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Release 2 Version 4
Administration of Features and
Hardware

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ABOUT THIS DOCUMENT

Purpose of this Document

This document was written for system administrators and AT&T service personnel who administer the AT&T System 85 Release 2 Version 4 (referred to as System 85 R2V4). This document is used primarily as a guide for the administration of specific features and hardware on the System 85 R2V4. This document replaces *AT&T System 85 Release 2 Version 4 Feature Translations* (555-103-107, Issue 2).

How to Use This Document

This manual is for Administration of Features and Hardware and is divided into two major divisions.

The first major division is task oriented and contains information about the administration of the system's basic components (i.e., the attendant console, voice terminals, trunks, DCIU links, class of service, dialing plan, etc.). These chapters are divided as follows:

- System Administration
- Attendant Console Administration
- Trunk Administration
- Voice Terminal and Data Module Administration
- DCIU Administration

The second major division is feature oriented. This is to say that each additional chapter deals with the administration of the feature specified. The chapters of feature administration are arranged alphabetically according to the specific feature name. The order of this division parallels the order of the *DEFINITY™ Communications System Generic 2 and System 85 Feature Descriptions* (555-104-301). That document should be used if more information about the feature and its operation is needed.

Conventions Used In This Document

Each section or chapter relating to task or feature administration contains the following subheadings (if necessary):

- **Task or Feature Description**

The first part of each task and feature contains a brief description for that specific feature or task. The descriptions are very brief and only intended to give a few insights to the system administrator before administering the task or feature. If further knowledge is needed about the feature, you should refer to *DEFINITY™ Communications System Generic 2 and System 85 Feature Descriptions* (555-104-301).
- **Prerequisite Administration**

The “Prerequisite Administration” section lists the tasks or features that must be administered before continuing on with the administration of the specific task or feature. Some of the prerequisite administration may have already been completed or may be part of the basic feature package purchased. You must determine if this prerequisite administration needs to be done in your situation.
- **Related Administration**

The “Related Administration” section lists the tasks or features that may be administered to enhance the specific feature’s capabilities.
- **Procedure Sequence**

The “Procedure Sequence” section lists the procedure numbers and the order in which they should be used to add the feature or task to the system, change or enhance the task or feature, or remove the specific task or feature. If only one procedure is used to administer a task or feature, this section is omitted.
- **Procedure Usage**

The “Procedure Usage” section lists the specific procedures and fields used to administer the specific task or feature. Some of the fields may contain a specific entry for that field, a typical value that may be used, or a range of values corresponding to specific encodes for the task or feature. If more information is needed about the specific procedures, refer to *System 85 Release 2 Version 4 Administration Procedures* (555-103-506).

Another convention used frequently in this document is “X-X” when representing a range of numbers. For example, if you see the numbers “1-5”, this means “1 through 5, inclusive.”

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DIMENSION® PBX system

ACCUNET® digital service

MEGACOM® telecommunications service

ESS™ electronic switch

5ESS® electronic switch

IBM* personal computers

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HOW TO USE THE MAINTENANCE AND ADMINISTRATION PANEL (MAAP)

Overview

Most features and services are activated with changes to translation memory using the translation procedures. All of the translation changes may be made locally using the Maintenance and Administration Panel (MAAP). This section describes how the MAAP is used to add, change, remove, and display the translation procedures and how to respond to error conditions.

Connecting the MAAP and Accessing Procedures

1. Remove the MAAP from the cabinet and plug its connector into the MAAP connector located on the alarm panel of the common control cabinet. Once connected the Procedure MODE is automatically displayed. If Field 9 displays a dash, enter 1. Field 1 now displays 1, indicating that the MAAP is ready to accept administrative procedures. If Field 9 displays anything other than a dash, the system administration port is active (already being used by another agent). Refer to the Procedure MODE in the *System 85 Release 2 Version 4 Administration Procedures* (555-103-506) for more information.
2. Turn the flipcharts to the desired procedure number and word.
3. Press the **PROC NO** button. The procedure number fields go blank and dashes appear in the data fields.
4. Enter the procedure number using the data entry pad. All three digits must be entered. The entered procedure number is displayed in the procedure display field.
5. Press the **ENTER** button. When the WAIT lamp goes out, Word 1 of a procedure is ready to be used.
6. If the selected procedure consists of more than one word, Word 1 is automatically displayed when the procedure is entered. Another word may be entered by pressing the **WORD NO** button, entering the required word number on the key pad, and pressing the **ENTER** button. The selected word is displayed in the data field.
7. Field indicator decimal points displayed in the data display should correspond to the field identifiers on the flipchart. Deviations indicate that the flipchart issue is not compatible with the tape issue.

Select Entry Field, Enter Data, and Correct Data

When a procedure is called up, the dashes and decimal point in Field 1 flash indicating that the procedure is ready to be used and Field 1 is ready to receive input data.

Data is entered into the field by entering the appropriate digit(s) on the entry pad and pressing the **ENTER** button. The entered data is displayed and the dashes and decimal point in the next higher-numbered field flash.

A specific higher-numbered field may be selected either by pressing the **ENTER** button repeatedly until the desired field flashes or by pressing the **CHANGE FIELD** button, entering the desired field number, and pressing the **ENTER** button. The specific field goes blank indicating that data may be entered.

If it is necessary to return to a lower-numbered field, use the **CHANGE FIELD** sequence or reset the procedure to Field 1 by pressing the **RESET** button. In the second case all previously entered data is removed.

If incorrect data is entered into a field, one of the following steps should be used to correct the input.

- a. If the error in the field is realized before the **ENTER** button is pressed:

Press **CLEAR ENTRY** then reenter the correct data.

- b. If the error in the field is realized after the **ENTER** button is pressed:

Press **CHANGE FIELD**, enter the number of the field with incorrect data, press **ENTER**, then enter the correct data and press **ENTER**.

OR

Press **RESET**. In this case, the procedure is cleared of all data and Field 1 flashes for data entry.

Data is not entered into or removed from memory until the **EXECUTE** button is pressed in conjunction with an add, remove, or change button press.

If the **EXECUTE** button has been pressed and incorrect data was entered, it will be necessary to correct the data input using the change routine or a remove routine then an add routine as described later.

