the call is complete by challenging the line. If no one responds, press **Pos Rls.**

Prepare a ticket whenever the call indicates an emergency involving the safeguarding of life or property, such as the following:

- a request for a doctor, a public or volunteer agency for suicide prevention, and matters involving drug or child abuse
- when the subscriber's tone or manner reflects an urgency beyond the scope of a routine assistance request

Figure 102 shows these steps.

Figure 102. Completing an emergency ticket



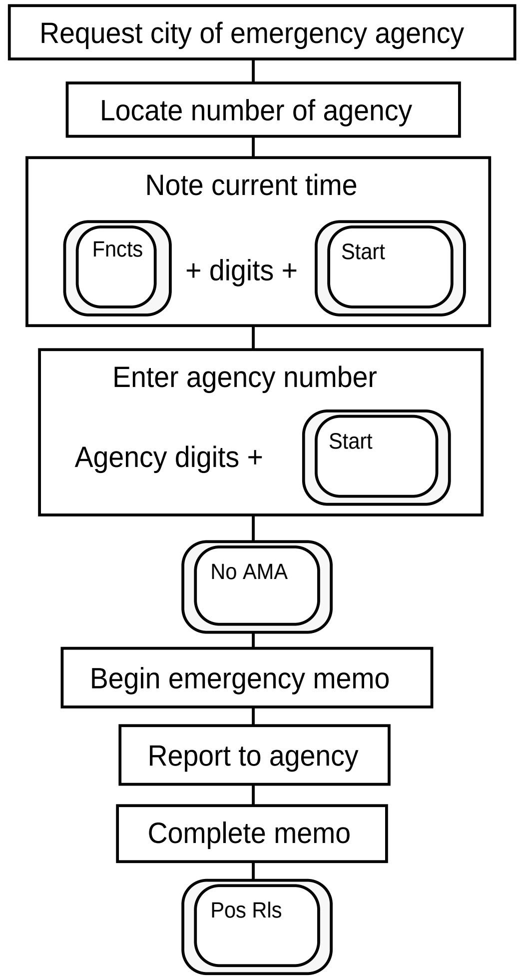
32.1.2 Reporting the emergency for a subscriber

If a subscriber calls to report an emergency and then hangs up, do the following:

1. Report the emergency to the agency appropriate to your locality.
2. Use the same steps to process the call as outlined in Figure101 on page 397; however, there is no need to put the call on hold while you have both customer and agency on the line.
3. If the agency requests connection to the calling party, release the calling line by selecting the **Release Calling** function (or softkey) from the Functions menu.
4. Press **Start** to recycle the call.

Figure 103 shows these steps.

Figure 103. Emergency call handling procedures, customer goes on hook



32.1.3 Supervisor procedure

If an emergency call arrives at the supervisor position, take appropriate action according to operating company procedures. Here are some general guidelines for all emergencies:

- Never delay advancing the call to ask questions unless the calling party asks you to make the report to an agency.
- When passing an order requesting assistance or information to any operator, note that it is an emergency.
- Stay on the line until you hear a satisfactory start of conversation.

On an emergency call from a coin telephone, if the calling party cannot make a deposit or provide billing information and the call is a legitimate emergency, direct the operator to connect the subscriber and prepare a ticket. If the call does not appear to be an emergency, explain to the subscriber that the call cannot be placed without some acceptable means of billing.

32.1.4 Emergency calls from ported numbers

If your office uses local number portability (LNP) and uses the calling number for an emergency lookup in your external database, the number that a subscriber provides does not necessarily identify the subscriber's location. Therefore, you cannot always use the number in the Clg field of the Call Information window for the emergency lookup.

To determine the number to use for the emergency lookup, do the following:

1. Press the **Fncts** key twice, type the menu number for LNP Info Called, and press the **Start** key.
2. The message CLGLNP and one of the following appear in the Call Details window.

   `nnn-nnn-nnnn`

   If a line number displays, it is the actual calling number. Use it for the emergency lookup.

   `not ported`

   If a line number does not display, the actual calling number appears in the Clg field. Use it for the emergency lookup.

   `?`

   The database query failed. Depending on your company's procedures, either repeat step 1 or use the number in the Clg field for the emergency lookup.

32.1.5 Calls to official public emergency agencies

For calls to official public agencies such as police, fire, and ambulance service, do the following:

1. To prepare a ticket, do the following:
   a. Display the calling number.
   b. Enter the calling number completely, including calling NPA code, if your office serves more than one NPA.
   c. Determine the called number and enter it completely.
   d. Type `EMER` in capitals in the SPEC INST space and describe the emergency.
   e. Include the number of the connected agency, the time you received the call, an explanation of any delay or unusual occurrences, your actions, and your operator number.
2. Put the emergency call loop on hold.
3. After establishing a connection and cutting out, watch closely for the appearance of a recall signal. Should a recall signal appear, take immediate action.

4. If you receive a flash, enter the connection immediately. The system interprets the flash as a disconnect and stops timing.
5. If the subscriber wants the call to continue, note the elapsed time display on the screen.
6. Press the **Fncts** key twice, type the menu number for Cancel Timing, and press the **Start** key.
7. Do one of the following:
   - Press the {**No AMA**} softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key**.**
8. Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.
9. Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
10. At disconnect, add the two time intervals together and enter the total elapsed time on the ticket.
11. Do one of the following:
    a. If locally directed, do not charge for a call to a local emergency agency.
    b. Bill toll emergency calls held on loop with AMA.
    c. On an emergency call from a public telephone for which there is a charge, do not delay the call to obtain a deposit. Wait until the call completes. If the calling party is not prepared to make a deposit, try to obtain the name and address. Enter them with billing instructions (for example, third number or calling card number) on the ticket.

32.1.6 Service number routing

You can look up and outpulse automatically to services such as fire, police, ambulance, and poison control. To access a service number, in either operator assistance or DA, do the following:

1. Press the **Fncts** key twice, type the menu number for SN Routing, and press the **Start** key.
2. Place the cursor in the called field.
3. Type the service code (the service number, the reference code, or both). When you enter these digits, they echo in the called field. To correct any typing errors, repeat step 1 to clear the called field.
4. Press the **Start** key.

Table 29 shows the displays that appear in the called field and gives a description of each.

Table 29. Service Number Routing

Display	Description
`Service number`	If the calling number and the service code translate to a service number that is outside the local calling area, only the service number displays in the called field.
`LOC`	If the calling number and the service code translate to a service number that is in the local calling area, the service number displays in the called field, followed by `LOC`.
`A`	If the calling number and the service code translate to a service that can also be accessed by an alternate number and the current service number is outpulsing, A appears in the called field after the service number. The called field reverse-highlights. If `A` displays, allow the current service number to continue outpulsing by waiting for the call to complete. To use the alternate service number, cancel the forward call to the current service number by pressing the **Fncts** key twice, typing the menu number for SN Routing, and pressing the **Start** key twice. The alternate number automatically outpulses.
`N`	If the calling number and the service code translate to a service that can also be accessed by an alternate number and the current service number is not outpulsing, `N` appears in the called field after the service number. The called field remains in a normal (unhighlighted) state. If `N` displays, outpulse the current service number by pressing the **Start** key. When you press the **Start** key, the called field reverse-highlights. To outpulse the alternate service number: release the forward call and press the **Fncts** key twice, type the menu number for SN Routing, and press the **Start** key twice. The alternate number replaces the current service number.
`VCA`	If the calling number and service code translate to VCA, the service code displays in the called field, followed by `VCA`.
`MAN`	If the service call requires manual intervention, the service code flashes in the called field, followed by `MAN`.

32.1.7 Calls not to official public emergency agencies

On no-coin calls other than those to official public emergency agencies, arrange for AMA timing of the call.For an emergency call from a public(coin) telephone, do the following:

1. Determine the nature of the emergency.

If	Go to
you need to advance the call immediately	Step 2
you do not need to advance the call immediately	Step 3

2. Advance the call. Where necessary, obtain billing information after the call completes. Do not delay. Go to Step 5.
3. Request the deposit or billing arrangements before advancing the call.

If	Go to
the subscriber does not provide a deposit or make billing arrangements	Step 4
the subscriber provides a deposit or make billing arrangements	Step 6

4. The supervisor may choose to handle the call or direct you.
5. Prepare a billing ticket for the type of billing requested when you advance the call either before you complete billing arrangements or when you establish a connection without billing. Try to obtain name and address information. Enter this information and any explanation for establishing a connection without billing on the ticket.
6. Enter the connect time and hold the call on loop.

32.1.8 Advancing calls

To handle a local emergency call with the calling party on the line, do the following:

1. Establish the connection on the loop.
2. Ensure that the conversation is proceeding satisfactorily.
3. Release the call from your position or hold the call on loop, as appropriate.

32.1.9 Universal emergency number 911

If 911 access is available for emergency calls in the community, either dial 911 to connect the subscriber or follow your operating company procedures.

If your switch has the TOPS Transfer to E911 with ANI Forwarding feature, you can forward 0- emergency calls to the E911 tandem office with ANI information. The ANI information automatically determines which operators receive the call and identifies the calling party's address.

If you do not receive the ANI information but you obtain the calling digits from the calling party, type the digits into the CLG field. The system forwards the digits to the E911 tandem office when the call outpulses.

When the tandem office receives the call, a momentary off-hook icon may display on the screen. If the off-hook icon appears, ignore it.

If 911 access is not available for emergency calls to the community, do one of the following (unless your operating company procedures are different):

- If the NXX serves only one community, acknowledge and complete the call to the number shown in your position information.
- If you use the calling number, acknowledge and complete the call to the number shown in your position information.
- If your position has outgoing trunk (OGT) keys for emergency numbers, use the OGT menu selection. The call automatically outpulses to the designated agency for the calling NXX.
- Class charge.

32.1.10 Screened service routing

To reach emergency services by using screened service routing, which provides alternate dialing methods to various agencies, follow these steps:

1. Do one of the following:
   - Type a one-digit service number code (SNCD) instead of the entire DN to be outpulsed, when the requested service number serves callers from one or more NXXs.
   - Type a two-digit reference code (REFCD) when more than one DN exists for the requested service agency in the caller's NXX.
   - Type both the service number code and reference code when more than one DN exists for the requested service agency in the caller's NXX.
2. Press the **Fncts** key twice, type the menu number for SN Routing, press the **Start** key, type the service number code digit and the two reference code digits, and press the **Start** key.

32.1.11 Cannot determine where to send the emergency call

If you cannot determine where to send the emergency call, do the following:

1. If you do not know which of several towns should receive the emergency call, ask the calling party.
2. If you still cannot determine the correct locality, connect to the one that seems most likely under the circumstances.
3. Remain on the line to ensure that you reach the correct location.
4. Prepare a ticket.
5. To dial the number for the requested agency, press the **Cld** key, type the called number, and press the **Start** key.
6. Class charge as appropriate.
7. Do one of the following:
   - Press the {**No AMA**} softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
8. Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.
9. Press the **Fncts** key twice, type the menu number for **Hold**, press the **Start key,** and press the **Pos Rls** key.

32.1.12 Subscriber requests that you report an emergency

If the subscriber cannot remain on the line and asks you to report the emergency, do the following:

1. Hold the calling line, obtain the location and nature of the emergency and, if the call is an ONI call, obtain the calling number.
2. Immediately enter the number for the needed agency in the Cld field and press **Start**. Meanwhile, watch for a signal from the calling line.
3. Do one of the following:
   - If the agency taking the report can take action and goes on-hook, release the called and calling lines.
   - If the agency wants you to connect to the calling number: press the **Fncts** key twice to reach the calling party, type the menu number for Ring Calling, and press the **Start** key. Remain on the connection long enough to determine if further assistance is needed.

32.1.13 Other circumstances

Note the following other circumstances:

- If a subscriber calls and requests an ambulance but none is available, complete the call to the police department.
- If you receive a recorded message that indicates an emergency, complete the call as quickly as possible, as if a subscriber is giving directions.
- If the calling party indicates that a telephone wire or pole is down, connect the subscriber with the appropriate repair service. If the calling party indicates that a wire or pole other than a telephone wire or pole is down, connect the subscriber with the appropriate agency.
- If the calling party requests a doctor and supplies the doctor's name or telephone number, complete the call. If the calling party cannot supply the telephone number, obtain it from DA.
- If the calling party requests a doctor but cannot supply the name of a doctor, connect the subscriber (if locally directed) to one of the following:
    - appropriate public emergency agency
    - medical society or Doctor's Emergency Bureau
    - doctor on the list included in your position information
    - doctor whose name you secure from DA

32.1.14 Emergency toll call

Complete emergency toll calls immediately using the general principles for handling emergency calls.

32.1.15 Called line busy during emergency

If the called line indicates that the line is busy, verify the line. (For busy line verification procedures, refer to Section B.12 starting on page 544). If the call is for the police, the fire department. or another public emergency agency, do one of the following:

- Immediately verify the busy condition and attempt to secure the release of the line. Do not give a busy report.
- Make several attempts to secure the line. If you cannot secure the line, explain the situation to the calling party and offer to take any action that seems appropriate (for example, call the subscriber when the line is available, transmit the details given to you as soon as the line can be secured, or ask the police or agency involved to reach the party).

32.1.16 Interrupting calls

To interrupt a conversation on calls that are not for the police, the fire department, or another public emergency agency, do the following:

1. Give the busy report.
2. Ask if the calling party wants you to interrupt conversation.

If	Go to
the calling party wants you to interrupt conversation	step 3
the calling party does not want you to interrupt conversation	step 4

3. Secure the name and proceed as for calls to police, fire department, or other public agency.
4. Tell the party you will call as soon as you secure the line.

For barge-in/interrupt procedures, refer to Section 15, “Barge in / interrupt,” on page 547.

32.1.16.1 Cannot interrupt a busy line

If you cannot interrupt a busy line, tell the calling party that the line is busy. Ask if there is any other telephone that you can call and then proceed as directed. If there is no other number to call, continue trying to reach the number.

32.1.17 No answer or called telephone out of order

If there is no answer on the called line, make several attempts to secure the line. If you cannot secure the line, explain the situation to the calling party. Offer to take any action that seems appropriate (for example, call back when the line is available, transmit the details given to you as soon as the line can be secured, or ask the police or agency involved to reach the desired party).

If the call is for the police, fire department, poison control, or other public agency and the called party does not answer within one minute, continue to ring the called telephone. If the calling party is on the line, Explain the situation and offer to call any other suggested telephone. If the calling party is not on the line, contact another agency that might offer assistance.

If the called party is not a public agency and the called party does not answer, continue to ring the called telephone. Notify the calling party. Offer to make subsequent attempts at any interval the calling party suggests.

If the called party is not a public agency and the called line is out of order (OD), offer to make subsequent attempts to secure the called line. If you determine that repairs are needed, contact the appropriate repair service and inquire when the line will be repaired.

If the called party is not a public agency and the circuits are busy (a no-circuit (NC) condition exists), do the following:

1. Notify the subscriber. If necessary, repeat the notification at regular intervals.
1. Make two additional attempts.
2. If the circuits are still busy, note the called number.
3. After encountering a no-circuit condition on the numbers route, try to reach the terminating toll center (TTC) operator.
4. If you encounter a no-circuit condition on the TTC route, give the no-circuit condition report or refer the call to the supervisor.

32.1.18 Calling party goes on-hook

If a calling party leaves the line on a local emergency call after reporting an accident, crime, or disaster, report the call to the appropriate agency, giving whatever details you can.

If the calling party goes on-hook and you encounter a busy signal or other delay while attempting to reach the calling number again, do the following:

1. Keep trying to reach the number for approximately two or three minutes.
2. If you still cannot reach the calling number, explain the situation to the called party and advise that you will call again.
3. Continue trying to reach the calling telephone. Consider possible Busy Line Verification/Barge-in.
4. When you reach the calling telephone, explain that you have reached the called number and determine what further action is required.

32.1.19 Inter-LATA or inter-zone emergency calls

While processing an emergency call, if you learn that the call is to an inter-LATA or inter-zone point (for example, `IC` displays after the called number), refer to one of the following sections:

- Section 32.1.5, “Calls to official public emergency agencies,” on page 400
- Section 32.1.7, “Calls not to official public emergency agencies,” on page 403

When `IC` displays after the called number, do one of the following to remove inter-LATA or inter-zone blocking before advancing the call:

- Press the **{No AMA**} softkey.
- Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.

If you know, before entering the called number, that the call is to an inter-LATA or inter-zone point, route the call either by your NPA or by the NPA of the incoming trunk as follows.

To route the call by the your NPA, do one of the following:

- Press the {**No AMA}** softkey.
- Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.

To route the call by the NPA of the incoming trunk, do the following:

1. Press the **Cld** key, type the called number, and press the **Start** key.
2. Do one of the following:
    - Press the {**No AMA}** softkey.
    - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.

32.1.20 Emergency CAMA calls

Because you manually enter the calling number of a CAMA call, process the call as quickly as possible. Tell the subscriber how to complete the call if the he or she does not reach the number on the first attempt.

If you started to set up the calling number, immediately press the **Clg** key, request the calling number, and proceed with the call.

32.1.21 INW display

If you receive an inward call that is a request for assistance in reaching a called line, try to secure the called line.

If the subscriber asks you to interrupt conversation on a busy line for an emergency, do the following:

1. Obtain the name and location of the calling party.
2. Verify and attempt to secure the release of the called line.
3. Do one of the following:
    - If the line is available, establish the connection.
    - If the line is not available, inform the calling operator.
    - If the line is served by an office without verifying equipment, notify the calling operator that you cannot verify the line.

- If you are asked to verify an out-of-order (OD) condition, verify the called telephone, explain that the call is an emergency call, and give the report to the calling office.
- If you encounter a no-circuit (NC) condition or receive a notice of a no-circuit condition heavy traffic at your office, notify the calling operator and enter EMER on a memo. Proceed as when you encounter a no-circuit condition on an outward emergency call. Notify the supervisor. Remain on the line.

32.1.22 Bomb threat calls

To handle bomb threats, do the following:

1. Assume that the threat is real.
2. Record the exact message without interrupting the caller.
3. Keep the caller on the line as long as possible and try to obtain details that might be helpful in tracing the call and identifying the caller. Ask questions such as the following:
   - “Can you give us any idea where we might locate the bomb?”
   - “What time will the bomb explode?”
   - “What kind of bomb is it?”
   - “Why have you chosen to damage or destroy this building?”
   - “Who and where are you?”

   Try to determine whether the calling party is an adult or child, male or female, noting the characteristics of voice or background noise.
4. Press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key.
5. Record all pertinent data.
6. After the caller goes on-hook, do one of the following to hold the connection at your position:
   - Press the **Hold** hotkey.
   - Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** key.

7. Ensure that either you or a supervisor do the following:
   - Report the threat immediately to the police or locally designated emergency agency.
   - Give the details of the call, including the originating office and number.
   - Notify the plant department and request that the call be traced.
   - Notify the nearest management person available and proceed as locally directed.

32.1.23 Requests to trace call

Follow locally established procedures for handling emergency call trace requests. The following procedures describe what to do and who to notify on an emergency call trace request. Ensure that someone is locally designated to contact the appropriate public emergency agency.

32.1.23.1 Operator-initiated requests

You can initiate a call trace request in an emergency situation such as a bomb threat or a subscriber leaving the line after indicating an emergency (such as fire or the need for an ambulance). Notify the supervisor and follow his or her instructions.

The supervisor records the trace request details and notifies the person or persons locally-designated to handle the request. The supervisor ensures that the trace information is reported to the appropriate public emergency agency. When the call trace completes, the supervisor notifies the security department.

32.1.23.2 Official emergency agency requests

Secure the details of the call trace request, including the name and telephone number of the person requesting the trace. Notify the supervisor and follow his or her instructions.

32.1.23.3 Crisis prevention center requests

If a crisis prevention center (for example, a suicide prevention center) requests an emergency call trace, secure the details of the trace request, including the name and telephone number of the person requesting the trace. Notify the supervisor and follow his or her instructions.

The supervisor advises the calling party and ensures that the results of the trace go to the appropriate official public emergency agency. The supervisor does not report this information to anyone at a non-official agency.

If the crisis prevention center representative indicates that official public agency involvement might aggravate the situation, advise the crisis center representative to contact the official public agency to which the trace information will be released to make any special arrangements.

32.2 Hotel and APS calls

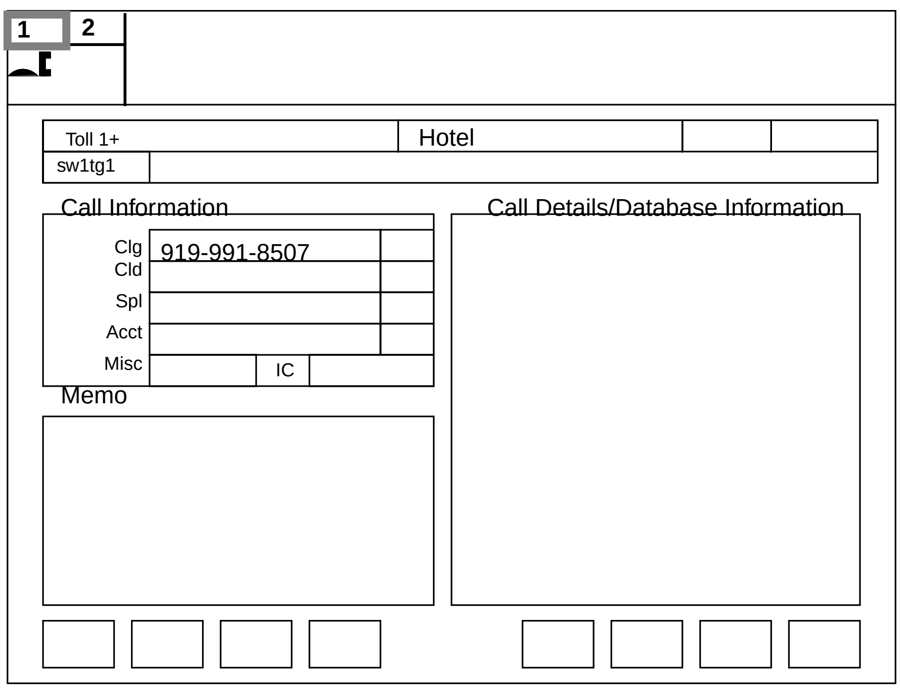
This section describes call-handling procedures for hotel/motel calls and attendant pay station (APS) calls, as follows:

- To complete a 0 or 0+ paid hotel call, complete the call as you do any other 0 or 0+ call.
- To complete a 1+ hotel call, you need only the room number before releasing the call.

Hotel-originated calls can arrive at your position in one of the following ways:

- Displaying HOTEL and 1+, 0+, or 0 (depending on operating company datafill). See Figure 104. Automatic ticketing, charge computation, and quoting are available.

Figure 104. Hotel call



- Not displaying `HOTEL` but displaying `1+`, `0+`, or `0` (depending on operating company datafill). Automatic ticketing, charge computation, and quoting are not available. This type of hotel-originated call reaches the position over a combined ONI trunk group. In this case, the hotel's PBX attendant announces that the call is originating from a hotel.

  To identify the call as hotel-originated and display `HOTEL` on the screen, do one of the following:

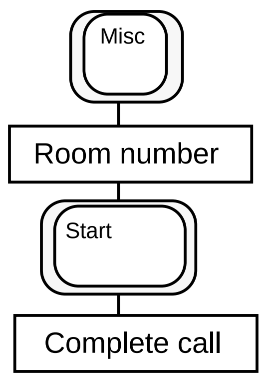
  - Press the **{Hotel}** softkey.
  - Press the **Fncts** key twice, type the menu number for Hotel, and press the **Start** key.

Calls originating in hotels or similar establishments are treated the same as other types of calls, except as noted in this chapter.

Figure 105 above shows a 1+ hotel call. Do the following:

1. To assign a room number for billing purposes, press the **Misc** key.
2. Enters up to six alphanumeric characters for a room number.
3. Press the **Start** key.

Figure 105. 1+ Hotel call processing procedures



32.2.1 Unidentified hotel calls

Occasionally, the system does not recognize a hotel call; for example, if the call does not arrive on a dedicated hotel trunk group.

In this case, a recording or hotel operator announces that the call is originating from a hotel. Do the following:

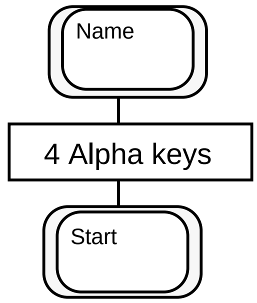
1. Select the Hotel function (or softkey) from the Functions Menu.
2. Processes the call as any other hotel call.

32.2.2 Entering a hotel name

If a subscriber asks you to assign a name to the billing (for example, if more than one person is assigned to the hotel room), do the following:

1. Select the Name function (or softkey) from the Functions menu, enter up to four alphanumeric characters, and press the **Start** key. (See Figure 106.)

Figure 106. Entering a name on hotel call

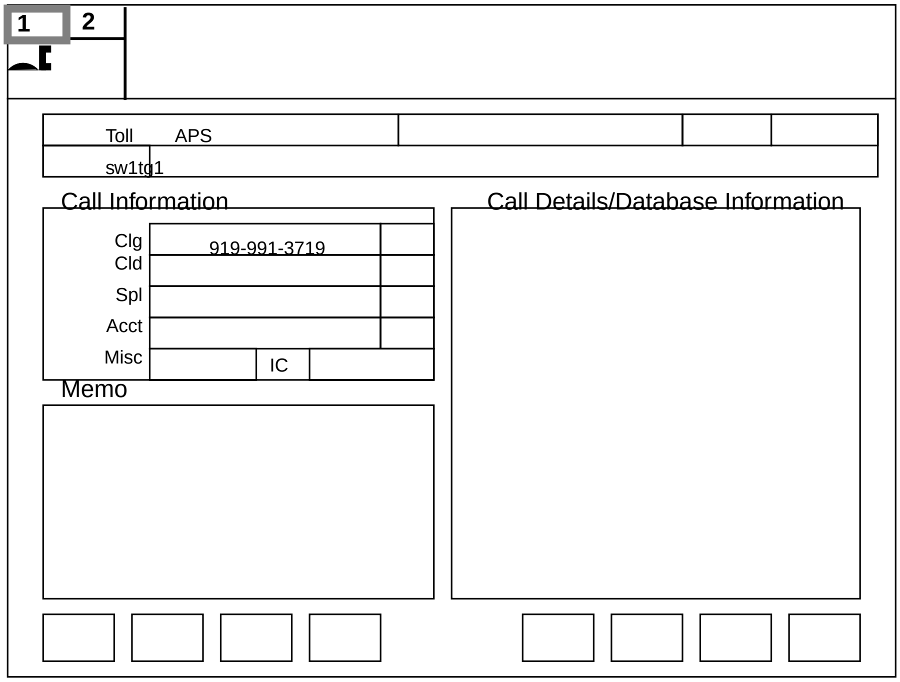


2. Ensure that `HOTEL` displays on the screen when you release the call.

Quoting and computing charges on hotel calls apply to the following call types:

- collect calls to hotels
- calls billed to a hotel
- hotel-originated calls
- APS calls (See Figure 107.)

Figure 107. APS call



32.2.3 Collect call to a hotel or APS

When you receive a collect call for a hotel or APS, do the following:

1. Press the appropriate collect class charge key.
2. Ensure that `HOTEL` displays on the screen.
3. Obtain the room or booth number from the calling party, hotel operator, or attendant.
4. Press the **Misc** key, type the room or booth number, and press the **Start** key.

32.2.4 Call billed to a hotel or APS

A subscriber can place a call from a telephone that is not located in the hotel room or APS and bill the call to the hotel room or APS. The following sections describe how to do two types of billing:

- to a hotel or APS within your serving area
- to a hotel or APS outside your serving area

32.2.4.1 Within your serving area

To bill a call to a hotel or APS within your serving area, do the following:

1. Ticket the call.
2. Secure acceptance in the normal manner if the call originates from a public telephone.
3. Machine-time and quote the charge to the hotel operator or attendant, saying that the call was placed from another telephone.

   If appropriate, refer the ticket to the supervisor for quoting of details to hotel billing information center (HOBIC).

32.2.4.2 Outside your serving area

To bill a call to a hotel or APS outside your serving area, inform the hotel or APS attendant that the guest made a call and quote the charge.

32.2.5 Hotel- or APS-originated paid calls

If a hotel or APS guest makes a call classified as paid, use the hotel room number (or extension) or APS booth number to associate that call with the calling party, as follows:

1. Obtain the room or booth number from the calling party.
2. Press the **Misc** key, type the room or booth number, and press the **Start** and **Pos Rls** keys.

   The equipment (such as a TTY) provides AMA timing, automatic charge computation, and an automatic printout of all call details.

32.2.5.1 Collect, third number, and calling card calls

Handle collect, bill-to-third-number, or calling card calls originated by a hotel or APS guest as you normally do. Do not send call details back to the hotel or APS.

32.2.5.2 No-charge quotes

No-charge calls are those that a hotel or APS guest places (such as collect calls, calls billed to another telephone, or calls billed to a calling card). Send no-charge quotes to hotel or APS attendants who request them. To release a no-charge call, enter the room or booth number. If you omit the room or booth number, `RM ?` displays when you press the **Pos Rls** key.

32.2.5.3 With a private line and receive-only teletypewriter

Hotels or APSs that are equipped with a private line and receive-only TTYs receive an automatic quote (autoquote) copy of all call details on their printer.

32.2.5.4 Without a teletypewriter

Hotels or APSs that are not equipped with a TTY require voice quotation of call details. In this case, quote time and charges as follows:

1. To generate call details, do one of the following:
   - Press the **{T & C}** softkey.
   - Press the **Fncts** key twice, type the menu number for Time and Charges, and press the **Start** key.
2. Call the hotel or APS attendant and read the call details from a voicequote copy.

32.2.5.5 Autoquote and voicequote records

For record purposes, a duplicate of each autoquote and each voicequote message goes to the service provider’s record TTY.

32.2.5.6 AMA record

The AMA record, which contains the calling and called details and charges quoted, goes to the accounting department in the manner specified by the operating company.

32.2.6 Manually rating hotel and APS calls

To manually rate a hotel or APS call, do the following:

1. Acknowledge the call from the hotel or APS guest or operator. Automatic or manual billing identifies the calling party.
2. To enter the room or booth number, press the **Misc** key, type the room or booth number, and press the **Start** key.

   The digits you type and `RM` display on the screen. Note that the room or booth number can contain up to six alphanumeric characters. `RM` flashes if you type more than six digits.

32.2.7 Paid calls

If the call is a paid call, obtain and enter the calling party's room or booth number. Note that you cannot be released the call until you enter the room or booth number. If you omit the room or booth number, RM flashes when you press the **Pos Rls** key.

32.2.8 Unpaid calls

If the call is not a paid call, you do not need to obtain the room or booth number, except in the following cases.

32.2.8.1 Manually rated call

For a manually-rated call, do the following:

1. Enter the calling party's room or booth number.
2. At the end of the call, to print the room or booth number, do one of the following:
    - Press the **{Time & Charges}** softkey.
    - Press the **Fncts** key twice, type the menu number for Time and Charges, and press the **Start** key.
3. If you manually ticket the call, enter the calling party's room or booth number in the From Name designation on the ticket.

32.2.8.2 Delay in reaching the called party

If there is a delay in reaching the called party, do the following:

1. Leave word.
2. Obtain the calling party's name. If necessary, press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key for the calling number.
3. Give the special HOTEL or APS leave-word number to the distant station.

32.2.8.3 Giving reports

When a calling guest is not holding the line, do the following:

1. Reach the hotel or APS attendant.
2. Announce the long distance call and ask the attendant to ring the room or booth.

3. Do one of the following:
   - If the calling party answers, give the report. If the answer from the room or booth telephone indicates that you did not reach the calling party, ask for the party who requested the report. If someone volunteers to accept the report, give it to that person.
   - If the room or booth telephone is busy or does not answer, give the report to the hotel or APS attendant. Ask that the guest place the call again later. Then, press the **Ca Call** key and the **Pos Rls** key to cancel the call.

32.2.8.4 Subscriber requests class charge other than station paid

On a 1+ or hotel or APS call, if the subscriber asks to bill the call collect or to a calling card or third number, do the following:

1. Press the **Rls Cld** key before the first ring.
2. Do one of the following:
   - Tell the subscriber to place the call by dialing 0, the area code (if required), and the telephone number.
   - If the called telephone is ringing, when the called party answers, announce that there is a slight delay on a long distance call. Ask the called party to hang up so that you can call back in a few minutes.

32.2.9 Manually rated call

To bypass `RS ?` on your display, do the following:

1. Press the **Fncts** key twice, type the menu number for Rate Step, and press the **Start** key.
2. Type the locally defined code for no charge rate (for example, `0`) and press the **Start** key.
3. Release the call for automatic billing.
4. Calculate the charges. At disconnect, a message prints that contains the elapsed minutes.
5. Call the hotel or APS attendant and report the time and charges.

32.2.10 Manually ticketed call

Manually ticket and hold on the loop a hotel- or APS-originated or collect-to-hotel or -APS call when AMA recording does not apply (for example, calls to points that cannot be dialed without an arbitrary NXX assignment). Use the following guidelines:

- At disconnect, access the loop (if necessary) and record pertinent details from the screen display.
- Call the HOBIC if the call is hotel- or APS-originated or collect-to-hotel or -APS.
- If the hotel or APS is in your serving area, do one of the following:
  - — Press the {**Time & Charges}** softkey.
  - — Press the **Fncts** key twice, type the menu number for Time and Charge, and press the **Start** key.

  Pass the information obtained to the hotel or APS.
- If the call is collect to a hotel or APS outside your serving area, reach the called hotel or APS and quote charges.

File the ticket in the same location as the other billing tickets. For directions on preparing tickets, refer to Chapter 19.0, “Ticket preparation,” on page 259.

32.3 Credit request for service difficulty

If a hotel or APS guest reports a service difficulty for which you normally arrange credit, determine how the call was billed. If the hotel or APS guest indicates that the call was billed to a calling card, third number, or collect, proceed in the usual way according to the call type. On a call billed to the room or booth number, ask if an operator requested the room or booth number.

If the hotel or APS guest says that the operator did not request the room or booth number, the call was billed to a calling card, third number, or collect. Proceed in the usual way for these types of calls.

If the caller says that the operator did ask for the room or booth number, do the following:

1. If it is a hotel call and `HOTEL` does not display on the screen, do one of the following:
   - Press the {**Hotel}** softkey.
   - Press the **Fncts** key twice, type the menu number for Hotel, and press the **Start** key.
2. Type the calling number, the called number, and the class charge.
3. Press the **Misc** key, type the room number, and press the **Start** key.

4. Do one of the following:
   - Press the {**Charge Adjust}** softkey.
   - Press the **Fncts** key twice, type the menu number for Charge Adjust, and press the **Start** key.
5. Type the code, and press the **Start** key.

If the hotel or APS guest says that an operator did not ask for the room or booth number, refer the subscriber to the hotel or APS attendant for credit. Do not enter a trouble report or offer to connect the caller. If the caller asks you to connect the call, comply with the request using standard call-handling procedures. If the call is inter-LATA or inter-zone, refer the caller to the hotel or APS attendant for instructions on how to obtain credit.

32.3.1 Requests for rate

Quote the rate in the usual way, but start with the service provider’s name.

32.3.2 Request for charge

If the caller requests the charge and the call is sent paid, ask the party to reach the hotel or APS attendant and request the charge after conversation.

If the call is being billed to a third number, do the following:

1. Do one of the following:
   - Press the **Time & Charges** softkey.
   - Press the **Fncts** key twice, type the menu number for Time and Charges, and press the **Start** key.
2. Press the **Spl** key. This prints a call quote; quote the charges to the guest.

33.0 International calls

This chapter describes call-handling procedures for international calls, as follows:

- operator handling procedures for country direct service
- procedures to handle international calls for points either inside or outside world zone one (WZ1). The countries in WZ1 are Canada, the United States, Mexico, Puerto Rico, and other Caribbean Islands.

For calls to points inside WZ1, the prefix 0 or 1 precedes the area code and station number (for example, 0+919+362+1234). For calls to points outside WZ1, the prefix 01 or 011 precedes the country code, routing code, and station number (for example, 01+33+12+345678). Table 30 describes these prefixes.

Table 30. International call prefixes

Prefix	Description
0	operator-assisted domestic or international call inside WZ1
01	operator-assisted international call outside WZ1
1	direct-dialed domestic or international call inside WZ1
011	direct-dialed international call outside WZ1
00	operator-assisted call using an international carrier

A maximum of 12 digits can be dialed for all operator-assisted calls, whether they arrive as direct-dialed overseas calls prefixed by 01 or 011, or as zero-minus (0-) calls.

33.1 Country direct

The country direct feature lets the subscriber dial an access code and reach an operator in the country where the call is to be billed. Treat a country direct call like a 0- call. Ask the subscriber for the called number, and type it. To indicate that a call is country direct, the Call Details window displays

`Direct: `*`country`*

where

`country` is the name of the country in which the billed number is located.

Make the following changes to your call-handling procedures:

- Do not change services to DA while processing a country direct call.
- To prevent fraud, do not change the calling number or release the calling party. If no calling party is present, any attempt to outpulse forward is blocked.
- You cannot outpulse back to the calling party because there is no valid calling number.

Type the terminating number, collect the billing information, and class charge the call.

Station-paid and person-paid calls are not permitted.

With country direct, you can also handle country-to-country calls. For example, a subscriber in England dials an access code to reach an operator in France and then requests a number in Canada. To process this type of call, press the **Fncts** key, type the menu number for International, press the **Start** key. Then, type the number in international format (country code and national significant number).

In the GOS environment, you can press the **Rls Cld** and **Fncts** keys, type the menu number for International, and press the **Edi**t key to display the international number for editing. To edit, use the destructive backspace, home, delete, and right, left, up, and down arrow keys.

If your company uses DN screening, type the called number and press the **Rls Cld** key. TOPS IWS screens the national called number for any terminating call except overseas calls and third-number calls. If the called number has a status of blocked or unpaid, a message appears in the Call Details window. You can reject or complete the call, based on your company's procedures.

Press the **Start** key to outpulse the number.

33.1.1 Invalid charges

When you class charge a country direct call as collect, calling card, or billed to a third party, the class charge is checked for validity. If you select an invalid class charge, the screen display instructs you to select another class charge. On a country-to-country call, a screen display indicates that the class charge is invalid if you enter a class charge that is not allowed for the end country.

33.1.2 Real-time rating

Country direct calls require real-time rating only when the calling or called party requests time and charges. This restriction occurs because country direct calls cannot be billed as station-paid coin or hotel calls and cannot use automated room and authorization number (ARAN).

33.1.3 Time and charges

If a caller requests time and charges, mark the call appropriately. To avoid unnecessary operator work-time, ask the party requesting time and charges to stay on the line when the other party goes on-hook. If both parties hang up before receiving time and charges, the call does not recall to an operator. Instead, the time and charges print on a TTY. The TTY output has a country direct calling number, so the calling party cannot be called back with the quote.

You can calculate rate steps if they are not determined by datafill. (For more information on calculating rate steps, refer to Chapter 17.0, “Rates, routes, telephone numbers, and charges,” on page 229.) After you enter the rate step, the call can continue.

If a call is marked as fixed duration, you cannot provide time and charges because the call does not return to an operator.

33.2 Calling card calls

In general, handle international calling card calls according to the procedures in Chapter 25.0, “Calling card calls,” on page 303.

33.3 Calls to points inside WZ1

The following sections describe handling for calls inside WZ1 (Canada and United States, Caribbean, and Mexico).

33.3.1 Canada and United States

Handle international calls to Canada from the United States or to the United States from Canada according to standard operating procedures for calls within either Canada or the United States.

33.3.2 Mexico

Handle calls to Mexico according to standard operating procedures for calls within Canada or the United States, except where international procedures or procedures unique to Mexico apply.

Handle operator-assisted, subscriber-dialed calls to Mexico in international format (52 +) or domestic format (70 + 8D or 90 +8D), on which there is no indication that the call is to Mexico, according to their respective international or domestic procedures.

Generally, Mexico dialing information is available only from the rate and route operator.

33.3.2.1 Ticket procedures

You can release most calls to Mexico to AMA timing, except the following:

- requests for time and charges
- coin-paid calls
- hotel-paid calls

When a ticket is required on a call to Mexico, mark the Overseas designation when the call is advanced (subscriber-dialed or operator-dialed) in the overseas format. Type the country code, city routing code, and telephone number if you advance the call in overseas format. If the call is to a point that you cannot dial, enter the appropriate 88X-XXX code.

33.3.2.2 Securing rates and routes

Secure the rate and route from the position information, or contact the rate and route operator.

33.3.2.3 Advancing and announcing calls

For a dial 0 call to Mexico, press the **Fncts** key, type the menu number for International, press the **Start** key, and type the number in international format (52 +).

If you can dial the called place, after you hear a ringing signal and no further operator action is required, release the call for AMA-timing or place the call on hold.

If you encounter language difficulty on a person call or on any call requiring an announcement (such as a station collect call), proceed as when language assistance is required on an international call. However, if the call is to a point that you cannot dial, the inward operator remains on the line to act as an interpreter, if necessary.

If you leave word, follow the procedures for calls within Canada or the United States.

33.3.2.4 Station and circuit delays

If the called line is busy, Mexico returns a busy signal that is faster than the busy signal in the United States (that is, 90 IPM in Mexico versus 60 IPM in the United States). If you are not sure whether the busy signal received is a line busy or a reorder (120 IPM), proceed as for a reorder.

If there is no ring after 25 seconds, report the trouble, press the **Rls Cld** key, and recycle the call. If there is no ring after another 25 seconds, report the trouble again and advance the call to the inward operator.

If the called telephone does not answer after 30 seconds of ringing, press the **Rls Cld** key and notify the caller that there is no answer.

If you pass an order or request to an inward operator and receive no report after 30 seconds, press the **Fncts** key, type the menu number for Ring Called, and press the **Start** key to signal the operator. If the operator does not answer after about 30 seconds, press the **Rls Cld** key.

On calls to an inward or DA operator, if the operator does not answer after about one minute of ringing, notify the subscriber that there is no answer and suggest calling again later. However, if the subscriber asks you to continue to ring, comply with the request.

33.3.2.5 Calls billed to third number

You cannot bill a call to a third telephone in Mexico.

33.3.2.6 Calling card calls

You can bill calls to Mexico to a standard, Canadian or United States format calling card. For more information, see Chapter 25.0, “Calling card calls,” on page 303.

33.3.2.7 Collect calls

Collect calls are permitted to Mexico, except where the operator rate and route guide prohibits them. The rate and route operator includes this information when quoting the route. In general, coin telephones in Mexico are equipped for outgoing service only.

You do not need to check for a coin telephone on a collect call to Mexico. Mark the BFC designation when a collect call to Mexico advances in overseas format.

Some coin stations in Mexico that are equipped for incoming service provide an audible, five-second, steady tone as soon as the coin telephone answers.

33.3.2.8 Rates and charges

Rates and charges to Mexico are person-to-person, operator station-to-station, and simple station, as follows:

- Person-to-person and operator station-to-station rates apply as on domestic calls.
- Simple station rates apply to station-to-station sent-paid messages from a residence or business telephone that require no special operator assistance, except when the subscriber requests notification after a specific interval of time. Re-establish a simple station rate call that is interrupted after connecting to the called number.

If a subscriber asks for a specific rate, quote the rate requested. If a subscriber just asks for the rate to Mexico, quote the simple station rate.

33.3.2.9 Messenger calls

On a sent-paid messenger call to Mexico from a coin telephone, if the subscriber asks you to leave word, tell the Mexico operator that the calling number is a coin telephone. You do not need to leave a call-back operator number. When the called party reports ready, the Mexico operator reaches the calling party and advises them to place the call again.

If a subscriber does not speak a language with which you are familiar, but you recognize that the request is related to a location in Mexico, do the following:

1. Write the calling number and called place name on a ticket, and enter `MG` in the SPEC INST designation.
2. Reach the Mexico inward operator and announce the call as a messenger call with the customer on the line. Allow the Mexico operator to deal directly with the subscriber, but keep control of the call by questioning for any report.

If messenger service is available, the Mexico operator obtains the called details from the subscriber and asks you for the calling place NPA, the telephone number, and the call-back operator number. If messenger service is not available, the Mexico operator notifies you and the calling party.

33.3.2.10 Dialing instructions

You can give a subscriber the dialing instructions for Mexico only when you know the dial capabilities of the NXX.

On a dial 0 call, if a subscriber requests connection on a station basis to a point in Mexico requiring no operator assistance, display the calling number and check the position information to determine the subscriber's dialing capabilities.

If the subscriber has direct dial overseas (DDO) capabilities, tell the subscriber to dial the international access code (011), the country code (52), and the city routing code and telephone number.

If the subscriber has only direct distance dialing (DDD) capabilities, give the appropriate domestic dialing instructions. The domestic dialing format to reach Mexico City is 90 + 8 digits. The eight-digit number always begins with the number 5. The domestic dialing format to reach points in Northwest Mexico (Zone 6) is 70 + eight digits. The eight-digit number always begins with the number 6. These dialing formats equate to NPA codes 90(5) and 70(6).

If the subscriber cannot dial the called place, reach the rate and route operator to request the number's route. The rate and route operator provides the route and a mark sense code. If the mark sense code and the route number are the same, you can release the call for AMA timing. Do the following:

1. Press the **Fncts** key, type the menu number for International, and press the **Start** key.
2. Type the mark sense code, the route number, and the five-digit number for calls to the specific location.
3. After the called party answers, type the mark sense code, the route number, and the five digits as an overlay.

4. Do one of the following:
   - If you hear ringing and no further operator involvement is required, press the **Pos Rls** key.
   - If you encounter trouble (for example, no ringing), use the inward routing (190 + 141 + 09) and pass call to a Mexico operator. When the called party answers, key the mark sense code, the route number, and the 5 digits as an overlay.

33.3.2.11 DA

Subscribers cannot dial direct to Mexico DA. Advance the call for the subscriber using the overseas format. Listen for ringing and proceed as you would for a domestic call.

33.3.2.12 Call-back calls

Call-back calls to Mexico are handled the same as domestic call-back calls. For more information, refer to Chapter 20.0, “Call-back calls,” on page 261.

The Mexico operator handles call-back calls from Mexico, applying the same domestic call back procedures as used in the United States. However, if United States operator 1 or 2 is inadvertently left as the call-back number, the Mexico operator proceeds as follows, depending on which call-back operator was left:

- Operator 1 - Handle the call back in the same manner as a call-back 6 call.
- Operator 2 - Forward the call back to the universal operator at the originating United States NPA-NXX location.

33.3.3 Caribbean

You can release most calls to the Caribbean to AMA timing. However, a request to bill to a third telephone number in the Caribbean (809 NPA) is acceptable only if the third number is in Puerto Rico or the Virgin Islands.

Calls to the Caribbean are handled according standard operating procedures for calls within either Canada or the United States, except in the following cases:

- requests for time and charges
- coin-paid calls
- hotel-paid calls
- calls to points that cannot be dialed

33.4 Calls to points outside WZ1

Use the following procedures to handle overseas or international calls to a specified list of international points. You can process calls either by reaching the called number directly or by reaching an international operating center operator or a foreign inward operator for completion.

33.4.1 Accepting calls

Subscriber-dialed overseas (international) calls are also known as direct dialed overseas (DDO) calls. Note the following:

- Ovs displays on all direct-dialed overseas calls. Operator-assisted (01) direct dialed overseas calls display 0+; directly dialed (011) direct dialed overseas calls display CAMA or 1+. On all subscriber-dialed direct dialed overseas calls, the called number displays at call origination. Observe the country code dialed by the subscriber and check the signals in the position information.
- Accept all types of calls to the overseas country that are handled by the international operating center, except the following:
  - — incoming call-back calls, on which the subscriber reports ready on a call from an overseas location
  - — messenger calls, on which the called party cannot be reached by telephone and the calling party requests that a messenger be sent

33.4.2 Handling calls

Generally, handle calls to points outside WZ1 as domestic calls, except as modified by the following:

- Use the position information as the source guide for obtaining codes and routing, determining the various types of calls to be handled, determining the types of billing permitted in the overseas country service codes, and for obtaining charges and other information pertaining to the handling of calls to overseas countries.
- In passing numbers to an operator or to a subscriber in the overseas countries, use the word “zero” (instead of the letter “O”) to indicate the numeral “0.”
- Any call received with a central office name requires translation from the route operator to avoid reaching a wrong number.
- Subscribers placing international operator-handled calls dial 00.

- Subscribers placing direct dialed overseas calls dial 0 for operator-assisted calls and dial 011 for direct dialed calls.
- In general, if a DA operator or the subscriber supplies a routing code preceded by a 0, do not type the 0. If you have difficulty completing the call, consult the position information.

33.4.3 Subscriber instruction

Where locally directed, if a subscriber asks to place a 01 station paid call to a country or a 0 station paid call to a direct dialed overseas country, do the following:

1. Press the **Rls Cld** key.
2. Ask the subscriber to dial 011 and the overseas number.
3. Allow at least 45 seconds for the ring to start.

Where locally directed, if a subscriber asks to place a 0 call, other than station-paid to a direct dialed overseas country, do the following:

1. Press the **Rls Cld** key.
2. Ask the subscriber to dial 01 and the overseas number.
3. Allow at least 45 seconds for the ring to start.

33.4.4 Ticket procedures

Complete a ticket when a number consists of more than 12 digits and the call advances by reaching the appropriate inward operator. Do the following:

1. Write the country code, the routing code, and the local number in the To Number designation of the ticket.
2. Mark the Other Place and Overseas designations.
3. If the subscriber supplies a routing code (not country code) preceded by 0 (zero), do not record the 0.
4. If the subscriber asks to bill the call to the overseas country, mark the BFC (bill foreign country) designation (if locally directed). Enter the foreign country third number or card number in the Bill To space.

Complete a ticket when a call is to a point that you cannot dial or the called place is not listed at rate and route. Do the following:

1. Write the country code, the routing code, and the local number in the To Number designation of the ticket.
2. Write the called place and number in the To Place and To Number spaces of the write-in field.

3. Mark the Other Place and Overseas designations.
4. If the subscriber asks to bill the call to the overseas country, mark the BFC (bill foreign country) designation (if locally directed). Enter the foreign country third number or card number in the Bill To space.

33.4.5 Securing route information

Secure the route from your position information or from the route operator. Reach the route operator, specify the required route, and do one of the following:

- For a numbers route or inward operator route, announce the overseas numbers route, country, and city.
- For an address name route, announce the overseas numbers route, directory route, country, and city.

If the called place is not listed, the route operator advises you to reach the called place through the inward operator and supplies the routing code. If the number given can be dialed, proceed accordingly. Press the **Rls Cld** key before you establish the overseas connection. If you cannot dial the called number, ask the distant operator to reach it. Ticket and machine-time. Hold the call on loop.

33.4.6 Securing rate information

Secure the rate from your position information or from the rate operator. Select the class and period to obtain the rate for the initial or additional period.

33.4.7 Advancing overseas calls

For international numbers, subscribers can either dialing direct or go through the (country) inward operator.

Overseas numbers use a maximum of 12 digits. The number includes the country code, routing code, and a local number. Write the called number on a memo. When the country code and routing code are established, do the following:

1. Press the **Fncts** key, type the menu number for International, and press the Start key.
2. Type the country code, routing code, and local number.
3. Press the **Start** key.

Call advancement is generally slower than for domestic calls, partly because of longer outpulsing time.

In interpreting signals received (for example, ringing tone, busy signal, and no trunk reports), be guided by the information provided locally at your position.

If the person answering the telephone does not speak English, speak the foreign language if you know it. Permit your subscriber to assist if he or she volunteers, or ask the subscriber's aid if you think this is appropriate. You can retain control of the connection by questioning your subscriber for any information received. For language assistance, reach the foreign inward operator. When the inward operator answers, explain the situation and ask for interpretation of the report as necessary.

33.4.7.1 Operator routes

To reach the inward operator, type the inward codes found in your position information or secured from the route operator.

33.4.7.2 DA

To reach overseas DA, do the following:

1. Press the **Fncts** key, type the menu number for International, and press the **Start** key.
2. Type the country code and DA route (shown in the position information or secured from the route operator), and press the **Start** key.
3. When the overseas DA operator answers, announce the called location and give the name and address. If the call is to a department, office, or branch, pass along this detail also.
4. Do one of the following:
    - If the overseas DA operator provides a number, acknowledge the number, press the **Rls Cld** key, and give dialing instructions to the subscriber. Proceed with the call as appropriate.
    - If the overseas DA operator offers to complete the call, allow it. To overwrite the DA route, press the **Fncts** key, type the menu number for International**,** press the **Start** key, type the digits required for billing, and press the **Start** key.
    - If the overseas DA operator cannot find the number, acknowledge the report and press the **Rls Cld** key. Tell the subscriber and, unless the subscriber gives you further directions, press the **Ca Call** and **Pos Rls** keys.
    - If the overseas DA operator reports the number as non-published, acknowledge the report and press the **Rls Cld** key. Tell the subscriber that the called party has a telephone, but that the number is not listed in the records or that the called party has a non-published telephone number. You cannot connect the call.

If the subscriber requests DA but does not want to place a call, reach the overseas DA office and try to obtain the number. However, during local heavy traffic periods, advise the subscriber that you will have to delay obtaining the number until a later time and that you will call back. Obtain the calling number, write it on a memo ticket, and write “Wants number” in the SPEC INST designation and “(future time)” in the route and report designation. Release the calling line and complete the memo ticket process as locally directed.

33.4.7.3 Number-not-in-service tone

When you encounter a number-not-in-service tone as described in position information, request the called name and address from the calling party and try complete the call as an address-name call.

33.4.8 Reaching called telephone

Ringing tones vary for different countries. Check the position information for tones.

If you encounter a signal indicating that either the called number is busy (BY) or all the circuits are busy (no-circuit condition, NC), proceed as for an NC condition. Press the **Rls Cld** key and make a second attempt by recycling the call. If you receive the same signal, assume that an NC condition exists. Tell the subscriber that the circuits are busy now and recommend that the subscriber place the call again later. Report the trouble. However, if the subscriber indicates possible trouble on the line, reach the foreign inward operator and request assistance.

If you receive a recorded announcement, process the call as you would a domestic call.

If there is a posted delay to the called place, inform the calling party of the anticipated delay as posted.

If the call does not require announcing, wait for one ring before pressing the **Pos Rls** key.

33.4.9 Conference calls

If you receive a conference call, refer the caller to the conference operator.

33.4.10 Messenger calls

If you receive a messenger call, pass the call to the appropriate operator.

33.4.11 Leave-word phrase and numbers

A leave-word call is handled by an international operating center operator. When leaving word at called station, ensure that all details are understood before you release the called line. Do not leave word on coin-paid, collect, or screened calls.

For a leave-word call, report the name of the called party, the operator number the called party should contact, and the name and complete number (either area code and number or country cod, route code, and number) of the calling party. Ask that the called party call that operator and request the call from the calling party at that number. The following leave-word numbers are used in the United States:

- Operator 1 for regular noncoin paid calls
- Operator 2 for special billing and for time and charges

33.4.12 Coin telephone calls

Handle coin telephone calls in the same way as domestic calls, with the following exceptions:

- Refer delayed calls from coin telephones to the supervisor.
- A subscriber cannot split charges between the United States or Canada and an overseas country. The overtime amount due must be billed to a North American third telephone number or calling card. Methods of billing such as billing to a name and address, or permitting the subscriber to mail the amount due or pay it at a business office are considered underdeposits and are handled in the usual manner.

On coin-paid calls for which the charge exceeds the telephone’s hopper capacity, the call arrives with a Coin Collect message. Do the following:

1. Press the appropriate class charge key.
2. If the charge is for an initial period, reach the called party or station before you request the deposit.
3. Request the deposit.
4. When the hopper is full, do one of the following:
    - Press the {**Coin Col}** softkey.
    - Press the **Fncts** key, type the menu number for Coin Collect, and press the **Start** key.

    Continue requesting deposits and collecting coins until you collect the full amount.
5. Press the **Pos Rls** key.

33.4.13 Collect calls

Handle collect calls in the usual manner unless restrictions or special handling is required. Examples of exceptions are as follows:

- If collect service is not provided to an overseas country, the billing entry flashes on the display when you press the **Cld** key and the key with either the station or person icon. Advise the calling party that collect calls are not accepted to the country code.
- When calls (such as collect) require special handling, the up and down arrows display when you press the station or person icon key. Consult the position information to determine the special handling required. Prepare a billing ticket if necessary. Collect calls requiring special handling in this manner include calls to countries that require the called party's name.
- Collect calls to coin telephones are not accepted. If it is necessary to check for a coin station, check the position information to see if coins are for outgoing service only for a particular country. You can also reach the inward operator for the called place and ask if that number is for a coin telephone. In some areas of the United Kingdom the suffix "X" following the number indicates that the telephone is a pay station. Do not accept collect calls to these numbers.
- On calls to countries that apply person rates to all collect calls, STA displays in flashing mode if you try to class the call as station collect. Tell the calling party that person rates apply on all collect calls to country code. If the calling party ask to use person rates, reclass the call as person collect and proceed as with a domestic call. If the calling party does not specify a To Person name, advise the called station that person rates apply and press the **Per Col** key.

33.4.14 Bill to third telephone or calling card

Bill international calls to domestic or foreign numbers and calling cards under the following conditions:

- Bill calls to a domestic third telephone or calling card as provided in the position information.
- Calls billed to a foreign third telephone or calling card can, if accepted in the foreign country as described in the position information, be recorded on AMA tape. Enter a foreign calling card number in the same format as given by the subscriber. Prefix the foreign third number with the code 011.

- System validity checks on overseas third numbers and calling cards are as follows:
  - The country code of the overseas third number or calling card number must be identical to the country code of the called number.
  - For a calling card, the third or fourth character must be a letter.
  - Minimum and maximum character counts, depending on the country code.
- If no foreign third number or calling card service is provided and the call is being billed to a foreign third number or a calling card number by the calling or called party, SPL CLG or SPL CLD flashes on the screen when you press the class charge key or enter the unacceptable third number or calling card number, as follows:
  - When SPL CLG displays in flashing mode, tell the subscriber that calls charged to another number in country code are not accepted or that calls charged to a calling card assigned to country code are not accepted.
  - When SPL CLD displays in flashing mode, notify the subscriber that calls from the subscriber’s country cannot be charged to another number in that country.
- An overseas call cannot be billed to a third number if the third number is the called number. If you become aware of this situation, announce and bill the call as a collect call.
- On 01+ calls, the called number displays at call origination. When the third number that you type matches the called number, the special number flashes on the screen. Press the **Rls Cld** key. Tell the subscriber that the call cannot be completed on a bill-to-third basis and that you will change the call to collect. Press the **Col** class charge key and complete the call.

To ensure carrier selection when you bill an international call to an international calling card, do the following:

1. Type the calling card number.
2. Class charge the call.
3. Type the called number.
4. Complete the call.

33.4.15 Time and charges

Quote time and charges on AMA-billed noncoin, coin, and hotel calls for either the calling or called party with paid, collect, or special class charges a from the time and charges TTY or HOBIC TTY.

If a call is marked as fixed duration, you cannot provide time and charges because the call does not return to an operator.

For time and charges requests on call types that you ticketed and machine-timed, mark the time and charges designation in addition to the regular entries.

If the calling number is a hotel in your serving area, quote the time and charges to the HOBIC. If the number is not at a hotel or to a hotel not in your serving area, quote the time and charges to the calling party.

If you quote the time and charges to the called party, at the finish of the conversation reach the inward operator at the called place and ask that the inward operator quote the time and charges. For the operator to quote charges to the called station in the currency of the called country, provide the following information:

- call details (including hotel name, if applicable)
- elapsed minutes
- class
- rate period (day or night)

Enter the number of minutes. The distant operator quotes the charges to the distant party.

33.4.16 Dataphone calls

On dataphone calls to countries with a special access code (Switzerland and the United Kingdom), do not give the subscriber instructions. When a special access code is provided for dataphone calls to a particular country, do the following:

1. To advance the call, press the **Fncts** key, type the menu number for International, and press the **Start** key.
2. Type the special access code, routing code, and telephone number.
3. Press the **Start** key.
4. To enter billing information into the system, press the **Fncts** key, type the menu number for International, and press the **Start** key.
5. Type the country code, the routing code, and the called number.
6. Press the **Start** and **Pos Rls** keys.

33.4.17 Credit requested

Handle credit requests for wrong number, cutoff, and poor transmission similar to requests for domestic calls. See Chapter 28.0, “Credit adjustment requests,” on page 367 for the procedures.

To apply credit on a subscriber-dialed (011 +) direct dialed overseas call, do the following:

1. Press the **Sta Pd** key.
2. Do one of the following:
   - Press the {**Dial Rate}** softkey.
   - Press the **Fncts** key, type the menu number for Dial Rate, and press the **Start** key.
3. On ticketed credit reports, make the Dial Rate designation on the ticket.
4. If you need to issue a credit ticket, mark the Overseas designation on all tickets and mark the BFC (bill foreign country) designation, if applicable.

If a connection on which credit is being requested relates to a call handled in the overseas originating center, reach an appropriate overseas operating center operator and request that the call be reestablished. Ask the overseas operating center operator to write the credit ticket so that the credit can be administered by the accounting office for the subscriber who was charged for the call.

33.4.18 Quoting rate and charge

Obtain the rate or charge from the international rates table in the position information or from the rate operator. Quote the rate for the initial period and the time during which that rate applies.

33.4.19 Time requests

Consult the position information for the appropriate response to requests for either the time of day at an international city or the difference in time between your office and the distant city.

33.4.20 Locations with high uncollectible calls

On ONI calls from noncoin telephones that are in locations identified with a high number of uncollectible calls to international originating toll center countries, do the following:

1. Obtain the calling number from the subscriber and record all other details of the call in the regular way.
2. Ask the caller to hang up so that you can call back on another line.

3. Press the **Clg** key, type the calling number, and press the **Start** key to reach the party placing the call.
4. Proceed with the call in the regular way. If you cannot reach the calling number, cancel the call.

In Canada or the United States, verify all coin and non-coin calls charged to a third number before advancing the call. Do the following:

1. Determine if the call is coin or noncoin.
2. Do one of the following:
   - If the call is coin, ask the calling party to hold the line while you check the third number.
   - If the call is noncoin, obtain and record the calling number and the calling party’s name, and say that you will check the third number and call back.
3. Reach the third number and try to secure acceptance of the charge.
4. Do one of the following
   - If the third party accepts charges, proceed with the call.
   - If the third party does not accept charges, explain the situation to the calling party and state that you cannot transfer the charges to that number. If the calling party decides to pay for the call or makes other arrangements to charge it, proceed accordingly.
   - If the third telephone is busy, no one answers, an unauthorized party answers, or the calling party states that no one is available who accept charges, secure the necessary information. Proceed with the call. Make the usual attempts to secure acceptance.

33.4.21 Emergency calls

If the calling party identifies an overseas call as an emergency, try to complete the call in the usual manner. If the call is to be held on loop, AMA-time and prepare a memo ticket. During periods of network congestion, refer the call to the supervisor. Try to forward the call to the international operating center operator.

34.0 Inward calls

This chapter describes how to handle inward calls, which are from a distant operator who dials a special routing code. Most requests from a distant operator are to help a calling party in another operator service center control area reach a called party in your operator service center control area. The most common requests are the following:

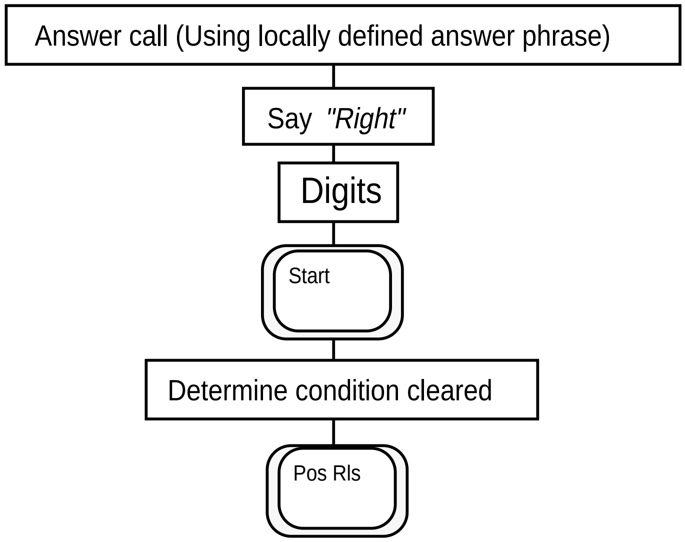
- connect to your local DA
- connect to marine, conference, or test board
- assist in completing a call when the calling party repeatedly encounters a reorder tone, ineffective attempt announcement, or no-ring condition
- reach a mobile station roaming within your operator service center control area
- calls to ring-down tributaries
- assist with busy line verification or conversation interruption
- emergency calls

Inward calls display in the Call Origination field in the Call Headlines area. Typically, inward calls are not billable.

To handling an operator-requested dialing assistance call, do the following (See Figure 108.):

1. Answer the call and respond to the other operator's request.
2. To enter the information, key the called number digits and press **Start** (by default, the cursor is in the **Cld** field).
3. Determine that the trouble condition has cleared before pressing the **Pos Rls** key to release the call.
4. If the specified condition does not clear, report this to the originating operator and complete the call as appropriate.

Figure 108. Incoming inward dialing assistance



34.1 Outgoing-inward 121/131 call procedures

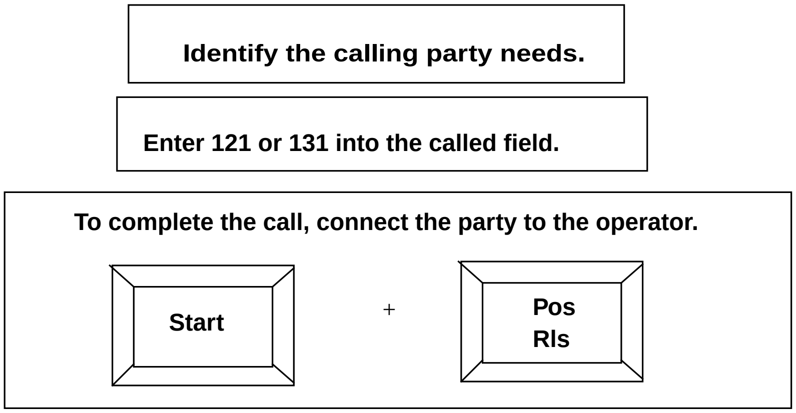
121/131 calls generally involve asking another operator at another service provider for dialing assistance, as follows:

- 121 is for a toll and assistance operator.
- 131 is for a DA operator.

To process a 121/131 operator call, do the following (See Figure 109):

1. Enter the appropriate code (121 or 131) into the called field. (You may need to use a multileaf or database if the service provider defines a prefix code, such as a digit to the operator assistance code of 121 or 131.)
2. Press **Start** to outpulse the call.
3. Ask for assistance.
4. Press **Pos Rls** when the call complete.

Figure 109. 121/131 call procedures



34.2 Inward BLV Requests

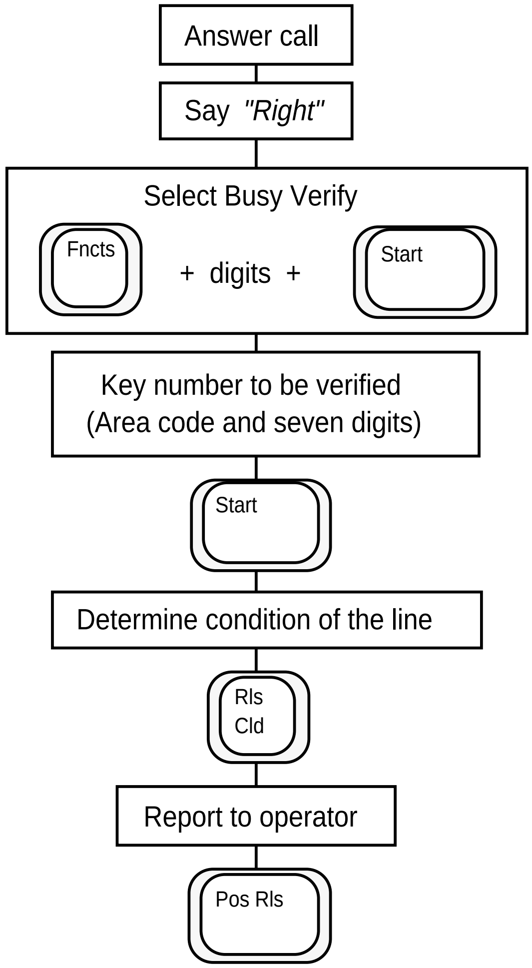
Besides asking dialing assistance to connect a problem call, a calling operator may request a busy line verification (BLV).

Processing an inward BLV is very similar to processing a customer BLV request (See Figure 110). Do the following:

1. Notice that INW (or a similar service-provider-defined code) displays in the Call Headlines, alerting you to assist the calling operator.

- Answer the call and respond to the inward operators request.
- Select the BLV function (or hotkey or softkey) from the Functions menu and enter the digits of the number to be verified.
- Press **Start.**
- After determining the condition of the line, press **Rls Cld** to release the forward connection and re-establish communication with the originating operator.
- Report the line condition to the operator.
- Receive verbal acknowledgment from the operator.
- Press **Pos Rls.**

Figure 110. Inward BLV assistance

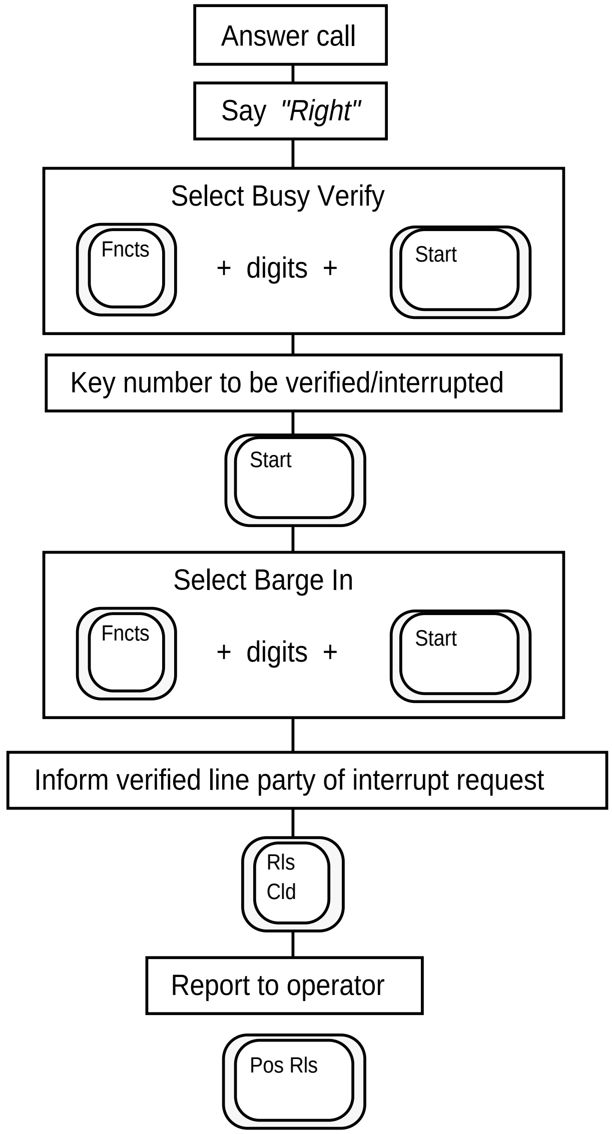


34.3 Inward BLV and interruption

When the originating operator needs a BLV plus interruption, do the following (See Figure 111.) as soon as the BLV is done:

1. Select the Barge In function, (or hotkey or softkey) from the Functions menu.
2. After hearing the alert tone and conversation, ask the parties to hang up.
3. Press the **Rls Cld** key to release the connection.
4. Report to originating operator.
5. Press the **Pos Rls** key to accept new calls.

Figure 111. Inward BLV assistance with interruption



34.4 Call handling

When an inward call arrives at your position, `Inward` and `No AMA` display on the screen, indicating that the call is inward and not billable.

The calling operator provides complete call details based on information provided by the subscriber. Acknowledge receipt of the call details. If you can give a report or direction immediately, do so as part of the acknowledgment. Proceed depending on the distant operator request.

If the called number is valid, do the following:

1. Press the **Cld** key, type the called number, and press the **Start** key.
2. Listen for a ringing tone. If you hear a ringing tone, press the **Pos Rls** key.

   If you do not hear the ringing tone within 25 seconds, do the following:

   a. Press the **Rls Cld** key.

   b. Ask the calling operator to repeat the called number.

   c. If the number matches the number on the screen, press the **Start** key. If the number does not match the number on the screen display, press the **Cld** key, type the correct called number, and press the **Start** key.

   d. If you do not hear a ringing tone on the second attempt, inform the calling Chapter 38.0, “Trouble reports,” on page 467.
3. Press the **Pos Rls** key.

If the called number is not valid, inform the calling operator that your operator service center does not serve the number that the subscriber provided. Repeat the number to verify that it is the one given by the calling operator. Proceed according to the calling operator’s response.

34.5 Called number is served by ring-down tributary office

For inward calls with the number served by a ring-down tributary office, do the following:

1. Inform the calling operator that you are transferring the call to the appropriate terminating office.
2. Refer to the position information for the tributary office code.
3. Press the **Cld** key, type the office code, and press the **Start** and **Pos Rls** keys.

34.6 Request is preceded by wrong number or cut-off

If the calling operator begins the request by announcing a wrong number, ensure that you type the called number correctly.

If the calling operator begins the request by announcing a cut-off, attempt to re-establish the connection. If you encounter a busy condition, press the **Rls Cld** key and tell the operator that you are trying again. Wait approximately 25 seconds and then press the **Start** key to recycle the call. If you encounter a busy condition on the second attempt, give a busy condition report to the calling operator.

34.7 Called number is fewer than seven digits

When the called number is fewer than seven digits and the place name is known, do the following to obtain the NXX:

1. Refer to the position information for the place name to find the NXX.
2. Zero-fill the line number (if necessary) to make a seven-digit number.

34.8 Called place given

If the calling operator says that you can dial the called place, ask for the called number. Press the **Cld** key, type the called number, and press the **Start** key. After the first ring, press the **Pos Rls** key.

If the calling operator announces that the called place is served by a tributary with a different name than the place called, say that you are connecting the call to that terminating office. Press the **Cld** key, type the office code, and press the **Start** and **Pos Rls** keys.

If you receive a request for DA, route it as locally directed; for example, an **OGT** key or **Xfr** key might be assigned, or a standard forward connection might be established (for example, **Cld** + 411 + **Start**). Press the **Pos Rls** key.

If you receive a request for a call by the address name, announce that you are connecting the call to DA. Route as locally directed.

34.9 Call is for marine, conference, or test board

To complete marine, conference, or test board calls, do the following:

1. Refer to the position information for the appropriate code.
2. Press the **Cld** key, type the code, and press the **Start** and **Pos Rls** keys.

34.10 Delay is encountered

If you encounter a delay on an inward call, do one of the following:.

- If the called line is busy, inform the calling operator of the busy condition and press the **Rls Cld** and **Pos Rls** keys.
- If you encounter a no-circuit (NC) condition, make two additional attempts to get through. If you cannot establish a connection, inform the calling operator of the no-circuit condition and file a trouble report.

34.11 Call is a multi-digit call-back call

If the calling operator identifies the call as a multi-digit call-back call that cannot be completed, do the following to complete the call:

1. Do one of the following to erase the `No AMA` display from the screen:
   - Press the **No AMA key.**
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
2. Press the **Fncts** key, type the menu number for Person Call Back, and press the **Start** key.
3. Request the called number.
4. Press the **Clg** key, type the menu number for called number, and press the **Start** key.
5. Press the appropriate class charge key and type the menu number for Hotel or T&C (if appropriate).
6. Request the calling number.
7. Press the **Cld** key, type the calling number, and press the **Start** key.
8. Press the **Pos Rls** key.

34.12 Inward calls from inter-LATA or inter-zone carriers

When an inward call arrives from an inter-LATA or inter-zone carrier (IC), the carrier access code (CAC) associated with that IC might display. If the CAC does not display, request the CAC as follows:

1. Press the **IC** key.
2. Type the CAC number and press the **Start** key.
   The carrier and its associated number appear in the IC field.
3. Complete the calls in the usual manner.

34.13 Call is collect or a coin check

Proceed as locally directed.

34.14 International inward (GOS only)

Use of this procedure depends on whether your company uses GOS and which GOS features it uses.

To route an inward call to an inward operator in another country, do the following:

1. Press the **Fncts** key, type the menu number for International INW, and type the code for the country. If your position information includes city codes for that country, type both the city code and the country code.
2. Press the **Start** key.
3. The system determines if there is a direct route to the international inward operator.

If	Then
there is a direct route	the system outpulses the call
there is not a direct route	go to step 4

4. Press the **Fncts** key, type the menu number for Alternate Route, and press the **Start** key.
5. Specify the first route in the list and try to connect the call.
6. If you cannot connect the call on the first alternate route, continue through the list.

35.0 Mobile calls

This chapter describes how to handle calls to and from a mobile station inside or outside its home base area. Mobile stations that are outside their home base area are called roamers. Table 31 shows the call types that can arrive at your position for each mobile service.

Table 31. Mobile call types for operator handling

Mobile service	Call types
Manual mobile service	All calls to or from the mobile station
Improved mobile telephone service (IMTS)	All operator-assisted calls to or from the mobile station and direct-dialed calls to or from a roamer
Improved mobile telephone service-B (IMTS-B)	Only operator-assisted calls to or from the mobile station
Pager service	All operator-assisted calls to the mobile station and calls originating from either a coin telephone, a hotel-motel telephone, or a telephone that is not equipped for direct distance dialing
Radiotelephone base station service	All calls that require routing through a radiotelephone base station
Cellular radio service	Only operator-assisted calls to or from the mobile station

35.1 Manual mobile service

All calls from a manual mobile station arrive at the operator position for handling. Because manual mobile stations do not return supervision indicating call disconnect, you hold the loop and periodically supervise. A manual mobile station is assigned a seven-character alphanumeric DN. The first two characters are alphabetic characters, and the remaining five characters are numbers (for example, JY5-2111). Therefore, manual ticketing is required.

35.1.1 Calls from a manual mobile station

When an incoming call from a manual mobile station arrives at your position, the header `MOBILE` displays on the screen. Do the following:

1. Obtain the calling and called number from the subscriber for the ticket.
2. Press the **Cld** key, type the called number, and press the **Start** key.
3. Periodically monitor the call for termination.
4. Release the loop when the call terminates.

35.1.2 Calls to a manual mobile station

All calls to a manual mobile station arrive at the operator position for handling. Periodic supervision and manual ticketing are required.

For example, a call to a manual mobile station arrives at your position as a 0- call. The calling party might request that the call complete to a mobile phone and give the DN, or the calling party might provide only the DN. The alphabetic characters at the start of the DN designate the call as terminating to a manual mobile station. Do the following:

1. Obtain the calling and called numbers from the subscriber for the ticket.
2. Convert the alphanumeric characters to the appropriate numeric-digit access code for the called number.

   The two-digit access code prefixed to the five-digit number must not form a three-digit NXX code that can be dialed. For example, if the called number is JY52111, 22 is the converted access code for JY; therefore, 225 must be an NXX that cannot be dialed.
3. Press the **Cld** key, type the converted called number, and press the **Start** key.
4. Periodically monitor the call for termination.
5. Release the loop when the call terminates.

When the manual mobile station is outside the home base area, the mobile number might not be familiar to you. Place the call to the roamer using the appropriate distant mobile operator service.

35.2 Improved mobile telephone service

All operator-assisted calls to or from an improved mobile telephone service (IMTS) station and direct-dialed calls to or from an IMTS roamer arrive at an operator position for handling.

35.2.1 Calls from an IMTS station

IMTS stations calling from their home base area are treated as ordinary noncoin stations. Only 0- and 0+ calls indicating that operator assistance is required are routed to an operator position. Calls from an IMTS mobile station arrive at your position as either 0- or 0+ calls. Obtain the call details and proceed according to the information obtained.

Roamer IMTS stations calling from outside their home base area require operator assistance. When an incoming call from an IMTS roamer arrives at an operator position, the word `MOBILE` displays on the screen. Do the following:

1. Obtain the calling and called number from the subscriber.
2. Press the **Spl** key and type the calling number.
3. Press the **Cld** key, type the called number, and press the **Start** and **Pos Rls** keys.

Manually ticket IMTS calls that are billed to a third number or calling card.

35.2.2 Calls to an IMTS station

Calls to IMTS stations within the home base area arrive at the operator position and are completed to the DN (NXX-XXXX) supplied by the subscriber.

Calls to an IMTS station based outside the control area but roaming within the toll center control area arrive at the position from the distant mobile operator for completion. `INWARD` and `No AMA` display on the screen. Do the following:

1. Obtain the seven-digit called number from the subscriber, consisting of the foreign IMTS mobile station's home base area code and station code (for example, 416-1234).
2. Prefix the called number with the appropriate three-digit access code assigned by the service provider.

   Only operators in your toll center should be able to dial the three-digit number. For example, if 100 is the service provider access code for the IMTS mobile station and the called number supplied by the subscriber is 416-1234, the called number is 100-416-1234.
3. Press the **Cld** key, type the entire called number, and press the **Start** key.
4. Press the **Pos Rls** key.

35.3 Improved mobile telephone service-B

Only operator-assisted calls from IMTS-B stations arrive at the operator position for handling. These calls are treated as ordinary noncoin calls, whether the mobile station is inside or outside the home base area. Handle calls to an IMTS-B station the same way as calls to a standard IMTS station.

35.4 Pager service

Pager service uses one-way signal transmission through a radio base station to subscribers who carry miniature radio receivers. Each receiver is assigned a number and is tuned so that it receives only the tone generated when that number is dialed. The tone signals the called party to contact the calling party at a prearranged telephone number, using a standard telephone set.

The radio base station consists of computer-controlled terminal equipment in the toll office and is accessed over the direct distance dialing network using one of the special NNX codes assigned for this service (for example, 556, 557, or 558).

Pager is a subscriber-dialed service. If operator assistance is not required, the subscriber dials 1, the NNX code for pager, and the four-digit number of the receiver (for example, 1+557+1234).

Subscribers require operator assistance when doing any of the following:

- Dialing a 0- call
- Placing a call from a coin prepay or postpay telephone
- Placing a call from a hotel or motel telephone
- Placing a call from a telephone that is not equipped for direct distance dialing

If a subscriber calls to report trouble with the pager service, refer the subscriber to repair service or to a special service test center (if locally provided).

35.4.1 0- calls to a pager

Pager calls that require operator assistance arrive as 0- calls. DA is not provided for pager calls.

If a subscriber asks you to complete the call and supplies the number, handle the call as you would a local call. Do the following:

1. Press the **Cld** key, type the pager number, and press the **Start** key**.**
2. Do one of the following:
    - Press the {**No AMA**} softkey.
    - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
3. Press the **Pos Rls** key**.**

35.4.2 Coin prepay calls to a pager

Calls to the pager service from a prepay coin station arrive at your position with the called number, `Coin Pre`, and `RS ?` displaying in flashing mode. Do the following:

1. Recognize the called NNX as an NNX code assigned to pager.
2. Press the **Clg** key, and class charge by pressing the station key.
3. Do one of the following:
    - Press the {**Dial Rate}** softkey.
    - Press the **Fncts** key twice, type the menu number for Dial Rate, and press the **Start** key.
4. Enter the local rate step and press the **Start** key.
5. Request the deposit as an overlap.
6. Press the **Pos Rls** key.

35.4.3 Coin postpay calls to a pager

Calls to the pager service from a postpay coin station arrive at your position with the called number in the called field, and `Coin Po` and `RS ?` displaying in flashing mode. Do the following:

1. Recognize the called NNX as an NNX code assigned to pager.
2. Press the **Clg** key, and press the key with the station icon.
3. Do one of the following:
    - Press the **{Dial Rate}** softkey.
    - Press the **Fncts** key twice, type the menu number for Dial Rate, and press the **Start** key.
4. Type the local rate step.
5. Do one of the following:
    - If you hear a tone that indicates that the connection is established, request the deposit**.**
    - If you encounter a recorded announcement, repeat the message to the subscriber (if necessary), and press the **Ca Call** key.
6. Press the **Pos Rls** key.

35.4.4 Hotel calls to a pager

Calls to the pager service from either a hotel or motel arrive at your position with the called number, `Hotel`, and `RS ?` displaying in flashing mode. Do the following:

1. Recognize the called NNX as an NNX code assigned to pager.
2. Press the **Clg** key, and press the key with the station icon.
3. Do one of the following:
   - Press the **{Dial Rate}** softkey.
   - Press the **Fncts** key twice, type the menu number for Dial Rate, and press the **Start** key.
4. Type the local rate step.
5. Type the room number.
6. Press the **Pos Rls** key.

35.4.5 Recorded announcements

Recorded announcements can alert the calling subscriber to a problem in completing a pager call.

For a vacant number, a message can state that there is no service for the pager number as dialed. In this case, ask the subscriber to hang up and verify the number.

If the computer fails to establish a connection to the terminating office, an alarm warns the plant department of the trouble and returns a recorded announcement. The message states that, because of trouble, the pager call cannot complete and asks the subscriber to hang up and try again later.

35.5 Radio-telephone base stations

Direct voice communication to and from certain stations is available through selected radiotelephone base stations. Radio-telephone station listings in the position information help you complete this type of call. No special designation identifies these stations at call arrival. Do the following:

1. Obtain the call details from the subscriber.
2. If the calling radio operator wants a recall for chargeable minutes when the call terminates, prepare a billing ticket and hold the call on the loop.
3. Press the **Cld** key, type the number for the radio base station, and press the **Start** key. The dialing sequence routes the call to a radio-telephone operator or to an inward operator at the radio base station.

4. When the radio-telephone operator answers, pass on the called place name and number. If the call is routed to an inward operator who can connect you with the radio-telephone operator, pass on the called place name and number to the inward operator.
5. When the radio-telephone operator asks for ticket details, pass complete call details, including a notification request (if any) if the radio- telephone operator assumes responsibility for notification. Remain cut-in until the final connection.
6. When the called station or party connects, the radio-telephone operator reports the connection and might ask you to remain on line after conversation starts for chargeable minutes.

   If you are manually ticketing the call for chargeable minutes, complete the ticket. Write MISC on the ticket, because the radio-telephone operator attempts to reach the called station by radio.

   The radio-telephone operator is in control of the radio channel. Therefore, allow that operator to assist the start of the conversation.
7. Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.

If	Go to
you prepare a ticket	step 8
you do not prepare a ticket	step 11

8. Access the loop and obtain chargeable minutes at the end of conversation. If you are disconnected, recall the radio-telephone operator.
9. Write chargeable minutes in the Min boxes, and the name of the radio office and the number of minutes.

If	Go to
the calling radio-telephone operator requests notification	step 10
the calling radio-telephone operator does not request notification	step 11

10. Provide the notification and record information on the billing ticket. Also indicate whether you obtained this information from the radio-telephone operator.
11. Press the **Pos Rls** key.

If the radio-telephone operator cannot reach the called station, ask the calling party to try again later. If the calling party agrees to try later, inform the radio-telephone operator and cancel any billing ticket. If the calling party wants to continue trying to connect, inform the radio-telephone operator of the calling party’s wish and press the **Rls Cld** key.

35.6 Cellular radio

Subscribers usually dial cellular radio calls direct. Cellular radio calls that require assistance arrive at your position as either 0- or 0+ calls. Calls to a cellular radio arrive at the operator position and complete to the DN (NXX-XXXX) supplied by the subscriber.

To handle cellular radio calls, follow the procedures in Section 35.2, “Improved mobile telephone service,” on page 452.

36.0 Personal Audio Response System

This chapter describes the Personal Audio Response System (PARS) feature that plays custom announcements to a subscriber when a call presents to a TOPS IWS position. The PARS announcement uses your voice at your TOPS IWS position.

36.1 PARS announcements

PARS announcements are determined by call attributes that are sent from TOPS IWS to PARS. These prerecorded announcements give you a brief rest between calls, thereby reducing fatigue. The announcements also provide a consistent tone of voice for call presentation.

Each TOPS IWS position headset connects to a PARS box that links the position to the DMS switch. Because of this connection, if you change loops during an announcement, the subscriber on one loop can hear all or part of the announcement meant for the other loop.

The time spent playing the PARS announcement is included in the operator work time.

A PARS announcement handles standard statements and questions to a subscriber. For example, for DA, a PARS announcement can ask the subscriber for the city in which to search for the number. The DA operator does not have to repeat the phrase for each call, Thus, the operator is able to have a brief rest between calls, and can determine the type of call before responding to the caller.

36.2 Call presentation tones

PARS calls do not receive a call presentation tone. If a PARS announcement fails, the only indication of call arrival is a screen display. If the service provider requires a call presentation tone, that tone must be part of the PARS announcement.

37.0 Time and charges requests

This chapter describes how to handle subscriber requests for time and charges quotes. If a subscriber requests a time and charges quote, the call is routed to one of the following:

- operator position
- DRAM provided by ACTS
- service provider's specified TTY

A subscriber can request one of the following types of time and charges quoting:

- regular request from a regular subscriber line
- special request, which is a quote with a file or extension identification, from a regular subscriber line or from a PBX extension
- non-paid hotel or APS request from a guest

For international calls marked as fixed duration, you cannot provide time and charges quotes because such calls do not return to an operator.

Recall to an operator position for time and charges quoting applies to operator-assisted (0+ and 01+) and operator-completed (0- and multi-digit call-back) calls.

Noncoin recall to an operator position for time and charges quoting applies to noncoin class charges, except autocollect. Coin recall to an operator position for time and charges quoting applies to non-paid coin class charges, except autocollect.

Hotel or APS recall to an operator position for time and charges applies to all non-paid hotel or APS class charges, except autocollect or collect to a hotel or APS. Time and charges quoting to the desk is handled at the HOBIC. When charges are not available at the desk (for example, on a calling card call), time and charges quotes complete to the operator position.

37.1 Initial request procedure

When a subscriber requests time and charges, follow these steps:

1. Do one of the following:
   - Press the **{Time & Charges}** softkey.
   - Press the **Fncts** key twice, type the menu number for Time and Charges, and press the **Start** key. This informs the system that machine-rating and possible operator recall at call completion is required.

2. Determine how the time and charges quote completed.

If	Do
time and charges quotes complete to an operator position	Ask the subscriber to remain on the line at call completion. Go to Step 3.
time and charges quotes complete to a TTY	Go to Step 3.

3. Process the call using the procedure for the type of call initiated.
4. To float the call, press the **Pos Rls** key.

37.2 Recall procedure

If time and charges quotes are sent to an operator position, then at disconnection floated calls return to an idle operator position for time and charges quoting. The following items display on the screen:

- `T&C`
- `APS`, if applicable
- `hotel` or `coin`, if applicable
- number to which charges are to be quoted
- charges (excluding taxes)
- chargeable time
- `Xfr`, if applicable
- file or extension number, if applicable
- on-hook or off-hook supervision for the calling telephone

Even if a TTY prints time and charges, you can quote the time and charges by initiating a call to the party who requests them.

When you access a held loop at disconnection to quote time and charges, the screen display is identical to the recall screen display for time and charges quoting on floated calls.

37.2.1 Time and charges recall to transfer positions

`Xfr` displays when a call requires the attention of a transfer operator. You cannot transfer calls returning to a transfer position to a HOBIC. Instead, prepare a memo and try to reach the party requesting time and charges.

If you press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key, the following details display (if available):

- calling number
- called number
- class charge
- rate step

37.2.2 Room number field

If the call is a regular time and charges recall, the room number field remains blank. If the call is a special or non-paid hotel or APS time and charges recall, the room number field contains additional call details. Table 32 lists the displays in the room number field and describes how you respond.

Table 32. Time and charges room number field displays

Display	Response
blank	Notify the subscriber of the time and charges.
digits only	Notify the PBX operator of the extension and the time and charges.
digits and an alphabetic character	Announce the file number and the time and charges.
`Hotel` and either digits or digits and an alphabetic character	If you speak to an attendant, ask to be connected to the room or number. Announce the time and charges to the subscriber.

37.3 Party not on line disconnect

If the calling or called party requests the time and charges but is not on the line at the end of the call, do the following:

1. If necessary, dismiss the party who is not receiving time and charges.

To	Go to
release the calling party	Step 2
release the called party	Step 3

2. Press the **Fncts** key twice, type the menu number for Release Calling, and press the **Start** key. Go to Step 4.
3. Do one of the following:
   - Press the **Rls Cld** key.
   - Press the **Fncts** key twice, type the menu number for Release Called, and press the **Start** key.

4. Ring the party who requested the time and charges.

If	Go to
the calling party requested time and charges	Step 5
the called party requested time and charges	Step 6

5. Press the **Fncts** key twice, type the menu number for Ring Calling, and press the **Start** key. Go to Step 7.
6. Press the **Fncts** key twice, type the menu number for Ring Called, and press the **Start** key. Go to Step 7.
7. When the party answers, provide the time and charges quote.
8. Press the **Pos Rls** key.

37.3.1 TTY available

In an office with a time and charges TTY, if the party requesting time and charges does not answer or the line is busy, press the **Fncts** key twice, type the menu number for Time & Charges, and press the **Start** and **Pos Rls** keys. The phrase `Print T&C` appears on the screen. The time and charges details print on a voice quote TTY in a HOBIC for quoting to hotel guests.

37.3.2 Manually rated call

When you must manually calculate the charge, `000.00` appears in the Charge field. If you press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key, the no-charge rate step is entered into the system and `RS 0` is displayed on the screen. Obtain the charge from the rate and route operator for quoting.

37.4 Requests for time and charges with ACTS

Using the DRAM, ACTS can provide time and charges quotations to either the calling or called party, whichever is the paying party). The time and charges quotation is played at the end of conversation as long as the paying party remains off-hook. If the paying party remains off-hook for more than three seconds, the time and charges quotation is played again. Use the following procedure to activate ACTS for the time and charges request:

1. Acknowledge the request.
2. Do one of the following:
   - Press the **{T & C}** softkey.
   - Press the **Fncts** key twice, type the menu number for Time & Charges, and press the **Start** key.
3. Ask the paying party to remain off-hook at the end of the conversation. Inform the paying party that there is a slight pause before the time and charges quotation begins.
4. Press the **Pos Rls** key.

If the party who requested the time and charges quotation goes on-hook at the end of the call and before the time and charges announcement starts, the call goes to an operator for handling. Follow the procedure in Section 37.3, “Party not on line disconnect,” on page 463. If the party who requested the time and charges quotation goes on-hook after the time and charges announcement begins, either during the actual quotation or during the slight pause after the DRAM connects but before the actual quotation begins, the DRAM disconnects and the call does not go to an operator.

37.5 Quotes to a third number

On calls with requests to quote time and charges to a third number (the billed number), do the following:

1. Do one of the following:
   - Press the **{T & C}** softkey.
   - Press the **Fncts** key twice, type the menu number for Time and Charges, and press the **Start** key.
2. Press the **Misc** key.
3. Type `3RD` to quote the time and charges to a third number.
4. At call completion, the recall arrives at an operator position with `3RD` displayed in the room number field.
5. Press the **Fncts** key twice, type the menu number for Call Details, and press the **Start** key. The window displays the called number, the third number, and the amount of the time and charges.

6. Press the **Pos Rls** key.
7. Press the **Fncts** key twice, type the menu number for either Access Loop 1 or Access Loop 2, and press the **Start** key to access a loop.
8. Type the third number (the billed number) and press the **Start** key.
9. When the third party answers, quote the time and charges.
10. Press the **Pos Rls** key.

37.6 New call request

When you answer a time and charges recall, you cannot establish a new call. If a subscriber asks you to establish a new call, explain that you are unable to complete the new call and provide information about how the subscriber can make the new call attempt.

37.7 Change-of-billing request

If a subscriber asks to change the billing method after the time and charges quote, explain that billing is automatic and cannot be changed after a conversation ends. Refer any subscriber who insists on special billing arrangements to the business office.

37.8 Tax request

If a subscriber asks about the tax, follow your local procedures.

38.0 Trouble reports

This chapter describes procedures for reporting possible or existing equipment trouble for the following items:

- CAMA traffic
- RCAMA traffic
- outward toll
- inward
- international originating toll center (IOTC)
- overseas
- direct dial overseas (DDO) traffic

Equipment trouble reporting categories are as follows:

- operator office
- subscriber station
- switching center

38.1 Operator office trouble reporting

When you find trouble with local equipment, report it to TOPS IWS position maintenance as locally directed. The operator office trouble conditions are the following:

- screen display is dim, out, or permanently on
- screen display is incomplete
- logon procedure fails
- keys are broken, loose, sticking, or missing
- positions are crossed
- attempt to collect or return coins fails
- coin detection circuit (CDC) for ACTS fails
- cannot hear over your headset
- conversation exists on your position circuit when you are not cut in on the conversation
- `Forced Busy Pending` automatically flashes on the position screen
- position keys are inoperative

38.2 Subscriber station trouble reporting

If equipment trouble occurs in a subscriber station, report it to repair service.

If a subscriber reports trouble, either refer the subscriber to repair service or connect the subscriber with repair service. Subscriber-reported trouble conditions include the following:

- problems with the OUTWATS line
- damaged, broken or inoperative equipment (for example, poles, wires, cables, dials, handsets, and telephone instruments)
- damaged, missing, or inoperative equipment associated with coin telephones (such as directories, instruction cards, broken glass, lights out, defective doors, broken telephone instrument or parts, defect in coin slots, or coin trouble)

If the subscriber asks for repair service or indicates trouble on the line (for example, telephone out-of-order, no dial tone, cannot dial out, or cannot receive calls), give the repair service number to the subscriber to dial.

If the subscriber will dial, do the following:

1. Acknowledge the situation.
2. Do one of the following.
   - Press the {**No AMA**} softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
3. Press the **Pos Rls** key.

If the subscriber asks you to connect, do the following:

1. Press **Cld**, type the repair service number, and press the **Start** key.

   If an OGT key is set for access to the repair service, use this key instead of the repair service number. OGT keys are either automatic billable or non-billable, depending on how they are set by the service provider.
2. Do one of the following:
   - Press the appropriate class charge key.
   - Press the {**No AMA}** softkey**.**
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
3. Press the **Pos Rls** key. The call automatically routes to the correct repair service for the calling telephone number.

If the subscriber indicates trouble with the telephone set, refer the subscriber to the telephone manufacturer or to the store that provided the telephone set.

If the subscriber indicates trouble with the long distance service (for example, OUTWATS, INWATS, inter-LATA, or inter-zone calling), refer the subscriber to the inter-LATA or inter-zone carrier (IC) through which the subscriber attempted to place the call.

If the subscriber requests connection to the repair service for the inter-LATA or inter-zone carrier, do one of the following:

- Tell the subscriber that the local repair service will take the report. Give the subscriber the number for local repair service or connect the subscriber to the local repair service.
- Refer the subscriber to the long distance company’s operator service for assistance in reaching the appropriate repair service. If the subscriber asks how to reach the long distance operator, give instructions.

38.3 Switching-center trouble reporting

For equipment trouble in a switching center, report to the switch network analysis center.

Switching equipment trouble includes any condition that adversely affects the normal completion of a call (from beginning of dialing to start of conversation) or receipt of an appropriate announcement. Switching equipment includes local switching centers, toll switching centers, and interconnecting trunks.

Switching equipment trouble falls into one of the following categories:

- Trouble encountered on operator-handled toll calls
- Subscriber-reported trouble on 0-, 0+, WATS, data, direct distance dialed (DDD = 1+), or direct distance overseas (DDO = 011+) calls
- Other subscriber reports of trouble encountered:
  - On an assistance call, if an operator can connect the reporting party to the desired number, the reported difficulty is switching-equipment trouble and should be reported to the switch network analysis center.
  - If an operator is cannot connect the reporting party to the requested number, the reported difficulty is repair service trouble.

38.3.1 Reporting procedures

Report trouble when it occurs, while information about the call is available in the system. When you observe trouble, or a subscriber reports encountering trouble on a previous attempt, inform the subscriber that you will report the trouble.

Report subscriber-encountered trouble conditions on a previous call while you establish a new forward connection, if requested. Complete one trouble report for each operator assistance or credit request.

Report operator-encountered trouble conditions while the connection is intact and information about the call is readily available in the system. Complete one trouble report for each trouble observed.

38.3.1.1 Entering trouble reports

Enter the trouble report before you do any of the any of the following to complete the call:

- Press the **{No AMA}** softkey and the **Ca Call** key.
- Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Ca Call** keys.
- Press the **Fncts** key, type the menu number for Start Timing, and press the **Pos Rls** key.

To enter the trouble report, follow these steps:

1. Do one of the following:
    - If you encounter trouble on an ONI call, enter the calling number. Go to Step 6.
    - If you encounter trouble on an ANI call, do nothing because the calling number is automatically recorded. Go to Step 6.
    - If the trouble is reported from a telephone other than the telephone encountering trouble, go to Step 2.
2. Press the **Fncts** key, type the menu number or Access Loop 2, press the **Cld** key, and type the number for the telephone that encountered trouble.
3. Press the **Rls Cld** key to prevent routing to the backward connection.
4. Press the **Start** key.
5. Do one of the following
    - To re-establish the connection, type the called number and establish the connection using standard procedures.
    - To continue the trouble report without reestablishing the connection, type the called number.

6. Do one of the following:
   - Press the **Trbl** key, type the trouble code, and press the **Start** key**.**
   - Press the **Trbl** key twice and type the menu number for the trouble code.

   Your company can program TOPS IWS to create a screen capture when you enter specific trouble codes. The system saves the captured screen in a file on the hard disk. This file can be printed at the RAMP.
7. Press the **Pos Rls** key to complete the call.

For operator-encountered trouble on an originating call (for example, a 0- call), there is no need to enter the called number if it is not available, or to report the trouble without the calling number.

38.3.1.2 Assigning codes for subscriber-reported trouble

When a subscriber reports trouble, ask for details to determine the following:

- no trouble (dialing error)
- class code
- trouble code
- who should receive the report

Provide dialing instructions if the trouble is a dialing error.

38.4 Trouble codes

Table 33 shows suggested codes for trouble conditions. Your company determines actual trouble codes. However, code 0 is reserved for the clear-trouble code.

Table 33. Trouble code examples

Code	Description	Use when
1	No ring, no answer	• A subscriber or operator receives no audible ringing after 25 second from end of dialing, and there is no response over the called line • A subscriber or operator does not receive a ringing signal after 40 seconds on IOTC calls.
2	Noise, echo, crosstalk, garbled	A subscriber or operator encounters the condition.
3	Cannot hear or be heard	A subscriber or operator cannot hear or be heard.

Table 33. Trouble code examples (Continued)

Code	Description	Use when
4	Improper supervision	• On-hook supervision displays during a conversation. • Off-hook supervision displays on a call that reaches a live or recorded intercept. • Off-hook supervision displays on a call that encounters a BY, RO, NC, vacant level, or recorded announcement. This includes cases in which supervision flashes at regular intervals following the tone. • Any change of supervision occurs during conversation.
5	Cut-off	• A subscriber- or operator-established connection is interrupted or broken during conversation. • The called telephone rings once and stops.
6	Reorder on third attempt	• An operator encounters a reorder signal on three successive attempts to the same number. • A subscriber reports difficulty in calling, and the operator determines that the difficulty is a reorder signal.
7	No operator answer or dial tone returned	• An operator places a call to an operator and gets no answer. • A subscriber reports that a dial tone continued or returned during or after completion of dialing and before the start of conversation.
8	Vacant code announcement (VCA) on first attempt	An announcement indicates that the call did not go through, or there is a dialing error. Use this code even if the called number is in-service and was dialed correctly.
60	CDC malfunction	An operator suspects a CDC for ACTS.
78	Position does not release	Your position does not release after you type a valid seven-digit calling number for a CAMA call.
79	Permanent signal	You do not receive any subscriber response or signal identification on the screen.
99		Reserved for switch network analysis center studies.

38.5 Reporting RCAMA trouble

Report all conditions indicating that equipment is malfunctioning or causing operating difficulties on RCAMA calls immediately, while the calling party is still connected.

Table 34 suggests codes for trouble conditions. Your company determines actual trouble codes.

Table 34. RCAMA trouble code examples

Code	Description
11	The subscriber cannot hear or be heard.
22	The subscriber encountered noise.
33	The operator cannot release the position.
44	One call arrives at two operator positions.
55	Two calls arrive at one operator position.

After identifying the RCAMA trouble, do the following:

1. Type `999` in the called field to inform plant personnel.
2. Type `00` in the called field to make the whole number seven digits.
3. Type the appropriate two-digit trouble code to identify the trouble.

After typing the seven digits (for example, `9990022`), the call routes automatically to a reorder tone. If a typing error occurs any of the first six digits of the seven-digit trouble code, press the **Cld** key and retype all seven digits.

38.6 Reports to distant operators

When asking a distant operator to complete a call because of repeated failures other than recorded announcements, do one of the following:

- If the distant operator completes the call without difficulty, report the trouble condition in the usual manner.
- If the distant operator encounters the same trouble, ask the distant operator to report the trouble. The trouble is in the far-end equipment, so no report at your end is necessary.

38.7 Trouble with trunks or position circuit

If the system detects trouble with trunks or position circuits, the logo screen displays with the message Link problems encountered. Report the problem to a supervisor.

An operator position can be tested or taken out-of-service at any time for any of the following reasons:

- It is in an idle state.
- A call is in progress.
- A loop is on temporary or permanent hold.

New calls do not route to an out-of-service position until testing completes. When both loops become idle, an audible tone sounds, indicating that the position is being tested. When the trouble clears, the designation disappears from the screen and the position returns to service and is ready to receive new calls.

If your position is taken out-of-service (or tested) during a call, follow these steps to report the trouble:

1. Do one of the following:
   - If the call is new and a connection is not established, advise the subscriber of the difficulty and ask the subscriber to redial. Do not continue with this procedure.
   - If a call is already on a loop, it remains connected. Go to Step 2.
2. To prepare a ticket and supervise for disconnection, access the loop at approximately one-minute intervals.
3. Record the time the conversation ends and subtract it from the connect time, making a one-minute allowance.
4. Write the number of chargeable minutes on the ticket and write “position trouble” in the space for reports.
5. Press the **Pos Rls** key.

38.8 Position inoperative

When the keys at the position become inoperative, current call details remain on the screen display until the position initializes. If the position becomes inoperative while a call is in progress, do one of the following:

- If the call is new and the connection is not yet established, advise the subscriber of the difficulty and ask the subscriber to redial.
- If the call is already on a loop, it remains connected. However, information does not display on the screen when the called party disconnects. Leave the position and report the problem to the supervisor. If timing a ticket, estimate the elapsed time and consult a supervisor.

39.0 Wide area telephone service

This chapter describes procedures for inward wide area telephone service (INWATS) and outward wide area telephone service (OUTWATS) calls.

39.1 INWATS—800 service

An INWATS or 800 service number has ten digits, beginning with 800. Each 800 number is associated with a telephone. For a monthly charge, 800 service (INWATS) permits a subscriber to receive incoming station calls from telephones within presubscribed service zones or bands without charge to the calling party.

You receive 800 call requests on dial 0 and 1+ calls from coin and noncoin stations. After a subscriber or operator dials the ten-digit number, the call routes to its destination by machine translation of the special area code 800, the NXX code, and the four-digit number. If the call is from a point within the authorized serving area, it connects to the 800 number.

A call that comes from an unauthorized numbering plan area (NPA) code routes to a vacant code announcement. INWATS service zones coincide with rate zones for OUTWATS service. INWATS service does not include calls that require special operator handling (for example, person calls, bill-to-third telephone calls, and calls requiring the quoting of time and charges). If a subscriber requests such service, the call bills either to the calling telephone or to the regular called telephone at the regular message rate.

If the subscriber reports encountering trunk delay or if you encounter a 120-IPM signal when trying to complete an INWATS call, proceed as described in Chapter 18.0, “Advancing calls,” on page 247.

The following sections, which describe call handling for INWATS calls, apply only to Bell operating companies.

Refer all requests for assistance or credit on 800 calls to the 800 service operator.

39.1.1 1+ Hotel displays

Because INWATS lacks a rate step in the rating system, RS flashes and call details are display on 1+ calls from hotels. While determining the rate step number, you see the 800 number. Press the **Fncts** key, type the menu number for Auto Collect, and press the **Start** and **Pos Rls** keys.

39.1.2 Subscriber requests

Handle special requests involving INWATS service as follows:

- If a subscriber dials 0 and reaches your position to request assistance in reaching an 800 service number, give dialing instructions. If the subscriber wants you to place the call, press the **Fncts** key, type the menu number for Auto Collect, and press the **Start** key. Proceed as usual.
- If the called party requests credit, tell him or her to contact the business office.
- If the calling party requests credit, tell him or her that there is no charge to the calling party on an 800 service number. Do not provide credit or refer the calling party to the business office.
- If a subscriber requests the address or name of a party or 800 service, tell the subscriber to reach 800 DAS by dialing 1-800-555-1212. If the calling party cannot dial 800 DAS, express regret and say that you will try to complete the call. Dial 1-800-555-1212 to complete the call.
- If the party requests that you verify a busy 800 number, ask the subscriber to try later. If the calling party does not accept this report, explain that you cannot verify 800 service lines.