Display Translations

Translation procedures are used to display translations stored in the machine. The display routine does the following:

- a. The records of existing translations are displayed to assure the data being added or changed will not conflict with the translation in memory.
- b. The display routine must be used before the remove routine. Translations cannot be removed from memory without first displaying them.
- c. The display routine is used to do translation searches to verify records and locate spare equipment.

Add, Change, or Remove Translations

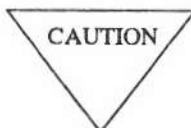
These routines change the configuration of translations memory and impact customer service. Each routine begins with a display of the translation. The necessary data is entered into the required fields as stated for the particular procedure in the "Fields Used of Required for Command Routines" section of each procedure. If more than one translation procedure is required to affect the service change, specific procedure sequences must be followed. The procedure sequences are specified in this book.

Each routine involving a particular translation procedure is completed by pressing the **ADD**, **CHANGE**, or **REMOVE** button followed by pressing the **EXECUTE** button. A note on the associated flipchart indicates which command, add, change, or remove, is permissible for a particular procedure. The execute command causes the translation memory to be revised in accordance with the data entered in the procedure.

When removing translations, any caution concerning the removal of data from a particular procedure should be heeded.

When all translation procedures have been done and the necessary feature and service changes have been verified, the translation changes must be transferred from memory to the program tape. To transfer translation to the tape, see the "Run Tape" section in Chapter 2, "System Administration."

When the Run Tape sequence has been completed and the required program tape inserted in the mini-recorder, the MAAP may be unplugged and returned to the document storage cabinet.



To maintain the electromagnetic interference (EMI) integrity of the system, local maintenance personnel must ensure that after performing any administrative or maintenance activity, all cabinet panels, covers, etc., are firmly secured in place.

Responding to Error Displays

An error code is displayed in the 2-digit error code display field if an invalid operation has been attempted or if invalid data has been entered into a field on the MAAP.

- a. Operator error: Invalid button operation for the procedure involved. The error code decal identifies the invalid operation and the necessary corrective action.
- b. Input data incompatible with existing translations or program tape: Corrective action requires a review of the input data and the feature/service requirements of the customer.

Any time Standard Error Code 76 is displayed, refer to Procedure MODE.

Special Error Codes 40 through 59 and 80 through 98 are unique to the particular procedure being used. The codes are explained in the Special Error Code section on the flipchart associated with the procedure. The error codes identify problems with the procedure sequencing, translation incompatibilities, and feature/service interactions. Resolution of these errors requires a review of the input data and the service translations and requirements of a particular customer.

SYSTEM ADMINISTRATION

General Information

This chapter provides some of the basic administration required to activate system-level hardware and software. Many of these items are administered at installation, but are provided here for completeness.

- Identifying equipment locations
- Loading software
- Run tape
- System access with Procedure MODE
- Security code and customer identification
- Carriers
- Duplicated common control
- Cache memory
- Touch-tone receivers and senders
- Tone plants
- Dial pulse originating records and intercom records
- Synchronization clock (DS1 stratum 3)
- System clock
- Dialing plan
- Class of service
- Names database
- Remote carrier groups
- Traffic
- Alarms.

Identifying Equipment Locations

Many of the procedures used in administering features on the System 85 R2V4 switch will use the equipment locations of specific circuit packs. Therefore, it is necessary to understand how the equipment locations within the cabinets are specified.

The equipment locations are set up as follows:

- Module (0-30)
- Cabinet (0-7)
- Carrier (0-3)
- Slot (0-3, 5-8, 13-16, 18-21)
- Circuit (Refer to Table 2-1 for circuit numbers on specific circuit packs).

The **module** number indicates a specific group of system cabinets that function as a unit. A module must contain the required module control carrier(s) and port carrier(s).

The **cabinet** number indicates a specific cabinet within the module.

The **carrier** number indicates the carrier position within the cabinet. Figure 2-1 illustrates the basic layout and carrier positions.

The module's carrier positions are identified by the numbers "0-3". The carrier positions are numbered from bottom to top in ascending order (see Figure 2-1).

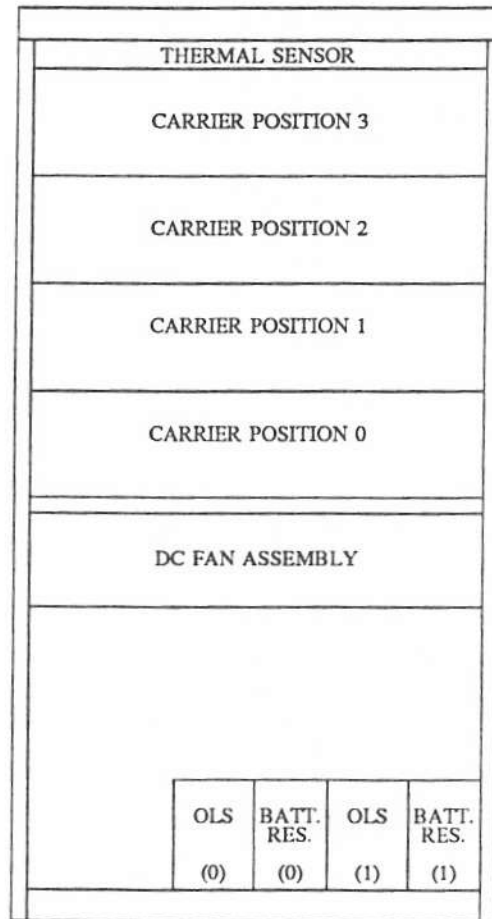


Figure 2-1. Module

The slot number indicates the specific slot within a carrier. The slots are numbered from left to right starting with the number "0" (see Figure 2-2).