39.1.3 When you encounter three reorders

If you receive three 120-IPM signals, assume that a no-circuit (NC) condition exists. Notify the subscriber that circuits are busy and ask the subscriber to try the call again later. If the subscriber questions this report, do the following to try to complete the call:

1. Secure the service area (band) information.
2. Obtain the name of the called subscriber.
3. To reach DA for 800 DAS, dial 1-800-555-1212.
4. When the operator answers, pass the name of the called party along with the complete INWATS number and the originating NPA.
5. Relay the information you receive from 800 DA to the calling party depending on the report received. Do one of the following:
    - For an out-of-band report, tell the subscriber that the special number does not apply on calls from the subscriber’s area.
    - If 800 DA reports a different 800 number for use in the calling NPA, give the subscriber that number.
    - For an inband report, inform the calling party that circuits are busy and ask him or her to try the call again later.

39.1.4 When you encounter a busy, no-answer, or out-of-order condition

Report out-of-order (OD) conditions in the usual way. For busy (BY) and no-answer conditions, give the report in the usual way. If the subscriber questions the report, proceed as on a reorder condition.

39.1.5 When you encounter a vacant code announcement

If the subscriber reports reaching a vacant code announcement or if you receive a vacant code announcement, assume that the call is from an out-of-band point. Tell the subscriber that the special number does not apply on calls from the subscriber’s area.

If the subscriber questions this report, reach the 800 service assistance center to determine if the call is from an inband point.

If the call is from an inband point, report the trouble as an out-of-order condition. Report the condition to the calling party and indicate that you will report this trouble condition.

Report the trouble condition as locally directed.

39.1.6 Reaching an intercept operator

Pass the called number to the distant intercept operator. Then, proceed according to the report that you receive.

39.2 OUTWATS

OUTWATS meets the needs of subscribers who have substantial volumes of toll use. For a monthly charge, OUTWATS permits noncoin subscribers to place station-paid calls within presubscribed service areas or bands.

39.2.1 OUTWATS bands

Subscribers can contract for interstate or inter-LATA service in one or more bands. Bands cover a broad range, from the lowest (which permits a subscriber to reach telephones in most states contiguous with their home state) to the highest (which permits them to reach telephones in all states, Puerto Rico, and the US Virgin Islands). Service to a higher-numbered band includes service to all lower-numbered bands.

Intrastate and intra-LATA OUTWATS service bands permit subscribers using specially designated lines to reach telephones only within their home state or LATA. Out-of-band calls dialed directly are blocked by the equipment.

39.2.2 Subscriber dialing with OUTWATS

To receive WATS rate treatment, subscribers must complete station calls without operator assistance. Subscribers who request operator call completion for the following reasons

- dialing problems
- BY or no-answer conditions
- call is to a point that cannot be dialed

are billed at the operator-assisted rate.

39.2.3 Authorized OUTWATS billing

OUTWATS numbers are acceptable as the billing number only on calls originating from an OUTWATS line. If a subscriber requests to bill a call to an OUTWATS line, explain s/he must place the call from that OUTWATS line.

39.2.4 Subscriber requests

Direct questions about a WATS subscriber's authorized calling area to the PBX attendant or service provider business office. On a request for DA, ask the subscriber to use a regular telephone line. Provide dialing instructions, if necessary.

If a subscriber requests operator services (for example, person, collect, calling card, or third-number billing) tell the subscriber to place the call over a regular non-WATS line. If the subscriber insists, establish the call in the usual way. Explain that the operator-assisted rate applies.

If a subscriber requests credit on a dialed call, use the standard credit adjustment guidelines.

39.2.5 Call handling

You can recognize OUTWATS calls as follows:

- The subscriber verbally identifies the call as originating from a WATS line.
- The Call Details window displays a calling number that begins with a `0` or a `1` or displays another unique NXX used for WATS numbers.

An OUTWATS call displays as a 0- call. Proceed according to the subscriber's request. When you learn that the call is from a WATS line, do the following:

1. Give dialing instructions for calls to points that can be dialed. Notify the subscriber that the operator-assisted rate applies if you complete the call.
2. Do one of the following:
    - If the subscriber asks you to complete the call, class-charge the call and press the **Pos Rls** key to establish the connection.
    - If the subscriber indicates difficulty completing the call (other than a busy or no-answer condition), provide assistance. Class-charge the call as station paid or the dial rate and enter the applicable credit code.

39.2.6 Delay encountered

Give the report and ask the subscriber to dial again. If the calling party asks you to try later, explain that you cannot call back on a WATS line.

39.2.7 Emergency calls from WATS lines

Handle an emergency call from a WATS line following the established emergency call procedures in Chapter 32.0, "Emergency, hotel, and APS calls," on page 395.

Secure the regular telephone number associated with the WATS line for a possible call-back.

39.2.8 CLG header display

If the number that the calling party gives on an ANI failure is a WATS number, the calling header flashes. Request the subscriber's regular number and explain that calls charged to a WATS number must be placed over a special line.

39.2.9 OUTWATS call received over regular telephone line

If a subscriber calls you from a regular telephone and asks to bill a call to an OUTWATS number, explain that you cannot accept OUTWATS calls over a regular line. If the subscriber states that the outward WATS line is out of order or insists that you try the call, explain that the operator-assisted rate applies. Then follow the subscriber's instructions.

40.0 Infrequently encountered call conditions

This chapter describes handling procedures for infrequently encountered call conditions.

40.1 Alarms

Some unattended offices, such as community dial offices (CDO), send alarm signals to operator positions to alert maintenance of trouble conditions in these offices. The method of handling alarm conditions originating from a CDO depends on the type of trunking arrangements between offices.

40.1.1 Combined trunk group from non-ANI CDO number

The system cannot determine the call type from a ANI CDO when the call arrives over a combined trunk group. Therefore, `0` displays and a distinct tone sounds to identify an alarm condition. Do the following to report the alarm:

1. Press the **Clg** key, press **0**, and press the **Start** key to display the calling NPA NXX.
2. If necessary, press the **Fncts** key twice, type the menu number for Tone Repeat, and press the **Start** key to regenerate the tone.
3. Report the alarm as locally directed.

40.1.2 Combined trunk groups with ANI

The system detects the call type when the call arrives over a combined trunk group with ANI. The call arrives displaying the ALM and NPA NXX of the originating CDO. If the originating CDO has more than one NXX, the first code displays. No AMA displays at call origination. Report the alarm as locally directed.

40.2 Encountering an answering machine

An answering machine (automatic answering set) answers a telephone and gives a recorded announcement when no one is available to answer incoming calls. An answering machine does one of the following:

- Answers the telephone and gives a recorded announcement.
- Answers the telephone, gives a recorded announcement, and records a message from the calling party. The recorded announcement and a timed signal indicate to the calling party when to start the message and when the message recording period ends. The recorded announcement can also indicate whether collect calls are accepted.

Because an answering machine provides a report or message to the calling party, station-paid and station special calling calls answered automatically are considered chargeable calls.

40.2.1 Announcing the call

If you reach an answering machine, omit the normal announcement and proceed according to the wording of the recorded announcement. Recorded announcements are reports or messages, as follows:

- Reports give delay information about the called party (for example, that the called party is not available).
- Messages give information (for example, stock information, weather reports, and entertainment schedules).

Listen to enough of the recorded announcement to determine if it is a report or a message. If the recording contains an announcement only, press the **Rls Cld** key after listening to the report.

40.2.2 Person calls

If the calling party is making a person call and you reach an answering machine, notify the calling party. If the announcement indicates that the calling party can leave a message, determine if the calling party wants to leave word or try the call later. If the calling party wants to leave word, reach the called number again and leave word. If the answering machine does not provide for leaving a message, be guided by the information in the announcement.

40.2.3 Collect calls

If the calling party is making a collect call and the recorded announcement indicates that collect calls are accepted, notify the calling party. If the calling party wants to connect, proceed as normal for handling collect calls.

If the recorded announcement does not indicate that collect calls are accepted, inform the calling party that you cannot secure acceptance of the charge because you reached an automatic answering set. If the calling party decides to pay for the call, handle the call as a paid call. If the calling party does not want to pay for the call, proceed as when charges are not accepted on a collect call.

If the calling party asks you to leave word on a person call, comply with the request.

40.2.4 Recorded announcement contains a message

If the answering machine provides a message but does not provide for leaving a message, notify the calling party after you release the called telephone. Explain that there is no one available to accept the charge or furnish information about the called party.

If the calling party insists on hearing the entire announcement, explain that you must charge the him or her to connect. If the calling party agrees to pay for the call, charge the call as paid. The station or person classification remains as originally placed.

40.2.5 Calling party claims no satisfaction on station call

On a station call, tell the calling party that you must charge him or her to connect to an answering machine. If the calling party reaches an answering machine but wants to talk only to a person, explain that such a qualification is classified as a person call and is subject to person call rates.

If the calling party wants to place a new call on a person basis, explain that the station charges still apply for the original call.

40.3 Appointment calls

If the subscriber requests an appointment call, tell the subscriber that it is more economical to dial directly.

40.4 Business office calls

The business office can request that you place a call for a subscriber and quote the time and charges to the business office so that they can collect the charges.

To handle this type of call, do the following:

1. Press the **Clg** key.
2. Press the key with either the station icon (for a station call) or the person icon (for a person call).
3. Do one of the following:
    - Press the {**Time & Charges}** softkey.
    - Press the Fncts key twice, type the menu number for Time and Charges, and press the **Start** key.
4. Do one of the following:
    - Press the {**No AMA}** softkey.
    - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.

5. At the appropriate time, press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.
6. Do one of the following to hold the call on loop:
   - Press the **Hold** hotkey, and press the **Pos Rls** key.
   - Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** key.
7. Prepare a billing ticket. In addition to the usual ticket entries, mark the MISC and T&C designations. In the SPEC INST designation, write “Bus Ofc collection rec’d T&C” and the business office number, if it is different from the calling number.
8. After the conversation, do one of the following:
   - If the call is from a non-coin telephone, quote the time and charges from the screen to the business office.
   - If the call is from a coin telephone add the initial period minutes to the overtime minutes and compute the charge, excluding tax.
9. Write the amounts in Chg and Min. The business office adds the tax.

40.5 Data calls

A data call transmits any kind of data (for example, figures, tracings, or words) by electrical signals over regular circuits between telephones that have special equipment for sending and receiving data.

Data calls can transmit pictures, business information of all kinds, and medical information (such as, electrocardiograms and electroencephalograms).

A telephone that receives a data call can be an unattended telephone that automatically answers the call. After the ringing stops, you hear a high-pitched tone. This indicates that the telephone is ready to receive data. Do not interrupt data after establishing a connection. Accessing the loop corrupts the information being transmitted.

40.5.1 Procedure for handling data calls

Usually, subscribers dial data calls directly. However, a subscriber who places a data calls to a place that cannot be dialed or who requests assistance must dial 0. If you do not dial the called telephone directly, prefix “do not cut in” to your order to any operator.

A subscriber indicates that a call is a data call by notifying you that the call is to transmit data, by giving the type of data being transferred, or by asking you not to disturb the connection. For example, the subscriber explains that the call is to fax documents.

40.5.2 Manual timing needed

If you cannot time the call AMA, prepare a billing ticket in the usual way and enter “do not cut in” in the SPEC INST designation. Machine-time and hold on loop.

40.5.3 Adjustment of time for service difficulties

If the connection is interrupted or the transmission for talking or sending data is unsatisfactory, tell the subscriber that you will make a charge adjustment.

40.6 Intercept calls

Intercept calls are handled over dedicated trunks or over a combined trunk group from the CDO to the TOPS IWS office.

Intercept calls identified by the system arrive at your position displaying `Intercept`, the number that is intercepted and `No AMA`.

40.6.1 Transferring the call using OGT

To make a silent transfer of the call to the position that handles intercept calls, do one of the following:

- Press the **OGT** key and type the appropriate menu selection.
- Type a specified code as locally defined. When the called supervision displays on the screen, press the **Pos Rls** key.

40.6.2 Transferring the call using CT4Q

To make a silent transfer of the call to the position that handles intercept calls, do one of the following:

- Press the **CT4Q** key and type the appropriate menu selection.
- Type a specified code as locally defined. When the called supervision displays on the screen, press the **Pos Rls** key.

40.6.3 Changing the transfer destination

If, after you begin to transfer a call to another operator, the calling party asks you to transfer the call to a supervisor, do the following before pressing the **Pos Rls** key for the original transfer:

1. Press the **OGT** key.
2. Type the same transfer number that you typed for the original transfer.

3. Press the **Start** key.
   This disables the original transfer.
4. Transfer the call to a supervisor.

40.6.4 Calls over ONI combined trunk group

If calls are handled over an ONI combined trunk group, `O` displays and a distinctive tone sounds. If necessary, press the **Fncts** key, type the menu number for Tone Repeat, and press the **Start** key to regenerate the tone.

40.6.5 Position cannot handle intercept traffic

If your position cannot handle intercept traffic, transfer the call by silent transfer to the special operator service system board or an intercept position. Do one of the following:

- Press an **OGT** key.
- Type a code and do one of the following:
  - Press the **{No AMA}** softkey and the **Pos Rls** key.
  - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Pos Rls** keys.

40.6.6 Dealing with subscribers in their own languages

If a subscriber cannot speak English, make every effort to meet the subscriber’s needs. Do one of the following:

- If you speak the subscriber’s language, do so and interpret recorded announcements or other reports for the subscriber.
- If you do not speak the subscriber’s language, transfer the subscriber to a locally designated operator for assistance.

40.6.7 Marking other place

If the called place is identified as other place (Oth. Pl) in the routing directions, mark Other Place and write the name of the called place in the To Place designation. Write the area code unless the routing directions do not include an area code.

40.6.8 Study designation

Mark the study designation as locally instructed for special studies.

40.6.9 Called party information

If a ticket is required, write the name in the To Person designation, including the initials or first name, middle initial if given, any title, and any necessary identifying information.

If the subscriber specifies an alternate, write both names connected by “or.” However, if the calling party indicates a preference for either party, write the name of the preferred party in the To Person designation and “alt (other party)” in the designation for reports.

40.6.10 Called party identified by title

If the calling party identifies the requested person by title or otherwise, with or without a name, write this information in the To Person designation. Make sure that the called party is a definite member of the called firm or reachable at that location.

40.6.11 PBX station (extension) room, or apartment given

If the calling party gives a PBX station (extension), room, or apartment number, write “sta (or ‘X’),” “rm,” or “apt,” with the called party’s name in the To Person designation.

40.6.12 Address name

When a ticket is required, write the name under which the telephone is listed, the street address, or both, in the route and report designation or in the special instructions designation.

40.6.13 Class of call

Mark STA or PER on every call. Mark PCB on a call-back call. For coin- and hotel-originated calls, mark COIN or HOTEL, as appropriate.

40.6.14 Calling place and number information

In the From NXX and From Number, write the calling number that displays on the screen, or, for an ONI call, write the number that the subscriber gives. If the line number is fewer than four digits, enter the NXX code. To obtain the NXX code, press the **Clg** key, press **0**, and press the **Start** key.

40.6.15 Special billing telephone number

If a subscriber gives a special billing number, do one of the following:

- If the special billing number is the calling number, request and type the first seven digits to make a validity check on the number. Then write the seven-digit number in the From NXX and From Number designation.
- If the special billing number is the bill-to number, request and type the ten-digit number to make a validity check on the number. Then, write the ten-digit number in the Special Billing Details designation.

Because you cannot call a special billing number, if you must make subsequent attempts or leave word, secure the regular number. Write the telephone number and extension in the designation for report, and use this number as the calling number.

40.6.16 Calling party information

If the calling party provides a name or firm, write the name of the party, firm, or both in the From Person designation. Include any title.

If the calling party gives a calling PBX station (extension), room, apartment or booth number, or a similar designation, enter “sta (or “X”),” “rm,” “apt,” or “booth,” with the number in the From Number designation. Write your operator number on any memorandum or billing tickets you record.

40.7 Marine calls

Marine calls are calls to and from ships through a service provider base station or an independent ship-carrier-owned-and-operated base station. Each radio-terminal office is a marine office, and operators who handle ship calls at marine offices are marine operators. The procedure is the same whether or not the call is a high-seas call; the procedure is the same whether or not the operator uses ship-to-shore or high-seas facilities. If a call is to a ship overseas, connect the subscriber to the appropriate gateway office for call completion.

If a subscriber asks for the marine operator, asks to call a ship, gives a report on such a call, or inquires about ship service, explain that you will connect the subscriber with the marine operator. Connect the subscriber with the SOSS board and press the **Pos Rls** key. If the call is from a coin or hotel telephone, notify the marine operator. Hold coin calls on loop in case the marine operator asks you to collect coins.

Follow the marine operator’s direction for ticketing and timing the call. The marine operator takes over the responsibility of reaching the called radio-telephone because the operator controls switchboard access to the radio-telephone channel. The marine operator obtains and gives reports of delay to you or directs you to route the call to another marine office. When you reach the called telephone or person, time the conversation unless the marine operator tickets and times the call.

For billing purposes, a ship with US registry has a marine identification number (MIN) to use when you originate a call. The MIN is in the form 000-XXX-RAO.

If you cannot secure a circuit to the marine operator, do the following:

1. Advise the calling party of the delay and ask the subscriber to try the call later. If the subscriber wants you to try later, make subsequent attempts in the usual way.
2. When you reach the marine operator, give the call details.
3. Proceed according to the marine operator's directions. The marine operator might ask you to ring the calling party, release the circuit, or advise you that contact with the calling subscriber will be made over another circuit.

If	Go to
the marine operator completes and tickets the call	Step 4
you complete or ticket the call	Step 5

4. On your ticket, write "psd to (name of office) marine operator," and cancel it.
5. Do the following:
   a. Write "MARINE" in the SPEC INST designation.
   b. Write the name of the ship and type of vessel in the To Number designation.
   c. Mark MARINE and T&C.
   d. Write the person's name or "P" in To Person designation.
   e. Write the calling number.
   f. Write the calling card number or third number.

40.7.1 Securing routes

Tell the route operator to route the call to a ship and give ship location information. When you receive routing directions, write them on the ticket.

40.7.2 Reaching the marine operator

When you reach the marine operators, pass the details of the call, including the filing time. Then, write the time after the entry "pass to (office)" in the space for reports.

If the marine operator asks you to call back at the end of the conversation for the charge, enter "call (marine office) for charge" in the SPEC INST designation. Alternatively, if the marine operator asks you to route the call to another office, press the **Rls Cld** key and pass the call to the marine operator at the specified office.

After any report of delay, if the marine operator offers to handle the call from that point on, give the appropriate leave word and operator number to call, cancel your ticket, and make no further attempts. Otherwise, proceed according to the reports of delay guidelines.

40.7.2.1 No-circuit condition encountered

A no-circuit condition report indicates that the radio-telephone channel is busy. Do one of the following:

- If you are ordered to hold the circuit, give the report to the calling party.
- If you are ordered to clear the circuit, press the **Rls Cld** key and give the report to the calling party. Ask the party to call again later.
- If you are asked to try later, make subsequent attempts in the usual way for calls to a wire telephone. When making a subsequent attempt, proceed as on the initial attempt.

40.7.2.2 No-answer condition encountered

If you receive report of a no-answer condition, press the **Rls Cld** key, and give the report to the calling party. If the calling party wants you to try later, make subsequent attempts in the usual way for calls to a wire telephone. When making a subsequent attempt, proceed as on the initial attempt.

40.7.2.3 Party delay report

When you encounter a party delay report, do one of the following:

- If the calling party wants you to leave word, acknowledge the request. Dismiss the calling party; give the marine operator the appropriate leave word and operator number. Then, cancel your ticket.
- If the calling party wants you to try later, proceed with the subsequent attempt as on the first attempt unless the marine operator assumes control of the call.

40.7.2.4 Call-back report received

If you receive a call-back report after you pass the details of a call to the marine operator, do one of the following:

- Prepare a ticket.

  If you receive a call-back report from a marine operator, prepare a call-back ticket. Check MARINE, and include any ticket entries the marine operator directs. Proceed in the usual way for call party report.

- Answering a leave-word call.

  When answering a leave-word call, if you are told that you can reach the ship through another marine office, record all ticketing details before releasing forward. Then, give the report to the calling party. If the calling party agrees that you to try the other office, write “AG (other office).” Proceed as you would on a first attempt to reach the called ship.

40.7.2.5 Timing and disconnecting

To time and disconnect the call, do the following:

1. Do one of the following:
   - Press the **{No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
2. At the start of the conversation, press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key.
3. Do one of the following:
   - Press the **Hold** hotkey and press the **Pos Rls** key.
   - Press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
4. Obtain charges from the marine operator at disconnection.
5. At the end of the conversation, contact the marine operator and give the chargeable minutes.
6. Write the number of chargeable minutes on the ticket.

When the marine operator calls you back with a charge, the operator quotes two amounts: the land line and the radio-telephone link charges. Do the following:

1. Write both the total charge and the two amounts separately in the space for reports on the ticket (for example, $1.85 OL $1.70).
2. When quoting time and charges to the calling party, quote the total charge as one amount.

40.7.2.6 Collect call

For a collect call, proceed as on a ticketed collect call between two wire telephones, but also do the following:

1. Tell the marine operator that the call is collect and the name of the calling party.
2. Do not check the class of the called ship telephone.
3. Obtain the place of registry of the called ship and write this information after the ship’s name.
4. If the ship does not accept collect calls, give the report to the calling party and proceed as directed.

40.7.2.7 Charging a call charged to a third telephone or calling card

If you charge the call to a third telephone or to a calling card, proceed as on a ticketed call between two wire telephones. Include the billing details when you pass the call to the marine operator.

40.7.2.8 Call from a coin telephone

If you receive a marine call from a coin telephone, collect and return deposits in the usual way. When the marine operator gives you the rate for the initial and radio-telephone link charges, write them separately on the ticket in the route and report space, identifying the land line rate and the other line rate. When you hear the marine operator, secure the initial deposit and proceed with the call. You are responsible for calling time and for securing any additional charge. After conversation, verify the charge with the marine operator.

40.8 Sequence calls

Sequence calls occur when a subscriber wants to place a series of two or more calls from the same number to different numbers.

Tell the calling party that you will dial the called number of the first call in the series. If the calls can be directly dialed, suggest that the subscriber dial them one after another. If the calls require operator handling, suggest that the calling party reach the long distance operator.

40.9 Service calls

Service calls provide specific services to the subscriber, such as DA and time or weather information. These calls rate automatically. Service numbers are of the form NPA-555-XXXX. Whether your service provider handles inter-LATA or inter-zone service calls depends on agreements between the service provider and an inter-LATA or inter-zone carrier (IC). Therefore, refer to local practices. Usually, subscribers dial service calls directly; therefore, these call do not come to an operator. Occasionally, however, you must complete service calls for a subscriber (some coin and hotel calls, for example).

40.9.1 Handling 1+, 0+ service calls

Any 1+ and 0+ service calls arrive displaying the called service number and Srv. To resolve the problem, do the following:

1. Acknowledge the subscriber’s call.
2. Do one of the following:
    - Press the **OGT** key, type the number for the appropriate OGT menu selection, and press **Start**.
    - Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.

   For a hotel call, obtain the name and room number.
3. Request billing and press the appropriate class charge key.
4. Press the **Pos Rls** key.

40.9.2 Handling 0- service calls

To handle 0- service calls, do the following:

1. Acknowledge the subscriber’s call.
2. Do one of the following:
    - If the caller requests a service for which an OGT is provided, press the **OGT** key, type the menu number of the appropriate selection, and press Start.
    - If the caller requests a service for which an OGT is not provided, obtain the called number. Press the **Cld** key, type the called number, and press the **Start** key. If the called number is a service number, Srv displays next to the called number.
3. Request billing and press the appropriate class charge keys.
4. Press the **Pos Rls** key.

40.9.3 DA service

When you provide DA for a service call arriving at your position, perform the appropriate procedure to ensure that the call is billed. If the call is not handled as a service call, it is not billed.

40.10 Subscriber-owned coin telephones

Subscriber-owned coin telephones display with a specific screen code. However, if a subscriber-owned telephone is not reported to the business office and a screen code is not applied to that line, such telephones arrive at TOPS IWS as noncoin.

Handle these calls as usual, unless the subscriber indicates that the telephone is a coin station. In this case, ask the subscriber to read the dialing instructions on the telephone. If you place the call on a sent-paid basis, the telephone number associated with the telephone is billed (for example, to a store or tavern owner).

40.11 Test board calls

Test board calls occur between plant personnel for various reasons, such as tracing, reporting trouble, and testing circuits. When the calling party requests the test board, connect the party with the test board as locally directed, and press the **Pos Rls** key.

For a test board call to a seven- or ten-digit number, do the following:

1. Announce the call as a test call.
2. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
3. Do one of the following:
   - Press the **Start Tmg** hotkey.
   - Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key,
4. Do one of the following:
   - Press the **Hold** hotkey.
   - Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** key.
5. Press the **Pos Rls** key.
6. Prepare a billing ticket. On the billing ticket, write “test’ and the name of the employee in the From Person designation.

7. Press the **Misc** key.
8. At the end of conversation, write the chargeable minutes in the MIN box.
9. Record other ticket details in the usual way.

If the calling party asks you to bill the call to a special billing number, make a validity check on that number. Because you cannot call a special billing number, obtain a regular number for subsequent attempts or callback. Write that number in the space for reports and use it as the calling number.

40.12 Toll-station calls

Calls from toll-station subscribers are handled like other calls, except as modified in this chapter. Subscriber dialing is not available in all areas. When a toll-station subscriber lifts the receiver of the telephone, the designation `TS` or `TOL STA` displays on the screen. Certain toll-station calls may arrive at your position as 0 calls. In some areas, a continuous tone also sounds.

When advancing a call to a toll station, refer to your position information for the seven- or ten-digit number (if required). Proceed as usual for an outward call.

A display of INW or a designated operator code (for example, 181) indicates that the call is for a toll-station subscriber. No AMA also displays, indicating a no-charge call.

Do the following:

1. Obtain the called number, press the **Cld** key, type the called number, and press the **Start** key.
2. Listen for first ring and then press the **Pos Rls** key.
3. Write the called number.
4. Obtain and write the calling number.
5. Write all other details in the usual way.

40.13 Transfer to SOSS

Conference and marine operators are participants in the special operator service system (SOSS).

Use appropriate routing or universal codes for calls to distant operators and DA. Refer sequence call requests to the conference operator. Transfer requests to connect to a mobile or radio-telephone to a mobile or radio operator to complete the call. Refer subscribers who place sequence calls or who request connection to toll stations within your own serving area to the SOSS, if locally directed.

Messenger calls, marine calls, and appointment calls can be passed to the SOSS.

40.13.1 0, 0 Coin Pre or Po, or 0 Hotel calls

To transfer calls that reach your position with a display of `0`, `0 Coin Pre`, `0 Coin Po`, or `0 Hotel`, use an OGT menu selection or type a code as locally authorized, as follows:

1. Press the **OGT** key and type the number for the appropriate menu selection.
2. After you press the **Start** key or type the appropriate code, the call transfers to the SOSS. The call cannot transfer back to your position if you float the call. However, you can hear and be heard on a transfer trunk until you release your position.

40.13.1.1 Announcing hotel calls to SOSS operator

When announcing hotel calls to the SOSS operator, pass significant details (for example, hotel and calling number, and service the subscriber is requesting). Wait for the SOSS operator to acknowledgment these call details.

40.13.1.2 Calls not held at your position

For calls not held at your position, do the following:

1. Press the **Ca Call** and **Pos Rls** keys.
2. If you type a code to reach the outgoing operator, do one of the following:
   - Press the **{No AMA}** softkey and press the **Pos Rls** key.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Pos Rls** keys.

40.13.1.3 Call originates from a coin telephone

If a call originates from a coin telephone, request billing information from the calling party. Announce the call to the SOSS operator as follows:

1. When the SOSS operator speaks to and receives a response from the subscriber, do one of the following:
   - Press the **OGT** key, and type the number for the appropriate menu selection.
   - Press the **{No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.

2. Do one of the following:
    - For a coin-paid call, press the **Pos Rls** key.
    - For a call billed as collect, calling card, or third-number, press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.

40.13.2 Recall by the SOSS operator

When the SOSS operator recalls you, cut in to collect the deposit on a prepay call. At disconnection, cut in to collect any additional amount owed. On a postpay call, the SOSS operator is responsible for collecting coins.

41.0 Infrequently encountered call conditions

This chapter describes handling procedures for infrequently encountered call conditions.

41.1 Alarms

Some unattended offices, such as community dial offices (CDO), send alarm signals to operator positions to alert maintenance of trouble conditions in these offices. The method of handling alarm conditions originating from a CDO depends on the type of trunking arrangements between offices.

41.1.1 Combined trunk group from non-ANI CDO number

The system cannot determine the call type from a ANI CDO when the call arrives over a combined trunk group. Therefore, `0` displays and a distinct tone sounds to identify an alarm condition. Do the following to report the alarm:

1. Press the **Clg** key, press **0**, and press the **Start** key to display the calling NPA NXX.
2. If necessary, press the **Fncts** key twice, type the menu number for Tone Repeat, and press the **Start** key to regenerate the tone.
3. Report the alarm as locally directed.

41.1.2 Combined trunk groups with ANI

The system detects the call type when the call arrives over a combined trunk group with ANI. The call arrives displaying the ALM and NPA NXX of the originating CDO. If the originating CDO has more than one NXX, the first code displays. No AMA displays at call origination. Report the alarm as locally directed.

41.2 Encountering an answering machine

An answering machine (automatic answering set) answers a telephone and gives a recorded announcement when no one is available to answer incoming calls. An answering machine does one of the following:

- Answers the telephone and gives a recorded announcement.
- Answers the telephone, gives a recorded announcement, and records a message from the calling party. The recorded announcement and a timed signal indicate to the calling party when to start the message and when the message recording period ends. The recorded announcement can also indicate whether collect calls are accepted.

Because an answering machine provides a report or message to the calling party, station-paid and station special calling calls answered automatically are considered chargeable calls.

41.2.1 Announcing the call

If you reach an answering machine, omit the normal announcement and proceed according to the wording of the recorded announcement. Recorded announcements are reports or messages, as follows:

- Reports give delay information about the called party (for example, that the called party is not available).
- Messages give information (for example, stock information, weather reports, and entertainment schedules).

Listen to enough of the recorded announcement to determine if it is a report or a message. If the recording contains an announcement only, press the **Rls Cld** key after listening to the report.

41.2.2 Person calls

If the calling party is making a person call and you reach an answering machine, notify the calling party. If the announcement indicates that the calling party can leave a message, determine if the calling party wants to leave word or try the call later. If the calling party wants to leave word, reach the called number again and leave word. If the answering machine does not provide for leaving a message, be guided by the information in the announcement.

41.2.3 Collect calls

If the calling party is making a collect call and the recorded announcement indicates that collect calls are accepted, notify the calling party. If the calling party wants to connect, proceed as normal for handling collect calls.

If the recorded announcement does not indicate that collect calls are accepted, inform the calling party that you cannot secure acceptance of the charge because you reached an automatic answering set. If the calling party decides to pay for the call, handle the call as a paid call. If the calling party does not want to pay for the call, proceed as when charges are not accepted on a collect call.

If the calling party asks you to leave word on a person call, comply with the request.

41.2.4 Recorded announcement contains a message

If the answering machine provides a message but does not provide for leaving a message, notify the calling party after you release the called telephone. Explain that there is no one available to accept the charge or furnish information about the called party.

If the calling party insists on hearing the entire announcement, explain that you must charge the him or her to connect. If the calling party agrees to pay for the call, charge the call as paid. The station or person classification remains as originally placed.

41.2.5 Calling party claims no satisfaction on station call

On a station call, tell the calling party that you must charge him or her to connect to an answering machine. If the calling party reaches an answering machine but wants to talk only to a person, explain that such a qualification is classified as a person call and is subject to person call rates.

If the calling party wants to place a new call on a person basis, explain that the station charges still apply for the original call.

41.3 Appointment calls

If the subscriber requests an appointment call, tell the subscriber that it is more economical to dial directly.

41.4 Business office calls

The business office can request that you place a call for a subscriber and quote the time and charges to the business office so that they can collect the charges.

To handle this type of call, do the following:

1. Press the **Clg** key.
2. Press the key with either the station icon (for a station call) or the person icon (for a person call).
3. Do one of the following:
    - Press the {**Time & Charges}** softkey.
    - Press the Fncts key twice, type the menu number for Time and Charges, and press the **Start** key.
4. Do one of the following:
    - Press the {**No AMA}** softkey.
    - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.

5. At the appropriate time, press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.
6. Do one of the following to hold the call on loop:
   - Press the **Hold** hotkey, and press the **Pos Rls** key.
   - Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** and **Pos Rls** key.
7. Prepare a billing ticket. In addition to the usual ticket entries, mark the MISC and T&C designations. In the SPEC INST designation, write “Bus Ofc collection rec’d T&C” and the business office number, if it is different from the calling number.
8. After the conversation, do one of the following:
   - If the call is from a non-coin telephone, quote the time and charges from the screen to the business office.
   - If the call is from a coin telephone add the initial period minutes to the overtime minutes and compute the charge, excluding tax.
9. Write the amounts in Chg and Min. The business office adds the tax.

41.5 Data calls

A data call transmits any kind of data (for example, figures, tracings, or words) by electrical signals over regular circuits between telephones that have special equipment for sending and receiving data.

Data calls can transmit pictures, business information of all kinds, and medical information (such as, electrocardiograms and electroencephalograms).

A telephone that receives a data call can be an unattended telephone that automatically answers the call. After the ringing stops, you hear a high-pitched tone. This indicates that the telephone is ready to receive data. Do not interrupt data after establishing a connection. Accessing the loop corrupts the information being transmitted.

41.5.1 Procedure for handling data calls

Usually, subscribers dial data calls directly. However, a subscriber who places a data calls to a place that cannot be dialed or who requests assistance must dial 0. If you do not dial the called telephone directly, prefix “do not cut in” to your order to any operator.

A subscriber indicates that a call is a data call by notifying you that the call is to transmit data, by giving the type of data being transferred, or by asking you not to disturb the connection. For example, the subscriber explains that the call is to fax documents.

41.5.2 Manual timing needed

If you cannot time the call AMA, prepare a billing ticket in the usual way and enter “do not cut in” in the SPEC INST designation. Machine-time and hold on loop.

41.5.3 Adjustment of time for service difficulties

If the connection is interrupted or the transmission for talking or sending data is unsatisfactory, tell the subscriber that you will make a charge adjustment.

41.6 Intercept calls

Intercept calls are handled over dedicated trunks or over a combined trunk group from the CDO to the TOPS IWS office.

Intercept calls identified by the system arrive at your position displaying `Intercept`, the number that is intercepted and `No AMA`.

41.6.1 Transferring the call using OGT

To make a silent transfer of the call to the position that handles intercept calls, do one of the following:

- Press the **OGT** key and type the appropriate menu selection.
- Type a specified code as locally defined. When the called supervision displays on the screen, press the **Pos Rls** key.

41.6.2 Transferring the call using CT4Q

To make a silent transfer of the call to the position that handles intercept calls, do one of the following:

- Press the **CT4Q** key and type the appropriate menu selection.
- Type a specified code as locally defined. When the called supervision displays on the screen, press the **Pos Rls** key.

41.6.3 Changing the transfer destination

If, after you begin to transfer a call to another operator, the calling party asks you to transfer the call to a supervisor, do the following before pressing the **Pos Rls** key for the original transfer:

1. Press the **OGT** key.
2. Type the same transfer number that you typed for the original transfer.

3. Press the **Start** key.
   This disables the original transfer.
4. Transfer the call to a supervisor.

41.6.4 Calls over ONI combined trunk group

If calls are handled over an ONI combined trunk group, `0` displays and a distinctive tone sounds. If necessary, press the **Fncts** key, type the menu number for Tone Repeat, and press the **Start** key to regenerate the tone.

41.6.5 Position cannot handle intercept traffic

If your position cannot handle intercept traffic, transfer the call by silent transfer to the special operator service system board or an intercept position. Do one of the following:

- Press an **OGT** key.
- Type a code and do one of the following:
  - — Press the **{No AMA}** softkey and the **Pos Rls** key.
  - — Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Pos Rls** keys.

41.6.6 Dealing with subscribers in their own languages

If a subscriber cannot speak English, make every effort to meet the subscriber's needs. Do one of the following:

- If you speak the subscriber's language, do so and interpret recorded announcements or other reports for the subscriber.
- If you do not speak the subscriber's language, transfer the subscriber to a locally designated operator for assistance.

41.6.7 Marking other place

If the called place is identified as other place (Oth. Pl) in the routing directions, mark Other Place and write the name of the called place in the To Place designation. Write the area code unless the routing directions do not include an area code.

41.6.8 Study designation

Mark the study designation as locally instructed for special studies.

41.6.9 Called party information

If a ticket is required, write the name in the To Person designation, including the initials or first name, middle initial if given, any title, and any necessary identifying information.

If the subscriber specifies an alternate, write both names connected by “or.” However, if the calling party indicates a preference for either party, write the name of the preferred party in the To Person designation and “alt (other party)” in the designation for reports.

41.6.10 Called party identified by title

If the calling party identifies the requested person by title or otherwise, with or without a name, write this information in the To Person designation. Make sure that the called party is a definite member of the called firm or reachable at that location.

41.6.11 PBX station (extension) room, or apartment given

If the calling party gives a PBX station (extension), room, or apartment number, write “sta (or ‘X’),” “rm,” or “apt,” with the called party’s name in the To Person designation.

41.6.12 Address name

When a ticket is required, write the name under which the telephone is listed, the street address, or both, in the route and report designation or in the special instructions designation.

41.6.13 Class of call

Mark STA or PER on every call. Mark PCB on a call-back call. For coin- and hotel-originated calls, mark COIN or HOTEL, as appropriate.

41.6.14 Calling place and number information

In the From NXX and From Number, write the calling number that displays on the screen, or, for an ONI call, write the number that the subscriber gives. If the line number is fewer than four digits, enter the NXX code. To obtain the NXX code, press the **Clg** key, press **0**, and press the **Start** key.

41.6.15 Special billing telephone number

If a subscriber gives a special billing number, do one of the following:

- If the special billing number is the calling number, request and type the first seven digits to make a validity check on the number. Then write the seven-digit number in the From NXX and From Number designation.
- If the special billing number is the bill-to number, request and type the ten-digit number to make a validity check on the number. Then, write the ten-digit number in the Special Billing Details designation.

Because you cannot call a special billing number, if you must make subsequent attempts or leave word, secure the regular number. Write the telephone number and extension in the designation for report, and use this number as the calling number.

41.6.16 Calling party information

If the calling party provides a name or firm, write the name of the party, firm, or both in the From Person designation. Include any title.

If the calling party gives a calling PBX station (extension), room, apartment or booth number, or a similar designation, enter “sta (or “X”),” “rm,” “apt,” or “booth,” with the number in the From Number designation. Write your operator number on any memorandum or billing tickets you record.

41.7 Marine calls

Marine calls are calls to and from ships through a service provider base station or an independent ship-carrier-owned-and-operated base station. Each radio-terminal office is a marine office, and operators who handle ship calls at marine offices are marine operators. The procedure is the same whether or not the call is a high-seas call; the procedure is the same whether or not the operator uses ship-to-shore or high-seas facilities. If a call is to a ship overseas, connect the subscriber to the appropriate gateway office for call completion.

If a subscriber asks for the marine operator, asks to call a ship, gives a report on such a call, or inquires about ship service, explain that you will connect the subscriber with the marine operator. Connect the subscriber with the SOSS board and press the **Pos Rls** key. If the call is from a coin or hotel telephone, notify the marine operator. Hold coin calls on loop in case the marine operator asks you to collect coins.

Follow the marine operator’s direction for ticketing and timing the call. The marine operator takes over the responsibility of reaching the called radio-telephone because the operator controls switchboard access to the radio-telephone channel. The marine operator obtains and gives reports of delay to you or directs you to route the call to another marine office. When you reach the called telephone or person, time the conversation unless the marine operator tickets and times the call.

For billing purposes, a ship with US registry has a marine identification number (MIN) to use when you originate a call. The MIN is in the form 000-XXX-RAO.

If you cannot secure a circuit to the marine operator, do the following:

1. Advise the calling party of the delay and ask the subscriber to try the call later. If the subscriber wants you to try later, make subsequent attempts in the usual way.
2. When you reach the marine operator, give the call details.
3. Proceed according to the marine operator's directions. The marine operator might ask you to ring the calling party, release the circuit, or advise you that contact with the calling subscriber will be made over another circuit.

If	Go to
the marine operator completes and tickets the call	Step 4
you complete or ticket the call	Step 5

4. On your ticket, write "psd to (name of office) marine operator," and cancel it.
5. Do the following:
   a. Write "MARINE" in the SPEC INST designation.
   b. Write the name of the ship and type of vessel in the To Number designation.
   c. Mark MARINE and T&C.
   d. Write the person's name or "P" in To Person designation.
   e. Write the calling number.
   f. Write the calling card number or third number.

41.7.1 Securing routes

Tell the route operator to route the call to a ship and give ship location information. When you receive routing directions, write them on the ticket.

41.7.2 Reaching the marine operator

When you reach the marine operators, pass the details of the call, including the filing time. Then, write the time after the entry "pass to (office)" in the space for reports.

If the marine operator asks you to call back at the end of the conversation for the charge, enter "call (marine office) for charge" in the SPEC INST designation. Alternatively, if the marine operator asks you to route the call to another office, press the **Rls Cld** key and pass the call to the marine operator at the specified office.

After any report of delay, if the marine operator offers to handle the call from that point on, give the appropriate leave word and operator number to call, cancel your ticket, and make no further attempts. Otherwise, proceed according to the reports of delay guidelines.

41.7.2.1 No-circuit condition encountered

A no-circuit condition report indicates that the radio-telephone channel is busy. Do one of the following:

- If you are ordered to hold the circuit, give the report to the calling party.
- If you are ordered to clear the circuit, press the **Rls Cld** key and give the report to the calling party. Ask the party to call again later.
- If you are asked to try later, make subsequent attempts in the usual way for calls to a wire telephone. When making a subsequent attempt, proceed as on the initial attempt.

41.7.2.2 No-answer condition encountered

If you receive report of a no-answer condition, press the **Rls Cld** key, and give the report to the calling party. If the calling party wants you to try later, make subsequent attempts in the usual way for calls to a wire telephone. When making a subsequent attempt, proceed as on the initial attempt.

41.7.2.3 Party delay report

When you encounter a party delay report, do one of the following:

- If the calling party wants you to leave word, acknowledge the request. Dismiss the calling party; give the marine operator the appropriate leave word and operator number. Then, cancel your ticket.
- If the calling party wants you to try later, proceed with the subsequent attempt as on the first attempt unless the marine operator assumes control of the call.

41.7.2.4 Call-back report received

If you receive a call-back report after you pass the details of a call to the marine operator, do one of the following:

- Prepare a ticket.

  If you receive a call-back report from a marine operator, prepare a call-back ticket. Check MARINE, and include any ticket entries the marine operator directs. Proceed in the usual way for call party report.

- Answering a leave-word call.

  When answering a leave-word call, if you are told that you can reach the ship through another marine office, record all ticketing details before releasing forward. Then, give the report to the calling party. If the calling party agrees that you to try the other office, write “AG (other office).” Proceed as you would on a first attempt to reach the called ship.

41.7.2.5 Timing and disconnecting

To time and disconnect the call, do the following:

1. Do one of the following:
   - Press the **{No AMA}** softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.
2. At the start of the conversation, press the **Fncts** key, type the menu number for Start Timing, and press the **Start** key.
3. Do one of the following:
   - Press the **Hold** hotkey and press the **Pos Rls** key.
   - Press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.
4. Obtain charges from the marine operator at disconnection.
5. At the end of the conversation, contact the marine operator and give the chargeable minutes.
6. Write the number of chargeable minutes on the ticket.

When the marine operator calls you back with a charge, the operator quotes two amounts: the land line and the radio-telephone link charges. Do the following:

1. Write both the total charge and the two amounts separately in the space for reports on the ticket (for example, $1.85 OL $1.70).
2. When quoting time and charges to the calling party, quote the total charge as one amount.

41.7.2.6 Collect call

For a collect call, proceed as on a ticketed collect call between two wire telephones, but also do the following:

1. Tell the marine operator that the call is collect and the name of the calling party.
2. Do not check the class of the called ship telephone.
3. Obtain the place of registry of the called ship and write this information after the ship's name.
4. If the ship does not accept collect calls, give the report to the calling party and proceed as directed.

41.7.2.7 Charging a call charged to a third telephone or calling card

If you charge the call to a third telephone or to a calling card, proceed as on a ticketed call between two wire telephones. Include the billing details when you pass the call to the marine operator.

41.7.2.8 Call from a coin telephone

If you receive a marine call from a coin telephone, collect and return deposits in the usual way. When the marine operator gives you the rate for the initial and radio-telephone link charges, write them separately on the ticket in the route and report space, identifying the land line rate and the other line rate. When you hear the marine operator, secure the initial deposit and proceed with the call. You are responsible for calling time and for securing any additional charge. After conversation, verify the charge with the marine operator.

41.8 Sequence calls

Sequence calls occur when a subscriber wants to place a series of two or more calls from the same number to different numbers.

Tell the calling party that you will dial the called number of the first call in the series. If the calls can be directly dialed, suggest that the subscriber dial them one after another. If the calls require operator handling, suggest that the calling party reach the long distance operator.

41.9 Service calls

Service calls provide specific services to the subscriber, such as DA and time or weather information. These calls rate automatically. Service numbers are of the form NPA-555-XXXX. Whether your service provider handles inter-LATA or inter-zone service calls depends on agreements between the service provider and an inter-LATA or inter-zone carrier (IC). Therefore, refer to local practices. Usually, subscribers dial service calls directly; therefore, these call do not come to an operator. Occasionally, however, you must complete service calls for a subscriber (some coin and hotel calls, for example).

41.9.1 Handling 1+, 0+ service calls

Any 1+ and 0+ service calls arrive displaying the called service number and Srv. To resolve the problem, do the following:

1. Acknowledge the subscriber’s call.
2. Do one of the following:
   - Press the **OGT** key, type the number for the appropriate OGT menu selection, and press **Start**.
   - Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key.

   For a hotel call, obtain the name and room number.
3. Request billing and press the appropriate class charge key.
4. Press the **Pos Rls** key.

41.9.2 Handling 0- service calls

To handle 0- service calls, do the following:

1. Acknowledge the subscriber’s call.
2. Do one of the following:
   - If the caller requests a service for which an OGT is provided, press the **OGT** key, type the menu number of the appropriate selection, and press Start.
   - If the caller requests a service for which an OGT is not provided, obtain the called number. Press the **Cld** key, type the called number, and press the **Start** key. If the called number is a service number, Srv displays next to the called number.
3. Request billing and press the appropriate class charge keys.
4. Press the **Pos Rls** key.

41.9.3 DA service

When you provide DA for a service call arriving at your position, perform the appropriate procedure to ensure that the call is billed. If the call is not handled as a service call, it is not billed.

41.10 Subscriber-owned coin telephones

Subscriber-owned coin telephones display with a specific screen code. However, if a subscriber-owned telephone is not reported to the business office and a screen code is not applied to that line, such telephones arrive at TOPS IWS as noncoin.

Handle these calls as usual, unless the subscriber indicates that the telephone is a coin station. In this case, ask the subscriber to read the dialing instructions on the telephone. If you place the call on a sent-paid basis, the telephone number associated with the telephone is billed (for example, to a store or tavern owner).

41.11 Test board calls

Test board calls occur between plant personnel for various reasons, such as tracing, reporting trouble, and testing circuits. When the calling party requests the test board, connect the party with the test board as locally directed, and press the **Pos Rls** key.

For a test board call to a seven- or ten-digit number, do the following:

1. Announce the call as a test call.
2. Do one of the following:
   - Press the {**No AMA}** softkey.
   - Press the **Fncts** key twice, type the menu number for No AMA, and press the **Start** key.
3. Do one of the following:
   - Press the **Start Tmg** hotkey.
   - Press the **Fncts** key twice, type the menu number for Start Timing, and press the **Start** key,
4. Do one of the following:
   - Press the **Hold** hotkey.
   - Press the **Fncts** key twice, type the menu number for Hold, and press the **Start** key.
5. Press the **Pos Rls** key.
6. Prepare a billing ticket. On the billing ticket, write “test’ and the name of the employee in the From Person designation.

7. Press the **Misc** key.
8. At the end of conversation, write the chargeable minutes in the MIN box.
9. Record other ticket details in the usual way.

If the calling party asks you to bill the call to a special billing number, make a validity check on that number. Because you cannot call a special billing number, obtain a regular number for subsequent attempts or callback. Write that number in the space for reports and use it as the calling number.

41.12 Toll-station calls

Calls from toll-station subscribers are handled like other calls, except as modified in this chapter. Subscriber dialing is not available in all areas. When a toll-station subscriber lifts the receiver of the telephone, the designation `TS` or `TOL STA` displays on the screen. Certain toll-station calls may arrive at your position as 0 calls. In some areas, a continuous tone also sounds.

When advancing a call to a toll station, refer to your position information for the seven- or ten-digit number (if required). Proceed as usual for an outward call.

A display of INW or a designated operator code (for example, 181) indicates that the call is for a toll-station subscriber. No AMA also displays, indicating a no-charge call.

Do the following:

1. Obtain the called number, press the **Cld** key, type the called number, and press the **Start** key.
2. Listen for first ring and then press the **Pos Rls** key.
3. Write the called number.
4. Obtain and write the calling number.
5. Write all other details in the usual way.

41.13 Transfer to SOSS

Conference and marine operators are participants in the special operator service system (SOSS).

Use appropriate routing or universal codes for calls to distant operators and DA. Refer sequence call requests to the conference operator. Transfer requests to connect to a mobile or radio-telephone to a mobile or radio operator to complete the call. Refer subscribers who place sequence calls or who request connection to toll stations within your own serving area to the SOSS, if locally directed.

Messenger calls, marine calls, and appointment calls can be passed to the SOSS.

41.13.1 0, 0 Coin Pre or Po, or 0 Hotel calls

To transfer calls that reach your position with a display of `0`, `0 Coin Pre`, `0 Coin Po`, or `0 Hotel`, use an OGT menu selection or type a code as locally authorized, as follows:

1. Press the **OGT** key and type the number for the appropriate menu selection.
2. After you press the **Start** key or type the appropriate code, the call transfers to the SOSS. The call cannot transfer back to your position if you float the call. However, you can hear and be heard on a transfer trunk until you release your position.

41.13.1.1 Announcing hotel calls to SOSS operator

When announcing hotel calls to the SOSS operator, pass significant details (for example, hotel and calling number, and service the subscriber is requesting). Wait for the SOSS operator to acknowledgment these call details.

41.13.1.2 Calls not held at your position

For calls not held at your position, do the following:

1. Press the **Ca Call** and **Pos Rls** keys.
2. If you type a code to reach the outgoing operator, do one of the following:
   - Press the **{No AMA}** softkey and press the **Pos Rls** key.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** and **Pos Rls** keys.

41.13.1.3 Call originates from a coin telephone

If a call originates from a coin telephone, request billing information from the calling party. Announce the call to the SOSS operator as follows:

1. When the SOSS operator speaks to and receives a response from the subscriber, do one of the following:
   - Press the **OGT** key, and type the number for the appropriate menu selection.
   - Press the **{No AMA**} softkey.
   - Press the **Fncts** key, type the menu number for No AMA, and press the **Start** key.

2. Do one of the following:
   - For a coin-paid call, press the **Pos Rls** key.
   - For a call billed as collect, calling card, or third-number, press the **Fncts** key, type the menu number for Hold, and press the **Start** and **Pos Rls** keys.

41.13.2 Recall by the SOSS operator

When the SOSS operator recalls you, cut in to collect the deposit on a prepay call. At disconnection, cut in to collect any additional amount owed. On a postpay call, the SOSS operator is responsible for collecting coins.

Appendix A: Datafill

A.1 TOPS IWS Base datafill

TOPS IWS Base tables are located on the position hard drive.

TOPS IWS Base datafill is necessary for all basic Nortel applications.

Most of these data files must match the DMS TOPS tables.

Each IWS table resides on the position hard drive as a separate DOS file.

The datafill for the IWS Base software can be found in the directory:

C:\MPXBASE\DATAFILL

These files are stored on standard DOS ASCII text files, and can be edited with the Provisioning Tool or a DOS or Windows text editor.

They are relatively user-friendly and do provide some direction within the files on how to update them.

A.1.1 Base datafill tables (TBL)

- **XALTRTE** associates a text string with the DMS Alternate Route number and Switch ID. **Must match datafill in DMS table IALTRTE. Used in Global TOPS switches**.
- **XSERVS** defines TOPS services that **must match DMS table TQMSSERV for QMS** TOPS offices.
- **XFNCTS** defines the order and number of functions to be used in the Functions Menu and also provides the text displays for that menu.
- **XKBOARD** defines keyboard layout and key sets for Key Macros.
- **XOGTMENU** defines OGT Menu text displays for QMS and **must match DMS datafill TQOGTKEY.**
- **XTROUBLE** defines Trouble Menu text display.
- **XAPPL** defines Applications Menu.
- **XCDFA** defines Country Names for display to operator and **must match DMS table ICNTRY for Global TOPS.**
- **XTGDSPL** defines trunk group displays at call arrival (and SPID for the IWS Billing application) and **must match DMS table TOPSDISP.**
- **XRBLG** defines restricted billing indexes and **must match the display field of DMS table RESTBIL.**
- **XRDABLG** defines restricted billing for the A party of a DA call and **must match the display field of DMS table DARSTBIL.**

- **XLANG** defines language names and **must match DMS table TOPSLANG.**
- **XCOTHSD** defines length of time threshold for each call type.
- **XCT4Q** defines Call Types for Queuing and **must match DMS table CT4QNAMS (QMS)**, and also defines initial cursor location at call arrival for each call type.
- **XCT4QMNU** identifies the CT4Qs from XCT4Q.TBL that are selected to appear on the CT4Q menu, and labels each CT4Q with longer name that can be more easily read by the operator. The CT4Qs listed in table XCT4QMNU must be a subset of the ones in table XCT4Q, with the exception of the NIL value (2047).
- **XCLLORIG** defines call originations for incoming calls and **must match DMS table TOPS.**
- **XCASTS** defines call arrival status for incoming calls. **Must coordinate with datafill of DMS tables OFCVAR** or VSNOPT (optionally).
- **XCORGXSC** provides a cross reference between the call origination types in XCLLORIG.TBL and the Scripts in SCRTPSCR.SCR.
- **XCT4QXSC** provides a cross reference between the CT4Qs datafilled in XCT4Q.TBL and the Script Ids in SCRPTSCR.SCR.
- **XSPIDXSC** associates a script title or message with a SPID provider in scripting.
- **XKEYMAC** defines the key macros keystrokes and **must be mapped to XKBOARD.TBL.**
- **XRCXSC** supplies the number code of the reason for operator assistance and correspond to the CCDB reason codes for the IWS Billing application.
- **XDBCLASS** maps the class index number to the datafillable screen display for that class when using the internal booked call database feature and **must match DMS table IDBCLASS.**
- **XDNSCRN** is the screening device used with international calling and called numbers and **must match DMS table DNSCRN.**

A.1.2.1 Supervisor position datafill

Supervisor positions should be datafilled with a superset of the services of the team. The service text datafill in XSERV.TBL should be the same for each operator who provides that service and also for the supervisor. (For additional service datafill information, refer to *TOPS IWS Base Application Guide,* 297-2251-010).

Other position data, such as XCASTS.TBL (Call Arrival Status) and OACINFO.LNG (Call Information window language file), should also be datafilled the same. Otherwise, supervisor displays may not reflect the operator displays when monitoring.

A.1.2.2 Screen saver datafill

To set the amount of time before the screen saver comes on, the following file would need to be edited:

C:\WINDOWS\SCRNSINI.INI

In the file:

- Edit the line *ScreenSaverTimeDelay.*
- Enter the desired time delay in minutes, between 1 and 10.
- Once you have entered the value and quit from file **SCRNSINI.INI**, the new delay period is set.

Screen capture files are sent to a common location at the RAMP (in directory **C:\RAMP\SCRNCAPT**). Choose option PrintScreenCapture under Tools in the main menu of the RAMP to select and print the screen capture files at the printer connected to the RAMP.

Each screen capture generates a log that can be observed in the logs observation window of the RAMP.

Upgrade Considerations:
Field ScreenCapture has been added to file **XTROUBLE.TBL**. A new key for screen captures has been added to the IWS generic key set.

A.1.2.3 Keyboard datafill

It is important to verify that the **Appl**, **Field** and **Reset** keys are datafilled.

Do this by checking the file "C:\MPXBASE\DATAFILL\ XKBOARD.TBL".

For details on how to datafill the above-mentioned files, refer to *TOPS IWS Base Platform User's Guide*, 297-2251-010.

A.1.3 Base initialization files (INI):

- **MPXINI.INI** used to start TOPS IWS applications (registering or non-registering), to set timer (to generate logs) options, to define audio card, headset driver (whether the plugging-in of a headset will drive logon and logoff), and debug options.
- **MPXNET.INI** defines the cluster and position configuration for the TOPS IWS applications.
- **AUDIOINI.INI** is the audio card configuration file.
- **NTOAINI.INI** defines various parameters for IWS Billing application use.
- **NTDAINI.INI** defines software parameters for NTDA application use.

- **MPXPARM.INI** provides various TOPS IWS options for display (for example, clock settings, currency, number formatting, charge adjust, character translator, Make Busy/Withhold Calls timeout value, SPID or trunk display priority and colorblind support).
- **MPXTOP.INI** used by the IWS Billing Base Application Language Data Files.

A.1.4 Base language files (LNG):

Language data files are provided for every window that contains a window title, field labels, and/or softkey labels.

Language files allow operator services personnel to modify text strings.

These language files can be modified on the IWS position. They are not related to the words and messages about operator functions that come from the screen.

Table 35 shows the base language files that affect the IWS screen displays and functions.

Table 35. Base language files

Base language file	Affected screen displays and functions
AACTWSFK.LNG	Assigned Activities window softkeys
APPLMENU.LNG	Applications menu/title page
ASSGNACT.LNG	Assigned Activities window
BHMIMSA.LNG	Base HMI message/status area
BKCALLDB.LNG	Internal booked call database
BKCALLK.LNG	Internal booked call database softkeys
CT4QMENU.LNG	CT4Q menu
FNCMENU.LNG	Functions menu title/page
ICQUSFK.LNG	IC query softkeys
ICSFK.LNG	IC window softkeys
IDLMSA.LNG	IWS display library
LOGOTEXT.LNG	Logo window
LGNSFK.LNG	Logon window softkeys
LOGON.LNG	Logon window
NTDAMSA.LNG	DA message status area
OASAICW.LNG	Operator assistance SA/IC window
NTDAMISC.LNG	Text messages for miscellaneous NTDA fields
OGTMENU.LNG	Outgoing trunks menu
OPADMSFK.LNG	Operator administration sofkeys
OPPRFLNG.LNG	Operator profile window
OPPRFSFK.LNG	Operator profile window softkeys
OPRSTATS.LNG	Operator statistics window

Table 35. Base language files (continued)

Base language file	Affected screen displays and functions
OPRSTSFK.LNG	Password update window
PASSWORD.LNG	Password update window
PASSWSFK.LNG	Password update softkeys
POSMSA.LNG	Message status area
POSPRFLG.LNG	Position profile window
POSPRFSK.LNG	Position profile window softkeys
SASFK.LNG	Service assistance softkeys
SCRPTLNG.LNG	Scripting window title
SVCSMENU.LNG	Services menu
TRBLMENU.LNG	Trouble menu
PANOACT.LNG	No action reasons, displayed in the transient field of the message and status area to indicate why no action was taken by the DMS switch in response to an operator action request (keying). There are several No Action Reasons which may be changed, commented out, or deleted.

A.1.4.1 IWS Billing language files

Table 36 shows the IWS Billing language files that affect the IWS screen displays and functions.

Table 36. IWS Billing language files

IWS Billing language file	Affected screen displays and functions
DATABASE.LNG	Database restriction displays
PCCCINFO.LNG	Enhanced calling card database call information file
PCCDBSK.LNG	Database softkey labels
PDCALLD.LNG	Enhanced calling card database call details file

English language files are the default. For languages other than English that are supported by the ANSI character set, these files must be edited. Each language file contains text strings that can be changed as desired, up to the maximum string length. Refer to the *TOPS IWS Base HMI Application Guide* for details on the language data files.

A.1.4.2 Scripting datafill

Use of the scripting window requires datafill of tables that are loaded during installation. See Table 37.

Table 37. Scripting datafill

Scripting Datafill	Description
SCRPTLNG.LNG	contains the string displayed in the scripting window title field
SCRPTSCR.SCR	contains the text for all of the script messages displayed in the scripting window. A maximum of 300 scripts can be created against script ID numbers.
SCRPTINI.INI	defines the size and placement of the scripting window. An entry must be made for each application using a scripting window.
XCORGXSC.TBL	is a scripting cross-reference file that maps call originations in table XCLLORIG to script IDs in table SCRPTSCR.SCR.
XCT4QXSC.TBL	is a scripting cross-reference file that maps CT4Qs to script IDs in table SCRPTSCR.SCR.

A.1.5 IWS Billing datafill

To use the IWS Billing application for call completion services or billing with NTDA or other applications, a number of files must be datafilled in IWS Base and at the IWS position. See Table 38.

Table 38. IWS Billing datafill

Datafill	Description
XPCCSK	defines the 16 softkeys (shifted and unshifted) displayed at call arrival. There is no corresponding DMS table. There are 16 functions assigned to these softkeys by default at software installation.
XDBSRVC	represents the available services, associated names and any service specific information for IWS Billing
XDBCOMP	associates a service and language number with a completion number and type for the valid services list for the IWS Billing application
XRCXSC	maps script message, title and IDs to specific reason codes
XINFBSVC	support the IWS Billing application IN Fallback feature and provide a Service Builder reason code. Used in Global TOPS switches.

Table 38. IWS Billing datafill (continued)

Datafill	Description
XINFBRSN	support the IWS Billing application IN Fallback feature and provide a Service Builder reason code. Used in Global TOPS switches.
XDBERROR	defines parameters to signal database error displays to the operator, and coheres with DATABASE.LNG for IWS Billing
XDBVRSTN	provides the operator with a list of violated restrictions displays for CCDB for the IWS Billing application
XCTRYDIR	defines country names for the Country Direct service and must match DMS table CDCTRY
XOLNSEQP	defines restricted billing for the calling during an OLNS call and must match DMS tables RESTBIL, OCOFC and OLNSEQDP
XOLNSRST	defines billing restrictions for toll service and must match DMS tables RESTBIL, OCOFC and OLNSRSDP
XPCCTRIG	triggers the DMS to float an enhanced calling card, LEC, credit card, collect or third party call for the IWS Billing application and must match DMS table OATPRFIX

For more details on IWS Billing application datafill that can be customized for operators on the IWS position, refer to the *TOPS IWS Base Platform User's Guide*, 297-2251-010.

It is recommended that an Applications Menu hotkey be datafilled to provide one keystroke access to OIA.

A.1.6 OIA datafill

The scan code and modifier mask are determined by which key each company decides to datafill for OIA. For more information on OIA datafill, refer to the *TOPS IWS Base Application Guide*, 297-2251-010.

The file MPXOIA.EXE must be in one of the registering application lines of the MPXINI.INI file. MPXOIA.EXE cannot be the default application, since it is not service providing. For more information on the MPX INI.INI file, refer to the *TOPS IWS Base Application Guide*, 297-2251-010.

If a key to access OIA is not datafilled, use the information in Table 39 to add to the file.

Table 39. OIA datafill

Scan Code	Modifier Mask	Action Set	Action	Description
0-255	0-7	1	26	APPL_key
0-255	0-7	1	35	Reset key
0-255	0-7	1	39	Field key
0-255	0-7	6	0-31	Hotkey

A.1.6.1 OIA language data files

There are two language data files for OIA: **OIACIW.LNG** and **OIAMSA.LNG**.

- OIACIW.LNG provide text displays in the Call Information Window.
- OIAMSA.LNG provides the displays for the Message/Status area.

The default language for these files is English, but it can be changed by editing these files.

A.1.6.2 Upgrades from previous IWS versions

An upgrade performed through the IWS Setup Utility will help preserve the existing workstation datafill. In most cases, files .TBL and .LNG in the directory C:\MPXBASE\DATAFILL will be identical to the previous IWS version.

There are however, several exceptions, and for each of those a backup of the existing datafill file will be made and preserved in the directory C:\MPXBASE\TMP.

Refer to the *TOPS IWS Base Platform User's Guide* for more information.

A.2 KeyBind

The provisioning tool and KeyBind utilities can be used from a RAMP position to edit and customize keyboard functionality and screen text on all the other positions on a token ring.

Appendix B: Typical call processing scenarios

B.1 Station paid calls

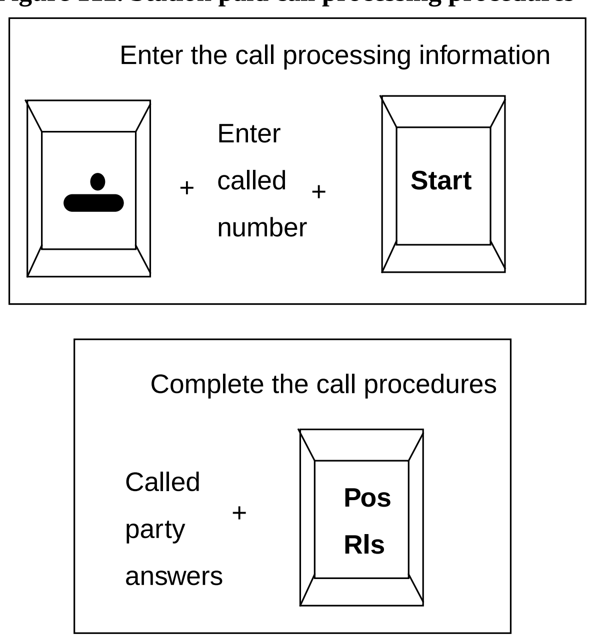
A station paid call:

- is paid for by the calling party
- is placed from home or a location where no further billing is required
- is billed as “station,” indicate that the calling party will speak to anyone

In a station paid call, the cursor is by default in the called field of the Call Information window. (See Figure 112.) To process the call, follow these steps:

1. Enter the called number in the called field.
2. Press **Start** to store the called number in the system.
3. To bill this call, move the cursor to the calling field by pressing the calling key.
4. Press the station class charge key (the key with the icon of the telephone on it). A picture of a small on-hook telephone appears in the rightmost area of the field. With all of the necessary call processing information in place, the call rings at the called number.
5. When the called party answers, ask the called number to verify that the proper phone number was reached.
6. Announce the long-distance call and tell the parties to begin speaking.
7. To release the call, press the **Pos Rls** key.

Figure 112. Station paid call processing procedures



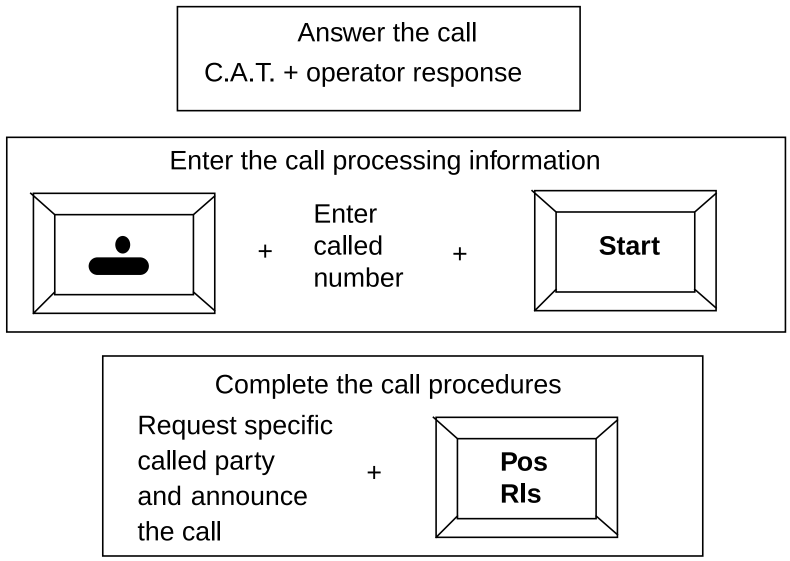
B.2 Person paid calls

When a customer asks the operator to make a connection to a specific person on a call, the operator follows the same basic procedures as those used for a station paid call, but adds the announcement procedure.

The DMS switch does not allow the operator to release a person paid call from the position until the called party answers.

Figure 113 shows the procedures for person paid call processing. Remember to move the cursor to the calling field before pressing the **Person** key.

Figure 113. Person paid call processing procedures



B.3 Station and person paid collect calls

A collect call is:

- paid for by the called party
- billed as “station” if the customer does not ask to speak to a specific party
- billed as “person” if the customer asks to speak only to a specific party at the called number

For example, Mariko, the calling party (customer) is out of town and not at a place she can bill the call. Mariko needs to speak with someone at the called party number and wants them to pay for the call. Mariko may or may not ask to speak with a specific person.

To process a collect call, follow these steps:

1. Enter the called number.
2. Enter billing as follows:
    - Press the **Station** key if the calling party indicates that he or she will speak to anyone who answers.
    - Press the **Person** key if the calling party indicates that he or she wants to speak to a specific person. That person must agree to accept charges before you can continue processing the call.
3. Press **Start**, since the default cursor location for an operator handled call is the called field.
4. Enter the class charge in the Cld field because the called party is billed for a collect call.
5. Complete the call by announcing and pressing **Pos Rls**.

If the service provider requires that you split the voice path with the calling party to receive verbal acceptance of the call, use the Split/Join Calling feature from the Functions menu.

See Figure 114 for a station paid collect call flow. See Figure 115 for a person paid collect call flow.

For both station and person paid collect calls, complete the call by announcing and pressing **Pos Rls**.

Figure 114. Station paid collect call

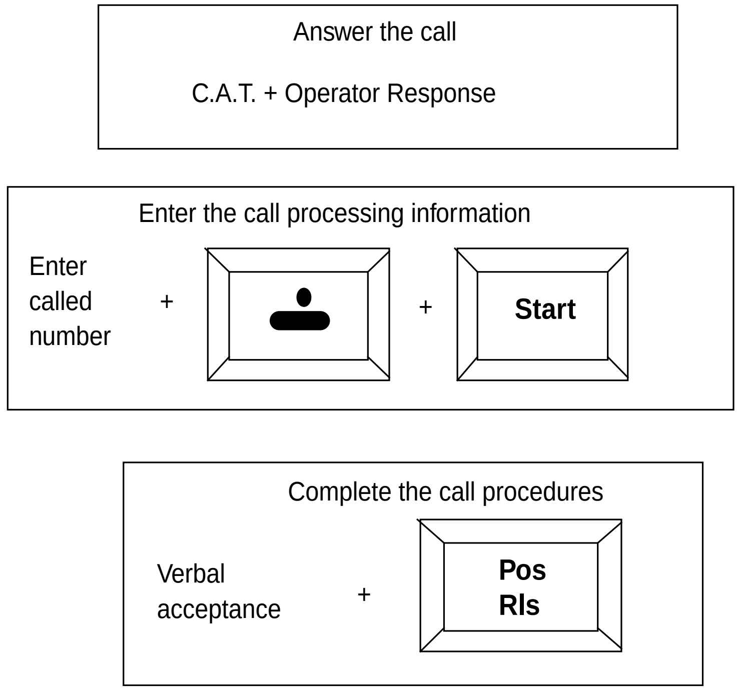
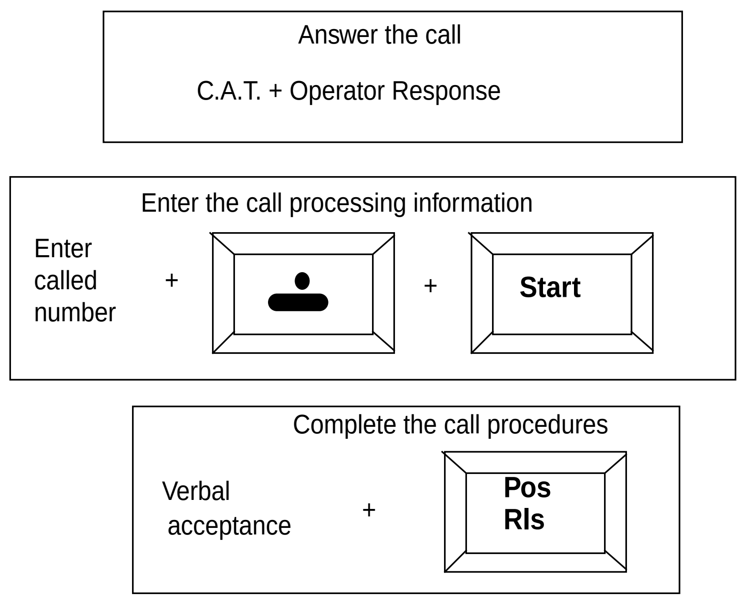


Figure 115. Person paid collect call



B.4 Station or person special calling

Station or person special calling requires special billing (such as credit, debit, calling, LEC card or third party). For example, the calling party Yoshi wants to call the called party Shinji, but requests to pay with a credit card.

For station or person special calling:

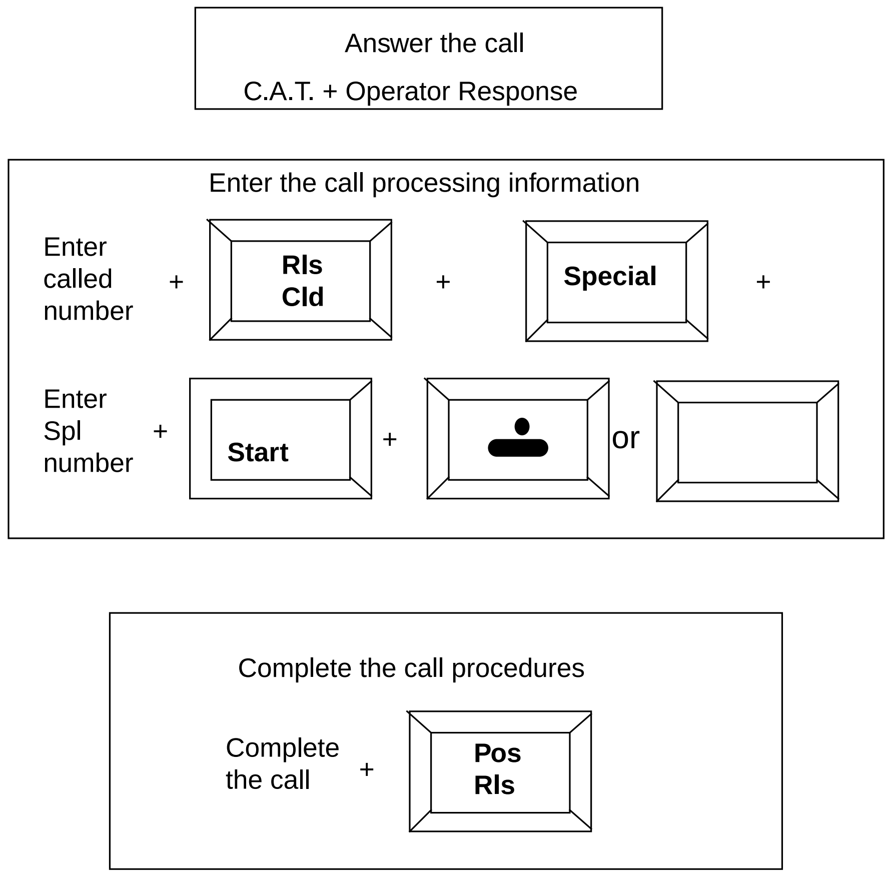
- The calling party asks the operator to bill a call to a third or card (Spl) number.
- Before the operator connects the called party, the operator must enter the card or third number for automatic validation.

To handle station or person special calling, do the following:

1. Enter the called number.
2. Press **Rls Cld** to format, but not to outpulse.
3. Enter the third party or card number and pin in the **Spl** field.
4. Press **Start** and class charge key.
5. Press **Start** to outpulse to the called party.
6. Press **Pos Rls** or complete the call as appropriate.

   Depending on service provider datafill, press either **Start, Connect Called**, or **Pos Rls** to outpulse to the called party. See Figure 116.

Figure 116. Person or station special calling processing procedures



B.5 Station and person special called

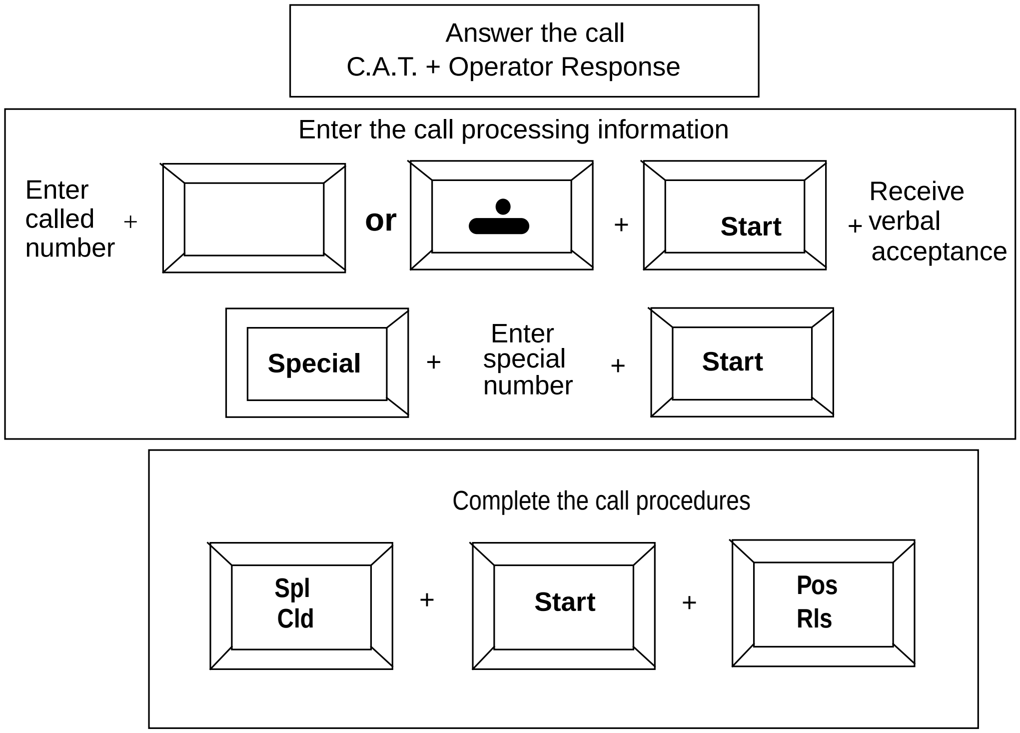
Special called is similar to station or person special calling in that a card or third party number is billed for the call. For station and person special called, the calling party requests billing to the called party (as if collect). Do the following:

1. Class charge to the called party, as follows:
    - Press the **Station** key if the calling party indicates that he or she will speak to anyone who answers.
    - Press the **Person** key if the calling party indicates that he or she wants to speak to a specific person. That person must agree to accept charges before you can continue processing the call.
2. When the called party requests (Spl) third party or card billing, enter third party or card number in **Spl** and **Start.**
3. After verifying the card billing or third party, press the **{Spl Cld}** softkey**.** A black up arrow appears in the Spl field and the class charge remains in the called field.
4. Press **Start or Con Cld** to outpulse to the called party.
5. Press **Pos Rls** or complete the call as appropriate.

    Depending on service provider datafill, press either **Start, Connect Called**, or **Pos Rls** to outpulse to the called party.

See Figure 117.

Figure 117. Station or person special called processing procedures



B.6 Third party billed with verify special option call

A third party billed call with verify special is billed to a third party number. The Verify Special function allows service providers to verify billing to a third party number. To process this type of call, note the following:

- When the calling or called party requests that the operator bill a call to a third (Spl) party number (not a card), secure verbal billing acceptance from someone at the third party number.
- Station paid calls can be accepted by anyone at the third party number, unlike person paid calls, which need to be accepted by the person specified by the calling party.
- Use the Verify Special option from the **Functions** menu (or hotkey or softkey, if one is designated Verify Special).

For example, the calling party wants to call the called party, but requests that a third party (such as a business, a friend, or relative, etc.) pay for the call and accept billing charges.

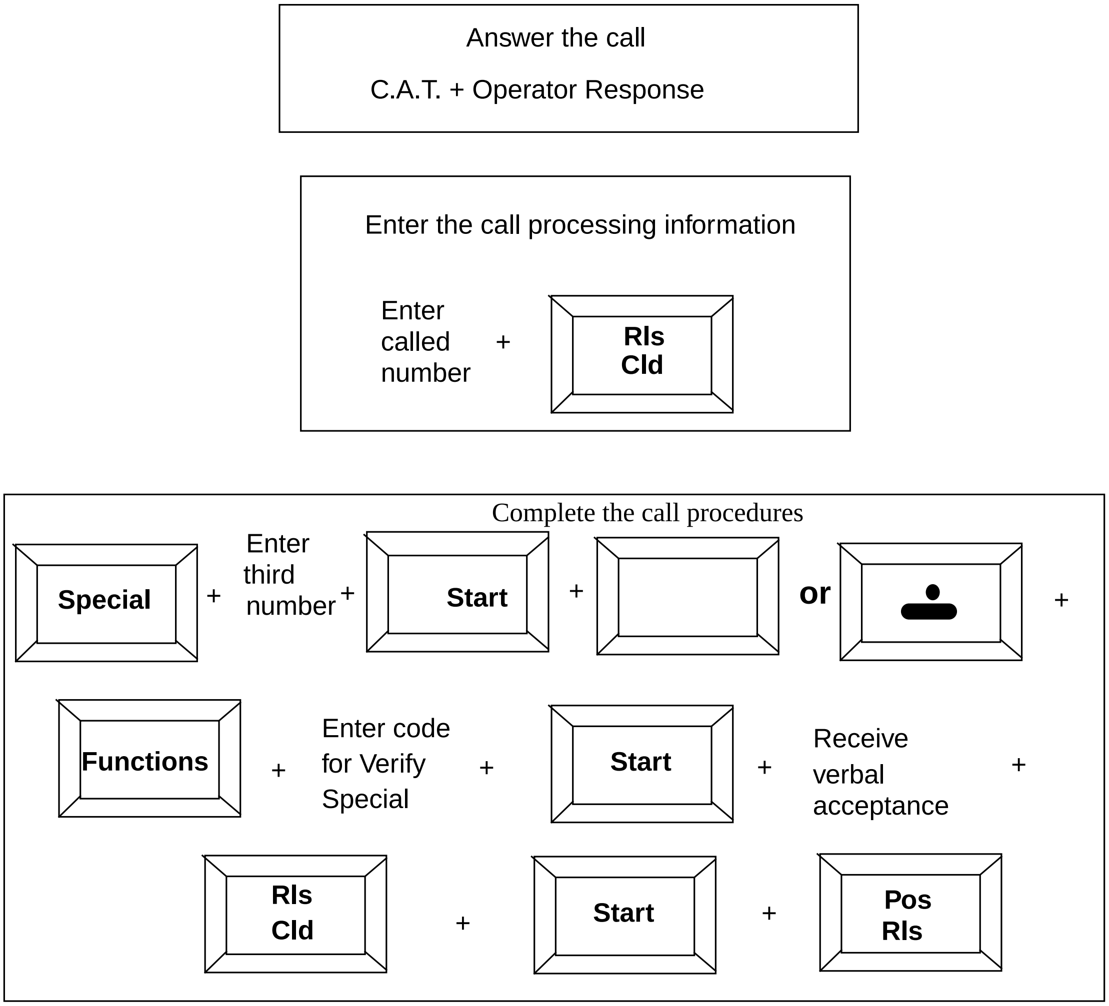
If the called party requests third party billing, handle the call like a collect call with the called party requesting third party billing.

Figure 118 demonstrates a third party billed call with verify special where the calling party requests third party billing. To process this call, follow these steps:

1. Ask the calling party for the called number and class charge (person or station).
2. Enter the called number.
3. Press **Rls Cld** to format the number and save it.
4. Enter the third party number in the **Spl** field.
5. Press **Start** and the class charge key. (If the call is already outpulsing to the forward number, press **Rls Cld** to stop the ringing.)
6. Select the code for Verify Special from the **Functions** menu. This makes the third number the forward-called number which rings the third number.
7. When the third party answers, attempt to secure acceptance of the charges.
8. Press the **Rls Cld** key to terminate that forward connection and return the original forward number to the called field.
9. Press **Start** or **Con Cld** to outpulse to the called party.
10. Press **Pos Rls** or complete the call as appropriate.

Using the Verify Special function is the recommended method for securing third party billing acceptance. However, you may elect to access the other loop and reach the third party in that manner. Accessing a free loop automatically puts the other loop on temporary hold.

Figure 118. Third party billed with verify special call



B.7 Time and charges recall

Time and charges recall is successful only when the customer who requests Time and charges remains on the line as the operator requests and the other party hangs up.

When successfully recalled to an operator position, note and do the following:

- An indication message, such as `T&C Recall` displays in the Call Headlines area to indicate that this is a time and charges recall.
- The Call Details Window displays the actual time and charges of the call.
- You report the time and charges to the customer and press **Pos Rls.**

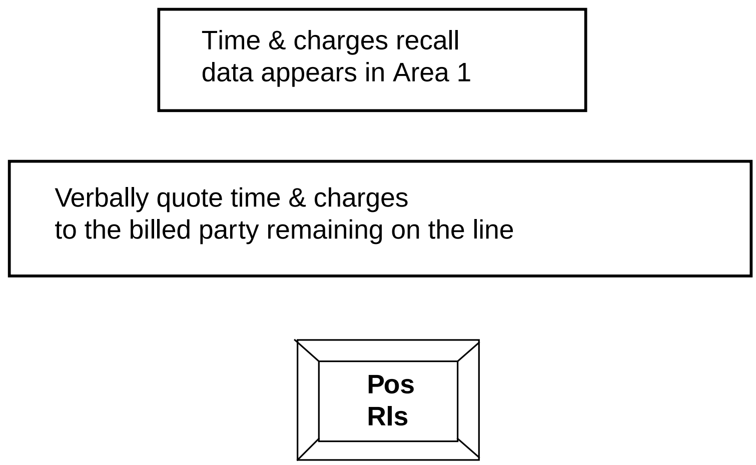
B.7.1 Printing time and charges

Some telephone companies may require that the operator print a time and charges quote while processing a time and charges recall. In this case, do the following:

1. Press the **Fncts** menu key twice.
2. Select the code for **Print Time & Charges**.
3. Press **Start** to send the **Print Time and Charges** request to the printer in the office.

See Figure 119.

Figure 119. Time and charges recall retrieval processing procedures



B.8 Notification

Fixed Duration is an option that allows the operator to cut off a call after a set amount of time. For example, the calling party may ask the operator to cut off the call after x minutes. Do the following:

1. Follow the instructions above for Notification.
2. Choose Fixed Duration from the **Fncts** menu.
3. Press **Start**.
4. Enter the amount of time the calling party wants to speak to the called party.
5. Press **Start**.
6. Release the call. You will not receive a recall.

Depending on service provider datafill, the parties may hear an alert tone ten seconds prior to call cut off.

B.9 Estimated call charges processing procedures

The TOPS estimated call charges feature provides the following features:

- Provides the operator the ability to estimate the cost of completing a call.
- Estimates the charges before the call is completed
- Records the charges and is activated in the DMS switch

To process estimated call charges, do the following:

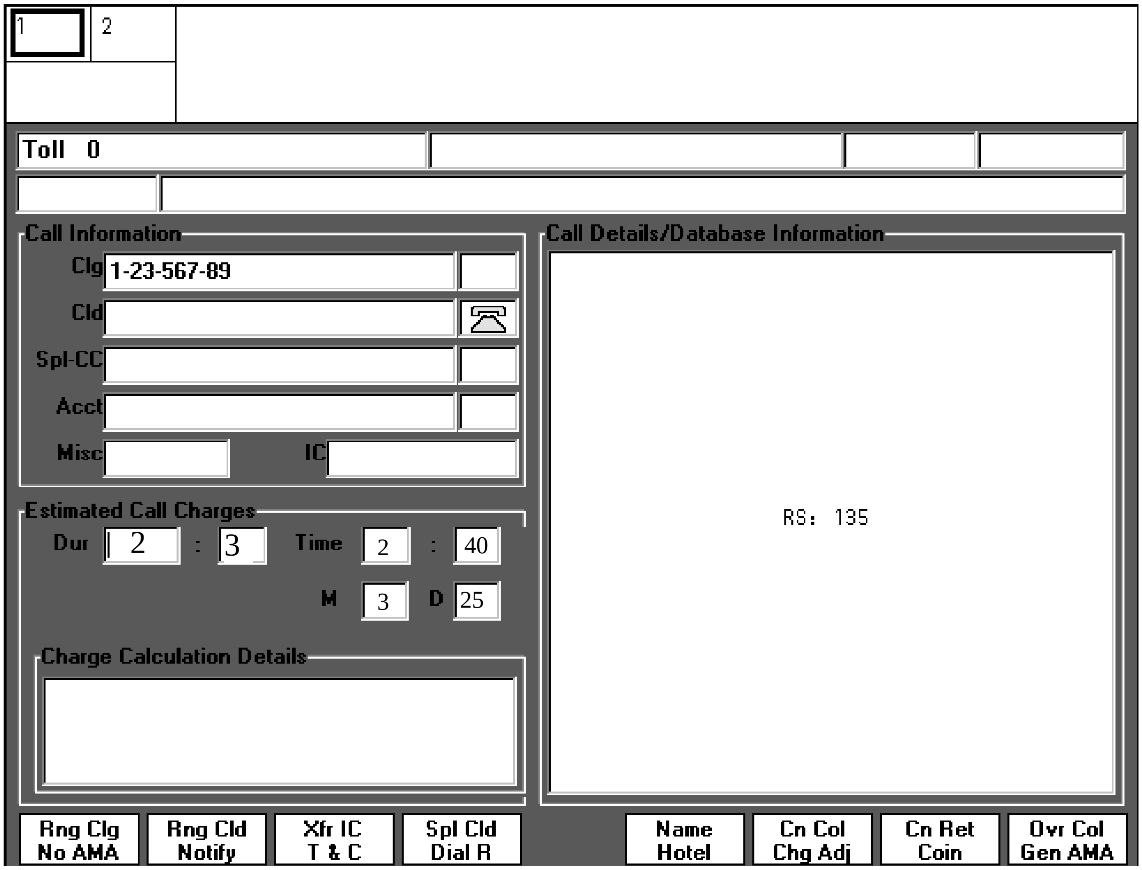
1. Press the **Estimate Call Charges** key in the QWERTY section of the keyboard. (The location of this key on the keyboard is datafilled in a table on the position and switch.)

   The Estimated Call Charges window displays in area 3.
2. Press the Fncts key twice to enter or modify the call data needed to calculate call charges.
3. Enter the code for Calculate Est Chg.
   The estimated call charges are calculated at the DMS switch and display in the Call Details area.
4. Quote the estimate to the subscriber.

The **Estimate Call Charges** key must be datafilled in file XKBOARD.TBL with the KeyBind Utility, which is described in *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-015.

Figure 120 shows an example of the Estimated Call Charges window.

Figure 120. Estimated Call Charges window



In an Estimate Call Charges call, you can do the following:

- change the call information and perform as many estimates as necessary
- if necessary, generate an AMA record for each estimate manually by entering the GEN AMA code from the Functions menu

Charges are estimated for a call based on the following attributes. All except the last three listed attributes are the elements commonly included in call information. You can use these attribute values to either calculate a charge or enter new values based on subscriber input:

- calling number
- called number
- overseas number
- special number
- call origination type (dial rate)
- station class
- class charge
- rate step
- time of day the call is placed

- day and month the call is placed
- duration of the call

You can change any of the above attribute values as long as the called party is not connected. If the called party is connected and timing has started, you cannot change the called number or the class charge.

The numbers of the parties connected and the existing class charge are used for the charge estimate.

B.10 Working in the Estimated Call Charges window

A call must be at the position to activate the Estimated Call Charges window. To activate the Estimated Call Charges window, press the **Estimate Call Charges** key. The cursor moves to the first input field for the duration of the call.

The data input fields are grouped into the following three categories to transmit data to the DMS switch to be estimated:

- Time: hour and minute fields
- Date: month and day fields
- Duration: hour and minute fields

Note the following processing information for Estimate Call Charges:

- When the cursor is in the first field of each group, press **Start** to terminate the data for that field and move the cursor to the second field (in that group).
- Press **Start** from the second field in any group to transmit call attributes associated with that group to the DMS switch.
- Upon validation from the DMS switch, the cursor moves to the first input field of the next group.
- When you press **Start** while the cursor is in the last input field, the cursor returns to the first input field.
- Press the **Tab** key to move the cursor forward among the input fields in a group.
- Press the **shift-Tab** key to move the cursor backward among the input fields in a group.
- Press **Start** to move into another group of fields.
- Press the field selection key to cycle through all the input fields without sending the data to either the IWS or the DMS switch.

- In an input field with non-terminated or invalid data, press the field selection key:
  - in the first field of a group and clear the data in that field
  - in the second input field and clear the data in both fields of the group.
- Press any IWS Billing call handling keys (such as **Misc**, **Acct**, or **Pos Rls**) to return focus to the IWS Billing application.
- You can access all menus from the Estimate of Charges window.
- Press the backspace key to erase any input data.
- If you press **Start** and again cycle through the data, you may erase or overwrite data previously transmitted to the DMS switch.

The field selection key must be datafilled in file XKBOARD.TBL with the KeyBind Utility, which is described in the *TOPS IWS RAMP and Provisioning User’s Guide,* 297-2251-010.

To successfully estimate charges to complete a call, you must record the following information:

- Datafill contained in the rating system
- Attributes of the call being estimated
- Duration, date, and time of the call. Note the following:
  - You may enter a time and no date, or vice versa.
  - You must specify a day and a month if you use the date input fields.
  - You must specify an hour and minute if you use the time input fields.
  - If you do not enter a date or time, the DMS switch uses the current date and time as the default.

B.11 Estimate of Charges

You can calculate charges with or without entering information into the Estimated Call Charges window, but certain features and limitations apply for each method, as shown in this section.

B.11.1 Calculating charges from the Estimated Call Charges window

Estimating charges from the Estimated Call Charges window lets you refine the date, time, and duration call attributes. Note that the estimated charge may vary based if duration is a factor in the estimation.

If you specify a duration, the position displays the total calculated charges for that duration.

If you do not specify a duration, the position displays the following information in the Charge Calculation Details field (as shown in Figure 121):

- length of the initial period
- calculated charges for the initial period
- length of the overtime period
- calculated charges for each overtime period

The estimate does not account for taxes and surcharges. If the time crosses a rate boundary, the rate is based on the start time of the call.

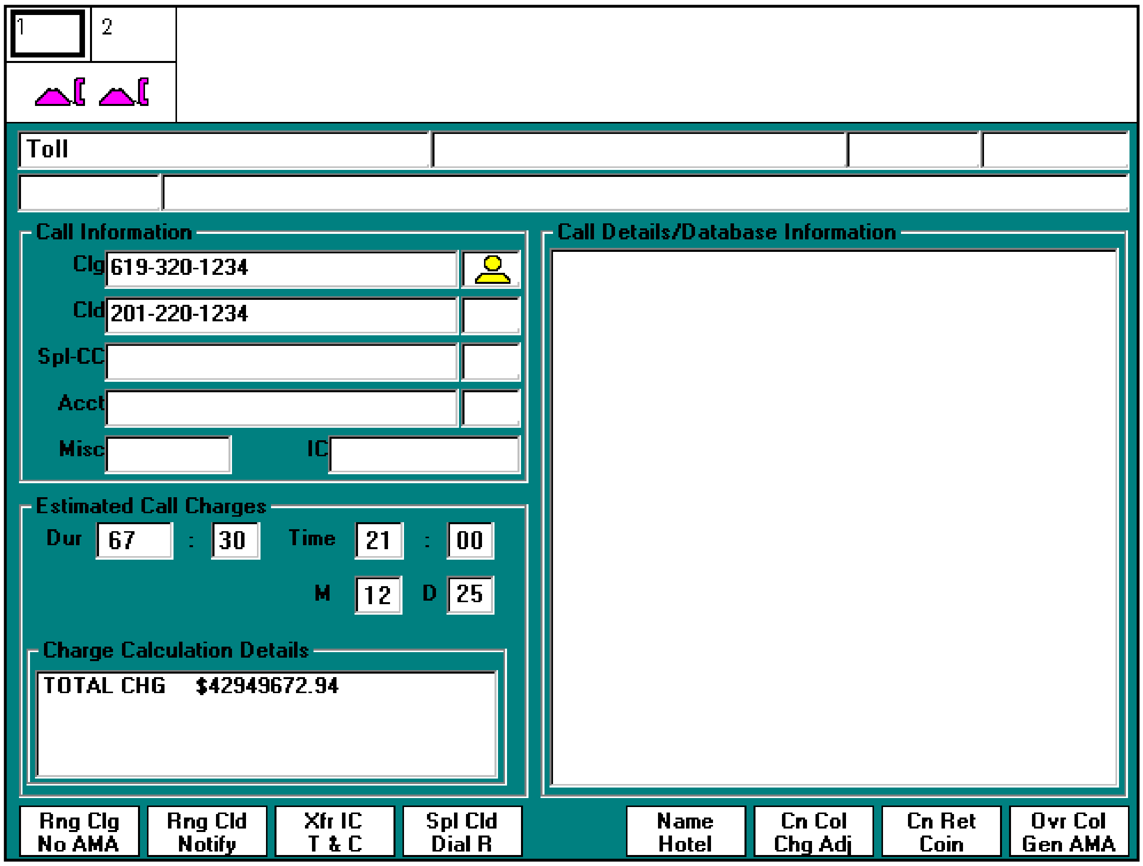
B.11.2 Calculating Charges from IWS Billing

Estimating charges uses the details of the call currently at the position. Note the following:

- Do not provide the duration, date, or time of day of the call because these values are entered only through the Estimated Call Charges window.
- Select Calculate Est Chg from the Functions menu.
- If you can perform a successful estimation, the Estimated Call Charges window activates and the initial and overtime estimations display.

However, if you enter manually enter call details into the Estimated Call Charges window, the estimated cost of the call displays in the Charge Calculation Details field. Figure 121 shows an example display.

Figure 121. Sample cost estimate using the Estimated Call Charges window



If you try to estimate charges from the IWS Billing application but do not specify a called party, the DMS switch reports an invalid charge estimation attempt with a No Action reason in the MSA (`Estimate Charge Calculation Failure`), and the Estimated Call Charges window does not get focus.

After an estimate of charges calculates, do **one** of the following actions:

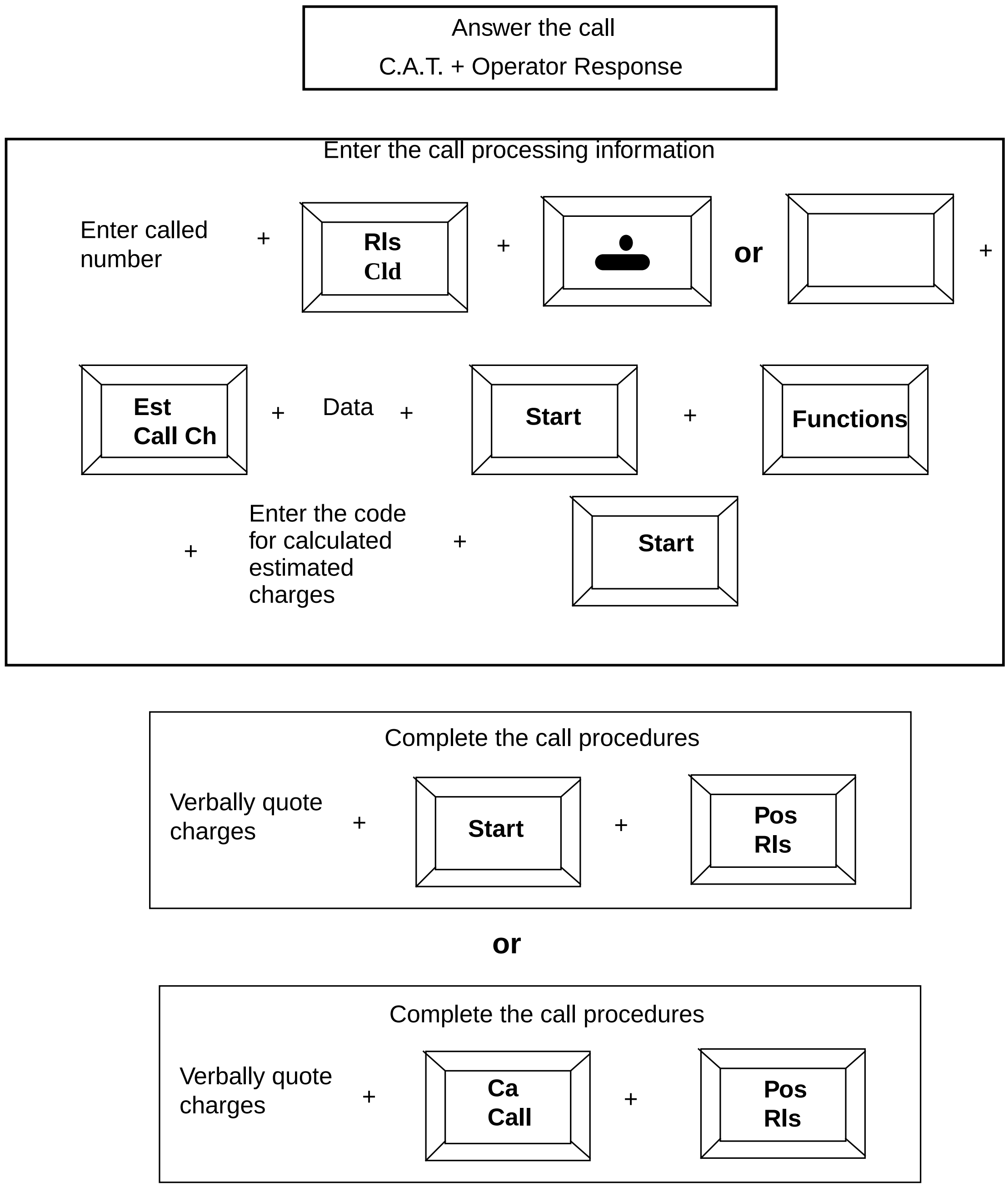
- Change call attributes values and perform another estimation of charges.
- Release the call (**Ca Call** + **Pos Rls**).

Charge calculation failure can occur for the following reasons:

- The operator did not supply enough data to estimate the charges.
- The rating system cannot calculate charges. If the rating system cannot perform a charge calculation, a No Action Reason displays in the MSA.

Figure 122 shows estimated charges call processing procedures.

Figure 122. Estimated charges call processing procedures



B.12 Busy line verification (BLV)

A customer who is experiencing trouble reaching another party (such as constant busy signals) may ask you to check the line. To determine the status of the line, do the following:

1. Use BLV from the Functions menu (or the assigned hotkey or softkey).
2. Determine the called line condition.
3. Report the condition to the customer and complete call as appropriate.

B.13 0 Call BLV

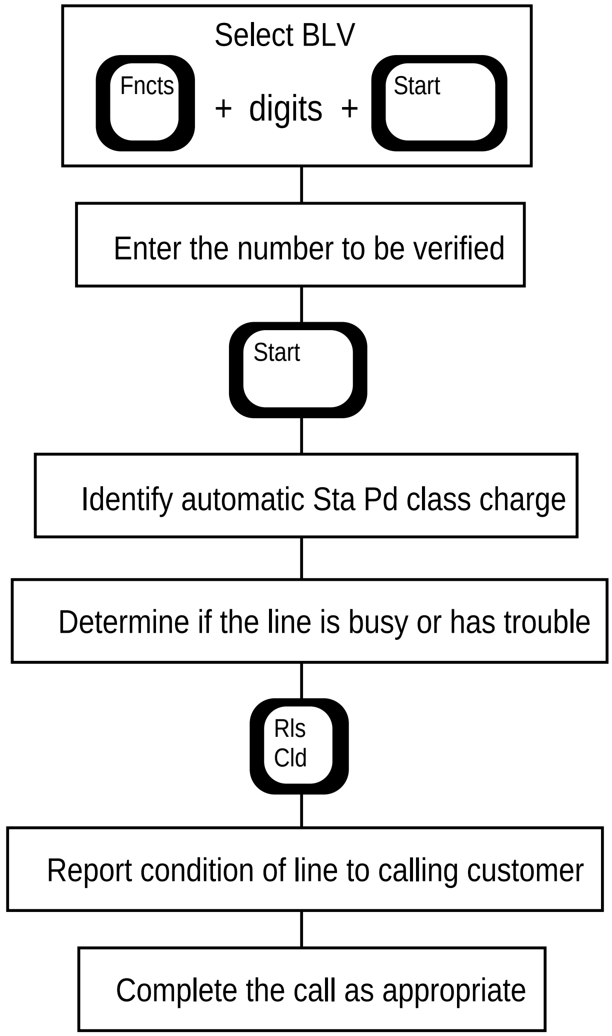
On a 0 call, the BLV function positions the cursor in the Cld field for entry of the number you are verifying. Do the following:

1. Press **Start.**

   An automatic Sta Pd class charge displays in the appropriate field.
2. If the customer wishes to bill the call differently, change the class charge.
   The only unacceptable billing on a BLV is collect.
   The call is forwarded on the verification trunk to determine the condition of the line.
3. Press **Rls Cld** to release the forward connection and report back to the calling party.
4. Complete the call as the customer instructs.

See Figure 123.

Figure 123. 0 BLV call processing procedures



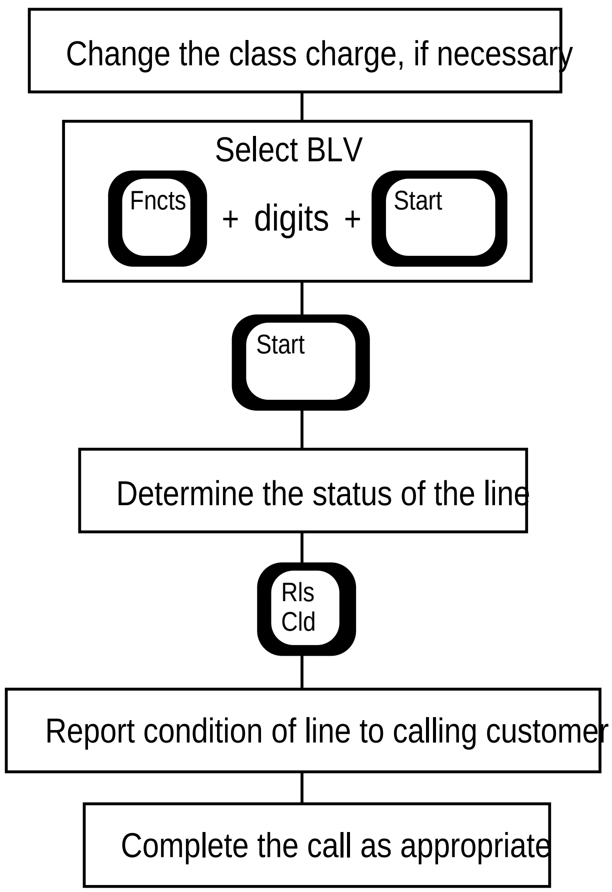
B.14 0+ Call BLV

When a customer requests BLV on a 0+ call, the calling party must pay for the call and collect calls are not permitted. Do the following:

1. Invoke the BLV function and press **Start** to forward the call on the verification trunk.
2. After determining the status of the line, press **Rls Cld** to report to the calling party.
3. Complete the call per the customer’s instructions.

See Figure 124.

Figure 124. 0+ BLV call processing procedures



B.15 Barge in / interrupt

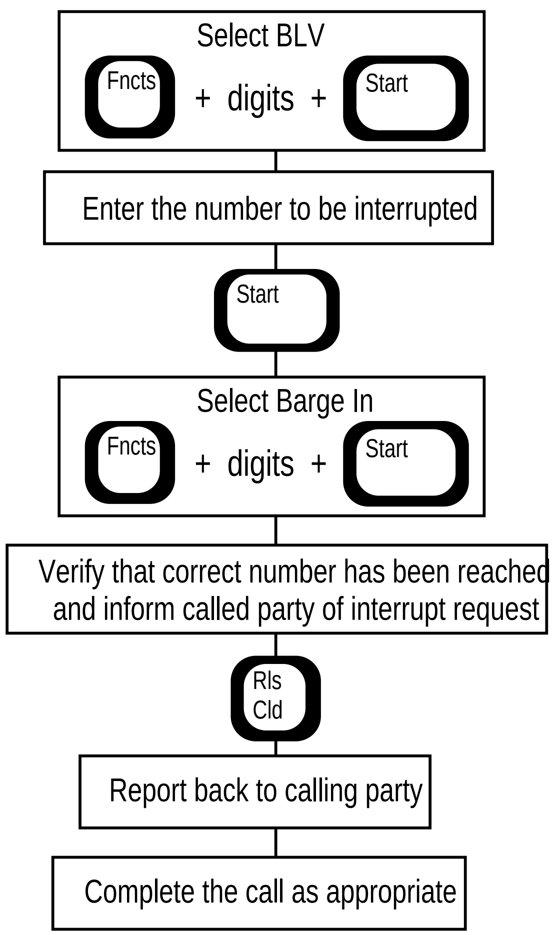
When a line is busy, a customer may ask you to interrupt the conversation.