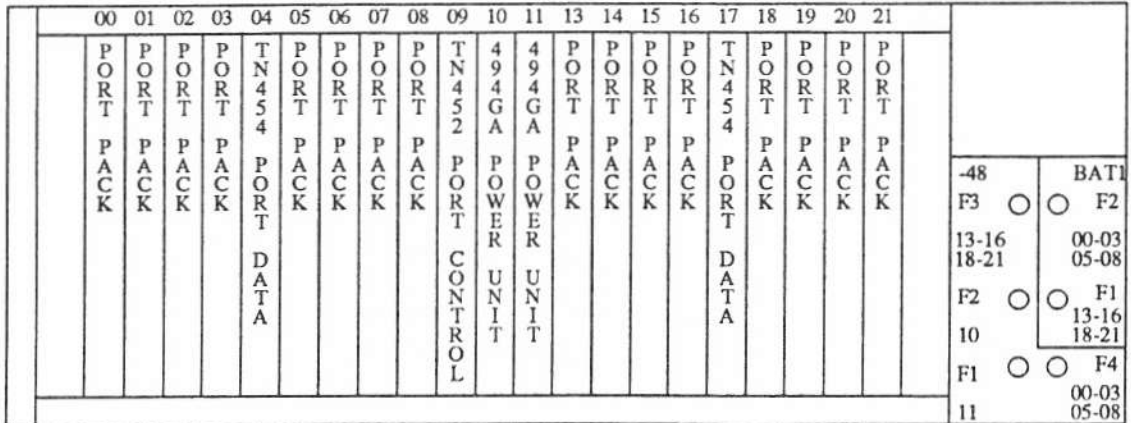


Figure 2-2. Module Port Carrier

The circuit number indicates the specific circuit on the specific circuit (port) pack. The number of circuits (ports) on the circuit packs can be found in Table 2-1. The circuits are numbered starting at "0" and increasing up to one less than the total number of ports on the circuit pack. For example, an ANN11E circuit pack has 24 ports total; therefore, the numbering scheme would be "0-23". Please note that the values given in this document are usually the largest available numbers. This means that if you are administering a 4-port circuit pack (circuits 0-3) but the range given for that procedure is 0-7, don't try to administer circuits 4-7. The software, not knowing what circuit pack you are using, may let you do this but your administration will be faulty and it will not work.

TABLE 2-1. Port Circuits

Port Type	Code	
On-premises line	SN229	8
Off-premises line	SN228	8
72-series terminal	SN224	4
Analog CO trunk	SN230	4
Analog auxiliary trunk	SN231	4
Analog DID trunk	SN232	4
Analog tie trunk attendant interface	SN233	4
EIA trunk and line	SN238	4
Contact interface	SN241	8
Computer data port	SN243	4
ANI signal distribution	SN244	2
Call-progress tone	SN250	8
TT receiver	SN251	4
TT sender	SN252	4
Auxiliary tone plant	SN253	1
Attendant conference	SN254	1
Tone detector	SN255	4
Facility test circuit	SN260	
ADFTC	SN261	1
GPP line and trunk	SN270	4
DS1 interface real and virtual	ANN11 ANN15	24
73-series terminal	ANN17	8
ISDN PRI real/virtual	ANN35	23B +D

Load Software

System software is provided on a cartridge tape. At installation, the software is loaded onto a hard disk unit with the appropriate cartridge tape. It is unlikely that you will need to reload your system from tape, but these instructions are given here for your information.

1. On the tape cartridge you will find a set-screw that controls the writability of the tape. For loading, set the tape to the "SAFE" position. When you want to later save translation changes, you must change the position of the set-screw opposite from the "SAFE" position.
2. Next insert the cartridge tape into the Disk/Tape Subsystem (DTS) drive. The tape will "click" into position when successfully inserted.
3. On the alarm panel in the common control cabinet, there is a GO/HALT toggle switch. Set this to HALT. This halts the processor.
4. Next to the GO/HALT switch is a RESET button. Press the RESET button.
5. Set the GO/HALT switch to GO.
6. There is a thumbwheel on the alarm panel. Move the thumbwheel so that the number "9" is showing.
7. Find the ENABLE switch. This is a "momentary on-off" switch. Press the ENABLE switch.

The lights on the alarm panel should go out momentarily and the green PASS lamp will light.

8. Move the thumbwheel until the number "15" is showing.
9. Press the ENABLE switch.

The lights will again go out on the alarm panel. The lights will remain off until the software is loaded. When the software is loaded, the green PASS lamp will flash at a steady beat.

Run Tape

Run Tape copies the translations from processor memory onto the tape. This is done to save translation changes. If the system reloads before doing a Run Tape, all the translation changes done since the last Run Tape will be lost. As a safety measure, the system does an automatic Run Tape every 29 hours. This is done to save any translations that were not saved manually.

The Run Tape operates differently between duplicated and unduplicated systems. On duplicated systems, the Run Tape must update both the on-line and off-line tape. On the unduplicated system, you only have one tape.

1. On the tape cartridge you will find a set-screw that controls the writability of the tape. For run tape, set the set-screw opposite from the "SAFE" position. This allows you to write changes on this tape.
2. Insert the cartridge tape into the tape drive. The tape will "click" into position when successfully inserted. Under most conditions, this tape should remain in the tape drive at all times.
3. To start the Run Tape, press .

When the process begins, Procedure TPE displays. Status of the run tape is displayed in Fields 1 and 2.

If on a duplicated system, the translations between both processors are compared (field 2 = 1). If they are not the same, error 75 (mismatch memories) is displayed. You can continue by pressing . By continuing with mismatched memories, only the on-line tape is updated.

During the copy, field 1 = 1 and field 2 = 2.

If everything copies correctly, the tape is parked. Field 1 = 1 and field 2 = 4 (very briefly).

This process is now repeated for the off-line tape in a duplicated system. Field 1 = 2 during the off-line update.

System Access (MODE)

There are several administration tools available that can connect to a System 85. Among these are the MAAP, Centralized System Management (CSM), the Translation Recovery, Additions and Conversion System (TRACS), the Initialization and Administration System (INADS), and the Remote Maintenance, Administration, and Traffic System (RMATS). You can control access to your system by these "agents" by setting parameters in these procedures.

Procedure Sequence

ADD	CHANGE	REMOVE
277 Word 1	277 Word 3	277 Word 3
277 Word 2	277 Word 1	277 Word 2
	277 Word 2	277 Word 1

Procedure Usage

277 Word 1 Administers an Operational Support Systems (OSS) agent to a set of application numbers. Only the OSS agent assigned to a set will be allowed to use applications in that set to change translations. A set can be assigned to only one agent, but an agent may be assigned to many sets.