To Barge In (interrupt a call in progress), do the following:

1. After hearing clear or scrambled conversation on the verified line, choose the Barge In function (or the hotkey or softkey, if appropriate).
2. After hearing the alert tone and conversation, verify that you reached the correct number.
3. Inform the called party of the interruption request.
4. Press **Rls Cld** to disconnect the forward connection.
5. Report to the calling party whether or not the called party will give up the line so he or she may call.
6. Complete the call as appropriate.

See Figure 125.

Figure 125. BLV call processing procedures with barge in / interruption



B.16 Request CAMA

Use Request CAMA to maximize productivity when handling calls with long waiting periods involved. CAMA calls reach operator positions in exchanges not equipped for automatic number identification. Companies determine whether Request CAMA is justified. Request CAMA offers the following benefits:

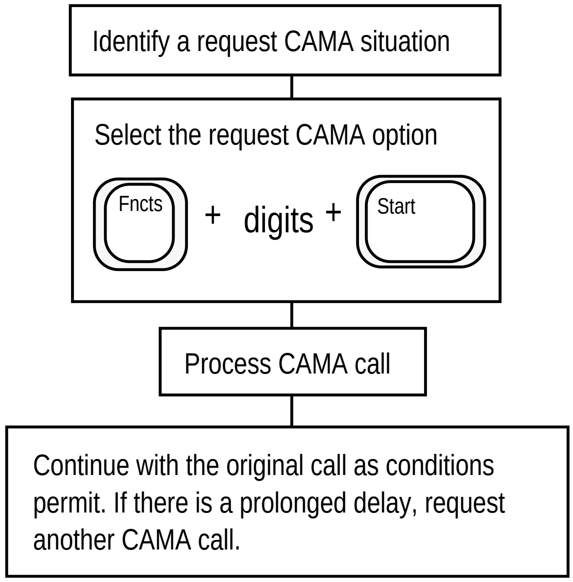
- shortens average call time when previous calls are delayed for an extended amount of time
- shortens average call time when a person call comes in for which the called person can not be located to come to the phone
- provides very quick CAMA calls that can be easily completed during the call delay period
- uses class charge already in place

To activate a Request CAMA call, do the following:

1. Select the Request CAMA option from the Functions menu. When a CAMA call comes to the position, the original call automatically goes on temporary hold and a yellow hand displays in the loop/port status area. CAMA displays in the Call Headlines area.
2. To complete the CAMA call on the other loop, enter the calling number. When the CAMA call terminates, that screen clears and the original call information returns.
3. If the delay is extended, you can request another CAMA call. If no CAMA call is in queue and you select the Request CAMA function, you remain connected to the original call.

See Figure 126.

Figure 126. Request CAMA call handling procedures



B.17 InterLATA calls

Occasionally, a subscriber may ask you to complete a long-distance calls to a location outside of the LATA.

If your company does not provide operator services for interLATA calls, either give dialing instructions or transfer the call to an interLATA carrier.

The following services are available for completing InterLATA calls:

- Equal Access - the service provider provides long distance services
- Non Equal Access - the service provider has to transfer to an operator at another service provider to provide long distance services

When an InterLATA call, comes to your position, your screen will display whether the subscribe's call came from an Equal Access (EA) or non-Equal Access (NEA) end office, as follows:

- For an NEA call**,** `NEA` displays in the Call Details area.
- If there is no NEA display, the call originated from an Equal Access end office.

Equal and Non Equal Access scenarios for 0+ and 0 InterLATA call handling are provided in the following sections.

B.17.1 0+ interLATA call from an EA end office

For a 0+ call, if the called number is to an interLATA point, and the call comes from an Equal Access end office, do the following:

1. To transfer the call, press the **IC** key in the call processing cluster.
2. Enter a three- or four-digit carrier code.
3. Press **Start** followed by **Pos Rls.**

B.17.2 0+ interLATA call from an NEA end office

For a 0 + call if the called number is to an interLATA point, and the call **does not** come from an Equal Access end office (that is, `NEA` displays in the Call Details area), do the following:

1. To transfer the call, go to the Functions menu, choose the option for Xfr IC, and press **Start**. This procedure automatically sends the call to an interLATA carrier.
2. **Xfr IC** is a toggGen Amale key and can be toggled to cancel the request.

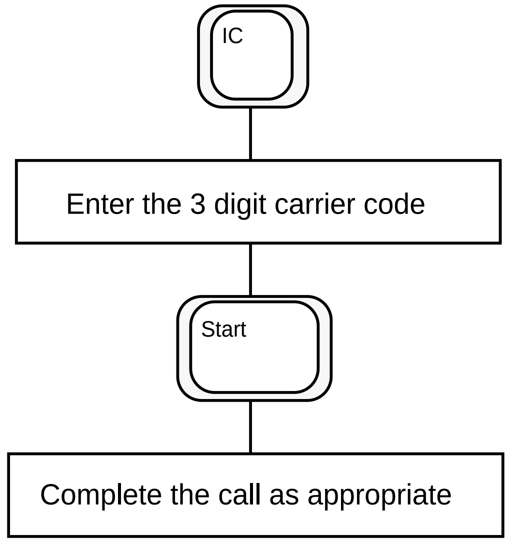
B.17.3 0 interLATA call

For a 0 call, the operator cannot tell that a call requires an interLATA carrier until entering the called number. Follow these steps:

1. Enter the called number. `IC` displays in the Call Details area.
2. To transfer a call from an EA end office to an interLATA operator, use the procedure shown in Figure 127. If the call is from an NEA end office, go to Step 5.
3. Press the **IC** key in the call processing cluster, enter the three- or four-digit carrier code, and press **Start**. `Xfr IC` appears in the Call Details area.
4. Press **Pos Rls** to transfer the call.
5. If the call is from a Non Equal Access end office, `Xfr IC` displays immediately after you enter the called number. Press **Pos Rls** to transfer the call.

To complete an emergency call to an interLATA point, use the No AMA function to override the system block, allowing the call to proceed. You may find **No AMA** in the Functions menu, or it may be assigned to a hotkey or a softkey.

Figure 127. Transferring an interLATA call to a carrier



B.18 TICS (optional)

Some companies provide operator services only for certain interLATA carriers.

TICS (TOPS interLATA Carrier Service) allows independent service providers to provide InterLATA services. The optional TICS software package lets you process these calls.

If your company does not have TICS, note the following:

- When you enter a called number (for a subscriber on a 0 call), press **Start**.
- The message `Xfr IC` displays in the Call Details area.

Some service providers do not provide operator services for the carrier displayed in the IC field. If this is the case, transfer the call.

However, if no `Xfr IC` displays under the same circumstances, complete the call as the customer requests, which will require billing and additional call processing procedures.

B.19 TOPS local number portability (LNP)

LNP is a circuit switched network capability that allows telephone subscribers to keep their DN when they change service providers, as follows:

- The subscriber keeps the same DN when the DN is moved, or ported, to a different end office.
- Callers can connect to the ported DN without changing their dialing procedure.
- LNP changes the way TOPS handles the routing of numbers.
- LNP requires TOPS to process more information to bill Alternate Billing Service (ABS) calls and to route BLV calls.

B.19.1 Location routing number

Before LNP, all DNs with the same first six digits, known as the NPA-NXX, belonged to a single telephone switch. However, note the following with LNP:

- Individual DNs can be ported to different switches.
- The NPA-NXX (area code and phone number prefix) of a DN no longer uniquely identifies the switch that hosts the DN.
- This change affects the way a call is routed.
- LNP introduces a location routing number (LRN) as a way to route calls to subscribers whose DNs have been ported.
- Each switch that hosts a ported DN is assigned a unique ten-digit LRN.
- To route a call to the correct destination, the TOPS switch must obtain the LRN assigned to the switch that hosts the ported DN.

TOPS determines if the number is portable by checking switch datafill.

B.19.2 Network Configuration

The basic TOPS LNP network configuration has the following components:

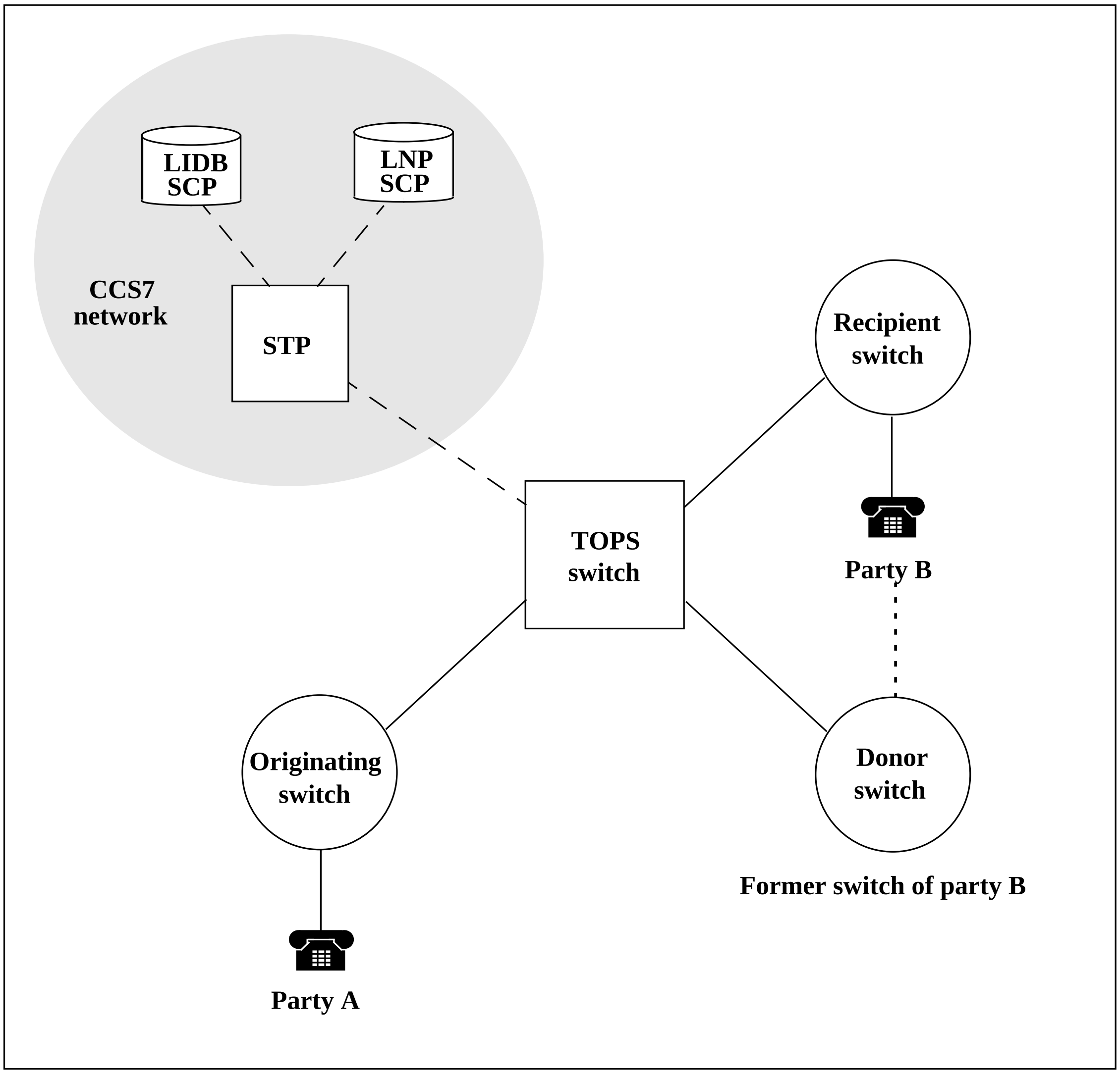
- TOPS switch
- Originating switch
- Recipient switch
- Donor switch
- Signal transfer point (STP)
- LNP service control point (SCP) database
- Line information database (LIDB) SCP

Figure 128 illustrates the basic TOPS LNP network. Note the following:

- The *originating switch* serves party A (the calling party).
- The *donor switch* formerly served party B (the called party), but party B has changed service providers.
- The *recipient switch* serves party B.

Note that the donor switch and recipient switch belong to the same rate center.

Figure 128. LNP



With LNP, note the following:

- A subscriber can keep the same DN after changing service providers.
- Therefore, the DN of party B is ported from the donor switch to the recipient switch.
- Because the DN of party B is portable, the NPA-NXX of party B no longer identifies the switch to which a call from A to B should be routed.

The following section describes how TOPS routes a basic LNP call using the LRN of the recipient switch.

B.19.3 Call processing overview

TOPS routes an LNP call through TOPS from party A to party B as follows:

1. The TOPS switch checks datafill to determine if the DN of party B is portable.
2. If the DN is portable, the TOPS switch queries the LNP SCP to determine if the DN of party B was ported and, if it was, to obtain the LRN of the recipient switch.
3. If the DN was ported, the LNP SCP confirms that the DN was ported by sending the LRN to the TOPS switch.
4. The TOPS switch uses the LRN to route the call to party B's recipient switch.

B.20 TOPS LNP busy line verification

Before LNP, the NPA-NXX of the called DN in a busy line verification (BLV) request determined if the TOPS switch serves the request (that is, the switch has a no-test trunk to the end office).

With LNP, note the following:

- The NPA-NXX of a number no longer uniquely identifies the end office that hosts the number.
- Thus, to execute BLV requests, TOPS operators need a way to request LNP information for a number.
- The functions menu lists LNP options for Clg, Cld and Spl numbers.
- The switch needs a way to route a BLV call to the correct no-test trunk.

B.20.1 LNP impact on BLV

To perform BLV, TOPS must select a no-test trunk that routes to the recipient office of the ported number. Therefore, BLV has the following two concerns:

- Determining whether or not the number was ported
- Selecting the correct no-test trunk when the number was ported

Table 40 shows the relationship between portability (ported/not ported) and the zone of BLV service (served/not served) for a TOPS office. Table 40 illustrates four different scenarios. In Table 40, the operator attempts BLV before determining if the office can serve the BLV request.

Table 40. Relationship between portability and BLV service

Scenario	Explanation	Action
Ported/served	The number was ported into an office served by the TOPS switch.	Follow existing BLV practices. The switch uses the LRN to select the correct no-test trunk.
Not ported/served	The number resides in an office served by the TOPS switch.	Follow existing BLV practices. The switch uses the DN to select the correct no-test trunk.
Ported/not served	The number was ported into an office that is not served by the TOPS switch.	Follow existing BLV practices and receive treatment because the number is not served. Request LNP information. Since an LRN is returned, use the LRN to perform a TTC lookup and routs the call to another operator to execute BLV.
Not ported/not served	The number resides in an office that is not served by the TOPS switch.	Follow existing BLV practices and receive treatment because the number is not served. Request LNP information. Since an LRN is not returned, use the DN to perform a TTC lookup and routes the call to another operator to execute BLV.

B.21 Operator practices for BLV in an LNP environment

TOPS LNP lets the operator make requests for LNP information on the called number. This section describes two scenarios that show an operator requesting LNP information for a called number in order to process a BLV call.

The two scenarios are as follows:

- In scenario 1, the operator determines if the office can serve the BLV request before executing BLV (the LNP request occurs before the BLV request).
- In scenario 2, the operator attempts BLV before determining if the office can serve the BLV request (the LNP request occurs after the BLV request).

  In scenario 2, the operator makes the LNP request only if the office cannot serve the BLV request.

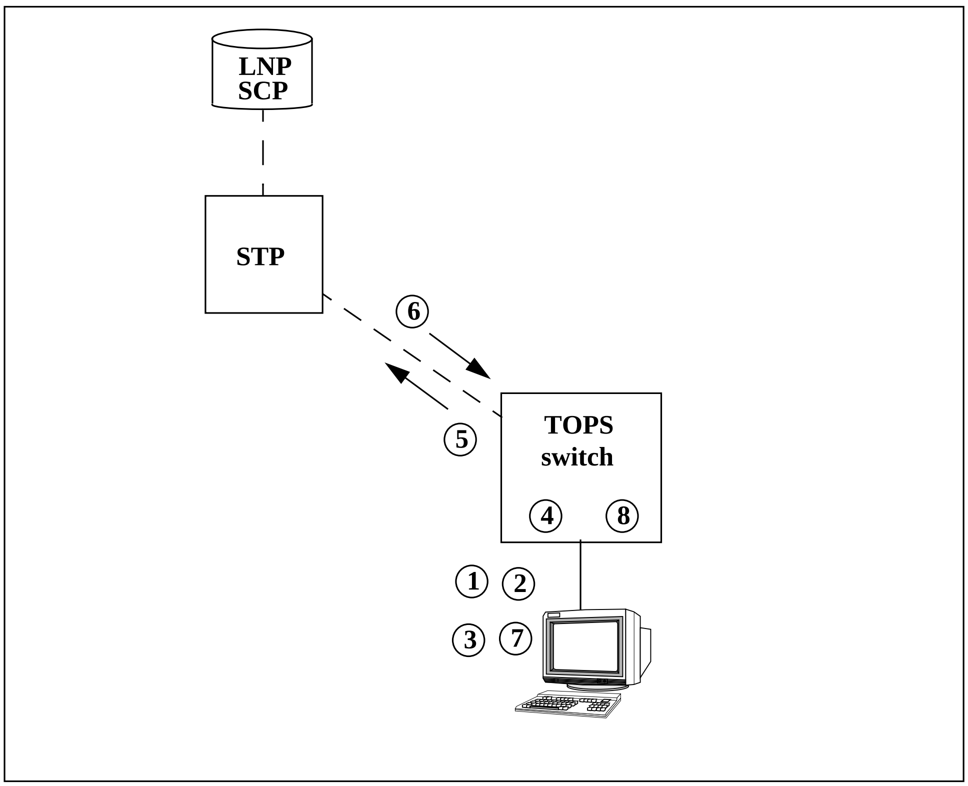
  In both scenarios the called DN was ported.

B.21.1 Scenario 1

Figure 129 shows the steps in a BLV call where the operator makes the LNP query before the BLV request, as follows:

1. A call arrives at the operator position and the subscriber requests BLV.
2. The operator enters the ten-digit number to be verified.
3. Before executing BLV, the operator makes an LNP request on the called DN to determine if the office can serve the BLV request, using the appropriate function from the Functions menu.
4. The switch receives the LNP request and checks table PORTNUMS.
5. The switch launches a query to the LNP SCP.
6. The SCP returns an LRN.
7. The switch sends the LRN to the operator position.
8. Using the LRN, the operator determines whether the office can serve the BLV request.
9. If the office can serve the BLV request, the switch processes BLV using the LRN to route to a no-test trunk.

Figure 129. BLV with LNP query before the BLV request



Or, if the office cannot serve the BLV request, the operator uses the LRN to perform a TTC lookup and routes the call to another operator to execute BLV.

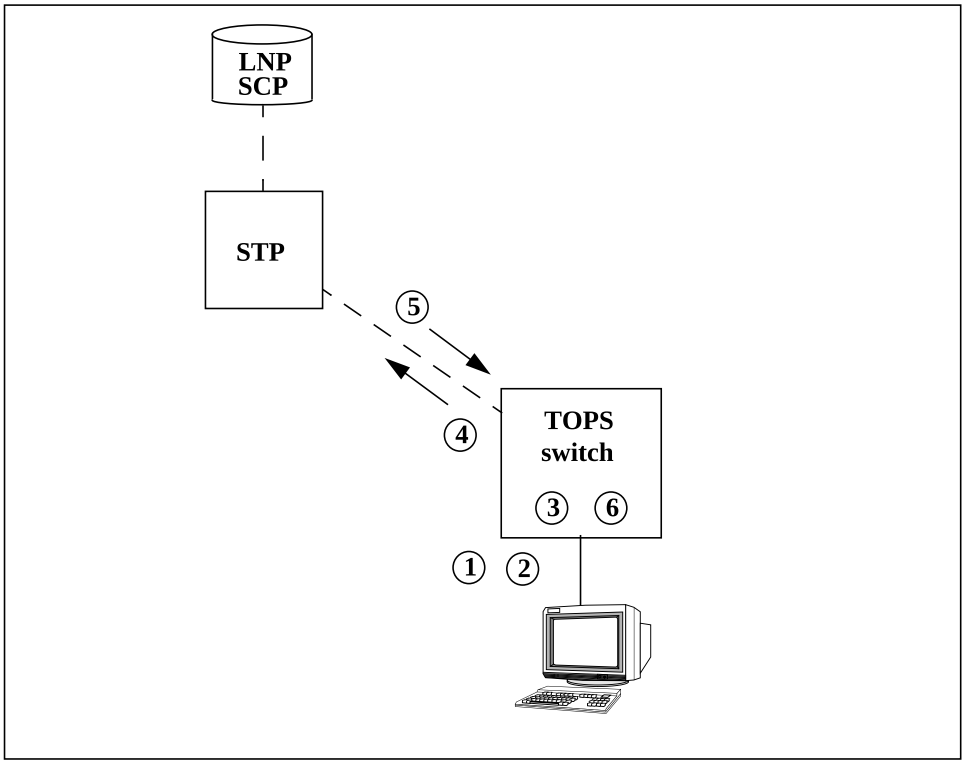
B.21.2 Scenario 2

Figure 130 shows the steps in a BLV call where the operator requests LNP after executing the BLV request, as follows:

1. A call arrives at the operator position and the subscriber requests BLV.
2. The operator requests BLV on the number.
3. The switch receives the BLV request and checks table PORTNUMS.
4. The switch launches a query to the LNP SCP.
5. The SCP returns an LRN.
6. If the office can serve the BLV request, the switch processes BLV using the LRN to route to a no-test trunk. Or, if the office cannot serve the BLV request, the operator receives treatment (datafilled in table STDPRTCT) and the following actions take place:

- The operator requests LNP information on the called number to complete the BLV request, using the appropriate function from the Functions menu.
- The switch already has an LRN for the called number from the previous LNP query, so it sends the LRN to the operator position.
- The operator uses the LRN to perform a TTC lookup and routes the call to another operator to execute BLV.

Figure 130. BLV with LNP query after the BLV request



B.21.3 BLV voice-to-voice handoff call flow scenario

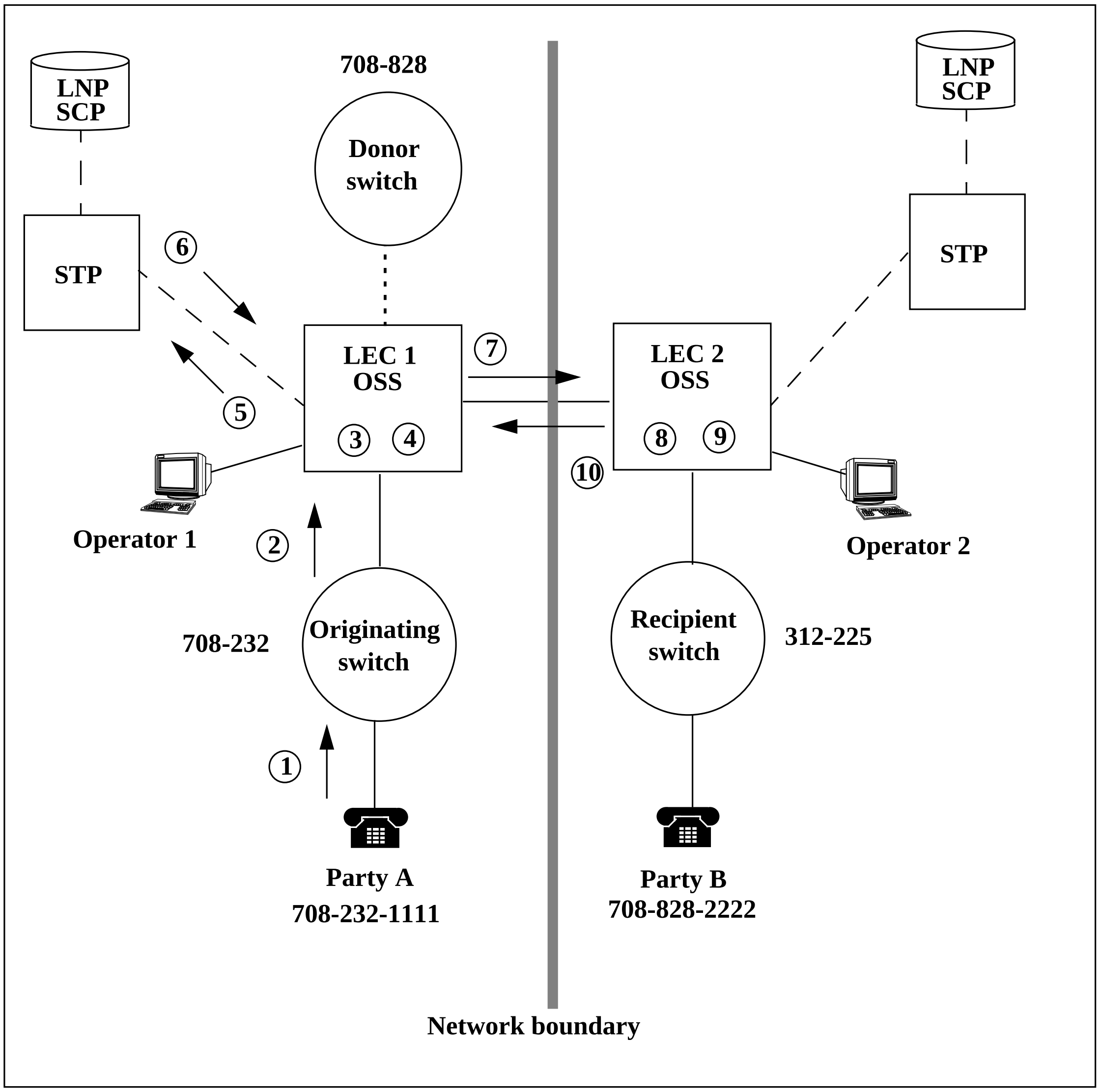
Figure 131 illustrates a BLV voice-to-voice handoff call.

In the example, the call is intraLATA and both operator services systems (OSS) are LNP-capable.

These are the steps in a BLV voice-to-voice handoff call flow:

1. Party A dials 0.
2. The originating switch determines that the call requires operator services and establishes a connection with LEC 1 OSS.
3. Operator 1 receives a request from party A to do a BLV on party B at 708-828-2222. The operator keys in 708-828-2222 and requests a BLV call.
4. LEC 1 OSS receives BLV request and determines that party B is portable.
5. LEC 1 OSS launches a query to the LNP SCP.
6. The SCP returns the LRN 312-225-0000 of the recipient switch.
7. LEC 1 OSS determines that it cannot serve the BLV request.
8. Operator 1 is notified by treatment to route the call to another OSS. The LRN is translated by the operator to a routing code in the form NPA-TTC, where TTC is the terminating toll center code for LEC 2 OSS.
9. Operator 1 must request another operator to do a BLV. (This may require an outgoing 121 assistance call.)
10. Operator 2 at LEC 2 OSS receives the request to do a BLV on party B at 708-828-2222. The operator keys in 708-828-2222 and makes a BLV request.
11. LEC 2 OSS receives the BLV request and performs BLV as described.
12. Operator 2 completes the BLV and reports the results to Operator 1, who relays the results to party A.

Figure 131. BLV voice-to-voice handoff



B.22 Operator and operator position interactions and limitations

This section briefly describes interactions and limitations with operators and positions.

B.22.1 Operator requests for LNP information

New messaging between the operator position and the switch allows an operator to request or receive LNP information for a calling, called, or billing (special) number.

Note: The billing number must be a ten-digit third number or a 14-digit line-based calling card number.

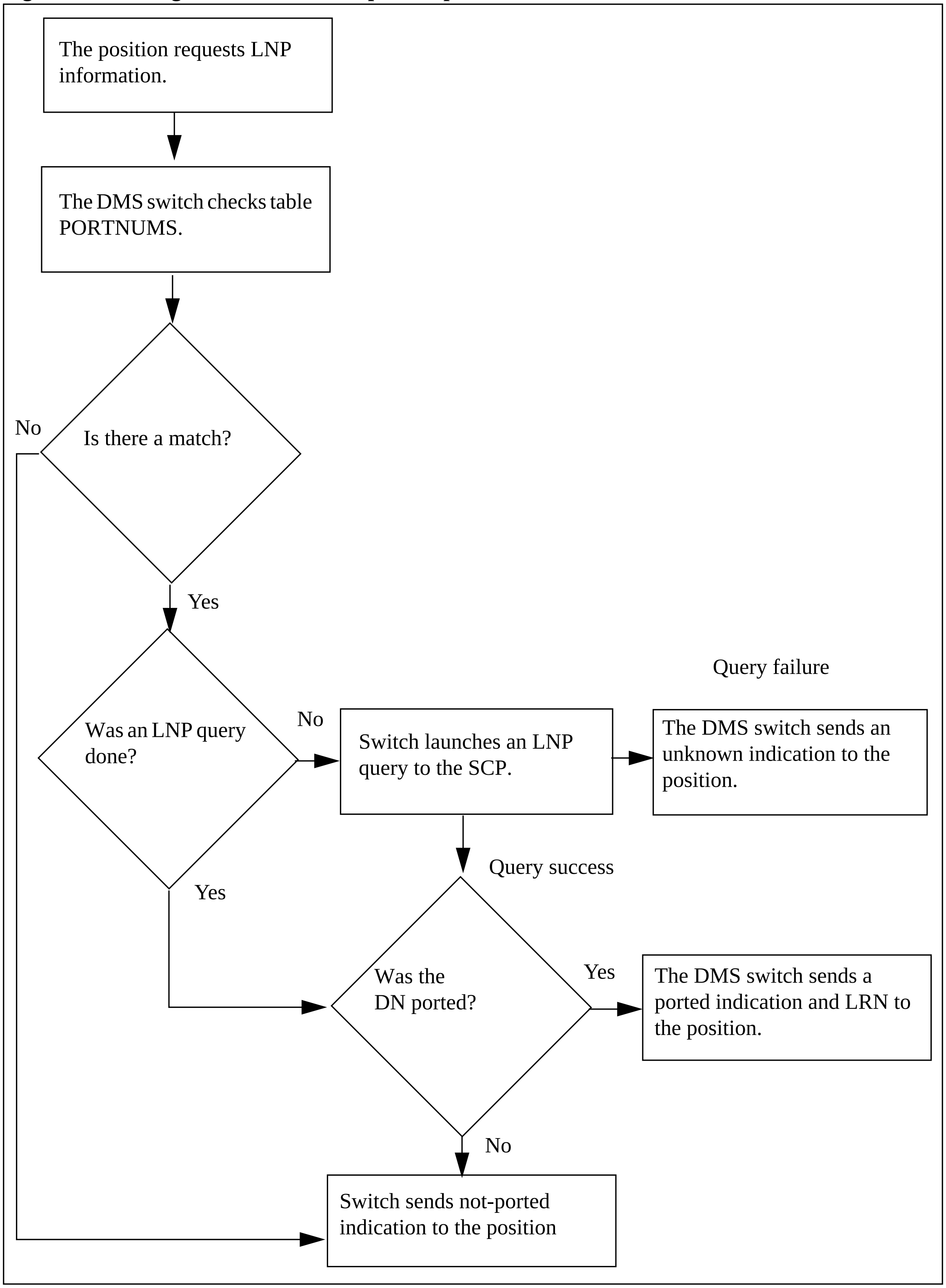
The operator uses a new keying action at the operator position to make the LNP request.

After receiving the LNP request, the switch sends the following LNP information to the position:

- party (calling, called, or special)
- status (DN not ported, DN ported, or unknown)
- ten-digit LRN (if ported)

Figure 132 shows the message flow between the operator position and the DMS switch.

Figure 132. Message flow between the operator position and the DMS switch:



B.23 Autocollect

Autocollect calls, automatically paid by the called party, consist of the following types:

- 800 service (or INWATS) (Figure 133)
- Zenith, WX, or Enterprise numbers (Figure 134)

For 800 service, most telephone companies do not provide operator assistance unless the customer insists or is handicapped. Normally, operators give dialing instructions to the customer.

To process other autocollect numbers, do the following:

1. Dial the number for the customer.

   Autocollect numbers are typically three, four, or five digits long.

   When entering these number, always key 800 first and then the digits given by the customer.

   If the number is less than five digits, prefix the number with enough zeroes to make it five digits in length. (For example, Zenith 356 would be entered, `800 00 356` **Start**.)

   The called number displays with the class charge automatically in place.

2. When the Autocollect class charge icon displays, press **Pos Rls**.

Figure 133. 800 service call processing procedures

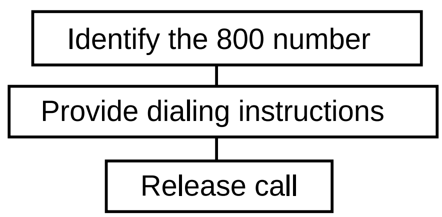
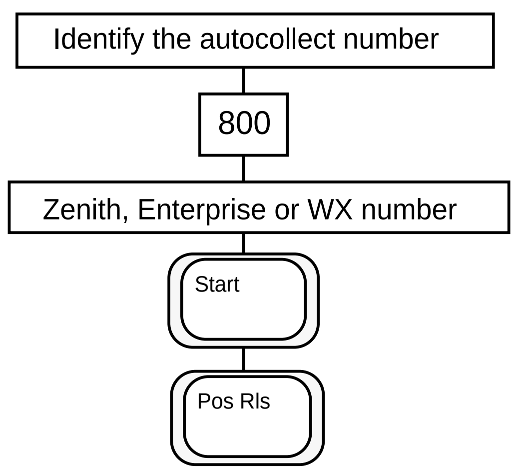


Figure 134. Zenith, WX, or enterprise call processing procedures



B.24 Coin call types

Some service providers have (ACTS, which simplifies coin call handling. This section includes coin call handling for companies with and without ACTS.

B.25 Pre-pay coin call processing

Coin calls arrive at the position with the message `Coin Pre` displayed in the Call Headlines Service/Type field. Class charges should already be in place (if datafilled).

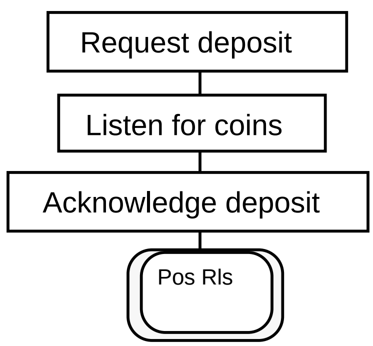
1+ coin calls are always station paid. The system automatically recognizes 1+ coin calls and displays the charge and initial time period in the Call Details window, as follows:

- The Chg: header shows the amount due for the initial period.
- The Min: header shows the amount of time in the initial period.

To process a 1+ pre-pay call, do the following:

1. Request a deposit from the customer based on the charge information.
2. Listen for coins. When the correct amount of coins are deposited, acknowledge the deposit and press **Pos Rls. (**Many companies have the ACTS system, which counts the coins automatically.)

Figure 135. 1+ Pre-pay coin call processing



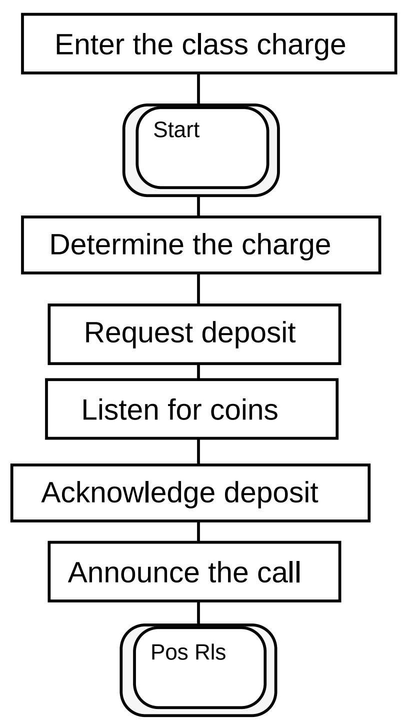
B.26 0+ coin calls

Processing 0+ coin calls requires a few more steps. Only paid coin calls are subject to coin procedures, so the only 0+ call type with coin procedures is person paid. Do the following:

1. Enter the class charge for the call.
2. Press **Start** to begin outpulsing (that is, if **Start** is datafilled to enable outpulsing).
3. With ACTS, the system begins outpulsing when the customer makes the coin deposit.
4. The charge for the initial period displays in the Call Details window, so request and count the deposit. (ACTS count the coins for service providers with ACTS.)
5. Acknowledge the customer's deposit.
6. Announce the call before pressing **Pos Rls.**

See Figure 136.

Figure 136. 0+ Pre-pay coin call processing



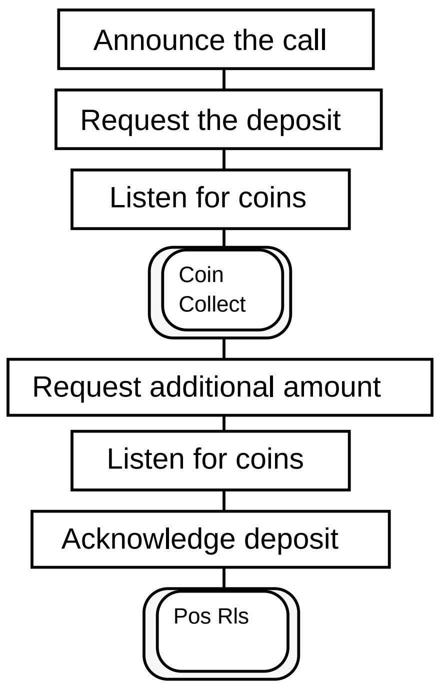
B.27 Pre-pay coin call over $3.00

Process a pre-pay coin call over $3.00 as follows:

1. On calls with an initial charge in excess of 3.00, you outpulse and announce the call before requesting the deposit.
2. After requesting the deposit, count the coins (up to $3.00).
3. Use the Coin Collect function (or softkey) from the Fncts menu to collect the coins.
4. Request the additional amount.
5. Acknowledge the deposit and release the call.

See Figure 137.

Figure 137. Pre-pay coin call processing, over $3.00



B.28 Third-number verification coin call

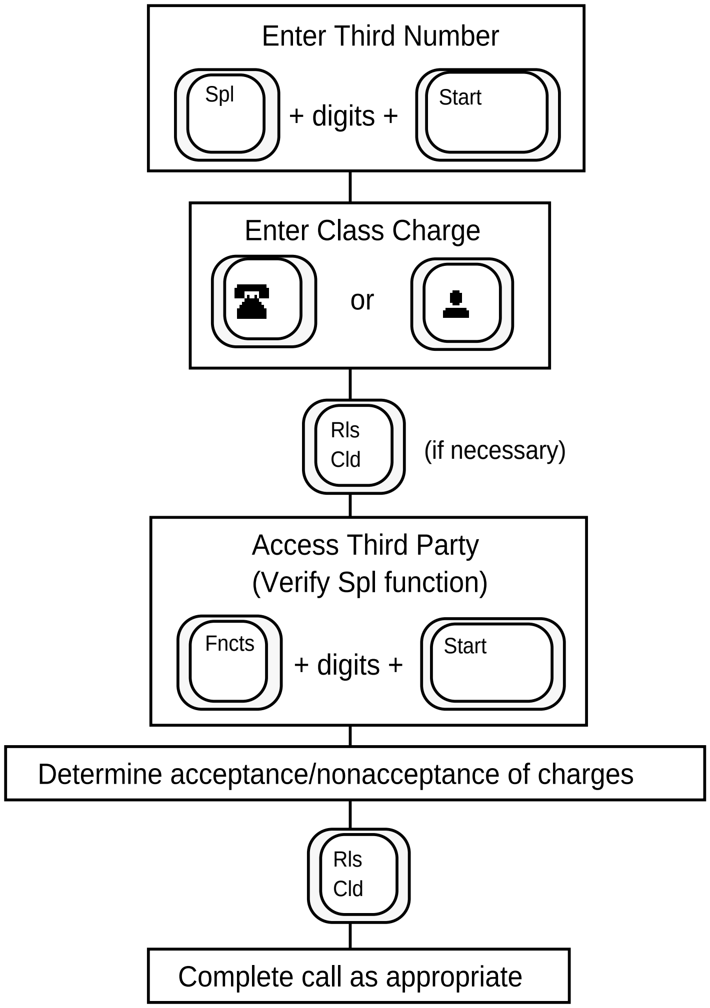
If a customer asks to bill a coin call to a third number, do the following:

1. Enter the third number in the Spl field.
2. Press **Start.** If the call is already outpulsing to the forward number, press **Rls Cld** to stop the ringing.
3. Class charge the call.
4. Use the Verify Special option from the Functions menu (or hotkey or softkey) and press **Start**.

   The third number becomes the forward number.
5. Secure billing acceptance from someone at the third number.
6. Use **Rls Cld** to terminate that forward connection and return the original forward number to the **Cld** field.
7. Complete the call as appropriate.

See Figure 138

Figure 138. Coin call third-number verification procedures (verify special)

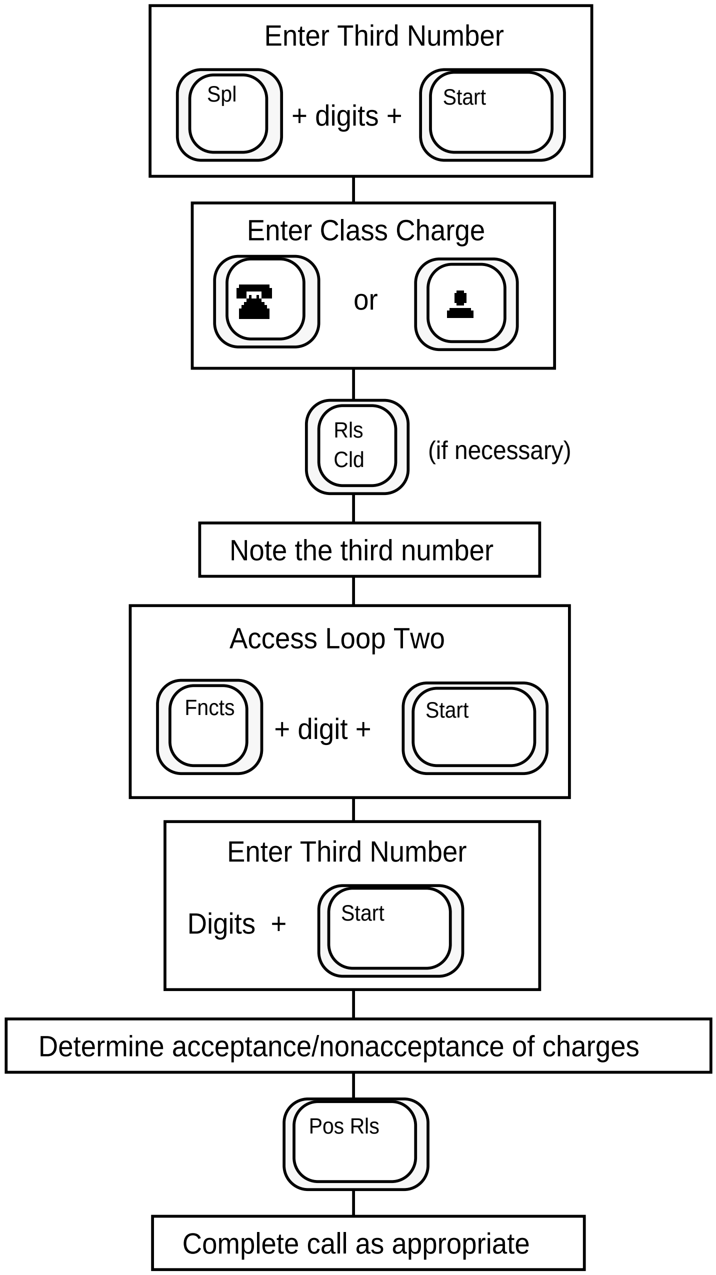


B.29 Coin call third-number verification with free loop

Although the Verify Special function is the recommended way to secure third party billing acceptance, using a free loop procedure is sometimes needed when the called party requests billing to a third number.

Accessing the other loop to reach the third party is particularly useful when the coin call is collect and the called party wishes to bill to a third party. Accessing a free loop automatically puts the other loop on temporary hold. This way of obtaining third party billing acceptance may be necessary when the called party request billing to a third number. See Figure 139.

Figure 139. Coin call third-number verification with free loop procedure



B.30 Coin recalls

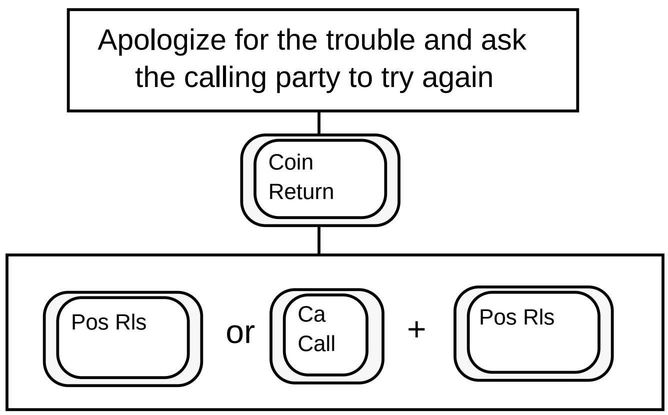
A coin call may come to your position during the initial period if the customer was cut off or reached a wrong number. In this case, do the following:

1. Because the customer has already paid for the initial period, use the Coin Return function (or hotkey or softkey) to refund the deposit.

   Since the coins have not yet dropped into the coin box, the Coin Return function returns them to the customer.
2. After returning the coins, ask the customer to try the call again.
3. Release the call.

See Figure 140

Figure 140. Initial period coin recall call processing procedures



B.31 Overtime charges

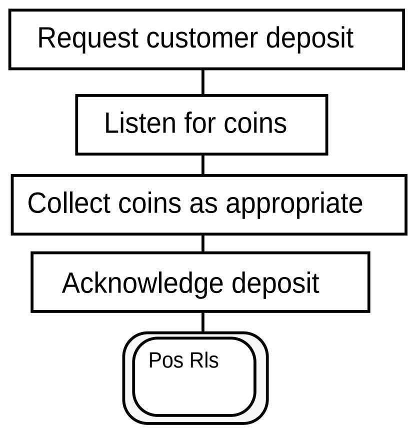
A coin call may return to your position during an overtime period or end-of-conversation period for deposit of additional coins. In this case, follow these steps:

1. Note the following:
   - An Overtime Recall indicator appears in the Call Headlines area.
   - The Call Details area lists Chg: amount and Min: for minutes.
2. Ask the customer for an additional deposit.
3. As the customer depositing coins, listen and count them drop (ACTS counts the coins).

- Use the Coin Collect function to collect coins (if necessary.)
- Acknowledge the deposit, and press **Pos Rls**.

See Figure 141.

Figure 141. Overtime recall call handling procedures



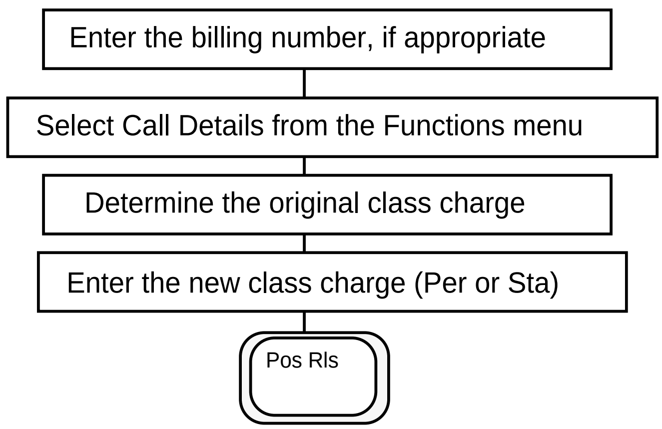
B.31.1 Rebilling

If, after you request the deposit, the customer asks you to bill the entire amount another way, do the following:

1. Enter an appropriate billing number and information, as necessary.
2. Select the Call Details function (or hotkey or softkey) from the Functions menu to determine the original class charge.
3. Change the class charge appropriately and press **Pos Rls**.

See Figure 142.

Figure 142. Overtime recall, change of billing



B.31.2 Partial deposit and change of billing

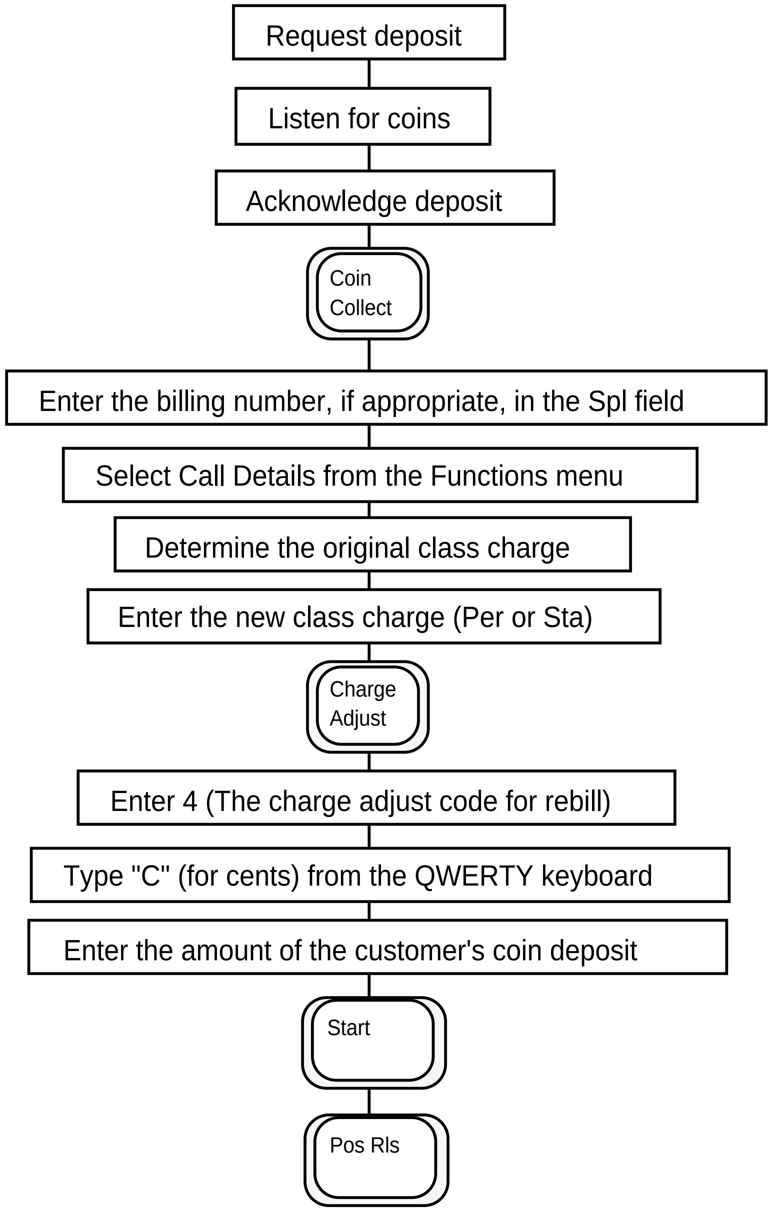
If the customer deposits a few coins and then asks you to bill the remaining charges to a credit card number, do the following:

1. Use the **Coin Collect** function (or hotkey or softkey) from the **Functions** menu.
2. Ask for another way to bill the balance.
3. After collecting coins, enter the billing number in the Spl field.
4. Select the Call Details function (or hotkey or softkey) from the Functions menu to show the original class charge.
5. Change the class charge accordingly.
6. Select the Charge Adjust function (or hotkey or softkey) from the Functions menu.

   The step tells the system to account for the coins already deposited when it calculates the total charge for the call.
7. Enter the digit service provider-defined digit for rebill, `c` for cents, the amount of the customer's coin deposit, and press **Start.**
8. Release the call with **Pos Rls**.

See Figure 143.

Figure 143. Overtime recall, partial deposit rebill remainder procedure



B.32 Invalid or missing billing call condition

An invalid or missing billing condition occurs when you cannot process a call immediately because of invalid or unacceptable billing information. When this happens, an invalid billing icon displays in one of the following billing fields:

- calling (See Table 41.)
- called (See Table 42.)
- special (See Table 43.)

This condition may require the input of another way of billing. With proper billing, you process this call as usual.

B.32.1 Calling Icons

Table 41 provides a picture and an explanation of each icon that may appear in the calling field.

Table 41. Calling icons

Icon Name	Icon	Color	Meaning
person		yellow	person paid in non-colorblind mode
person		white	person paid in colorblind mode
station		yellow	station paid in non-colorblind mode
station		white	station paid in colorblind mode
up arrow		red	invalid billing (displays a red X in Cld field 12 and a down arrow in Spl field 13) or missing billing (displays a red ? in the Cld field 12 and a down arrow in Spl field 13)

B.32.2 Called icons

Table 42 provides a picture and an explanation of each icon that may appear in the Called field.

Table 42. Called icons

Icon Name	Icon	Color	Meaning
person		yellow	person collect in non-colorblind mode
person		white	person collect in colorblind mode
special called (person)		yellow	special called in non-colorblind mode (displays a black up arrow in the Spl field)
special called (person)		white	special called in colorblind mode (displays a black up arrow in the Spl field)
autocollect		cyan	called party automatically accepts billing (800 services) in non-colorblind mode
autocollect		dark grey	called party automatically accepts billing (800 services) in colorblind mode
station		yellow	station collect in non-colorblind mode
station		white	station collect in colorblind mode
special called (station)		yellow	special called in non-colorblind mode (displays a black up arrow in the Spl field)
special called (station)		white	special called in colorblind mode (displays a black up arrow in the Spl field)
X	X	red	invalid billing (displays a red up arrow in the Clg field and a red down arrow in the Spl field)
question mark	?	red	missing billing (displays a red up arrow in the Clg field and a red down arrow in the Spl field)

B.32.3 Special Icons

Table 43 provides a picture and an explanation of each icon that may appear in the Special (Spl) field.

Table 43. Special icons

Icon Name	Icon	Color	Meaning
person		yellow	person special calling in non-colorblind mode
person		white	person special calling in colorblind mode
station		yellow	station special calling in non-colorblind mode
station		white	station special calling in colorblind mode
up arrow		black	special called (displays a yellow person or phone in the Cld field)
down arrow		red	invalid billing (displays a red up arrow in the Clg field and a red X in the Cld field) or missing billing (displays a red up arrow in the Clg field and a red ? in the Cld field)

B.33 Call processing invalid billing conditions

The section discusses call processing for invalid billing in the following situations:

- Station delay calls
- Person delay calls
- Billing delay calls
- Collect refused calls
- 1+, 0 and 0 + ANI failures
- 1+, 0 and 0 + ONI failures
- ANI failures
- ONI call processing for an invalid calling number

The following call processing procedures apply to all of the above situations:

- If the called number is already outpulsing, press the **Rls Cld** key to stop the ringing.
- Request and enter alternate billing if necessary and complete the call as appropriate.

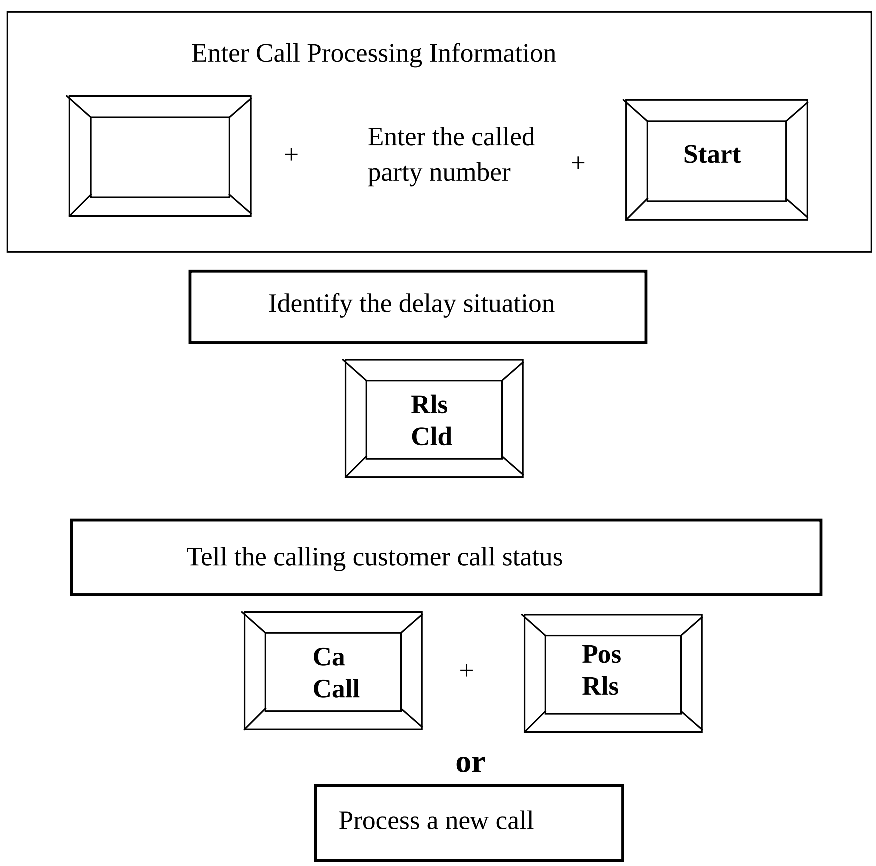
B.34 Station delays

If you cannot complete a call because either the line is busy or there is no answer, do the following:

1. Press **Rls Cld** when a busy or no answer condition occurs and inform the customer of the situation.
2. Ask if the customer prefers to try another call.
3. Do one of the following:
   - If the customer wants to try another call, process as any other call.
   - If the customer does not want to try another call, release the call as appropriate. Press **Ca Call** and **Pos Rls**.

See Figure 144.

Figure 144. Station delay call processing procedures



B.35 Person delay

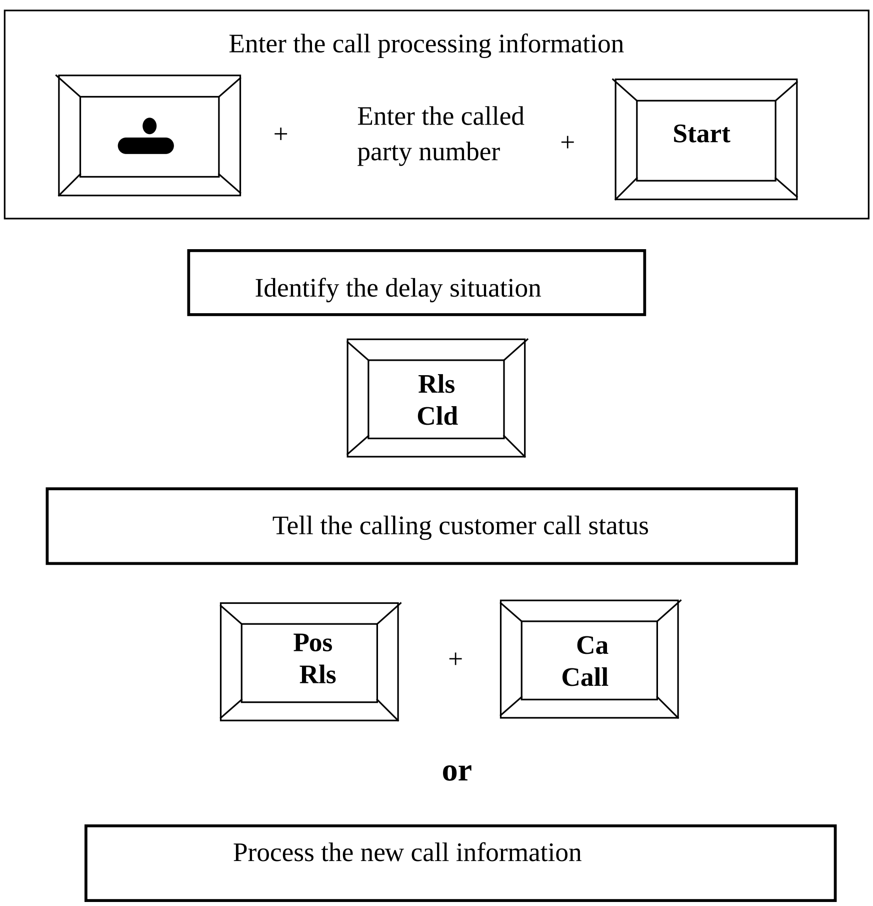
If you cannot complete a call because the requested party is not available, do the following:

1. Press **Rls Cld**.
2. Inform the customer of the situation.
3. Ask if the customer prefers to speak to another person or try another call.
4. Do one of the following:
    - If the customer wants to make another call, process as appropriate.
    - If the customer does not want to make another call, release the call as appropriate. Press **Ca Call** and **Pos Rls**.

In this case, release the forward connection and then release the call from the position as appropriate.

See Figure 145.

Figure 145. Person delay call processing procedures



B.36 Billing delays (invalid billing)

Invalid billing delays occur when an invalid billing method (such as a restricted third party number, credit or calling card number) is entered into the Spl field. Do the following:

1. Note the special number alert icon in the Spl field.
2. Press **Rls Cld** to terminate the forward connection.
3. Inform the customer of the situation.
4. Ask the customer to repeat the information.
5. To re-enter the special number, press the **Spl** key, enter the telephone number, and press **Start.**
6. Do one of the following:
    - If billing is still invalid, ask for alternate billing and process as appropriate.
    - If billing is valid, release the call as appropriate. Press **Ca Call** and **Pos Rls**.

See Figure 146.

Figure 146. Billing delay (invalid billing number)

Identify the invalid number display
in the Spl field

Disconnect a called line

Rls
Cld

Ask the customer to repeat the billing number

Enter the billing number

Spl + Re-enter the card number and PIN + **Start**

or

Enter alternate billing

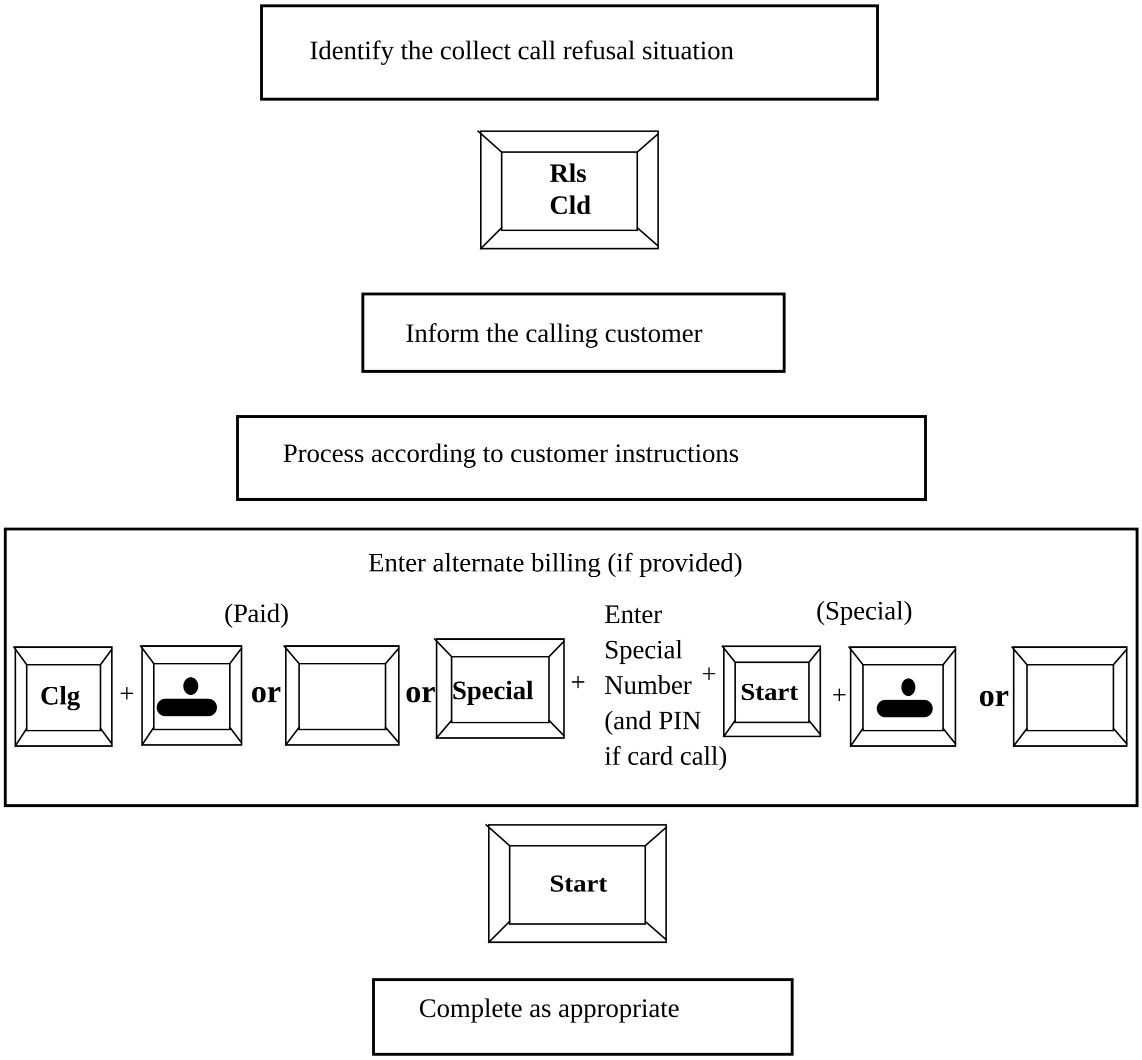
B.37 Collect charges refused

Billing delays involve both refused collect charges and invalid billing. When the charges for a collect call are refused, do the following:

1. Press **Rls Cld** to terminate the forward connection.
2. Inform the calling party of the situation.
3. Ask the calling party for alternate billing.
4. If the customer gives alternate billing, do one of the following:
   - For a calling paid (domestic) call, press the **Clg** key to move the cursor to the Clg field, press either the **Per** or **Sta** key, and complete the call appropriately
   - For a Spl (domestic or international) call, Press the **Spl key** to move the cursor to the **Spl** field. Enter the digits of the special number and press **Start**. Class charge and complete the call appropriately.
5. Press **Start** to outpulse the forward connection.

See Figure 147.

Figure 147. Collect charges refused



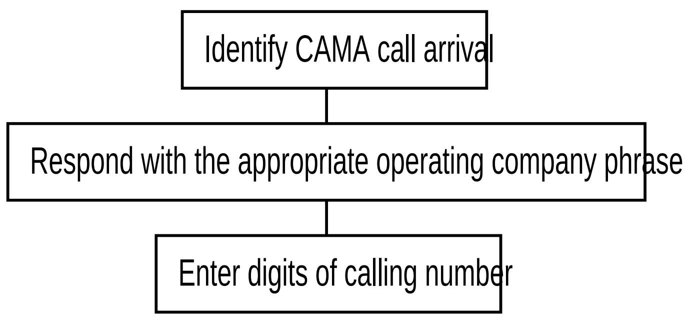
B.38 1+ ANI failures

When Automatic Number Identification (ANI) fails, ask what number the customer is calling from and enter it in the Clg field for billing purposes. Note the following:

- 1+ ANI Failure calls are CAMA calls.
- The CAMA designation appears in the Service/Type field of the Call Headlines area followed by a question mark (?).
- Instead of an underscore, the cursor appears in the Clg field as a heavy vertical bar.

To process this call, request and enter the digits of the calling number. You do not need to press **Start** after entering the digits. The call automatically leaves the position when you enter the last calling digit. See Figure 148

Figure 148. 1 + ANI failures CAMA call processing procedures



B.39 0 and 0+ ANI failures

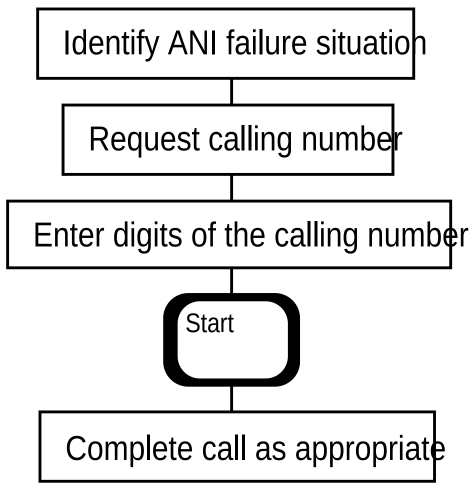
Both 0 and 0+ ANI failures display at your position with a steady NPA-NXX in the Clg field (if NPA_NXX_REQ in Table OFCVAR is set to Y) followed by an X. Note the following:

1. Type the calling digits into the Clg fiend and press **Start**.

   Note that X and a failed number appear in alert colors in the Clg field. Without the calling digits, billing cannot take place and the call cannot proceed.
2. After requesting and entering the calling number, press **Start**.
3. Complete the call as usual by including the called number (on an 0 call), and the appropriate billing information.

See Figure 149.

Figure 149. 0/0+ ANI failure call processing procedures



B.40 ONI calls, 1+, 0, and 0+

ONI calls are routine calls in which the operator provides the calling number for the system for billing. Note the following:

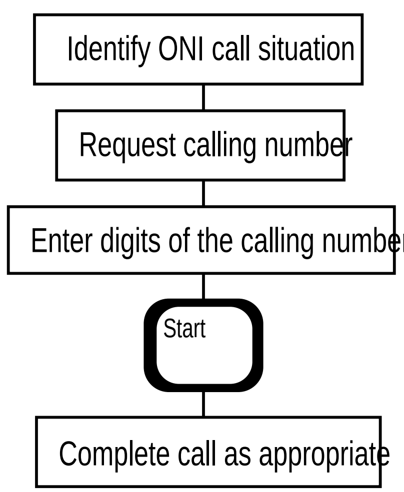
- 0 and 0+ ONI calls display at the position with a steady NPA-NXX in the Clg field (if NPA_NXX_REQ in Table OFCVAR is set to Y) followed by a question mark (?).
- The cursor defaults to the Clg field and appears as a heavy vertical bar to allow for immediate entry of the calling digits.
- A question mark (?) and the failed calling number appear in the calling field in alert colors.
- These calls originate from configurations like party lines.
- When ONI customers place calls, they anticipate the operator coming onto the line.
- 1+ ONI calls are also CAMA calls.
- On a 1+ ONI call, The CAMA designation appears in the Call Headlines Service/Type field.
- The call arrives with a double beepcall arrival tone to identify it as an ONI CAMA call.

To process this call, do the following:

1. Request and enter the digits of the calling number.
2. Press **Start** after entering the digits.
3. Complete the call as usual.

See Figure 150.

Figure 150. 1+, 0, 0+ ONI call processing procedures



B.41 Invalid calling number, ANI failure, and ONI call processing

If, after entering the calling number given by the subscriber, the calling digits appear in the alert color, indicating an invalid number.

To process this call, re-enter the calling number as follows:

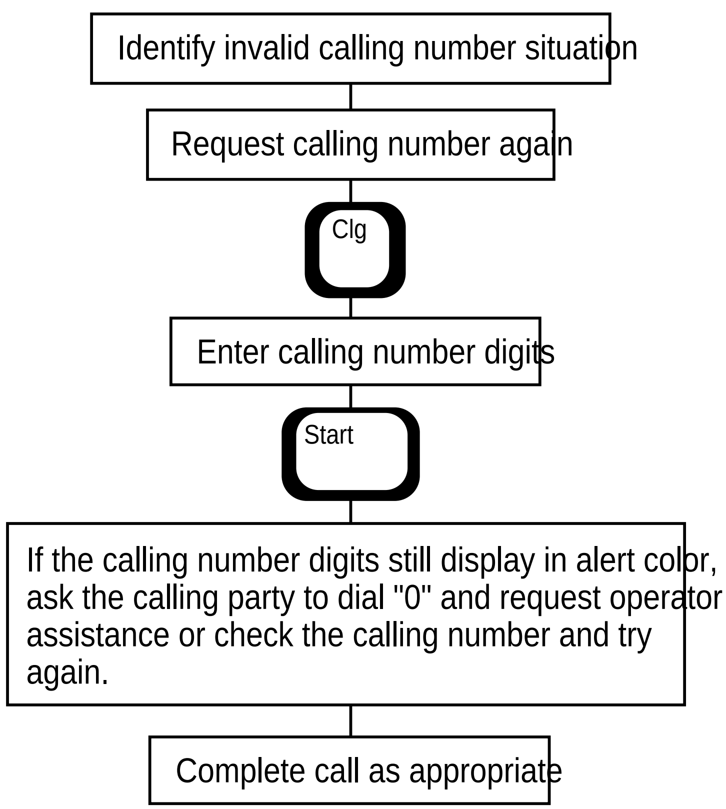
1. Press the Clg key.
2. Re-enter the calling number. If the number is valid, the screen clears (for a CAMA call) or the number displays without the alert color (for a 0 or 0+ call).
3. Complete the call as appropriate.

If, however, the calling digits reappear in the alert color after the second entry, do the following:

1. Ask the calling party to either dial 0 and request operator assistance, or check the calling number and try again.
2. Release the call from the position.

See Figure 151.

Figure 151. Invalid calling number, ANI failure ONI call



B.42 Operator reaches a general assistance position

Assistance requests arrive at supervisor positions displaying the loop status icon in either the loop 1 (L1) or loop 2 (L2) status area, depending on the type of assistance request (general or directed).

The supervisor position can be set to one of the following modes:

- accept no assistance requests
- accept directed assistance requests only
- accept general and directed assistance requests

Both the position number and the operator number of the operator initiating the assistance request are displayed. An audible alert accompanies call arrival if the tone generator is turned on at the TOPS IWS controller.

Supervisor queueing enhancements let the service provider have supervisor requests serviced on the basis of the age of the request. When a supervisor becomes available, the DMS switch searches the request queue for each team in the switch. The oldest request is connected to the fist available supervisor.

When the operator needs help with call processing or needs to speak with a supervisor without involving a customer, the operator attempts connection to an assistance position.

To reach a supervisor, do the following:

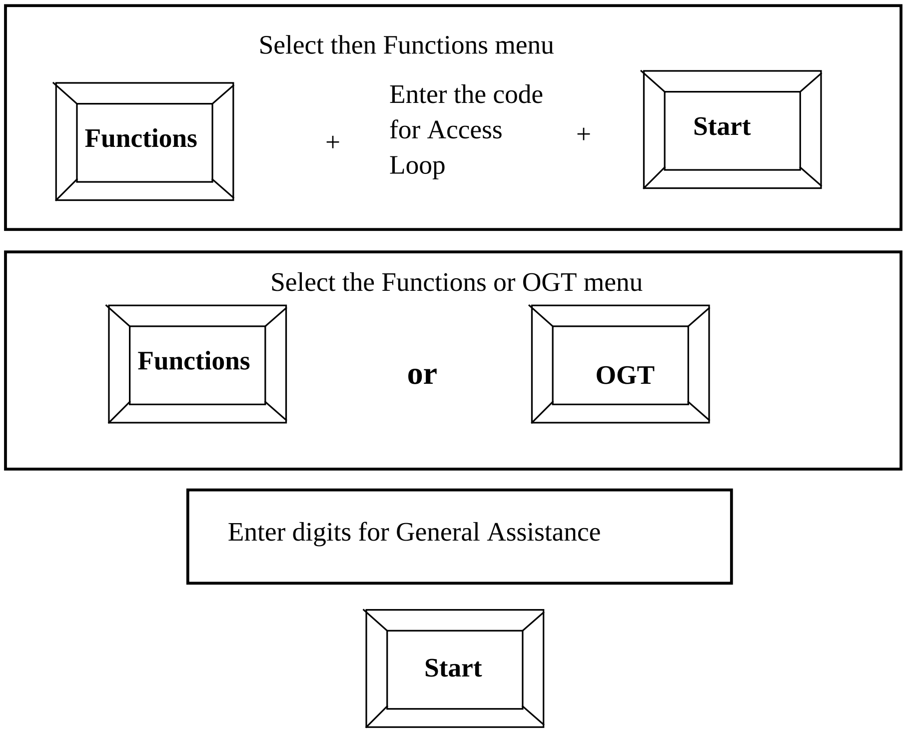
1. Press **Fncts** key twice.

- Enter the code to Access Loop 1 or 2.
- Press **Start.**
- Press **Fncts** or the **OGT** menu twice.

  When using the OGT menu, press **Start** twice.
- Enter the code for General Assistance.
- Press **Start**.

Refer to Figure 152 for the procedure.

Figure 152. Reaching an assistance position



B.43 Operator requests directed assistance

When the operator needs help with call processing or needs to speak with a specific supervisor without involving a customer, the operator attempts a directed assistance request.

When an assistance call arrives at the supervisor position, the operator ID and position number of the operator who made the request are displayed.

With QMSCASE, if the connection is not immediate, the operator is placed in queue. While waiting in queue, the operator can cancel the request by doing one of the following:

- Pressing the **Fncts** key twice, typing the menu number for **Release Operator**, and pressing the **Start** key.
- Pressing the **Pos Rls** key.

Either action frees the loop so the operator can receive calls again.

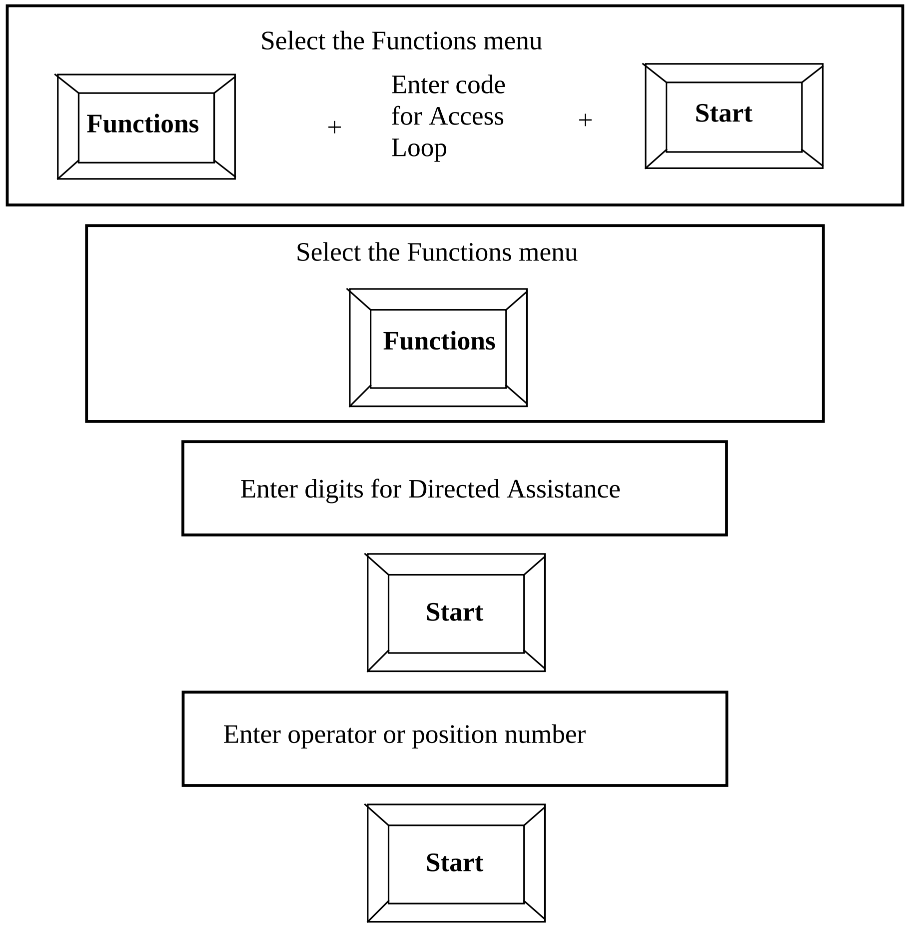
With the assistance system, directed requests are not queued because supervisor positions are not equipped with request queues. Therefore, when placing a direct request and the supervisor is unavailable, the operator receives a busy tone. Release the position and try the call again later, or follow local procedures.

To reach a supervisor, do the following:

1. Press the **Fncts** key twice.
2. Enter the code to **Access Loop 1** or **2.**
3. Press **Start.**
4. Press the Fncts menu twice.
5. Enter the code for Dir Asst by Position or Dir Asst by Operator.
6. Press **Start**.
7. Enter the requested supervisor’s position or operator number.
8. Press **Start**.

Refer to Figure 153 for the procedure.

Figure 153. Requesting directed assistance



B.44 Operator connects a customer to a supervisor

To connect a customer who is on line directly to a supervisor:

1. Press Fncts or OGT menu twice.
- Enter the code for General Assistance.
2. Press **Start**.

To drop off the call after the supervisor is on the line and leave the customer connected to the supervisor, press **Pos Rls**, and take new calls.

If customer needs additional operator services after speaking with the supervisor:

1. Place the call on Hold while the supervisor is attending to the customer.

   A yellow hand appears in the loop port area.
2. Press **Fncts** menu twice.
3. Enter the code for Hold**.**
4. Press **Start**.
5. Press **Pos Rls** to take other calls.

   A blue hand displays in the loop port area to indicate call is on hold and operator is attending another call.

If the supervisor is not available or if the queue for the supervisor is full, the called phone remains on hook and the operator will hear a busy tone.

To keep the customer waiting until the supervisor is available, place the customer on Hold and attend to other customers**:**

1. From the Fncts menu, enter the code for Hold.

   A yellow hand appears in the loop port area.
2. Press **Start.**
3. Press **Pos Rls** to release the call.

   A blue hand appears in the loop port area.
4. Press the Fncts menu.
5. Enter the code for Access Loop to take other calls until the supervisor is available.
6. Press **Start**.

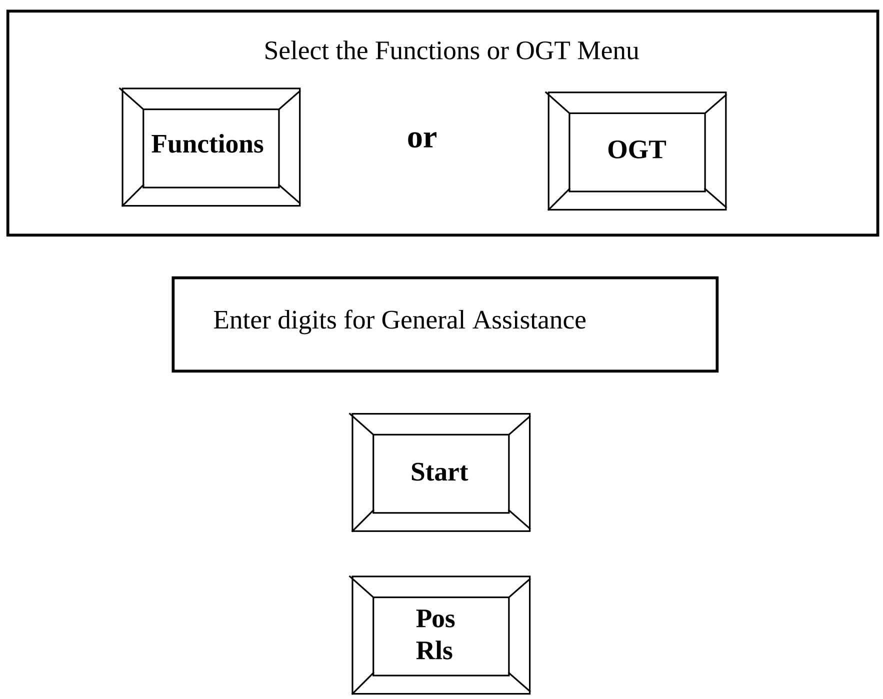
   The blue hand will have a black background until the supervisor is available.

When the operator sees the black background disappear, the supervisor is available. The operator finishes the present call and the operator may try again to connect the holding customer to the supervisor, as follows:

1. Press the **Fncts** menu.
2. Enter the code for **Access Loop** to connect the holding customer to the supervisor.
3. Press **Start**.
4. Press **Pos Rls** to process other calls.

See Figure 154.

Figure 154. Connecting a customer to a supervisor



B.45 Operator using Split/Join Calling to confer with a supervisor

At times the operator may have to consult with a supervisor before completing the customer's request. Use the Split/Join Calling function from the Functions menu to talk with the supervisor without involving the customer.

General assistance requests are offered to the assistance position at the head of the queue. If no assistance position is available, the assistance request is offered to the supervisor position if both loops are free and the position is in the accept calls state.

If there is no available supervisor, the general assistance request is queued. There is only one queue in an operator team; however, up to 16 operators can be queued at one time. If an operator requests assistance, an inverted call field displays on the screen to indicate that no supervisor is available. If the operator presses the **Pos Rls** key while in queue, the subscriber is released to the queue.

If all positions in the traffic office assistance system are busy and the queue is full, the operator receives a busy tone after making the request.

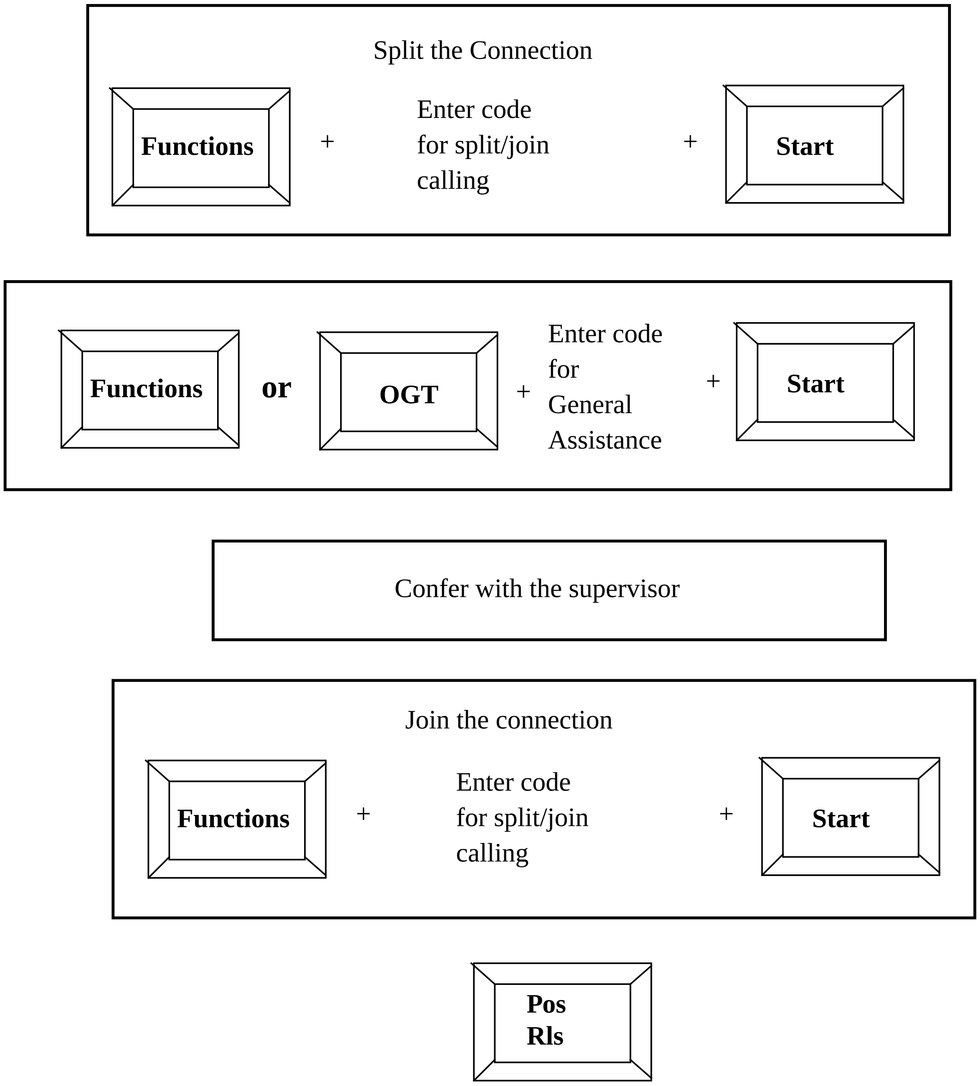
> **Billing cannot be done from the supervisor position. If billing is required on the call, the supervisor or the operator must fill out a manual ticket.**
>
> **If the operator puts a call on hold (by pressing the Fncts key twice, typing the menu number for Hold, and pressing the Start key) while receiving assistance, the call returns to the operator position for completion.**

To split the voice path with the calling party to confer with a supervisor, do the following:

1. Press the Fncts key twice.
2. Choose and enter the code for Split/Join Calling.
3. Press **Start** to split the calling party voice path.
4. Press the Fncts or OGT menu twice.
5. Enter the code for General Assistance.
6. Press **Start**.
7. Confer with the supervisor.
8. When you are done talking and the supervisor presses **Pos Rls** to exit from the call, you can join the calling party
9. Press **Fncts** twice.
10. Choose and enter the code for **Split/Join Calling.**
11. Press **Start** to rejoin the calling party.
12. Press **Pos Rls** to end the call.

See Figure 155.

Figure 155. Using split/join calling to confer with a supervisor



B.46 Operator Answering a Page

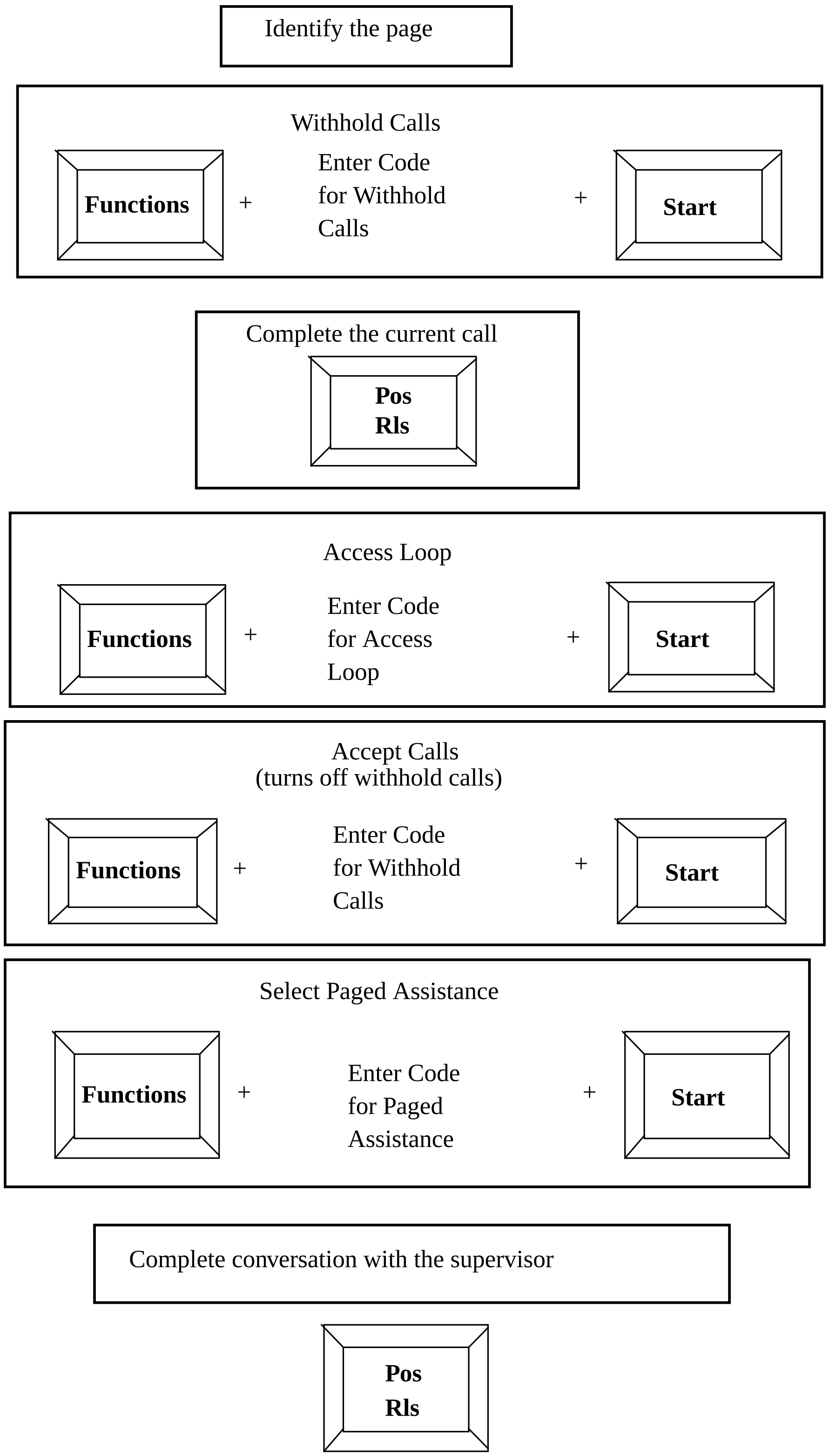
When the supervisor needs to contact the operator and the operator is not available to answer immediately, the operator position displays the page message, Assist Position XXX in line 0 of the message and status area while processing a call.

To answer the page:

1. Press the **Fncts** key.
2. Choose and enter the code for Withhold Calls.
3. Press **Start** and see the Withhold calls pending message in the MSA.
4. Complete the current call and press **Pos Rls** to end the call.
5. Press **Fncts** again two times (to bring up the menu).
6. Choose and enter the code for Access Loop 1 or 2.
7. Press **Start.**
8. Press **Fncts** again twice to toggle back and turn off Withhold Calls.
9. Again, enter the code for Withhold Calls.
10. Press **Start**.
11. Call the specific supervisor by pressing the **Functs** key twice.
12. Enter the code for Paged Assistance.
13. Press **Start**, and you can connect to the supervisor.
14. When finished speaking to the supervisor, press **Pos Rls** to begin receiving new calls.

See Figure 156.

Figure 156. Answering a page



B.47 supervisor monitoring an operator or position

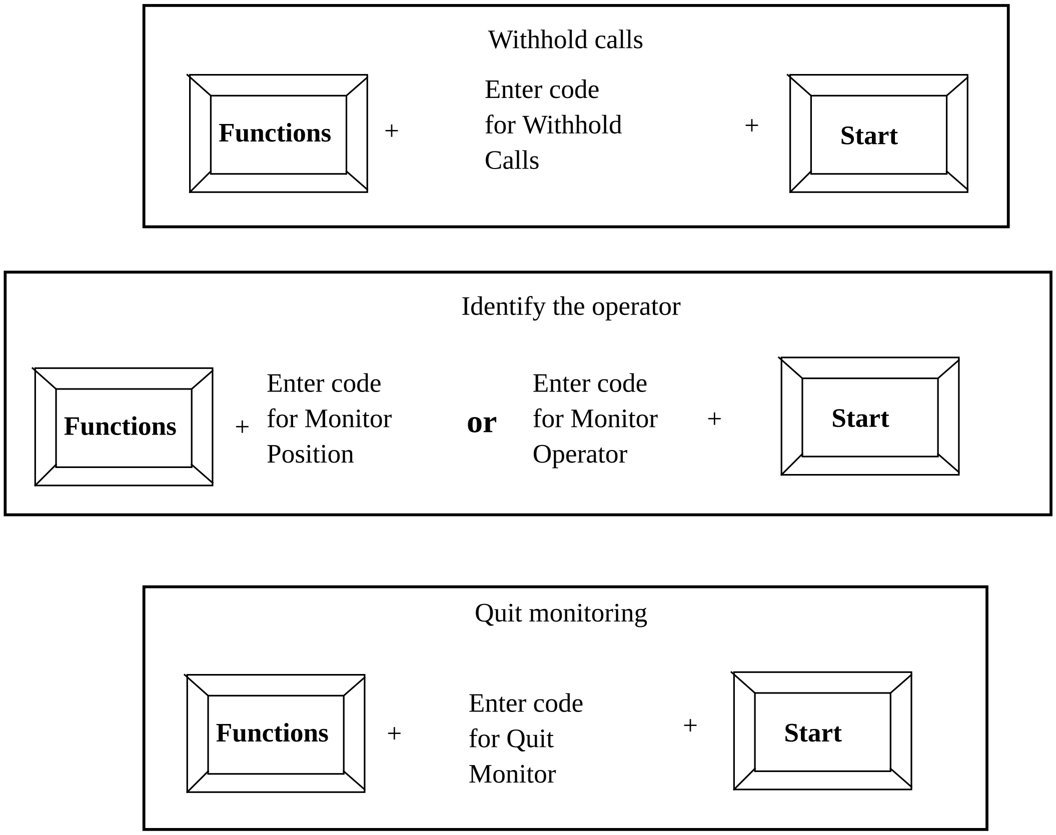
At times, the supervisor may want to view an operator's work procedures or call flows, particularly if the operator is new or in training.

The supervisor can either monitor the operator by entering the operator's position number or operator number, as follows:

1. Press **Fncts**.
2. Choose and enter the code for **Withhold Calls** to make sure there is not an interruption during the monitoring process.
3. Press **Start** and see `Withhold Calls` in the MSA.
4. Press **Fncts** again.
5. Choose and enter the code for **Monitor Position** or **Monitor Operator**.
6. Press **Start** and see `Mon Position` or `Mon Operator` in the MSA.
7. To **Quit Monitoring,** press **Fncts.**
8. Enter the code for **Quit Monitor.**
9. Press **Start**.

See Figure 157.

Figure 157. Monitoring an operator or a position



B.48 supervisor paging an operator

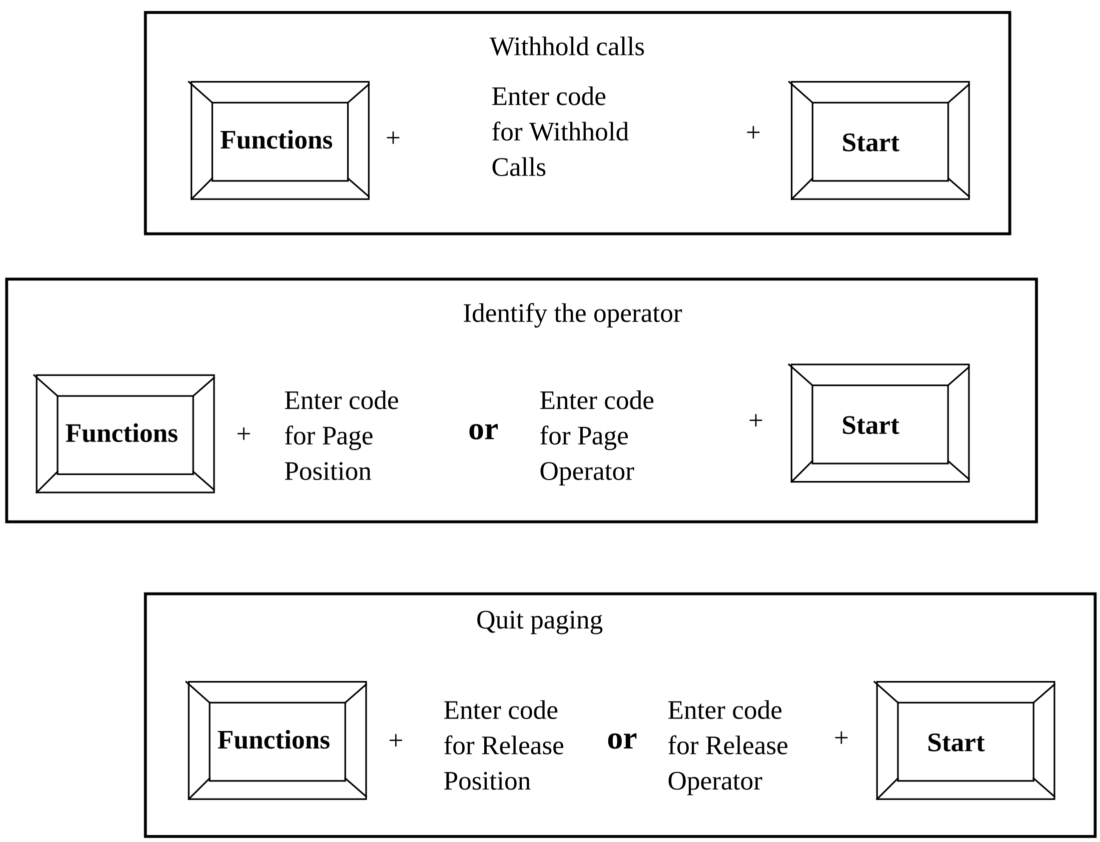
Paging an operator or position is very similar to monitoring an operator or position.

The supervisor can either page the operator by entering the operator’s position number or operator number, as follows:

1. Press **Fncts**.
2. Choose and enter the code for Withhold Calls to make sure not to be interrupted during the monitoring process.
3. Press **Start** and see `Withhold Calls` in the MSA.
4. Press **Fncts** again twice.
5. Choose and enter the code for Monitor Position or Monitor Operator
6. Press **Start** and see Page Position or Page Operator in the MSA.
7. To quit paging**,** press **Fncts** twice**.**
8. Enter code for Release Position or Release Operator.
9. Press Start.

See Figure 158.

Figure 158. Paging an operator



B.49 Reporting Operator Encounters Trouble

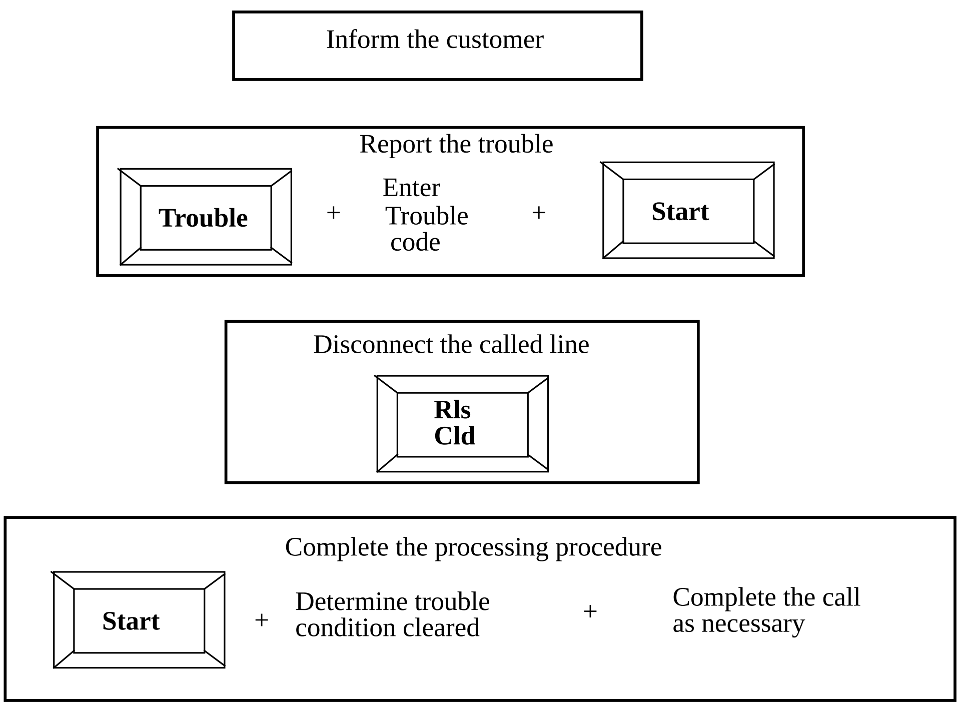
When experiencing trouble in processing and completing a customer call due to noise on the line or line distractions, it is important to report the trouble so the problem can be eliminated. This will be made easier with TOPS IWS because of the menu associated with the **Trbl** key.

The operator no longer has to search through the multileaf to find the code for those infrequently encountered trouble conditions. Also, service providers can add their own trouble codes to the Trbl menu.

Here’s how to report operator encountered trouble when trying to process a customer call:

1. Inform the customer that there is trouble on the line.
2. Press **Trbl** key.
3. Enter the code number for the type of trouble experienced while trying to process the customer’s call.
4. Press **Start** to send a message to the switch for a technical maintenance person to repair.
5. Disconnect the called party by pressing **Rls Cld**.
6. Press **Start** again to try outpulsing the call. If the trouble is cleared, complete the call.

Figure 159. Operator Encountered Trouble Reporting

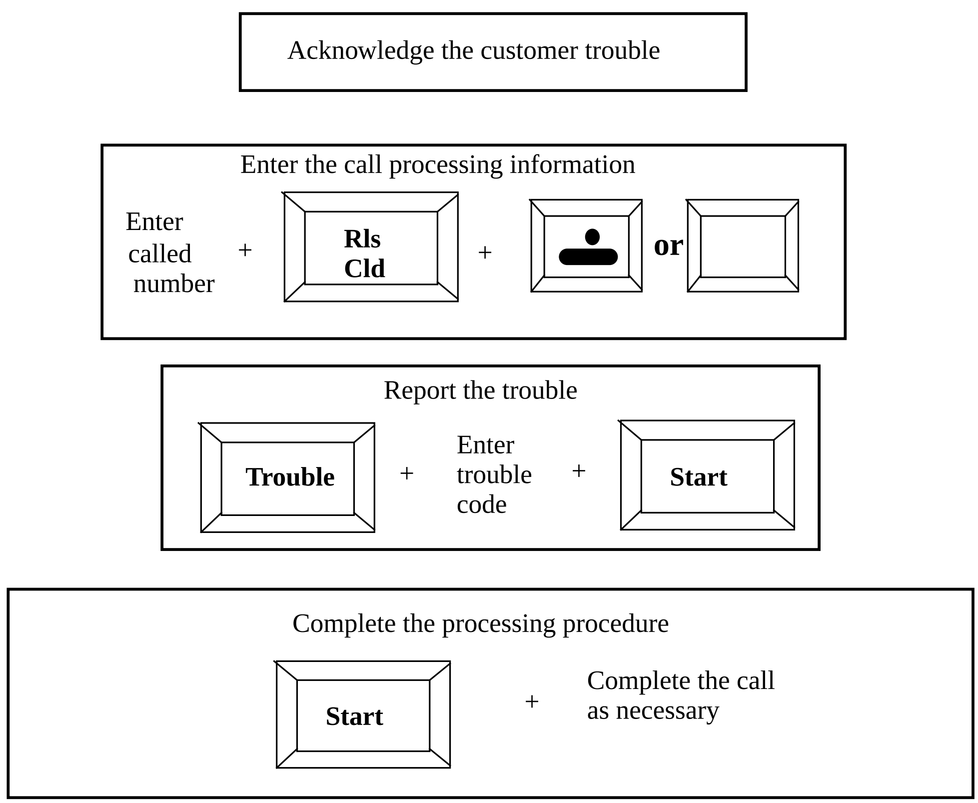


B.50 Customer Reported Trouble

When a customer dials the operator to report trouble on a call, the operator must report the trouble for a technical maintenance person to repair, as follows:

1. Acknowledge the customer's trouble.
2. Enter the call processing information from the customer, such as the called number into the called field**.**
3. Press **Rls Cld** to format the number and save it to process after customer's trouble report is recorded.
4. Class charge the call.
5. Press **Trbl** key.
6. Enter the code number for the type of trouble the customer experienced on his/her call.
7. Press **Start** to send a message to the switch for a technical maintenance person to repair.
8. Try to reconnect the call for the customer by pressing **Start** to outpulse the call.
9. Complete the call as necessary.

Figure 160. Customer reported trouble



B.51 Emergency Calls

One of the most important services an operator performs is handling of emergency calls.

B.52 VI. International Calls

Calls to international locations are basically the same as calls to domestic points, with a few differences:

- some types of billing may be invalid
- calls cannot be billed collect
- the **International** function is used to enter the called number on 0 calls

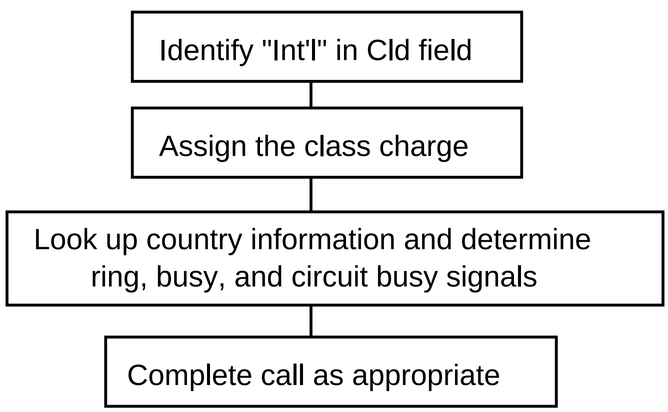
Customer dialed (0+, 1+ Coin and 1+ Hotel) are easily recognized by the international display following the called number in the Call Details area.

Do the following (as shown in Figure 161):

1. Identify the call as international.
2. Assign the class charge.
3. Complete the call.

Note however, that the operator may have to consult the International Call Handling (ICH) information, multileaf or a separate database (service provider defined) for ring, busy and circuits busy information.