Field 1	Enter the set number (0-9).
Field 2	Enter the OSS agent encode:
1	MAAP
2	RMATS I
3	RMATS II
4	INADS - green
5	INADS - red
6	Remote Carrier Group maintenance
7	TRACS
8	SHARP
9	SHOPS
10	Run tape
11	Delayed termination
12	EMAP
13	VMAAP - Visual MAAP
14	Park tape
15-29	Other
30-59	AP 16
60	CSM - services
61-69	CSM - customer
70-79	Spare
80	LMAAP
81-99	Spare
100	Translation audit
101-255	Spare

277 Word 2 Administers the restricted applications to an application set. These application sets are associated with agents in Procedure 277 Word 1. Administer the application set, the type of restriction, and the procedures or SMAP applications allowed to be accessed only by the agents assigned to that set.

- Field 1 Enter the set number (0-9).
- Field 2 Enter the type of restricted application:
 - 0 Procedure
 - 1 System Management Application Protocol (SMAP) administration
 - 2 SMAP data collection

277 Word 3 This procedure gives a history of system management access. It includes the date, time, procedure accessed, and which agent accessed the procedure. Viewing these results may help you make decisions as to who should have access to the procedures.

- Field 1 Enter the history index (1-16).

Security Code and Customer Identification

When your system was first installed, a serial number, customer name, security code, and an alarm-reporting phone number were probably administered. You can change these assignments with the following procedures. The only thing that you shouldn't change is the serial number.

Procedure Sequence

ADD	CHANGE	REMOVE
497 Word 1	497 Word 1	497 Word 2
497 Word 2	497 Word 2	497 Word 3
497 Word 3	497 Word 3	

Procedure Usage

497 Word 1 Administers the serial number and displays the tape load currently on the system.

- Field 2 Enter the serial number (000000001-999999999).

497 Word 2 Administers the customer name by segments and characters.

Field 1 Enter the segment number:
 1 Segment 1 (characters 1-10)
 2 Segment 2 (characters 11-20)

The applicable encodes for Fields 2 - 11 are listed in the following table:

CHARACTER ENCODES			
21 = A	93 = Y	94 = w	38 =)
22 = B	12 = Z	95 = x	39 = _
23 = C	24 = a	96 = y	40 = -
31 = D	25 = b	15 = z	47 = [
32 = E	26 = c	00 = 0	48 =]
33 = F	34 = d	01 = 1	49 = ^
41 = G	35 = e	02 = 2	50 = blank
42 = H	36 = f	03 = 3	57 = /
43 = I	44 = g	04 = 4	58 = -
51 = J	45 = h	05 = 5	59 = +
52 = K	46 = i	06 = 6	60 = *
53 = L	54 = j	07 = 7	67 = {
61 = M	55 = k	08 = 8	68 = }
62 = N	56 = l	09 = 9	69 =
63 = 0	64 = m	10 = . (period)	70 = \
71 = P	65 = n	17 = !	77 = <
11 = Q	66 = o	18 = ?	78 = >
72 = R	74 = p	19 = ;	79 = =
73 = S	14 = q	20 = :	80 = %
81 = T	75 = r	27 = "	87 = #
82 = U	76 = s	28 = '	88 = &
83 = V	84 = t	29 = `	89 = @
91 = W	85 = u	30 = ,	90 = \$
92 = X	86 = v	37 = (

Field 2 Enter character 1 or 11 (-, 00-12, 14-15, 17-96).
 Field 3 Enter character 2 or 12 (-, 00-12, 14-15, 17-96).
 Field 4 Enter character 3 or 13 (-, 00-12, 14-15, 17-96).
 Field 5 Enter character 4 or 14 (-, 00-12, 14-15, 17-96).
 Field 6 Enter character 5 or 15 (-, 00-12, 14-15, 17-96).
 Field 7 Enter character 6 or 16 (-, 00-12, 14-15, 17-96).
 Field 8 Enter character 7 or 17 (-, 00-12, 14-15, 17-96).
 Field 9 Enter character 8 or 18 (-, 00-12, 14-15, 17-96).
 Field 10 Enter character 9 or 19 (-, 00-12, 14-15, 17-96).
 Field 11 Enter character 10 or 20 (-, 00-12, 14-15, 17-96).

497 Word 3 Administers the telephone number where alarms are reported to and the security code used to allow remote system management users to gain access to the system.

Field 1 Enter the prefix, if required (-, 0-9).

Field 2 Enter the area code, if required (-, 200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).

Field 3 Enter the central office code (200-999).

Field 4 Enter the station number (0-9999).

Field 5 Enter the security code (000000-999999).

Carriers

At installation, all carriers should have been administered for you. If you do need to administer carriers later, use this section. The common control carrier is always administered, but it can be accessed to make changes.

Carriers must be administered in a certain order. Generally, this order is as follows:

- Common control (always administered)
- Time multiplex switch (TMS) control
- TMS growth
- Module control
- Port.

Procedure Usage

250 Word 1 Administers carriers to the system. When you administer the module control carriers, you are also administering that particular module as part of the system.

Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the carrier number (0-3).
Field 4	Enter the carrier type. Remember to administer the carriers in the order recommended above. 0 Unequipped 1 Common control 4 TMS control 0 5 TMS growth 0 6 Module control 0 7 Module control 1 8 TMS control 1 9 TMS growth 1 11 DS1 port 12 Port 15 Remote module interface (RMI)

Fields 5-8 only apply when administering module control carriers.

Field 5	Enter the I/O assignment (-, 0-3).
Field 6	Enter the port data store (PDS) assignment (-, 1-6).

-
-
- Field 7 Enter the duplicated module control assignment:
 0 Disable
 1 Enable
- Field 8 Enter the TMS module control assignment:
 0 Disable
 1 Enable
- Field 9 Enter the port electrical carrier number (-, 0-11).
- Field 10 Enter the TMS electrical carrier number:
 0 TMS control (serves modules 0-6)
 1 TMS growth 1 (serves modules 7-14)
 2 TMS growth 2 (serves modules 15-22)
 3 TMS growth 3 (serves modules 23-30)
- Field 11 Enter the assignment that applies whether the system clock
 synchronizer (SCS) is installed.
 0 Disable
 1 Enable

Fields 12-15 identify the local equipment location for the interface to a remote module.