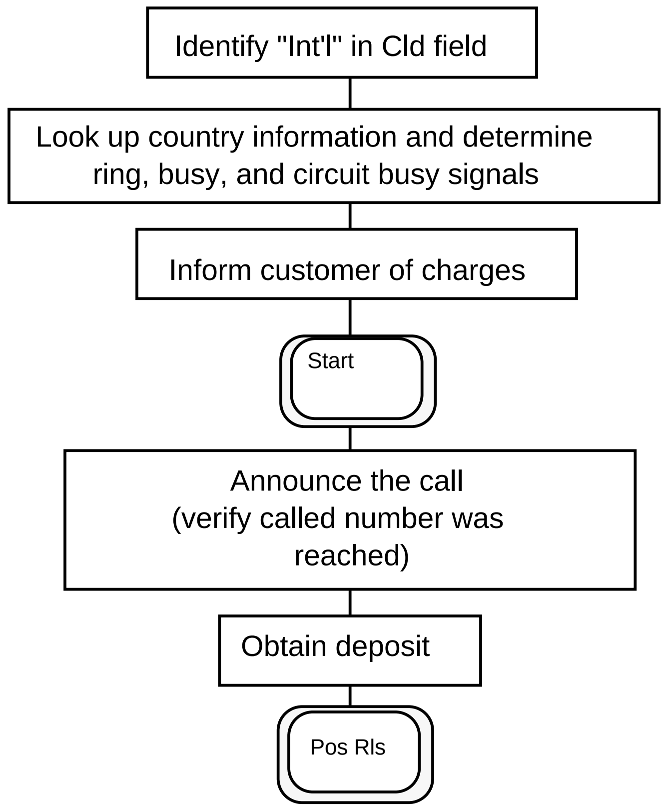
Figure 161. International call processing procedures



For a 1+ Coin call, do the following:

1. Connect the call.
2. Verify that the correct called number was reached **before** requesting the deposit.

Figure 162. 1+ International coin call processing

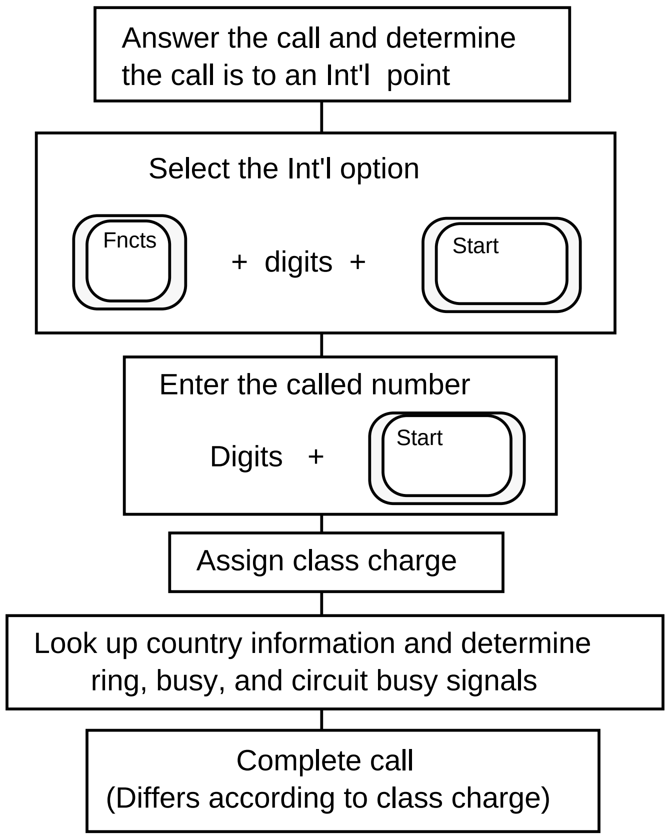


For a 0, 0+, 1+ Hotel call, do the following:

1. Request and enter the room number in the Misc field.

   On this call type, the cursor should default to the Misc field.
2. Check ICH information and press **Start** to outpulse the call.
3. Once the first ring is heard, press **Pos Rls.**

Figure 163. 0, 0+, 1+ hotel international call handling

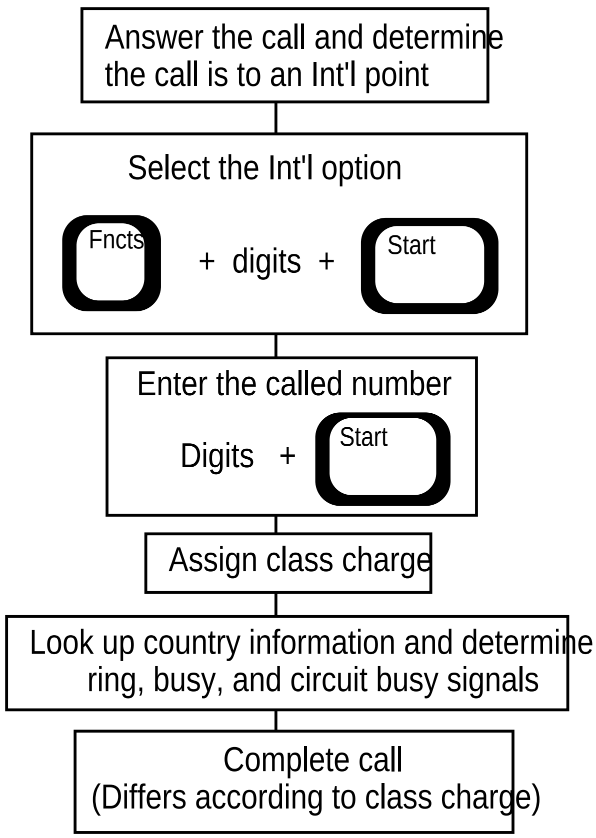


B.53 0 International Calls

When the customer requests connection to an international location on a 0 call, do the following:

1. Select the International function (or hotkey or softkey) from the Functions menu.
2. Enter the called digits.
3. Press **Start.**
4. Assign a class charge.
5. Complete the call (if its station paid, or special billing, wait for the first ring).
6. Press **Pos Rls**.

Figure 164. 0 international call processing procedures



B.54 IOC calls

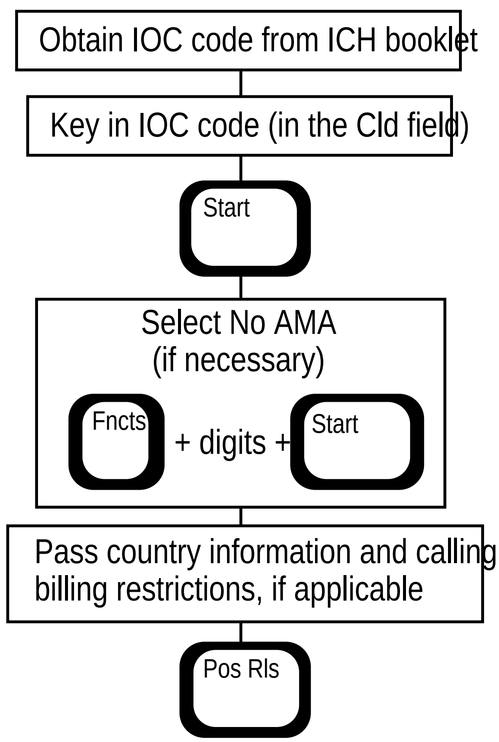
If the called country cannot be dialed using country code routing, connect the customer with an International Operating Center (IOC) operator, as follows:

1. Look up the country code in the ICH information, multileaf or separate database (service provider defined).
2. Enter the digits in the Cld field.
3. Press **Start**. (The Overseas function is **not** required here.)

   Depending on service provider policy, No AMA may be designated for this call. In this case, select the **No AMA** function (or hotkey or softkey) from the **Functions** menu before pressing **Pos Rls**.

If the operator is reached by dialing country code + inward routing number, and the called number can be reached using the same country code and routing, then once the connection is made, overwrite the operator routing code with the called number (for billing purposes).

Figure 165. Reaching an IOC



B.55 Global Operator Services (GOS)

The following call types are referred to and discussed in this section:

Inbound calls:

- collect calls with party names
- card calls with party names

Operator transfer calls:

- foreign operator transfer (FOT)
- code 11/12

Calls with advanced TOPS Features:

- home beyond calls
- estimated charges
- booked calls
- booked time recall
- booked queue recall
- time and charges
- time and charges recall
- notification (with fixed duration option)
- notification recall
- memo
- IN fallback

B.56 Inbound Collect Call Procedures With Party Names

Many international long distance companies may opt to include party names in all or some of their call processing procedures. Inbound collect calls, which are processed similarly to domestic collect calls, may use the feature of asking for and recording calling and called party names from the Functions menu.

By recording party names, the operator sees them on the screen when asking for verbal acceptance from the called party. Note the following requirements for inbound collect calls:

- The called party pays for the call.
- Bill the call as station if the customer does not ask to speak to a specific party.
- Bill the call as person if the customer asks to speak only to a specific party at the called number.
- Ask for the calling customer and called party name’s names.

To process this collect call and record party names, do the following:

1. Enter the called number.
2. Choose appropriate billing, depending on whether or not the calling party wants to speak to a specific person.
3. Press **Rls Cld** to format the call and not outpulse.
4. Ask the calling party for calling and called party names.
5. Press **Fncts**, choose the code for Calling Party Name and press **Start**.
6. Enter the text for Calling Party Name by using the Qwerty keyboard, and press **Start.**
7. Press **Fncts**, choose the code for Called Party Name and press Start.
8. Enter the text for Called Party Name by using the Qwerty keyboard; press **Start.**

   After entering the information in the Fncts menu for Calling and Called Party Names, you will see them displayed on the bottom of the Functions menu and in top right corner of the Call Details area.
9. Press **Start** to outpulse the call to the called party.
10. Receive verbal billing acceptance from the called party.
11. Press **Start** to initiate conversation between the calling and called parties.
12. Complete the call by pressing **Pos Rls**.

Remember:

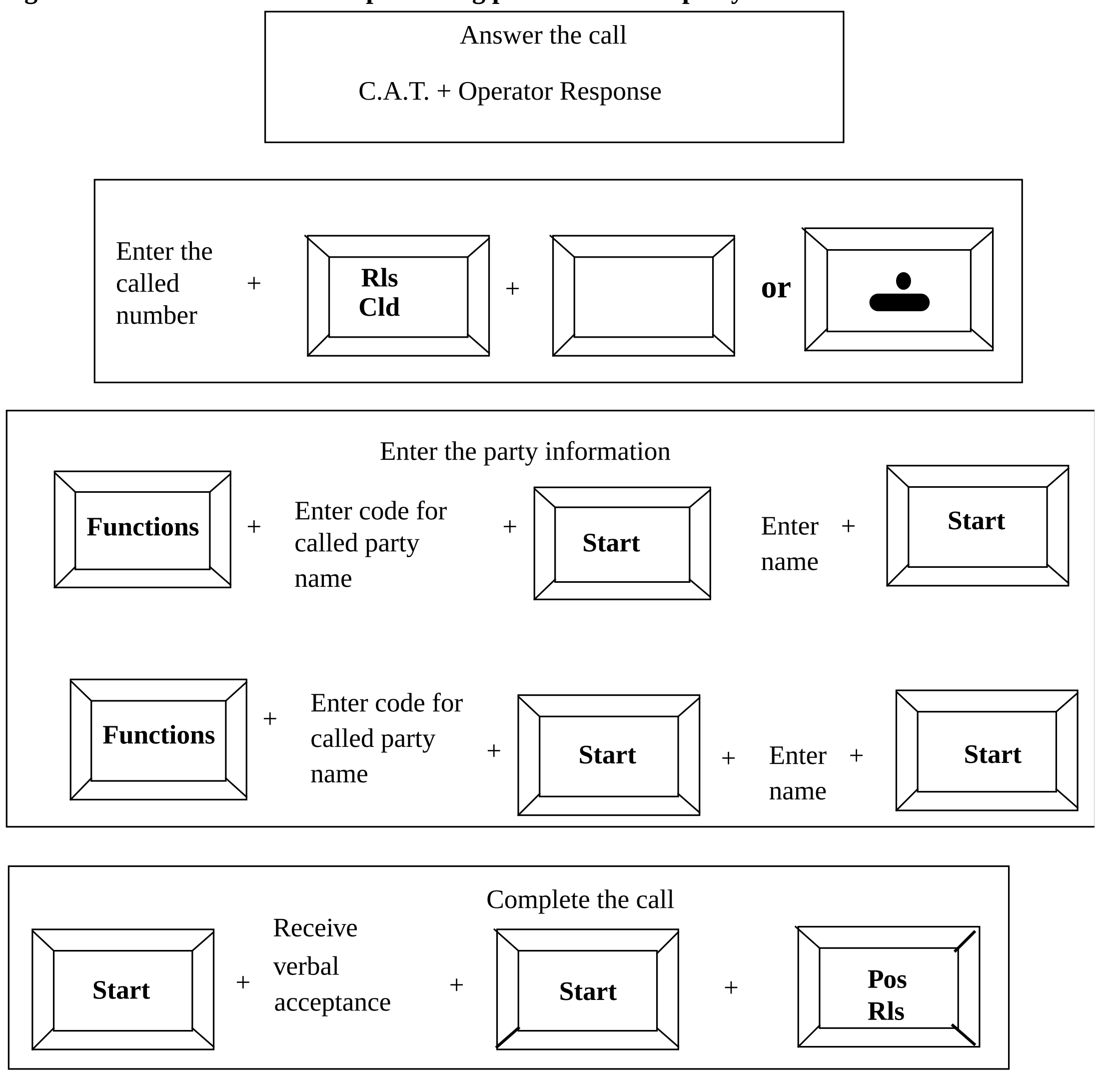
- By pressing the **Station** key**,** the party has already indicated that he/she will speak to anyone who answers.

but

- If the calling party wants to speak to a specific individual at the called party number, that called party must consent to accepting charges before you continuing to process the call.
- Press **Person** key for person collect billing procedures.

In addition, telephone operating companies may require that the operator split the voice path with the calling party to receive verbal acceptance of the call. In this case, use the split/join calling feature from the Functions menu.

Figure 166. Inbound collect call processing procedures with party names



B.57 Inbound card call processing procedures

Note the following information regarding inbound card calls:

- may arrive at the position with a code in the calling party field indicating that the call is coming from an international location
- are paid for by the calling or called party with a calling or credit card
- are billed as Person or Station
- requires asking the calling party for calling and called party names
- may require using the **Functions** menu to enter and record calling and called party names

For an inbound card call where the calling party pays, do the following:

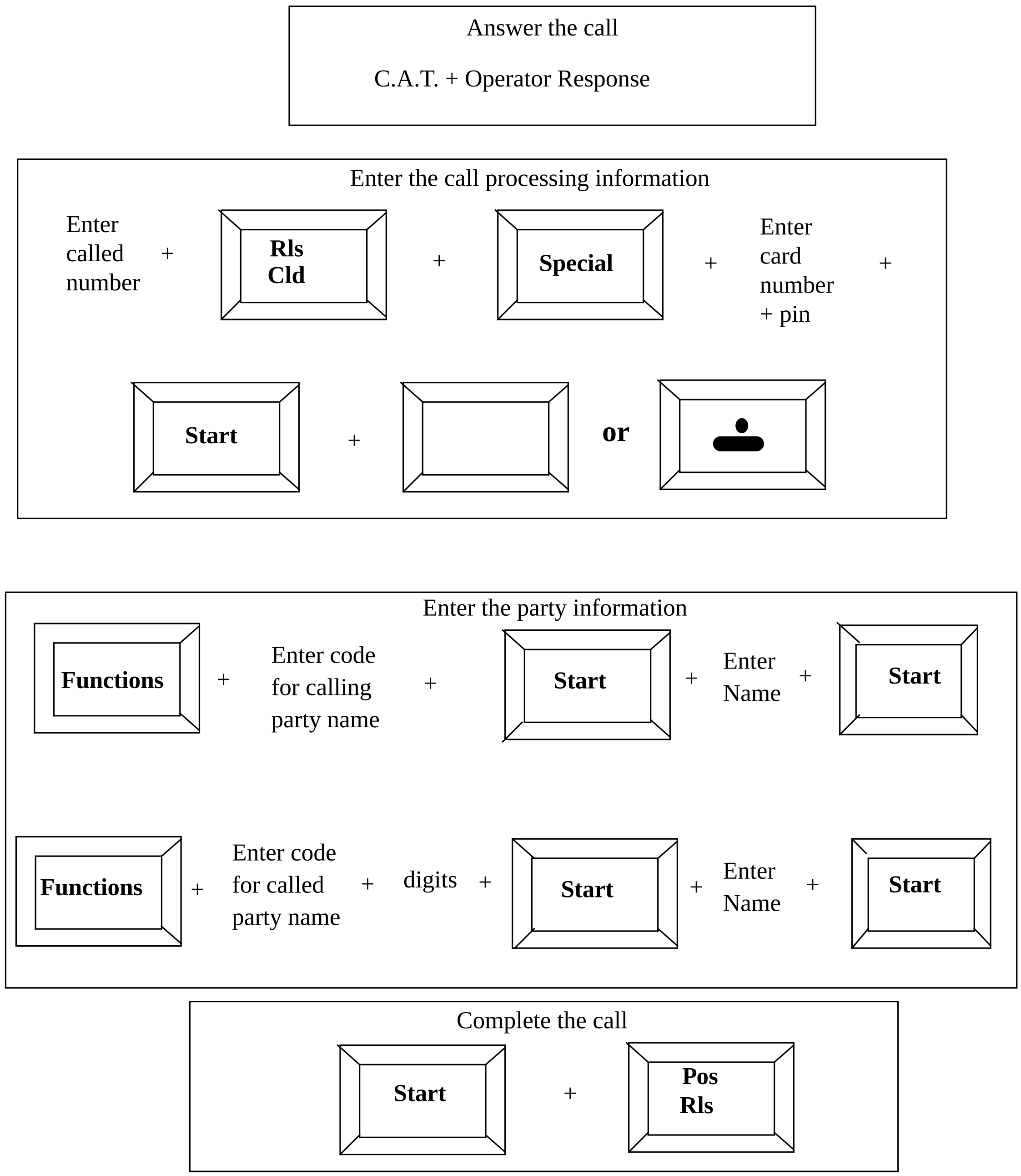
1. Ask for called number and class charge.
2. Enter the called number**.**
3. Press **Rls Cld** to format the number and save it.
4. Enter the Calling or Credit card number and four-digit pin into the **Spl** field.
5. Press **Start** and class charge key.
6. Ask the calling party for calling and called party names.
7. Press **Fncts**, choose the code for **Calling Party Name** and press **Start**.
8. Enter the text for **Calling Party Name** by using the Qwerty keyboard; press **Start.**
9. Press **Fncts**, choose the code for **Called Party Name** and press **Start**.
10. Enter the text for **Called Party Name** by using the Qwerty keyboard; press **Start.** After entering the information in the **Fncts** menu for **Calling** and **Called Party Names**, you will see them displayed on the bottom of the Functions Menu and in the top right corner of the Call Details area.
11. Press **Start** to outpulse the call to the called party.
12. Press **Pos Rls**.

For an inbound card call where the called party pays, do the following:

1. Ask calling party for called number, class charge (person or station), calling and called party names.
2. Press **Rls Cld** to format called number.
3. Press **Fncts**, choose the code for Calling Party Name and press **Start**.
4. Enter the text for Calling Party Name by using the Qwerty keyboard; press **Start.**
5. Press **Fncts**, choose the code for Called Party Name and press **Start**.

6. Enter the text for Called Party Name by using the Qwerty keyboard; press **Start.** After entering the information, see them displayed on the bottom of the **Fncts** menu and in the top right corner of the Call Details area.
7. Press **Start** to outpulse to called party.
8. If the called party requests billing to credit or calling card, move class charge to the **Spl** field.
9. Ask for the card number and four-digit pin.
10. Enter the class charge and card number into the Spl field.
11. Press **Start** to format and verify card validation.
12. Press **Start** again to reconnect calling party.
13. Release call through the **Pos Rls** key.

Figure 167. Inbound calling party paid card call with party names



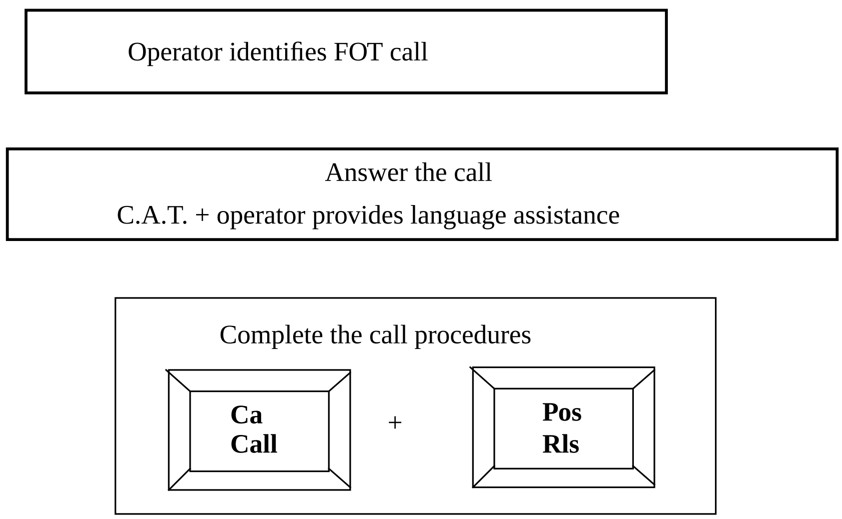
B.58 Foreign operator transfer (FOT) call procedures

FOT calls occur when a foreign operator needs language assistance. These calls are datafilled to appear in field 1 of the Call Information window Call Headlines area to queue the operator that language assistance is needed.

In an FOT operator to home service provider operator call, note the following:

- The FOT code appears in field 1 of the Call Information window Call Headlines area.
- There is no calling number in the calling field.
- No call processing procedures are necessary.
- The home service provider operator provides language assistance in the home service provider’s language.
- The home service provider operator need only press **Ca Call** and **Pos Rls** to release the call and continue taking other calls.

Figure 168. Foreign operator transfer call procedures



B.59 Inbound code 11/12 call procedures

Inbound code 11/12 calls generally involve providing dialing assistance to other operators.

As with an FOT call, when a code 11/12 call comes to an operator's position, it displays in field 1 of the Call Information window Call Headlines area. There is no calling number in the calling field.

To process an inbound code 11/12 call, do the following:

1. Answer the call and respond to the other operator's request.
2. Enter code into calling field. (service provider's engineer determines this code) to give call a calling number.
3. Enter the call processing information by keying the number digits and class charge.
4. Press **Start** if Spl information is entered or **Rls Cld** if called information is entered. (By default, the cursor will be in the Cld field. Move the cursor if needed to enter data into the **Spl** field.).
5. Ask operator or calling party for calling and called party names.
6. Press **Fncts**, choose the code for Calling Party Name and press **Start**.
7. Enter the text for **Calling Party Name** by using the Qwerty keyboard; press **Start.**
8. Press **Fncts**, choose the code for Called Party Name and press **Start**.
9. Enter the text for Called Party Name by using the Qwerty keyboard; press **Start.**
10. After the operator enters the information in the **Fncts** menu for **Calling** and **Called Party Names**, the operator will see them displayed on the bottom of the Functions Menu and in top right corner of the **Call Details** area.
11. Do one of the following:
    a. Press **Start** to outpulse the call. Press **Pos Rls** if call is completed.
    b. If necessary, receive verbal billing acceptance from the called party (for a collect call) or third party (for third party billing). If collect, press **Start** to initiate conversation between the calling and called parties.
    c. Process as third party billed call. Complete the call by pressing **Pos Rls**.

B.60 Outbound code 11/12 call procedures

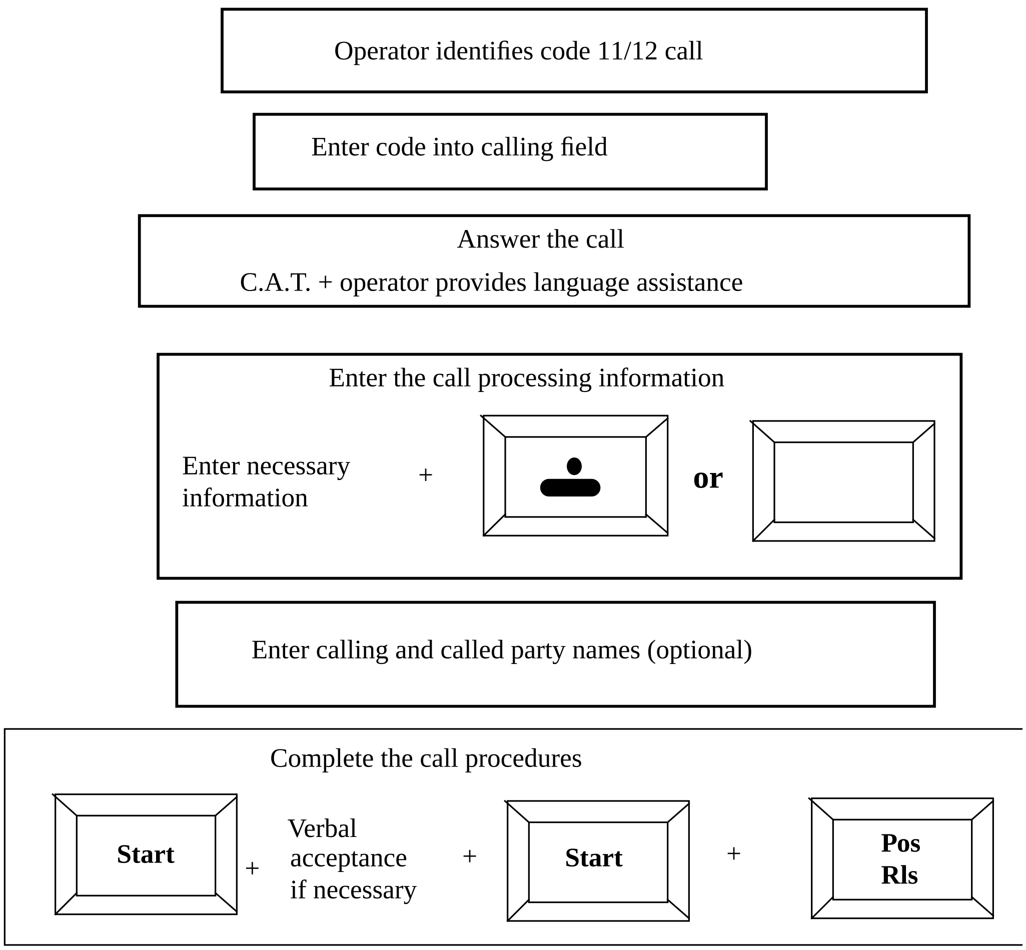
The procedures for a home operator to reach an outbound operator for call or dialing assistance are relatively simple.

By entering the home operating code (if one is designated by the home service provider) and 11 or 12 in the called party field, the operator should connect to a foreign operator.

The foreign operator should be equipped to take direction in assuring calling party and call processing satisfaction.

Note that an operator may put the calling party on temporary hold and access another loop if she or he prefers not to involve the calling party in the discussion with the foreign operator. Service providers define the terms for outgoing code 11/12 calls.

Figure 169. Inbound code 11/12 call procedures



B.61 Home beyond card call processing procedures

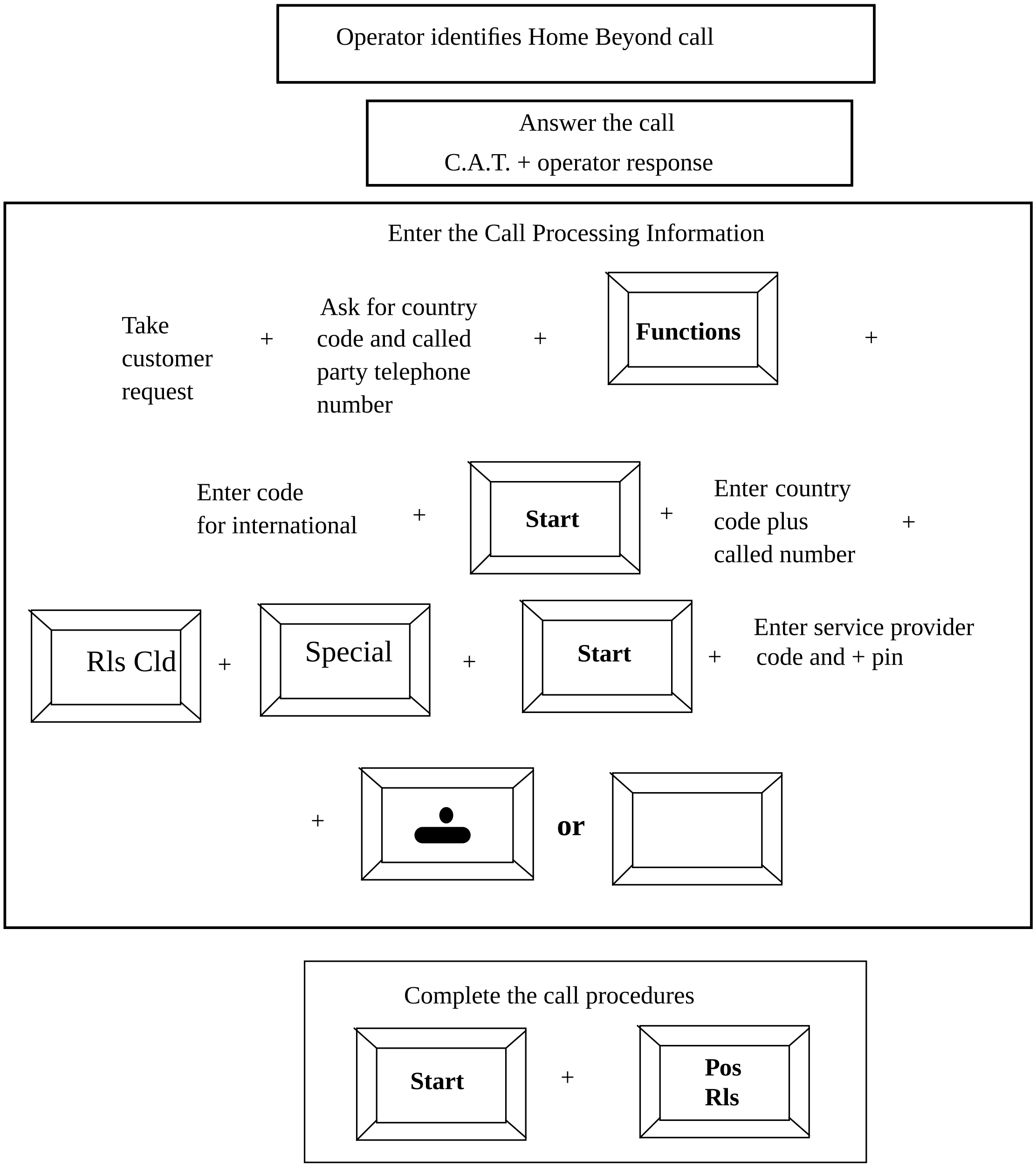
Home Beyond calls are made by card customers in foreign destinations. Note the following:

- Home Beyond calls allow home service provider's card users free access to an operator at home when travelling in a foreign destination.
- Calls are routed through the home service provider and out to another foreign destination.
- When a Home Beyond call comes to an operator position, the home service provider's access code is displayed in the calling field, while the called field will not have the number the customer is trying to reach.
- Once called country code and telephone number are entered, this call is processed similarly to other card calls.

A typical Home Beyond call appears with the service provider access number in the calling field. It does not have a called number. The operator asks for the country code and telephone number of the called party. To process this call, do the following:

1. Access the Functs menu.
2. Enter the code for international to indicate an internationally received and bound (Home Beyond) call.
3. Press **Start**.
4. Enter the country code and international number.
5. Press **Rls Cld**.
6. At this point, process as you would a card call.

Figure 170. Home Beyond card call processing procedures



B.62 Estimated call charges processing procedures

The TOPS estimated call charges feature does the following:

- lets the operator estimate the cost of completing a call
- estimates the charges before the call is completed
- records the charges and is activated in the DMS switch

To process estimated call charges, do the following:

1. Press the **Estimate Call Charges** key in the QWERTY section of the keyboard (the location of this key on the keyboard is datafilled in a table on the position and switch).

   The Estimated Call Charges window displays in area 3.

2. Enter or modify the call data needed to calculate the charges for the call by selecting the **Fncts** key.
3. Enter the code for Calculate Est Chg.

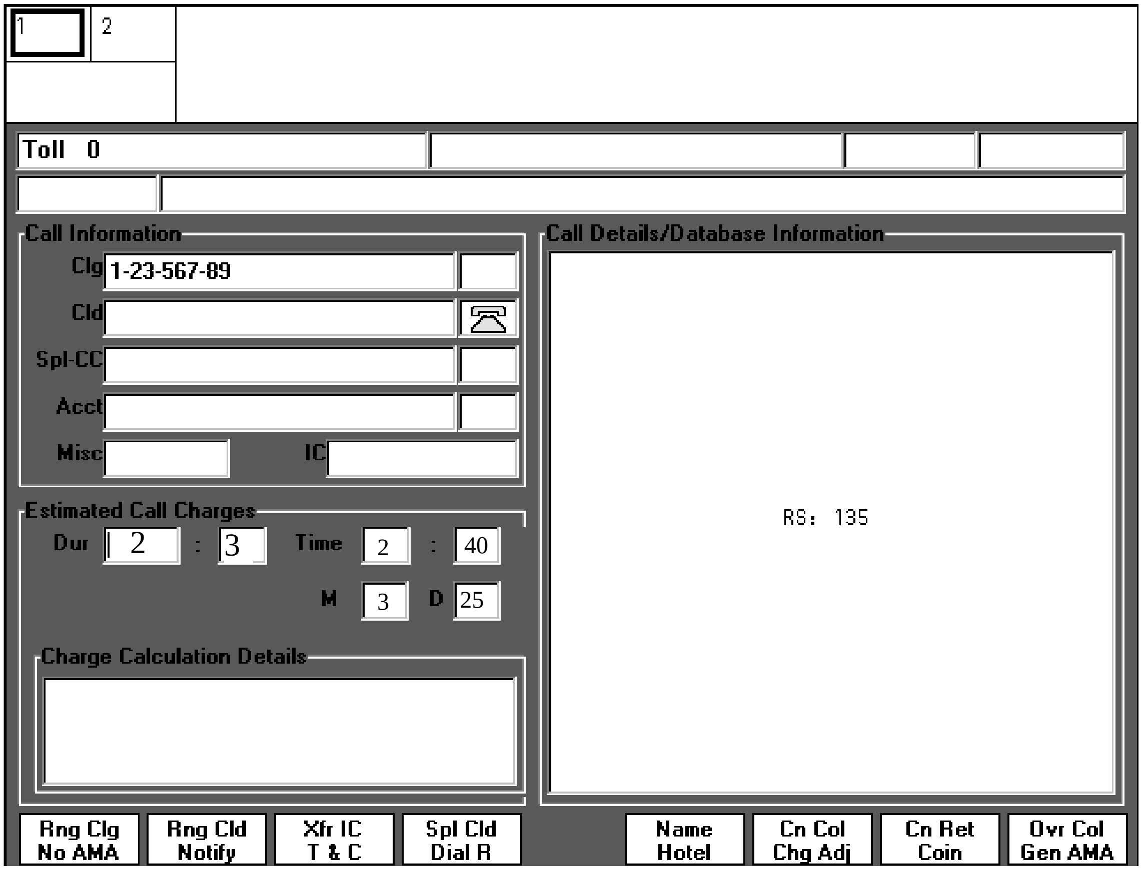
   The estimated call charges are calculated at the DMS switch and display at the operator's IWS position in the Call details area.

4. Quote the estimate to the subscriber.

An example of the estimated call charges window is shown in Figure 171.

The **Estimate Call Charge** key must be datafilled in file XKBOARD.TBL with the Key Bind Utility, which is described in the *TOPS IWS RAMP and Provisioning User's Guide,* 297-2251-015.

Figure 171. Estimated call charges window



In an Estimate Call Charges call, note the following:

- You can change the call information and perform as many estimates as necessary.
- If required, you can generate an AMA record for each estimate manually by entering the GEN AMA code from the Functions menu.

Charges are estimated for a call based on the following attributes. All but the last three on the list are elements commonly included in call information. Use these attributes values to calculate a charge, or key in new values based on subscriber input:

- calling number
- called number
- overseas number
- special number
- call origination type (dial rate)
- station class
- class charge
- rate step

- time of day the call is placed
- day and month the call is placed
- duration of the call

You can change any of these attributes values as long as the called party is not connected. If the called party is connected and timing has started, you cannot change the called number or the class charge.

The numbers of the parties connected and the existing class charge are used for the charge estimate.

B.63 Working in the Estimated Call Charges window

A call must be at the position to activate the Estimated Call Charges window, as follows:

- To activate the estimated call charges window, the operator presses the **Estimate Call Charge** key.
- The cursor moves to the first input field (duration of call).

The data input fields fall into the following three categories to transmit data to the DMS switch to be estimated:

- time: hour and minute fields
- date: month and day fields
- duration: hour and minute fields

When the cursor is in the first field of each group:

- pressing **Start** terminates the data for that field and moves the cursor to the second field (in that group)
- pressing **Start** from the second field in any group transmits the call attributes associated with that group to the DMS switch

Upon validation from the DMS switch, the cursor moves to the first input field of the next group.

The cursor cycles through the three input fields (time, date, and duration) as follows:

- When you press **Start** while the cursor is in the last input field, the cursor returns to the first input field.
- Press the **Tab** key to move the cursor forward among the input fields in a group.
- Press the **shift-Tab** key to move the cursor backward among the input fields in a group.
- You must press **Start** to move into another group of fields.
- Press the field selection key to cycle through all the input fields without sending the data to either the IWS or the DMS switch.

- In an input field with non-terminated or invalid data, press the field selection key in the first field of a group and clear the data in that field, or in the second input field and clear the data in both fields of the group.
- If you press any IWS Billing call handling keys (such as **Misc**, **Acct**, or **Pos Rls**), focus returns to the IWS Billing application.
- You can access all menus from the Estimate of Charges window.
- Press the backspace key to erase any input data.
- You can erase or overwrite data previously transmitted to the DMS switch by pressing **Start** and cycling again through the data.

The field selection key must be datafilled in file XKBOARD.TBL with the Key Bind Utility, which is described in the *TOPS IWS RAMP and Provisioning User's Guide,* 297-2251-015.

Successful estimate of charges to complete a call is dependent on fulfillment of the following conditions:

- Datafill contained in the rating system.
- Attributes of the call being estimated.
- Duration, date, and time of the call.

You may enter a time and no date, or vice versa. However, if you enter a date you must specify a day and a month. Likewise, if you enter a time you must specify an hour and minute. If you enter no date or time, the DMS switch uses the current date and time as the default.

B.64 Estimate of charges

Calculating charges can be performed with or without entering information into the Estimated Call Charges window, but certain features and limitations apply for each method. These are discussed in this section.

B.64.1 Calculating charges from the Estimated Call Charges window

Estimating charges from the Estimated Call Charges window enables the operator to refine the call attributes of date, time, and duration.

The results of the estimated charge vary based on whether duration is a factor in the estimation. If a duration is specified, the position displays the total calculated charges for that duration. If no duration is specified, the position displays the following information in the Charge Calculation Details field (as shown in Figure 172):

- length of the initial period
- calculated charges for the initial period

- length of the overtime period
- calculated charges for each overtime period

Taxes and surcharges are not accounted for in the estimate and, if the time crosses a rate boundary, the rate is based on the start time of the call.

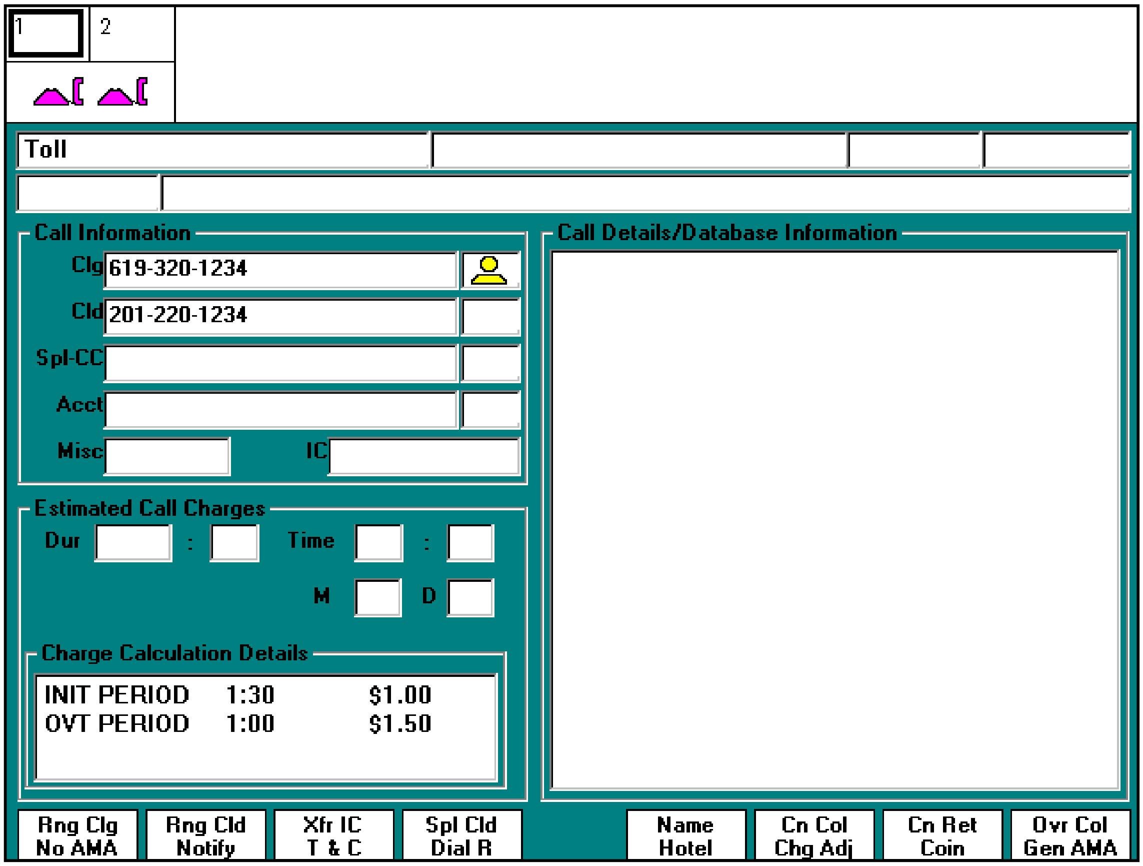
B.64.2 Calculating charges from IWS Billing

Estimating charges during normal call processing uses the details of the call currently at the position. Note the following:

- The operator does not provide the duration, date, or time of day of the call because these values are entered only into the Estimated Call Charges window.
- The operator selects Calculate Est Chg from the Functions menu.
- If a successful estimation can be performed, the Estimated Call Charges window is activated and the initial and overtime estimations are displayed.

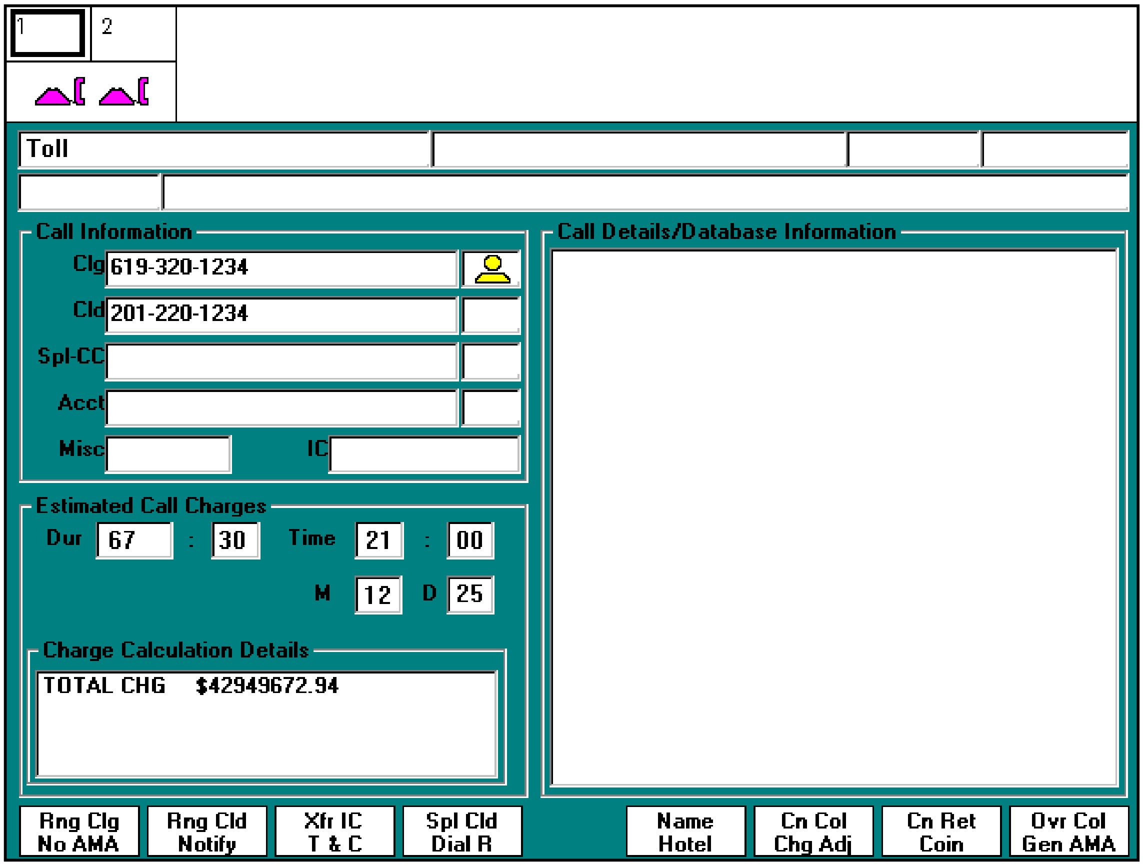
See the Figure 172 for an example display.

Figure 172. Sample cost estimate during normal call processing



However, if the operator manually enters the call details into the Estimated Call Charges window, the estimated cost of the call displays in the Charge Calculation Details field of the Estimated Call Charges window as shown in Figure 173.

Figure 173. Sample cost estimate using the Estimated Call Charges window



If the estimation is attempted from IWS Billing and a called party is not specified, the DMS switch reports an invalid charge estimation attempt with a No Action reason in the MSA (estimate charge calculation failure), and the Estimated Call Charges window does not get focus.

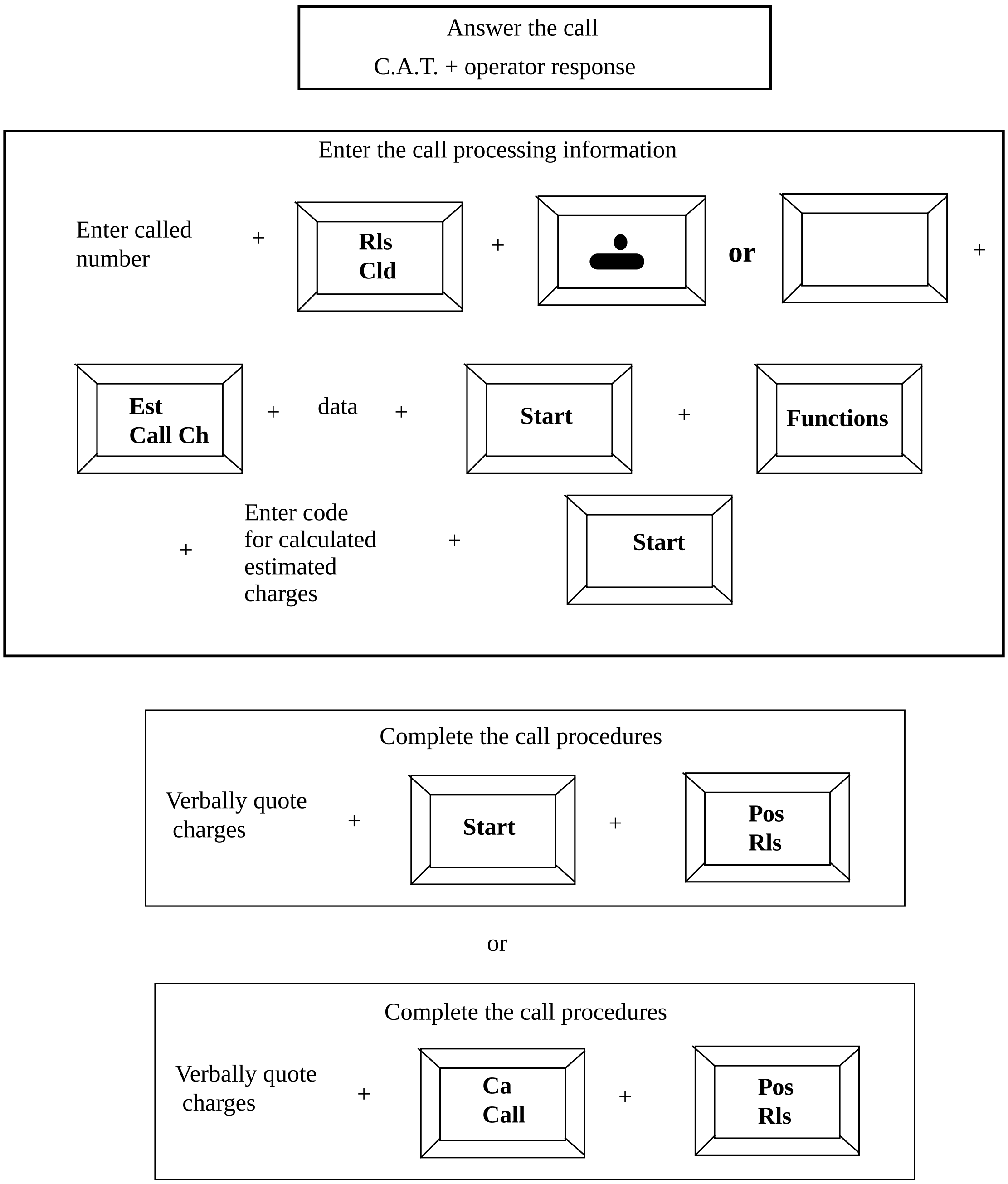
After an estimate of charges is calculated, two options are available for the operator:

- Change the call attribute values and perform another estimation of charges in the Estimated Call Charges window.
- Release the call (press **Ca Call** + **Pos Rls**).

Charge calculation failure can occur for two reasons:

- The operator did not supply enough data to estimate the charges.
- The rating system cannot calculate charges. In this case, `No Action Reason` displays in the MSA.

Figure 174. Estimated charges call processing procedures



B.65 Internal booked call database (GOS) environment

In the Global Operator Services (GOS) environment, the internal booked call database handles operator-assisted calls that cannot be processed immediately because of a lack of resources or inability to reach the called party.

In an internal booked call, note the following:

- The database stores call details for a later attempt (up to 19 hours and 59 minutes later) at processing.
- A timed call can be stored with a recall time so that the call automatically returns to an operator when the timer expires.
- An untimed call can also be stored.

In an untimed call (route queued call), note the following:

- With the exception of a route-queued database call, the untimed call does not automatically return to the operator--it must be retrieved manually.
- A route-queued call is stored against a specific route.
- When a trunk member of the route becomes available, the call automatically returns to an operator for completion.

An open numbering plan call on which charges have been estimated can be booked if the called number is not connected. The recall time must be calculated on the current time and not on the time entered for the estimation.

The following two call origination types are specific to the booked call database:

- The *booked call* origination type is used for calls, coming to a TOPS office, that will be placed in the database. Datafill in the DMS switch and position are required to specify this call origination type.
- The *booked call database recall* origination type is for calls originating from the booked call database. This type signifies to the operator that the call was automatically recalled from the database and no subscribers are attached.

When a call is successfully stored in the database:

- the operator receives a serial number associated with that call
- an operator can retrieve a call from the database by either the serial number or the calling number

If retrieved by the calling number, note the following:

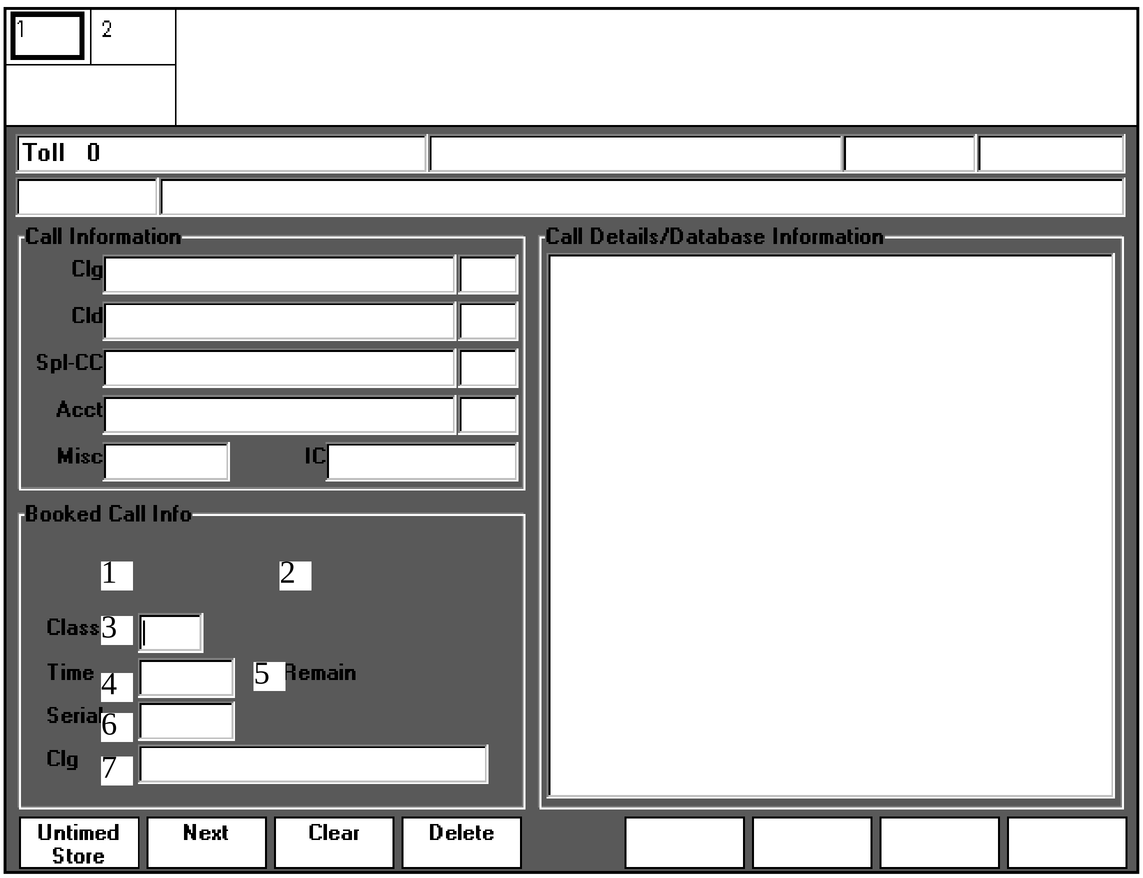
- If a calling number has more than one booked call stored against it, the oldest call associated with the calling number is retrieved first.
- The operator can modify the information about a call and store it again, or delete it.
- Deletion removes the information from the database, but the operator can still complete the call.

- The operator can also clear any booked call database information from the screen.
- The internal booked call database functionality is activated in the DMS switch.

B.66 Reaching the Internal Booked Call Database

When a call is at the position (including when the operator accesses a loop), the operator can press the **Internal Booked Call DB** key to give focus to the Internal Booked Call Database window, which is shown in Figure 175. The **Internal Booked Call DB** key must be datafilled in file XKBOARD.TBL with the KeyBind Utility, which is described in the *TOPS IWS RAMP and Provisioning User's Guide*, 297-2251-045.

Figure 175. Internal booked call database window and softkeys

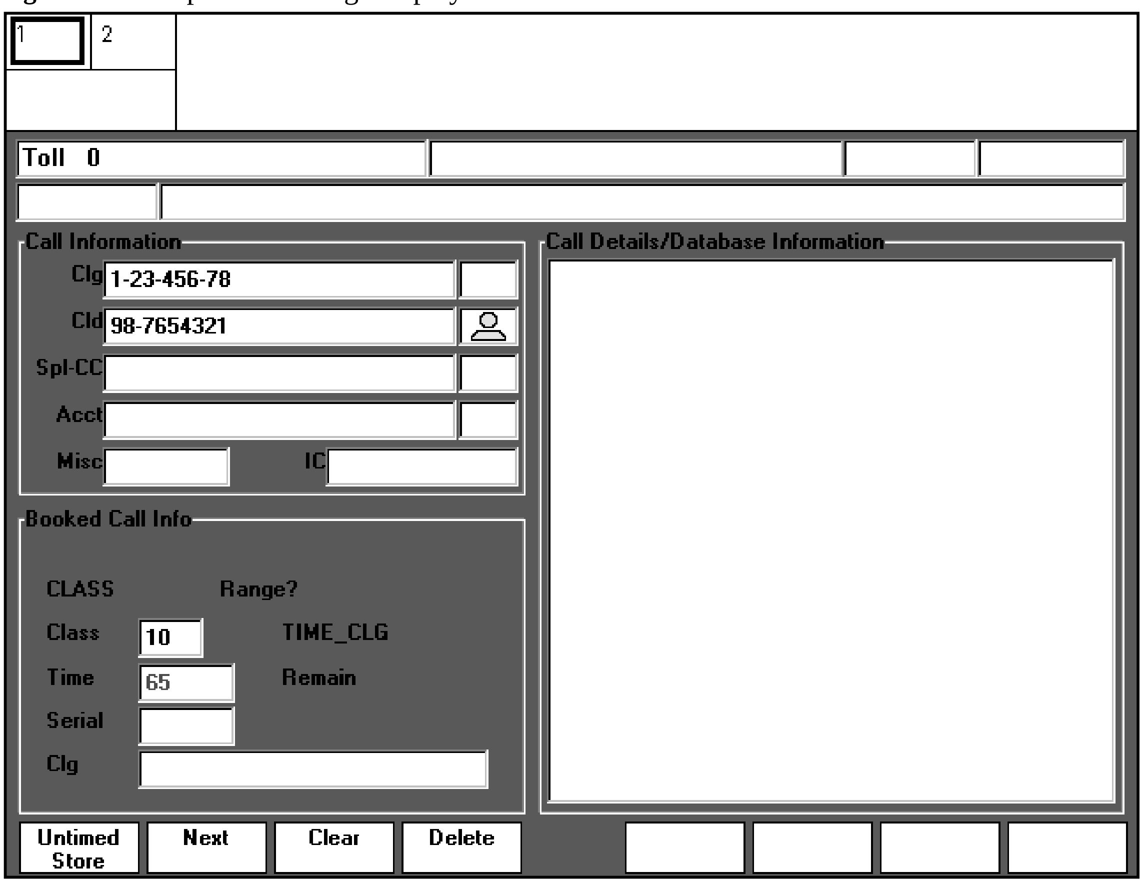


B.67 Internal booked call database window fields

Seven fields make up the Booked Call Database window fields. String IDs identify the text strings that are displayed as field labels and informational messages in each field. Both the identifying label and the text string for each field can be changed in language file BKCALLDB.LNG. The fields are:

- booked call action label
- booked call action status (including out -of-range value)
- class of call
- time delay
- time remaining
- serial number
- calling number

Figure 176. Sample out of range display window



B.68 Processing calls for the internal booked call database

When a call requesting booking arrives at the position:

- The operator presses the **Booked Call Database** hard key to activate the Internal Booked Call Database window.
- The IWS Billing softkeys are cleared and the internal booked call database softkeys are displayed.
- The cursor moves to the class number input field.
- The operator can press the **Tab** key to move the cursor through the rest of the input fields.
- If the operator presses a a Call Information window cursor control key or a menu key, the cursor returns to the IWS Billing field that was indicated by the keypress.

B.68.1 Internal booked call database softkeys

The internal booked call database softkeys are datafilled in language file BKCALLSK.LNG. Functionality for these softkeys is shown in Table 44.

Table 44. Internal booked call database softkeys

Softkey	Functionality
{Untimed Store}	Stores the details of an untimed or route-queued call in the booked call database.
{Next}	Returns a retrieved call to the database and retrieves the next oldest call associated with the specified calling number.
{Clear}	Clears any booked call database information from the screen about a call that has been retrieved, deleted, or stored. The call itself is not deleted from the database.
{Delete}	Deletes a booked call from the database, although the operator can still complete the call.

B.68.2 Storing a call

To store a call in the internal booked call database:

- The operator must supply a valid called number, satisfy billing, and class the call.
- To apply a class to the call, the operator enters a valid class number and presses **Start**.
- If the DMS switch validates the number, the associated class name displays in the class identifier field.
- If the number is invalid, it is displayed in the error text color, and an error message appears in the booked call action status field.
- Additionally, timing cannot have started, and the call cannot be coin or restricted to be stored.

B.68.3 Storing a timed call

To store a timed call:

- The operator enters a valid delay time (00:00-19:59) in the time delay input field after supplying a valid called number, satisfying billing, and classing the call.
- The operator must remember the format for minutes and hours. Two or fewer digits are interpreted as minutes (valid range 0-59). Any further digits (between 1-19) are interpreted as hours. Thus the operator who keys “120” to mean two hours is actually entering a delay time of one hour and 20 minutes.
- Next, the operator presses **Start** to store the call.

B.68.4 Storing an untimed call

To store an untimed call:

- The operator presses **{Untimed Store}** after supplying a valid called number, satisfying billing, and classing the call.
- A serial number displayed in the serial number field indicates that the call has been successfully stored.
- The called party cannot be connected while storing a route-queued call.

B.68.5 Database store failures

The reasons that an attempt to store a call in the internal booked call database fails are shown in Table 45.

Table 45. Database store failures

Database store failure reason	Error handling
Class of booked call has not been entered correctly	Failed in booked call action status field
Invalid delay time has been specified	Failed in booked call action status field
Delay time out of range.	Range? in booked call action status field, input is displayed in error text color
Maximum number of calls in database reached	Failed in booked call action status field
Maximum number of calls in half-hour period reached	Failed in booked call action status field
Maximum number of queued calls on a route exceeded	Failed in booked call action status field
Resources available to queue call exceeded	Failed in booked call action status field

B.68.6 Retrieving a call manually

An operator can retrieve a call from the internal booked call database by using either the calling number of the customer or the booked call database serial number.

If the call is successfully retrieved from the internal booked call database the relevant call information, including:

- The amount of time the call was stored in the database.
- The calling number.
- The serial number.
- Or both, are displayed in the internal booked call database window.
- `Retrieve` is displayed in the booked call action field.
- Any call details associated with the call are also displayed.

The field displays in the internal booked call database window show the operator how to process the call.

If the retrieved call is route-queued, the time delay field displays the length of time the call has been queued.

Note: While the operator has the information on a specific booked call on the screen, that call is marked as viewed in the database, and any attempt to access by other operators is denied.

B.68.6.1 Retrieving a call manually by calling number

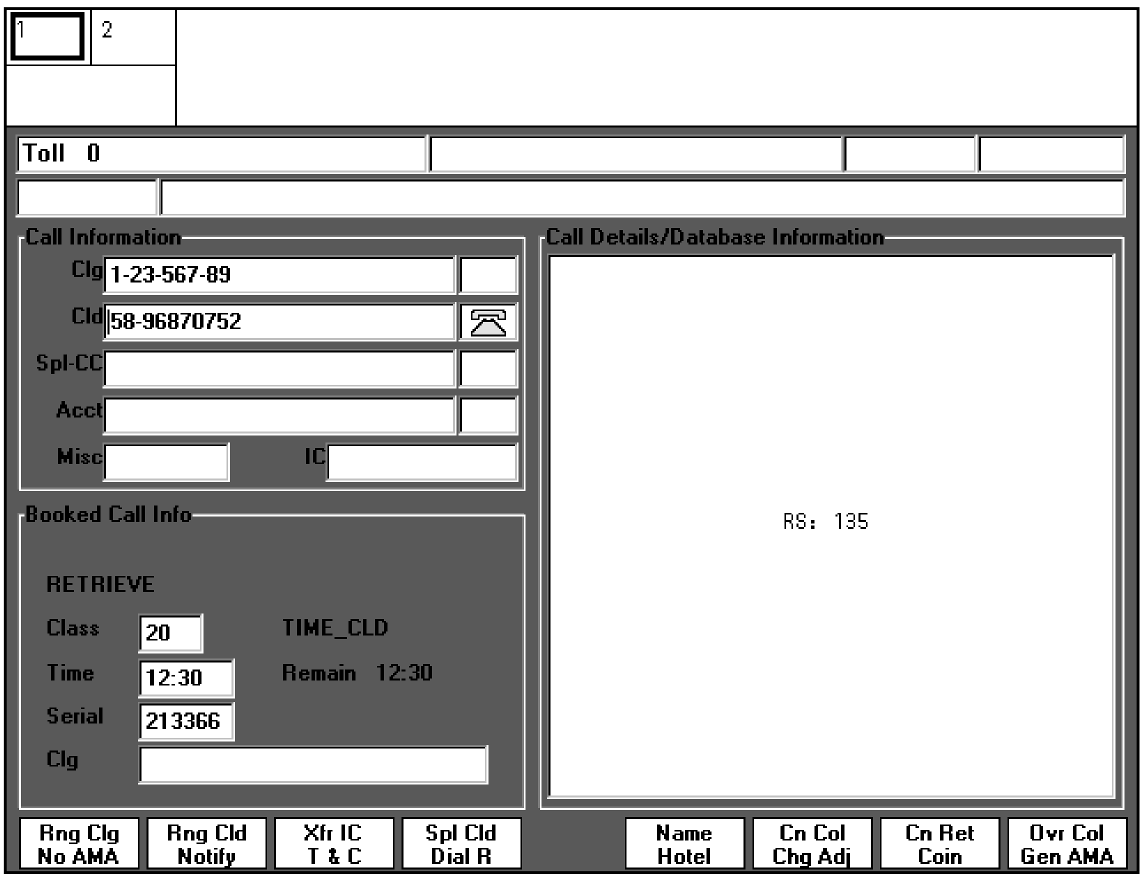
To retrieve a booked call by calling number:

- The operator enters a valid calling number in the calling number field, followed by **Start**.
- If more than one call is stored against the same calling number, the oldest call is retrieved first.
- The operator can press the **{Next}** softkey to return that call and retrieve the next oldest call, and so on.

B.68.7 Retrieving a call manually by serial number

To retrieve a booked call by serial number, the operator enters a valid six-digit serial number in the serial number field, followed by **Start**.

Figure 177. Status of a retrieved call window



B.68.8 Call retrieval failure

The reasons that an attempt to retrieve a call from the internal booked call database fails are shown in Table 46.

Table 46. Call retrieval failures

Call retrieval failure reasons	Error handling
Call currently being viewed by another operator	Failed in booked call action status field
No stored database calls against this calling number	Failed in booked call action status field, input displayed in error text color
No stored database calls against this serial number	Failed in booked call action status field, input displayed in error text color

B.68.9 Deleting a call

To delete a call that has been retrieved from the database, press the **{Delete}** softkey. If the action is successful, Delete displays in the booked call action field.

Deletion removes the call information from the database, but the operator can still handle the call, in one of the following ways:

- Complete the call with the call information shown.
- Remove the call information of the deleted call by pressing the **{Clear}** softkey.
- Cancel the call and release it.

B.68.10 Connecting a recalled call

Once a call is at the position, the method of connecting the parties depends on datafill in DMS table IDBCLASS.

If both parties are reached, the call is completed. If both parties still cannot be reached, the call can be stored again in the booked call database for a later attempt.

Figures 178, 179, and 180 show booked call processing procedures, automatic recall and manual recall (where the calling party calls back to an operator to process the booked call earlier than the previously recorded booked time).

Figure 178. Booked call processing procedures

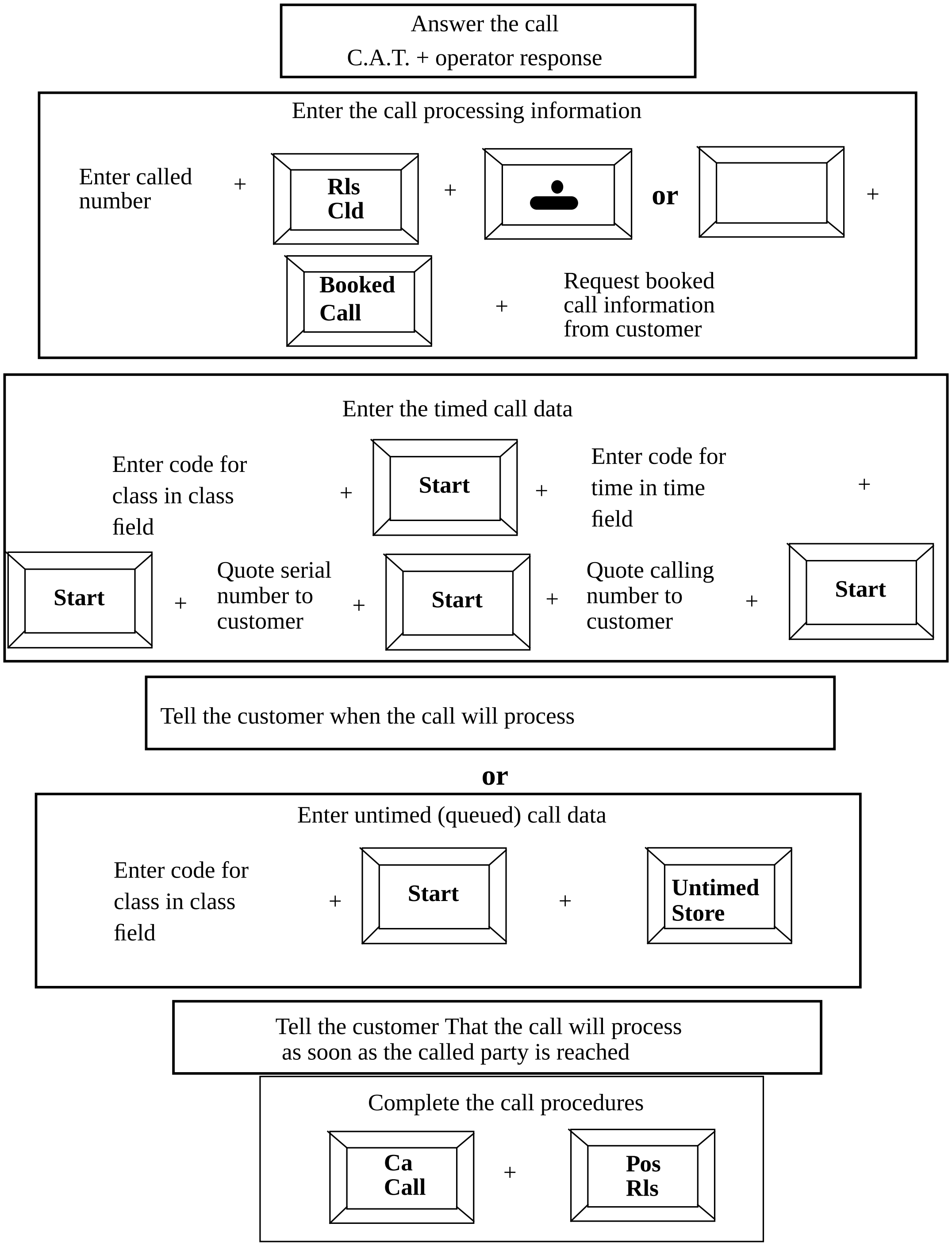


Figure 179. Automatic booked call retrieval processing procedures

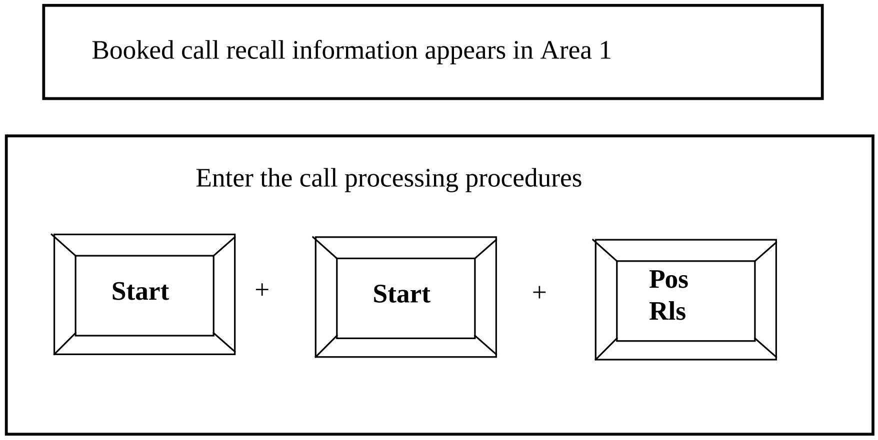
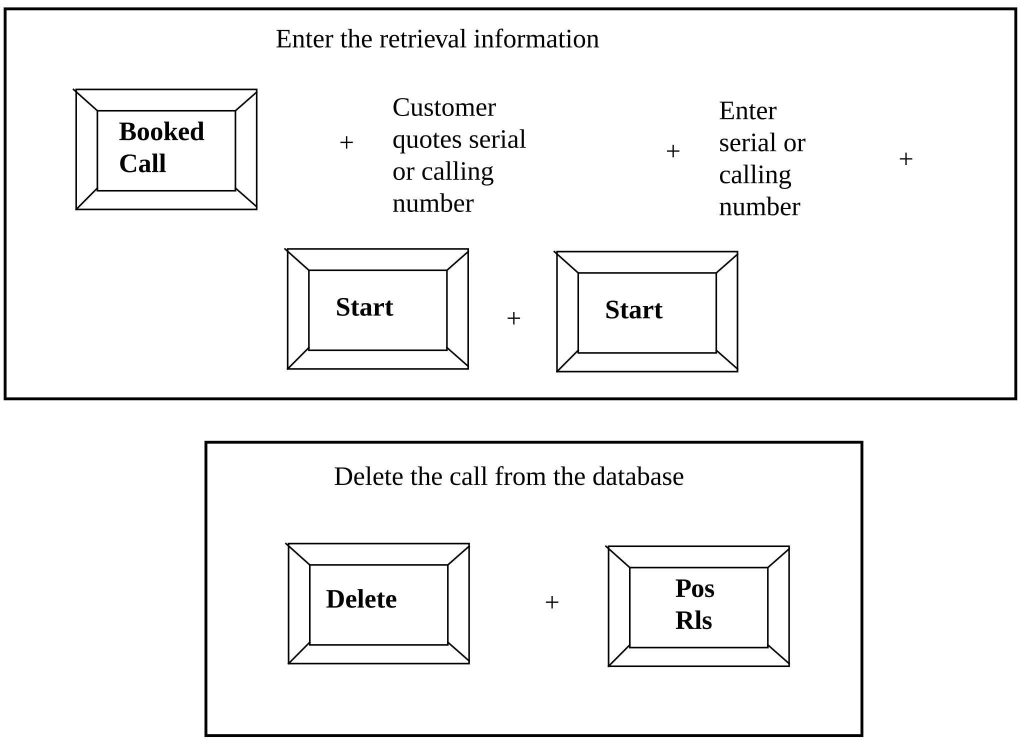


Figure 180. Booked call manual retrieval



B.69 Time and charges

Time and charges is a feature the operator can perform when the billed party (either the calling or called party) requests Time and charges information for the call that is about to be proceed.

- Time refers to the amount of time the parties were off-hook.
- Charges refers to the amount the billed party will pay for the call.

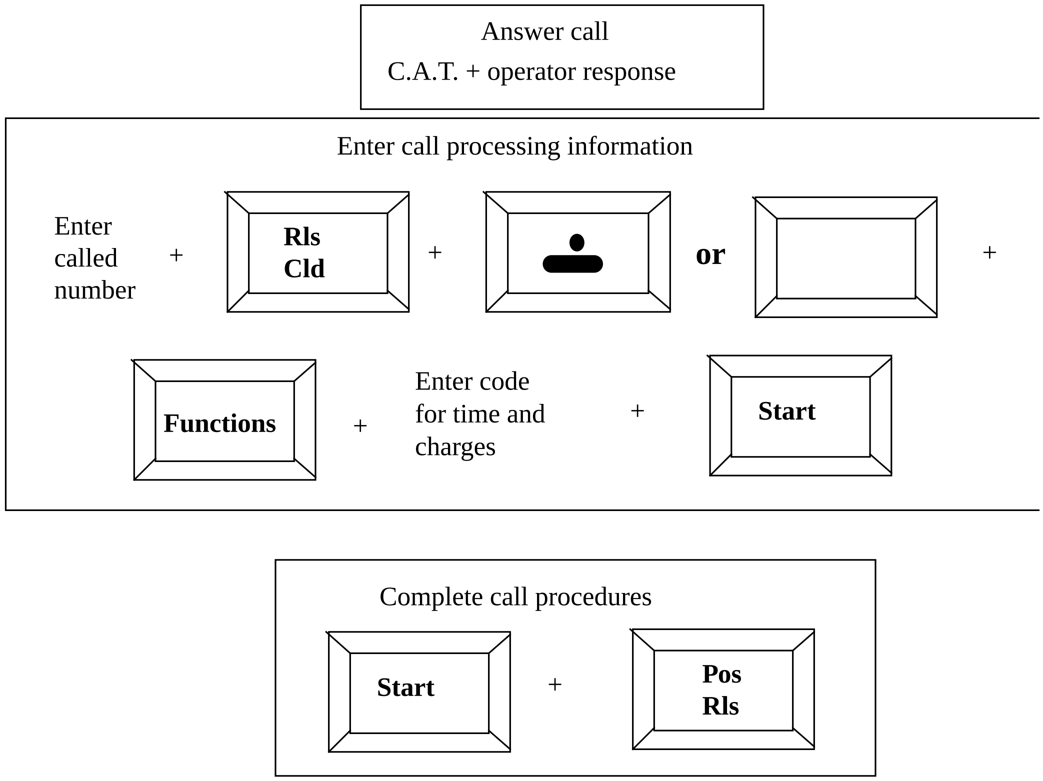
From an operator standpoint, time and charges works as follows:

- Time and charges must be requested by the party who is paying for the call before the operator releases the call.
- At the conclusion of the call, Time and charges details will appear on an operator’s screen when the party who initially requested the Time and charges information remains off-hook.
- Time and charges can then be reported to the party who initially requested the Time and charges information.
- Process a Time and charges request like any other call with the addition of telling the switch to provide Time and charges data.

Figure 181 shows the following steps for handling a time and charges request during the standard processing of any call.

- Press **Fncts** menu key.
- Select the code for Time & Charges.
- Press **Start** to send a time and charges request to the switch to be recalled to an operator position at the termination of a customer’s call.
- Ask the customer to remain on the line at the end of the call for the report.
- Complete the call.

Figure 181. Time and charges



B.70 Time and charges recall

Time and charges recall is only successful when the customer who requested time and charges remains on the line as the operator requested and the other party hangs up.

When successfully recalled to an operator position:

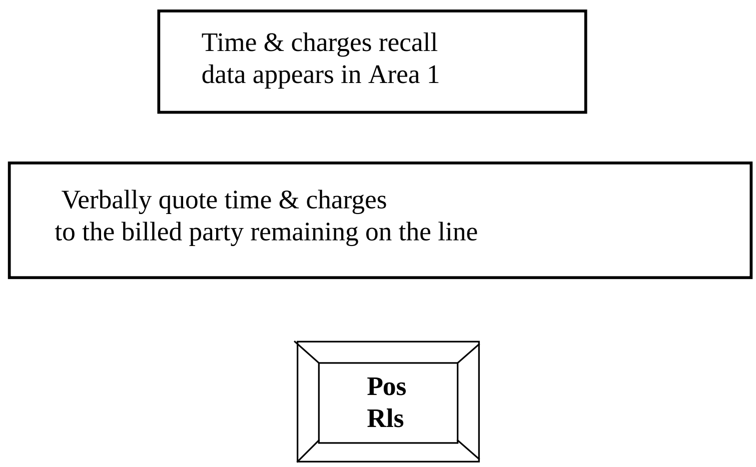
- The message `T&C Recall` will display in the Call Headlines to indicate that this is a time and charges recall.
- The Call Details window will display the actual time and charges of the call.
- The operator reports the time and charges to the customer and press **Pos Rls.**

B.70.1 Printing time and charges

If not set up to be done automatically, service providers may require printing a time and charges quote while processing a time and charges call, as follows:

- Press the **Fncts** menu key.
- Select the code for Print Time & Charges.
- Press **Start** to send the Print Time and Charges request to the printer in the office.

Figure 182. Time and charge recall retrieval processing procedures



B.71 Notification (and fixed duration)

At times, the billed customer may request to be notified during a call after a specified amount of time has passed.

For example, Mariko is calling her cousin Hashi collect. When Mariko's cousin Hashi accepts the charges, he asks for the operator to notify them when five minutes have passed.

To handle this request for notification, process the call like any other call of its type.

Simply add the additional steps outlined in Figure 183, as follows:

1. Press **Fncts** menu key.
2. Select the code for Notify.
3. Enter the requested time period (up to 59 minutes).
4. When the operator selects the Notify function, the Functions menu window will display and the entry of time will be made in the additional input area of the bottom of the window.
5. Press **Start** to send the notification request to the switch to be recalled to an operator position at the customer's specified time.
6. Now complete the call as usual.

The menu window will display even if the operator selects Notify by means of a hotkey or a softkey.

Fixed Duration is an option which allows a call to be cut off in a set amount of time.

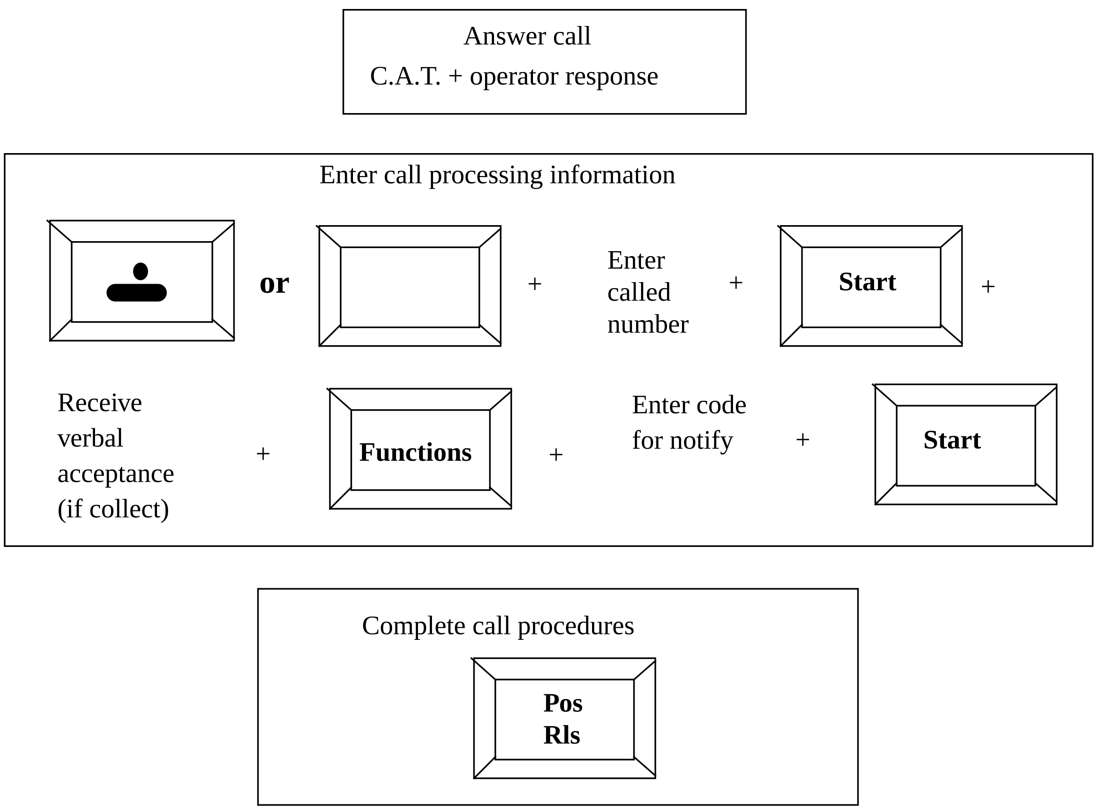
For example, the calling party may make a request to the operator to be cut off from the called party after x minutes.

The procedures for Fixed Duration are as follows:

1. The operator follows the instructions above for Notification.
2. The operator then chooses Fixed Duration from the Fncts menu.
3. The operator presses **Start**, and enters the amount of time the calling party requests to speak to the called party, and again presses **Start**.
4. The operator releases the call and does not receive a recall.

Depending on service provider datafill on a Fixed Duration call, the parties may hear an alert tone ten seconds prior to call cut off.

Figure 183. Notification processing procedures



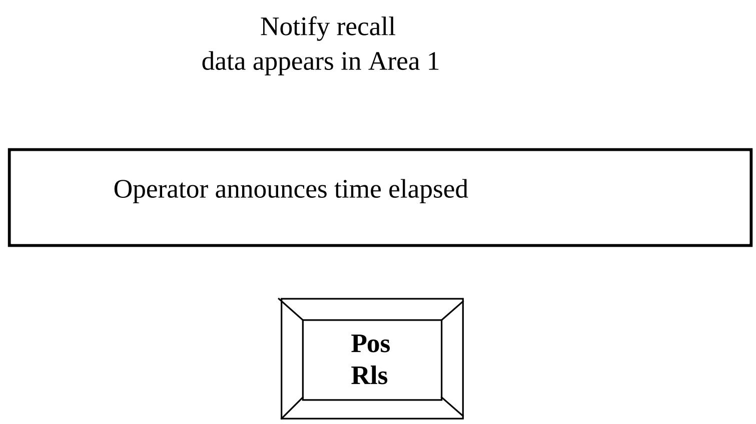
B.72 Notification recall

When a conversation has continued for the amount of time deemed by the customer requesting notification:

- Notify Recall will appear in the Call Headlines Area 1 on an available operator’s position.
- When the operator recognizes the call as a recall, he or she announce to the parties that X minutes are up and press **Pos Rls**.

See Figure 184.

Figure 184. Notification recall retrieval processing procedures



Appendix C: Comparison of TOPS IWS with previous models

The TOPS IWS hardware, software, and functionality has been modified from previous Nortel Networks TOPS products. This chapter outlines those differences by comparing previous TOPS models in North America and the global environment to the current TOPS IWS incarnation.

C.1 Comparison of current TOPS IWS with North American predecessors

This section deals specifically with TOPS in the North American environment.

Monitor

- The TOPS IWS monitor uses a standard 80 character by 24 line display. The screen offers VGA quality graphics.
- IWS displays have been adjusted to accommodate fewer characters per line. A fourth line has been added to the MSA.

Contrast

- The controls for contrast and brightness adjustments are dials on the TOPS IWS monitor. A screen saver application can be datafilled by the customer.

Color

- TOPS IWS positions provide color displays. Service providers may choose from as many as seven different color sets by softkeys from the Assigned Activities window. Each of the seven color sets can be uniquely defined through MS Windows desktop.
- Screen displays for TOPS IWS were created in the Microsoft Windows software package, which provides an enhancement to the clarity in the text and numbers displayed.

Fonts

- TOPS IWS employs both fixed and variable pitch fonts.

Logo window

- The IWS logo is located on the left side of the TOPS IWS Logo window and will display an icon to identify the position at which the TOPS IWS RAMP is running. Pressing **Start** from the Logo window moves the operator to the Operator Administration window, where logon can take place.

Log off

- On TOPS IWS, the operator logs off from the Assigned Activities window following Make Busy.

Call Information window

- On TOPS IWS the data entry and display area for toll calls is called the Call Information window, and it stretches the entire width of the top half of the applications area of the Operator Administration window.

Assigned Activities window

- On TOPS IWS the Assigned Activities screen is replaced by an Assigned Activities window and is displayed under the MSA of the Operator Administration Window. Separate Statistics and Password Update windows are displayed beneath the Assigned Activities window. With QMS, up to 63 services can be displayed in this window, in a multi-page menu.

Call Information window service/type field

- The Service/Type field of the Call Information window is located below the title bar on the TOPS IWS.

MSA icons

- Icons including the ADAS, Handoff, Branding and AMA Verify (clock) are located in the MSA on TOPS IWS.
- Icons display in the call processing and billing area on TOPS MP.

Database query clock icon

- On TOPS IWS, if no keystrokes are accepted during a database search (when the clock icon is displayed), the keystrokes are NOT ignored, although the DMS may return a `No Action Reason` to the position.

Loop/port status location

- The TOPS IWS loop and port status are located on the left hand side of the MSA. Icons indicate the status.

Window title bars

- Text in the title bars of TOPS IWS windows (Call Information, Menu/List) are centered.

Menu entry fields

- Entry fields of the Appl, Functions, Services, OGT and Trouble menus are located along the bottom of menu windows on TOPS IWS. Any additional data entry required (for example, Charge Adjust info) will also be entered in the menu window.

Cursor

- The cursor in the entry field of TOPS IWS is a flashing vertical line, situated where the next character will be entered. The speed of the cursor's flashing can be adjusted. Default cursor locations at call arrival are supported to reduce keystrokes and speed call processing. These cursor defaults are customer definable by CT4Q (QMS call type for queuing).

Editing

- Old data in an TOPS IWS entry field is cleared when the operator presses the first character of the new data. An **Edit** key is optionally available for changing data in the Clg, Cld and Spl fields.
- IWS is always in edit mode.
- When incorrect data is typed into an entry field of TOPS IWS, the background color of that field will be changed to a predefined error color (currently RED).

Data entry error text

- When incorrect data is typed into an entry field of TOPS IWS, the background color of that field changes to a predefined error color (currently RED).

Alert text

- Alert text, such as an indication that a credit card number is HOT, displays in a contrasting color on the TOPS IWS (currently magenta).

Menu paging

- The TOPS IWS uses the **Page Forward** and **Page Backward** keys to move around in the various menus as well as the actual menu keys to move in a forward direction only.

Stopwatch/time display

- TOPS IWS consolidates the stopwatch and time display into one field with the format `hh:mm:ss`. If the stopwatch is running and the operator selects the Time function from the Functions menu, the stopwatch will be canceled and the frozen DMS time is displayed. If the DMS switch time is displayed, and the operator selects the Stopwatch function from the Function menu, the stopwatch display will overwrite the frozen time.

Language files

- TOPS IWS provides language files, which allow the customer to redefine text strings and field labels displayed in the windows. These datafillable text strings support 8-bit ANSI codes and can be configured using the Provisioning Tool text editor.

Active field pointer

- The active field pointer was removed on the TOPS IWS because the cursor was made more visible.

Time of day

- TOPS IWS supports a customizable time-of-day (clock) display.

Invalid key press sound

- Pressing an invalid key will make no sound on the TOPS IWS position.

C.2 Comparison of TOPS IWS Global with its predecessor (ITOPS)

Some of the differences between ITOPS and global TOPS IWS are included in this section. Specifically, the IWS Billing application on the TOPS IWS position is similar to toll and assistance on the ITOPS positions, although there are some functional upgrades.

Hardware

- The TOPS IWS screen uses a standard 80-character by 24-line display. The screen offers VGA quality graphics.
- The ITOPS terminal is non-graphic.

Screen displays

- IWS screen displays have been adjusted to accommodate fewer characters per line. A fourth line has been added to the TOPS IWS MSA.

Contrast

- The controls for contrast and brightness adjustments are dials on the TOPS IWS monitor. A screen saver application can be datafilled by the customer.

Color

- TOPS IWS positions provide color displays. Service providers may choose from as many as seven different color sets by softkeys from the Assigned Activities window. Each of the seven color sets can be uniquely defined through MS Windows desktop.
- ITOPS provides either green or amber text on a black background.

In addition, screen displays for TOPS IWS were created in the Microsoft Windows software package, which provides an enhancement to the clarity in the text and numbers displayed.

Fonts

- TOPS IWS employs both fixed and variable pitch fonts.
- ITOPS uses a single fixed pitch font.

Logo screen

- The IWS logo is located on the left side of the TOPS IWS Logo window and will display an icon to identify the position at which the TOPS IWS RAMP is running. Pressing **Start** from the Logo window moves the operator to the Operator Administration window, where logon can take place.
- ITOPS does not have a logo screen, and does not employ a log server concept.

Screen areas

- On TOPS IWS the data entry and display area for toll calls is called the Call Information Window, and stretches the entire width of the top half of the applications area of the Operator Administration window. This change supports open numbering for international dialing and CCITT calling card and credit card entry and display.

Assigned Activities screen

- On TOPS IWS the Assigned Activities screen is replaced by an Assigned Activities window and is displayed under the MSA of the Operator Administration window. Separate Statistics and Password Update windows are displayed beneath the Assigned Activities window. With QMS, up to 63 services can be displayed in this window, in a multi-page menu.
- Since only one activity which can be performed at an ITOPS position, no Assigned Activities window is used.

Call Information window service/type field

- The service/type field of the Call Information window is located below the title bar on the TOPS IWS.
- The call type and service is displayed in the upper left corner of the ITOPS screen.

MSA icons

- The ADAS, Handoff, Branding and AMA Verify (clock) icons are located in the MSA on TOPS IWS.
- There is no MSA and no use of icons on ITOPS. Messages from the DMS are spelled out on the screen (For example, `AMA VFY`, `NO HANDOFF`).

Database query clock icon

- On TOPS IWS, if keystrokes are made during a LIDB database search (when the clock icon is displayed), the keystrokes are NOT ignored, although the DMS switch may return a No Action Reason to the position.
- There is no clock icon on ITOPS.

Loop/port status location

- The TOPS IWS loop and port status are located on the left hand side of the MSA to improve visual impact. Icons indicate the status.
- ITOPS displays the port status in the bottom right-hand corner of the screen in the form H1 and H2, and A1 and A2.

Window title bars

- Text in the title bars of TOPS IWS windows (Call Information, Menu/List) is centered.
- No windows are used in the ITOPS environment; field names are not displayed.

Menu entry fields

- Entry fields of the Applications, Functions, Services, OGT, and Trouble menus are located along the bottom of menu windows on TOPS IWS. Any additional data entry required (for example, Charge Adjust info) is also entered in the menu window.
- Menus are not used in the ITOPS environment.

Cursor

- The cursor in the entry field of TOPS IWS is a flashing vertical line, situated where the next character will be entered. The speed of the cursor’s flashing can be adjusted. Default cursor locations at call arrival are supported to reduce keystrokes and speed call processing. These cursor defaults are customer definable by CT4Q (QMS call type for queuing).
- Operators are taught to key with the customer on ITOPS, since cursor defaults are not supported.

Editing

- Old data in an TOPS IWS entry field is cleared when the operator presses the first character of the new data. An **Edit** key is optionally available for changing data in the Clg, Cld, and Memo fields.
- When incorrect data is typed into an entry field of TOPS IWS, the background color of that field will be changed to a predefined error color (currently red).
- Error correction with ITOPS involves completely rekeying the data.

Data entry errors

- When incorrect data is typed into an entry field of TOPS IWS, the background color of that field will be changed to a predefined error color (currently RED).
- When incorrect data is placed into an entry field of an ITOPS position, the data will flash.

Alert text

- Alert text, such as indication that a credit card number is hot, is displayed in a contrasting color on the TOPS IWS. (currently magenta).
- On ITOPS, alert text (for example, a hot credit card) appears in the Spl field. An invalid credit card number will flash in that field.

Menu paging

- The TOPS IWS uses the **Page Forward** and **Page Backward** keys to move around in the various menus as well as the actual menu keys to move in a forward direction only.
- ITOPS does not employ the concept of menus.

Stopwatch/time display

- TOPS IWS consolidates the stopwatch and time display into one field with the format hh:mm:ss. If the stopwatch is running and the operator selects the Time function from the Functions menu, the stopwatch will be canceled and the frozen DMS time is displayed. If the DMS time is displayed, and the operator selects the Stopwatch function from the Function menu, the stopwatch display will overwrite the frozen time.
- ITOPS also has separate fields for calling and called party time displays.

Language files

- TOPS IWS provides language files, which allows the customer to redefine text strings and field labels displayed in the windows. These datafillable text strings support 8-bit ANSI codes.

Active field pointer

- The active field pointer was removed on the TOPS IWS because the cursor was made more visible.

Time of day

- TOPS IWS does not support the time-of-day (clock) display.

Invalid key press sound

- Pressing an invalid key will make no sound on the TOPS IWS position.

List of terms

800+

800 Plus Service.

800 Plus service (800+)

A feature that provides network intelligence at a toll office or end office using an online database query system.

800 Service

An intertoll office service in which the called party subscribes to the service and pays for toll calls. Also known as inward wide area telephone service (INWATS).

ABBS

Automated Alternate Billing Service.

ACCS

Automatic Calling Card Service.

ACTS

Automatic Coin Toll Service.

ADACC

Automatic Directory Assistance Call Completion.

ADAS

Automatic Directory Assistance Service.

AINTCC

Automated Intercept Call Completion.

AMA

Automatic messaging accounting.

ANI

Automatic number identification.

AOSS

Auxiliary Operator Services system.

APS

Attendant pay station.

Area code

See numbering plan area (NPA).

ARU

Audio response unit.

attendant pay station (APS)

An attendant-supervised group of non-coin public telephones located in areas of high pedestrian traffic (for example, airports) that allows subscribers to place local, long-distance, or overseas calls and to pay an attendant for the chargeable calls upon completion.

audio response unit (ARU)

A device that plays a recorded answer to a subscriber’s request.

Automated Alternate Billing Service (AABS)

A feature that allowed automated completion of a calling card, collect, and third-number calls using voice recognition technology and prompt generation to communicate with the calling and billed parties.

Automated Directory Assistance Service (ADAS)

A feature that automates the inquiry portion of directory assistance calls. The caller is prompted by a voice service node (VSN) to speak the locality and name for which a directory number is requested. The VSN records these details, deletes the initial and final silences, then plays the recording to the operator before connecting the call to the operator.

Automatic Calling Card Service (ACCS)

A feature that allows the subscriber to dial a call and bill it to a calling card number provided by the operating company.

Automatic Coin Toll Services (ACTS)

A feature that allows the operating company to handle long distance (1+) coin class from a coins station without operator assistance.

Automatic Directory Assistance Call Completion (ADACC)

A feature package that allows the subscriber who originates a directory assistance call to complete the call to the requested number without having to originate another call and without operator assistance.

Automated Intercept Call Completion (AINTCC)

A feature with which calls to intercepted numbers are automatically connected to the new number. AINTCC can announce the new number to the caller before the connection is made.

automatic messaging accounting (AMA)

An automatic recording system that documents all the necessary billing data of subscriber-dialed long distance calls.

automatic number identification (ANI)

A system whereby a calling number is identified automatically and transmitted to the AMA office equipment for billing.

Auxiliary Operator Services System (AOSS)

A service-related system in which operators provide subscribers with such services as local and long distance directory assistance and call intercept.

billing verification check (BVC)

An application process that verifies the number to which a call is billed.

BLV

Busy line verification.

branding

A feature that allows operating companies the option of connecting customer-definable announcements to directory assistance or toll calls before placing them in a queue or connecting them to an available operator or automated operator system.

busy line verification (BLV)

A service that allows the subscriber to obtain operator assistance to determine if a called line is in use or out of order.

BVC

Billing verification check.

CAC

Carrier access code.

called party

The end-user who receives a call.

calling card database (CCDB)

An external online repository that maintains enhanced calling card holder profiles for enhanced calling card services such as account codes, voice mail message waiting indications, speed dialing, and access to car rental agencies, hotel and airline reservations, and travel agencies.

calling party

The end-user who originates a call.

CAMA

Centralized automatic message accounting.

carrier access code (CAC)

A series of digits that a subscriber dials to select an inter-LATA carrier for a call.

CCDB

Calling card database.

CDC

Coin detection circuit.

CDO

Community dial office.

centralized automatic message accounting (CAMA)

A system that produces itemized billing details for subscriber-dialed long distance calls. Details are recorded at a central facility serving a number of exchanges. In exchanges not equipped for automatic number identification, calls are routed to a CAMA operator who obtains the calling number and keys it into the computer for billing.

CM

Computing module.

coin detection circuit (CDC)

A circuit at a coin box, or in the coin box line equipment at the central office, that calculates the duration of the call that has been paid for. When the paid time limit is reached, the CDC advises the caller to insert more money to continue the call.

community dial office (CDO)

A small, rural automatic telephone office.

computing module (CM)

A processor and memory of the DMS SuperNode.

crosstalk

The unwanted transfer of energy from one circuit to another circuit.

CSE

Customer service expert.

customer service expert (CSE)

A class of operator who can assist other operators (even completing their calls) as their primary task and optionally serve subscriber-initiated operator traffic as their secondary task.

DA

Directory assistance.

DDO

Direct dial overseas.

Digital Multiplexing System (DMS)

A central office switching system in which all external signals are converted to digital data and stored in assigned time slots. Switching is performed by reassigning the original time slots.

digital recorded announcement machine (DRAM)

A peripheral module in which voice messages are stored in digital form, providing access to up to 30 service voice announcements.

direct dial overseas (DDO)

Dialing of calls to an overseas destination without operator assistance. To use DDO, the caller dials 011, a country code, and a city code.

directory assistance (DA)

A service that allows a subscriber to ask an operator to look up information from a telephone listing database.

directory number (DN)

The full complement of digits that are required to designate a subscriber’s station within one NPA.

DMS

Digital Multiplex System.

DN

Directory number.

DRAM

Digital recorded announcement machine.

EBAS

Enhanced Billing Access Service.

Enhanced Billing Access Services (EBAS)

An application that uses the IPS to determine the specific service and service options to offer for incoming calls.

equal access

An operating company tariff offering for LATA access that is equal in type, quality, and price for all connected inter-LATA and international carriers.

Global Operator Services (GOS)

A set of TOPS IWS services that apply only outside North America.

GOS
Global Operator Services

ID
Identifier.

identifier (ID)
One or more characters that name or indicate an individual item.

improved mobile telephone service (IMTS)
Telephone service between a fixed base station and mobile vehicle stations or between mobile vehicle stations and the commercial telephone network.

IMTS
Improved mobile telephone service.

Intelligent Service Node (ISN)
A peripheral unit that supports service applications with media processing capabilities, vocabulary recognition, and an open-platform architecture.

Intelligent Service Node Provisioning System (IPS)
A database that determines the specific service and service options to offer for incoming calls

intelligent workstation (IWS)
A terminal capable of performing computer functions

intercept call
A call sent to an operator position when the subscriber dials an out-of-service number or a number that has recently been changed.

inter-LATA
Telecommunication services, revenues, and functions that originate in one local access and transport area (LATA) and terminate outside that LATA.

inter-LATA carrier (IC)
Any carrier that provides telecommunication services between a point inside a local access and transport area (LATA) and a point outside the LATA.

international originating toll center (IOTC)
The toll center that serves the calling number.

inward call
A call that either goes through the inward operator of a country other than the country where the call originated or that is between positions in a traffic office.

inward wide area telephone service (INWATS)

A telephony service that allows a subscriber to receive long distance call originating with specified service areas without a charge to the originating party. A toll-free number is assigned to a certain PBX to allow for free calls.

INWATS

Inward wide area telephone service.

IOTC

International originating toll center.

IPS

Intelligent Service Node Provisioning System.

ISN

Intelligent Service Node.

IWS

Intelligent workstation.

IWS Billing application

The TOPS IWS application that supports operators who provide basic toll and assistance capabilities such as dialing, billing, and related assistance for subscribers.

LAN

Local area network.

LATA

Local access and transport area.

LIDB

Line information database.

line information database (LIDB)

An external database for validating alternate billing requests.

LNP

Local number portability.

local access and transport area (LATA)

A geographic area within which an operating company can offer telecommunications-related services.

local area network (LAN)

A network that permits the interconnection and intercommunication of multiple computers, primarily for the sharing of resources such as data storage devices and printers.

local number portability (LNP)

A service that allows subscribers to keep their directory numbers (DN) when they change service providers.

MCCS

Mechanized calling card service.

mechanized calling card service (MCCS)

A service that replaces the operator’s involvement by using digitally recorded announcements to instruct a subscriber to dial a card number, by using digitone receivers to receive the number, and by exchanging validating the card number.

Nortel Networks Directory Assistance (NTDA)

The TOPS IWS application that supports operators who provide telephone numbers and intercept services for subscribers through the Nortel Directory and Operator Services (D & OS) databases.

NPA

Numbering plan area.

NTDA

Nortel Networks Directory Assistance.

numbering plan area (NPA)

Any of the designated geographical divisions of the United States, Canada, Bermuda, the Caribbean, Northwestern Mexico, and Hawaii within which no two telephones have the same 7-digit number. Each NPA is assigned a unique 3-digit area code. Also known as area code.

NXX

An American central office code. A general way of referring to the three digits representing the central office code in a telephone number. N can be any digit 2 through 9; X can be any digit 0 through 9.

OIA

Open Information Access.

off-hook

The condition existing in telephone operations when the receiver or handset is removed from its hookswitch.

OGT

Outgoing trunk group.

OLNS

Originating line number screening.

on-hook

The condition existing in telephone operations when the receiver or handset is resting on its hookswitch.

ONI

Operator Number Identification.

Open Information Access (OIA)

The TOPS IWS application that provides reference data such as emergency number information, rate and route information, phraseology, and city name through an external database.

operator

A person who operates a TOPS IWS position.

operator-assisted call

A calls that is dialed by the subscriber but requires help from the operator.

Operator Number Identification (ONI)

A feature that brings an operator into the circuit to check the calling number when a subscriber has direct-dialed a long distance call that is to be charged on an itemized bill basis by CAMA equipment.

Operator Services Systems Advanced Intelligent Network (OSSAIN)

A generic switch to service node (SN) interface that allows service nodes to control switch functionality associated with operator services.

originating line number screening (OLNS)

The ability to query a central, shared line information database that contains attributes for directory numbers and to base services and actions on individual directory numbers.

originating toll center (OTC)

The toll center that serves the calling number.

OSSAIN

Operator Services Systems Advanced Intelligent Network.

OTC

Originating toll center.

outgoing trunk group (OGT)

A trunk used for calls going out to a distant toll center.

outward wide area telephone service (OUTWATS)

A telephony service provided over one or more dedicated access lines to the serving central office. OUTWATS permits subscribers to make calls to specific service areas on a direct dialing basis for a flat monthly charge or for a charge based on accumulated use. OUTWATS line have special directory numbers.

OUTWATS

Outward wide area telephone service.

PARS

Personal Audio Response System.

PBX

Private branch exchange.

PC

Personal computer.

Personal Audio Response System (PARS)

A system that allows an operator to supply customized automated questions or prompts, often in the operator's own voice, to a subscriber.

personal computer (PC)

A workstation that has computational capability and that can be programmed to perform user-determined functions

personal identification number (PIN)

A unique number used with an access code to activate a feature such as a calling card.

PIN

Personal identification number.

ported number

A directory number that has been moved from one exchange to another where the exchange might not be the same service provider.

position

A TOPS IWS operator terminal.

private branch exchange (PBX)

A telephone exchange, either automatic or attendant-operated, that provides telephone service within an organization but does not provide connections to the public network.

QMS

Queue Management System.

QMSCASE

Queue Management System Customer Assistance Service Enhancements.

Queue Management System (QMS)

A software package that provides up to 255 call queues and segregates traffic across these call queues.

Queue Management System Customer Assistance Service Enhancements (QMSCASE)

A software package for QMS that can provide operators with the ability to monitor and provide assistance for other operators.

RAMP

Remote access maintenance position.

remote access maintenance position (RAMP)

A TOPS IWS position that allows the maintenance of other IWS positions from a single maintenance position by service provider and Nortel personnel who provide support for IWS operations.

service provider identification (SPID)

An identifier that uniquely identifies a logical terminal and its service profile to the switch.

SOSS

Special operator service system.

special operator service system (SOSS)

Participants such as conference and marine operators.

SPID

Service provider identification.

subscriber

The individual user of a telephone station set that is connected to a DMS-100 Family switch.

T&C

Time and charges.

TABS
Talking Alternate Billing Services.

Talking Alternate Billing Services (TABS)
A feature that can prompt the subscriber for language selections. The VSN then uses the subscriber-selected language during further prompting.

terminating toll center (TTC)
The toll center that serves the called number.

TICS
TOPS inter-LATA carrier service.

time and charges (T&C)
A service in which operators quote the duration and charges for a long distance call to a subscriber.

TOPS
Traffic Operator Position System.

TOPS inter-LATA carrier service (TICS)
A feature that allows the TOPS switch to provide operator services for interexchange carriers.

TOPS IWS
Traffic Operator Position System intelligent workstation.

Traffic Operator Position System (TOPS)
A call processing system made up of a number of operator positions.

Traffic Operator Position System Intelligent Workstation (TOPS IWS)
A personal computer consisting of a controller, a video display, keyboard, headset jack, and software for monitoring call details and entering routing and billing information for operator assistance, directory assistance, and intercept calls.

TTC
Terminating toll center.

voice service node (VSN)
An processor that is external to the DMS switch and that communicates with the switch through an application protocol to provide voice recognition and prompt generation components.

VSN
Voice service node.

WATS

Wide area telephone service.

wide area telephone service (WATS)

A special direct distance dialing service that, for a flat monthly charge or a charge based on accumulated usage, permits either inward or outward dialing between a subscriber and specific areas.

world zone 1 (WZ1)

Canada, the United States, Mexico, Puerto Rico, and other Caribbean Islands.

WZ1

World zone 1

zone

In global operator services (GOS), an area within which an operating company can offer telecommunications-related services. A zone can be any type or size area, from a city to a country to a group of countries.

Index

Symbols

Numerics

A

B

C

D

E

I

K

L

M

N

O

P

Q

R

S

T

V

W

X

Y

DMS-100 Family

TOPS IWS Force Management Guide

Copyright © 1999, 2000, 2001
Nortel Networks

All rights reserved

NORTEL NETWORKS CONFIDENTIAL: The information contained herein is the property of Nortel Networks and is strictly confidential. Except as expressly authorized in writing by Nortel Networks, the holder shall keep all information contained herein confidential, shall disclose the information only to its employees with a need to know, and shall protect the information, in whole or in part, from disclosure and dissemination to third parties with the same degree of care it uses to protect its own confidential information, but with no less than reasonable care. Except as expressly authorized in writing by Nortel Networks, the holder is granted no rights to use the information contained herein.

Information subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

DMS, NORTEL NETWORKS, and TOPS are trademarks of Nortel Networks. Microsoft Windows is a trademark of Microsoft Corporation.

Publication number: 297-2251-304
Product release: IWSS015
Document release: Standard 07.01
Date: June 2001

NORTEL NETWORKS™