- Field 12 Enter the module number (0-30).
- Field 13 Enter the cabinet number (0-7).
- Field 14 Enter the carrier number (0-1).
- Field 15 Enter the slot number (0-3, 5-8, 13-16, 18-21, 25).

The following tables show the valid values for carrier assignments based on carrier type. For more information on administering carriers, see Procedure 250 Word 1 in *System 85 Release 2 Version 4 Administration Procedures* (555-103-506).

Carr Equip.			Type	Mod Cntrl.			
Mod 1	Cab 2	Car 3	4	I/O 5	PDS 6	Dup 7	TMS 8
0-max	0-7	0-3	1	-	-	-	-
99	0-3	0-3		-	-	-	-
99	0-3	0-3	4,5 8,9	-	-	-	-
0-max	0-7	0-3	6,7	1-3	1-6	0-1	0-1
0-max	0-7	0-32	11	-	-	-	-
0-max	0-7	0-32	12	-	-	-	-
99	0-3	0-3	15	-	-	-	-
0-max	0-7	0-3		-	-	-	-

Type 4	Port Elec Carr 9	TMS Elec Carr 10	SCS 11	Local RMI equip.			
				Mod 12	Cab 13	Carr 14	Slot 15
1	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
4,5, 8,9	-	0 1-3	0-1	-	-	-	-
	-	-	-	-	-	-	-
6,7	-	-	0-1	-	-	-	-
	-	-	0	0-max	0-7	0-3	25
	-	-	0 (RMI carr)	99 (carr)	0-3	0-3	0-3,5-8 13-16 18-21
	-	-	0 (RMI carr)	0-max (carr)	0-7	0-3	0-3,5-8 13-16 18-21
11	0-11	-	-	-	-	-	
12	0-11	-	-	-	-	-	
15	0-11	-	-	0-max	-	-	-

Duplicated Common Control

If the system has a duplicated common control, it must be administered as such.

Procedure Usage

275 Word 1 Administers whether duplicated common control is installed on the system.

Field 10	Enter the desired assignment:
0	Unduplicated Common Control
1	Duplicated Common Control

Cache Memory

The cache memory is 16K words of high speed memory that stores a copy of the most recently accessed instructions or data words. This reduces the wait time when the system processor needs to access something from memory.

Procedure Usage

275 Word 1 Administers whether cache memory is installed on the system.

Field 18	Enter the desired assignment:
-	Not installed
0	Disable cache memory
1	Enable cache memory

Touch-Tone Receivers

In order for voice terminals to receive dial tone and for touch-tone phones to make calls, you must administer the touch-tone receivers. This is a critical assignment that is typically done at installation, but if more touch-tone receivers are added, this administration is required.

Procedure Usage

150 Word 1 Administers the equipment location for the touch-tone receivers to trunk group 17. All touch-tone receivers in the system must be assigned and you must use trunk group 17. The SN251 has four circuits and is labeled as the Touch-Tone Receiver.

- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3) |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-3). |
| Field 6 | Enter trunk group 17. Touch-tone receivers are always assigned to trunk group 17. |

Touch-Tone Senders

Touch-tone senders reduce the time necessary to set up calls to distant locations equipped to receive touch-tone calling signals. The collected digits are sent to the distant office via touch-tone service signaling. If a distant location is not equipped to receive touch-tone calling signals, the system generates and sends dial pulses.

Procedure Sequence

ADD	CHANGE	REMOVE
100 Word 1 150 Word 1	150 Word 1	150 Word 1 100 Word 1

Procedure Usage

- 100 Word 1** Administers the trunk group translations. These translations include the dial access code/trunk ID, trunk type, dial access restrictions, personal central office appearance, and access to or egress from the public network.
- Field 1 Enter the trunk group number (18-999).
 - Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
 - Field 3 Enter the second digit of the dial access code (0-9).
 - Field 4 Enter the third digit of the dial access code (0-9).
 - Field 5 Enter the fourth digit of the dial access code (0-9).
 - Field 6 Enter the touch-tone trunk type:
55 Touch-Tone sender
 - Field 7 Enter a "1" to set dial access restriction.
 - Field 8 Enter a "0" since touch-tone senders cannot be used to access personal CO lines.
- 150 Word 1** Administers the trunk equipment location for the touch-tone sender trunk group you administered in Procedure 100 Word 1. The SN252 has four circuits and is labeled as the Touch-Tone Sender.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-3).

Field 6 Enter the trunk group number (18-999).

Tone Plants

Tone plants provide call progress tones such as ringback, reorder, etc. There are two types of tone plants in the module: the standard tone plant (SN250) and the auxiliary tone plant (SN253). At least one standard tone plant and one auxiliary tone plant must be assigned for every module.

Procedure Sequence

ADD	CHANGE	REMOVE
252 Word 1	252 Word 1	252 Word 2
252 Word 2	252 Word 2	252 Word 1

Procedure Usage

252 Word 1 Administers the location of the standard tone plants within a module. Fields 1-5 correspond to tone plant 0. Fields 6-10 correspond to tone plant 1.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the module number (0-30).
- Field 7 Enter the cabinet number (0-7).
- Field 8 Enter the port carrier number (0-3).
- Field 9 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 10 Enter the circuit number (0-7).

252 Word 2 Administers an auxiliary tone plant (SN253). for use with CAS, AUTOVON, and data detection tones. The equipment type, the tone plant number, and the equipment location must be administered.

- Field 1 Enter the equipment type:
 - 1 CAS, AUTOVON, and data detection only
 - 2 CAS, AUTOVON, and data detection tone with code calling
- Field 2 Enter the tone plant number (0-1).
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).

Field 5 Enter the port carrier number (0-3).

Field 6 Enter a '0' for the circuit number.

Dial Pulse Originating Records and Intercom Records

A sufficient number of dial pulse originating records and intercom records must be set up for the system. Having too few records will result in users not being able to place calls. The values for this are set at installation, but may need to be changed later if additional trunk and voice terminal facilities are added to the system.

Procedure Usage

254 Word 1 Administers the dial pulse originating records and intercom records including the record type and the number of records.

Field 1 Enter the record type:
 1 Dial pulse originating register record
 2 Intercom record

Field 2 Enter the number of records you want active (0-246 for dial pulse originating records, 0-9999 for intercom records).

Synchronization Clock (DS1 stratum 3)

The Synchronization Clock system consists of an external stratum 3 clock, an interface circuit pack, and the local clocks of the system. See the DS1 feature administration. The SCS reference for all DS1 circuits must be disabled.

Procedure Sequence

ADD	CHANGE	REMOVE
250 Word 1	250 Word 1	250 Word 1
260 Word 1		260 Word 1

Procedure Usage

250 Word 1 This procedure disables the SCS equipped field (field 11) for the clock interface board (TN2131). Disabling field 11 is necessary for the external synchronization clock (stratum 3) to operate correctly.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the carrier type:

0	Unequipped
4	TMS control 0
5	TMS growth 0
6	Module control 0
7	Module control 1
8	TMS control 1
9	TMS growth 1

Field 11 Enter a 0 to disable the internal system clock synchronizer (SCS).

260 Word 1 If a Synchronization Clock (stratum 3) is used, make sure all DS1 circuit packs residing on this switch have fields 12 and 13 set to 0.

System Clock (Time of Day)

The system clock should be set after doing the initial administration tasks in this section. The clock should also be checked regularly to make sure it is still working accurately. AAR, CDR, and other features rely on the accuracy of the system clock.

Procedure Sequence

ADD	CHANGE	REMOVE
652 Test 3 284 Word 1	652 Test 3 284 Word 1	

Procedure Usage

284 Word 1 This procedure sets and displays the software clock. The hour in Field 1 uses 24-hour time (0-23). If you set the time using Procedure 652 Test 1, you do not need to set this clock.

Field 1	Enter the hour:
	0 12 midnight
	1 1 a.m.
	↓ ↓
	12 12 noon
	13 1 p.m.
	↓ ↓
	23 11 p.m.

Field 2 Enter the minutes (0-59).
 Field 3 Enter the month (1-12).
 Field 4 Enter the day (1-31).
 Field 5 Enter the year (1978-1999).

652 Test 3 Sets the hardware and software clocks. Use Test 3 to enter the time and date in Fields 7-12. The hour in Field 10 uses 24-hour time (0-23). Use to set the clocks to the entered time.

Field 1 Enter the test number (1-3).
 Field 7 Enter the month (1-12).
 Field 8 Enter the day (1-31).
 Field 9 Enter the year for software clock:
 - Not used with hardware clock display
 1-99 Year for software clock time and date display

- Field 10 Enter the hour of the day:
 0 12 midnight
 1 1 a.m.
 ↓ ↓
 12 12 noon
 13 1 p.m.
 ↓ ↓
 23 11 p.m.
- Field 11 Enter the minutes (1-59).
- Field 12 Enter the seconds (1-59).

Dialing Plan

When administering the dialing plan for the system, there are two main areas for administration: 1) the first dialed digit, and 2) the extension number, feature dial access code, or trunk dial access code.

The first dialed digit really defines how the dialing plan in the system will work. There are 12 digits that can be used as a first digit: 0-9, * and #. Here are some general uses of the first dialed digits that are common to many sites:

- The 0 digit is usually used for dial access to the PBX attendant.
- Digits 1-7 are usually used as first-digits for extension numbers, trunk dial access codes, and feature dial access codes. You cannot use the same first digit for an extension and a trunk dial access code or an extension and a feature dial access code. You can, however, use the same first digit for a trunk dial access code and a feature dial access code.
- Digit 8 is often used to access a private telephone network.
- Digit 9 is usually used to access local central office trunks.
- The * symbol is often used for the first digit of feature dial access codes and trunk dial access codes. The * symbol cannot be used as the first digit of an extension number.
- The # symbol is often used for the first digit of feature dial access codes and trunk dial access codes. The # symbol cannot be used as the first digit of an extension number.

Extension numbers can be from three to five digits long. Feature dial access codes and trunk dial access codes can be from one to four digits long.

The dialing plan used on the system should be planned carefully so that it makes some sense but is also flexible. You must also take into account that the dialing plan at your system may also be tied into a dialing plan across a network of systems (DCS, for instance).

Dialing Plan — Extensions

Procedure Sequence

ADD	CHANGE	REMOVE
350 Word 1		354 Word 1
354 Word 1		350 Word 1

Procedure Usage

350 Word 1 Administers each first digit of the dialing plan. Each first digit is administered in terms of call type and the number of digits the system expects to receive when that first digit is dialed. All extensions must have the same number of digits.

Use the display routine to determine if the first dialed digit of an extension has been administered.

Field 1	Enter the first digit of the extension: 0-9 11 or * 12 or #
Field 2	Enter the number of digits the system expects to receive when the digit in Field 1 is dialed (3-5).
Field 3	Enter a "1" for the extension call type.

354 Word 1 Administers the blocks of extension numbers for the dialing plan. For 4- and 5-digit dialing plans, this procedure is also used to identify the node where the extension number resides in a portability subnetwork.

Field 1	Enter the first extension number in the block (any 3-, 4-, or 5-digit number ending in 0).
Field 2	Enter the last extension number in the block (any 3-, 4-, or 5-digit number ending in 9). The last extension number (Field 2) must be larger than the first extension number (Field 1) and both numbers must have the same number of digits. It is recommended that you do not administer extension blocks larger than 100 at a time.
Field 3	For a 4- or 5-digit dialing plan, enter the node (system) number where the extension numbers reside (1-999). For a 3-digit dialing plan, enter a dash to define blocks of extension numbers on the local system.

Dialing Plan — Features

Procedure Sequence

ADD	CHANGE	REMOVE
350 Word 1	350 Word 2	354 Word 2
350 Word 2	354 Word 2	350 Word 2
354 Word 2		350 Word 1

Procedure Usage

350 Word 1 Administers each first digit of the dialing plan. Each first digit is administered in terms of call type and the number of digits the system expects to receive when that first digit is dialed. All feature dial access codes (DACs) that use the same first digit must have the same number of digits.

Use the display routine to determine if the first dialed digit of a dial access code has already been administered.

- Field 1 Enter the first digit of the feature DAC:
 0-9
 11 or *
 12 or #
- Field 2 Enter the number of digits the system expects to receive when the digit in Field 1 is dialed (1-4).
- Field 3 Enter a "2" for the feature dial access code call type.

350 Word 2 Administers the dial access codes for the system features.

- Field 1 Enter the appropriate feature encode:
 - 1 Call Forwarding - Follow Me
 - 2 Call Forwarding - Busy and Don't Answer
 - 3 Call Forwarding - cancel
 - 4 Call Hold
 - 5 Call Pickup
 - 6 Call Waiting - answer hold
 - 7 Priority Calling
 - 8 Attendant
 - 9 Cancel Automatic Callback/Queuing
 - 10 Demand printing
 - 11 Override
 - 13 Data Protection (temporary)
 - 14 Demand print access (for LWC)
 - 16 Call Answer Any Voice Terminal (CAAVT) - answer
 - 17 Paging answer-back
 - 18 Code Calling - answer back
 - 19 Automatic Callback

20	Attendant Control of Trunk Group Access - activate
21	Attendant Control of Trunk Group Access - cancel
22	Unattended Console Service - clear all terminals
23	Unattended Console Service - assign common terminal
24	Unattended Console Service - override common terminal
25	Unattended Console Service - assign terminal to trunk
26	Remote Access - change barrier code
27	Attendant control of voice terminals - single extension
28	Attendant control of voice terminals - group of extensions
29	Attendant interposition calling and transfer
30	Extension to selected attendant
31	Attendant Release Loop (ARL) time change (timed reminder)
32	ARS nontoll route
33	ARS toll route
36	Call Detail Recording - account code
37	Call Detail Recording - start
38	Call Detail Recording - stop
40	Terminal test
42	Maintenance busy a trunk
43	Maintenance unbusy a trunk
44	Trunk Verification — Voice Terminal (TVT) trunk test access from terminal
45	CAS control - activate
46	CAS control - of backup terminal
47	CAAVT - activate for CAS backup
48	CAS attendant puts remote call in hold state
49	Call to CAS attendant
50	CAS branch lamp test
53	Specific modem pool reservation
55	Send All Calls - activate
56	Send All Calls - cancel
57	Burned-in code - cancel/activate
58	Transfer - calls into AUDIX
59	Last Number Dialed
60	ARS plan change
61	AAR access
62	Automatic Circuit Assurance - start
63	Automatic Circuit Assurance - stop
64	CAS main lamp test
66	Leave Word Calling - activate
67	Leave Word Calling - cancel
68	Message retrieval - lock
69	Message retrieval - unlock
70	ACD - auto in mode
71	ACD - auxiliary work mode

- 72 ACD - manual in mode
- 73 ACD - staffed mode
- 74 ACD - member add
- 75 ACD - member delete
- 76 ACD - announcement verify
- 77 ACD - agent override
- 78 ACD - agent override (tone)
- 79 ACD - reload lamp out
- 80 Divert attendant calls to recorded announcement - activate
- 81 Divert attendant calls to recorded announcement - cancel
- 82 AUTOVON - Precedence Calling
- 83 AUTOVON - attendant assistance
- 84 ACD overload - balance all
- 85 ACD overload - overflow
- 86 ACD overload - balance default
- 87 ACD overload - balance cancel
- 88 ACD - agent log in
- 89 ACD - agent log out
- 90 Dial the system list - touch-tone terminal
- 91 Dial list A - touch-tone terminal
- 92 Dial list B - touch-tone terminal
- 93 Program automatic dialing number or list
- 94 Dial the system list - rotary terminal
- 95 Dial list A - rotary terminal
- 96 Dial list B - rotary terminal
- 97 Unattended Console Service - activate
- 98 Unattended Console Service - deactivate
- 99 Malicious Call Trace - deactivate
- 100 Malicious Call Trace - activate
- 101 Speaker verification request
- 102 Speaker verification fail
- 103 Unadministered authorization code entered
- 104 No authorization code entered

- Field 2 Enter the first digit of the dial access code:
 0-9
 11 or *
 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

354 Word 2 Administers an extension number to a feature access code. Both numbers may be used to access the feature, but the extension number would generally be required for network applications.

- Field 1 Enter the extension number or extension number steering code (000-99999).
- Field 2 Enter the use:
- 0 Not allocated (display only)
 - 1 Single extension on local system (display only, Procedure 000 Word 1)
 - 2 Extension assigned to an RNX
 - 3 Extension assigned to a node number
 - 4 Extension assigned to a trunk DAC
 - 5 VDN on local system (display and search only, Procedure 000 Word 1)
 - 6 Allocated, but unassigned (display and search only)
 - 7 Extension is recent disconnect (display only, Procedure 003 Word 1)
 - 8 Extension is an LDN (display only, Procedure 204 Word 1)
 - 9 DAC digits are specified and the entry is a trunk group
 - 10 DAC digits are specified and the entry is a feature
- Field 3 Enter the first digit of the dial access/RNX code. RNX codes must be 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999.
- 0-9
 - 11 or *
 - 12 or #
 - 2-9 RNX
- Field 4 Enter the second digit of the dial access/RNX code (0-9).
- Field 5 Enter the third digit of the dial access/RNX code (0-9).
- Field 6 Enter the fourth digit of the dial access/RNX code (0-9).
- Field 7 Enter the system number where the extension resides (1-999).
- Field 8 Enter the trunk group feature or partition number (-, 0-999). This is used with Tenant Services only.

Dialing Plan — Trunks

Procedure Sequence

ADD	CHANGE	REMOVE
350 Word 1	100 Word 1	354 Word 2
100 Word 1	354 Word 2	100 Word 1
354 Word 2		350 Word 1

Procedure Usage

100 Word 1 Administers the trunk group translations. These translations include the Dial Access Code/Trunk ID, trunk type, dial access restrictions, personal central office appearance, and access to or egress from the public network.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).
- Field 6 Enter the appropriate trunk type:
 - 0 Unassigned
 - 2 Touch-tone digit register (0)
 - 5 Attendant Conference (0)
 - 6 Queuing (0)
 - 12 CCSA/APLT 2-way with dial tone out (9)
 - 13 CCSA/APLT 2-way with dial tone out (10)
 - 14 CCSA/APLT 2-way (8)
 - 15 CCSA/APLT 2-way (5)
 - 16 CO 1-way in attendant completing (1)
 - 17 CO 1-way out DOD (1)
 - 18 CO 1-way out DOD with party test (2)
 - 19 CO 2-way attendant completing in/DOD out (1)
 - 20 CO 2-way with party test attendant completing in/DOD out (2)
 - 21 FX 1-way in attendant completing (1)
 - 22 FX 1-way out DOD (1)
 - 23 FX 1-way out DOD with party test (2)
 - 24 FX 2-way attendant completing in/DOD out (1)
 - 25 FX 2-way with party test attendant completing in/DOD out (2)
 - 26 WATS 1-way in attendant completing (1)

-
- 27 WATS 1-way out DOD or toll terminal access for TSPS (1)
 - 28 WATS 1-way out DOD with party test (2)
 - 30 DID immediate start (30)
 - 31 DID wink start (3)
 - 32 TIE 1-way in dial repeating (4)
 - 33 TIE 1-way out automatic (31)
 - 34 TIE 1-way out dial repeating (4)
 - 35 TIE 1-way in automatic (28)
 - 36 TIE 2-way dial repeating in and out (4)
 - 37 TIE 2-way dial repeating in/automatic out (31)
 - 38 TIE 2-way automatic in/dial repeating out (28)
 - 39 TIE 2-way automatic in and out (32)
 - 40 TIE 1-way in dial repeating (8)
 - 41 TIE ETN 2-way dial repeating (26)
 - 42 TIE ETN 1-way in dial repeating (26)
 - 43 TIE ETN 1-way out dial repeating (26)
 - 44 TIE 2-way dial repeating (8)
 - 45 TIE 2-way dial repeating in/automatic out (8)
 - 46 TIE ETN 2-way dial repeating (25)
 - 47 TIE ETN 2-way dial repeating (24)
 - 50 Remote Access 2-way (1)
 - 51 Telephone dictation interface (7)
 - 52 Recorded Announcement interface (7)
 - 53 Code Calling interface (7)
 - 54 Loudspeaker Paging interface (7)
 - 55 Touch-Tone sender (0)
 - 57 CAS release link trunk 1-way outgoing from branch (13)
 - 58 ANI interface (6)
 - 62 Music on Hold interface (0)
 - 65 SN241 contact interface (0)
 - 66 CAS release link trunk 1-way incoming at main (14)
 - 67 Audio interface (0)
 - 70 Main/Satellite 1-way in (15)
 - 71 Main/Satellite 1-way out (15)
 - 72 Main/Satellite 2-way (15)
 - 73 Main/Satellite 1-way in (16)
 - 74 Main/Satellite 1-way out (16)
 - 75 Main/Satellite 2-way (16)
 - 76 Main/Satellite 1-way in (17)
 - 77 Main/Satellite 1-way out (17)
 - 78 Main/Satellite 2-way (17)
 - 90 ACD first announcement or Call Vectoring announcement (7)
 - 91 ACD second announcement (7)
 - 92 ACD origin announcement (7)
 - 93 Malicious Call Trace recorder (7)
 - 100 Data-tones tone detector (0)
 - 101 Analog data modem pool (27)

	102	Digital data modem pool (18)
	103	Host access PDM (18)
	104	Host access TDM (18)
	105	3B5 AP DCPI (18)
	106	EIA 4 Port (18)
	107	ISN/EIA port (18)
	108	DMI host terminating, dial repeating in/automatic out (5)
	109	DMI dial repeating in and out (11)
	120	ISDN dynamic (20)
Field 7		Enter the Dial Access Restriction assignment:
	0	Access to this trunk group is allowed using the DAC
	1	Access to this trunk group is allowed only for testing and for unattended night service using the trunk ID code
Field 8		Enter the Personal CO Line assignment:
	0	Trunk group is not used for Personal CO Line Pickup
	1	Trunk group is used for Personal CO Line Pickup
Field 9		Enter the Public Network — Access/Egress assignment:
	0	Trunk group is not used for access to or egress from the public network
	1	Trunk group is used for access to or egress from the public network

350 Word 1 Administers each first digit of the dialing plan. Each first digit is administered in terms of call type and the number of digits the system expects to receive when that first digit is dialed. All trunk dial access codes (DACs) using the same first digit must have the same number of digits.

Use the display routine to determine if the first dialed digit of a dial access code or extension number has already been administered.

Field 1	Enter the first digit of the trunk DAC:
	0-9
	11 or *
	12 or #
Field 2	Enter the number of digits the system expects to receive when the digit in Field 1 is dialed (1-4).
Field 3	Enter a '2' for the trunk dial access code call type.

354 Word 2 Administers an extension number to a trunk access code. Both numbers may be used to access the trunk, but the extension number would generally be required for network applications.

Field 1 Enter the extension number or extension number steering code (000-99999).

Field 2 Enter the use:

- 0 Not allocated (display only)
- 1 Single extension on local system (display only, Procedure 000 Word 1)
- 2 Extension assigned to an RNX
- 3 Extension assigned to a node number
- 4 Extension assigned to a trunk DAC
- 5 VDN on local system (display and search only, Procedure 000 Word 1)
- 6 Allocated, but unassigned (display and search only)
- 7 Extension is recent disconnect (display only, Procedure 003 Word 1)
- 8 Extension is an LDN (display only, Procedure 204 Word 1)
- 9 DAC digits are specified and the entry is a trunk group
- 10 DAC digits are specified and the entry is a feature

Field 3 Enter the first digit of the dial access/RNX code. RNX codes must be 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999.

- 0-9
- 11 or *
- 12 or #
- 2-9 RNX

Field 4 Enter the second digit of the dial access/RNX code (0-9).

Field 5 Enter the third digit of the dial access/RNX code (0-9).

Field 6 Enter the fourth digit of the dial access/RNX code (0-9).

Field 7 Enter the system number where the extension resides (1-999).

Field 8 Enter the trunk group feature or partition number (-, 0-999). This is used with Tenant Services only.

Class of Service

A class of service specifies the calling privileges, features, and restrictions associated with the system or a group of extensions.

Class of Service — System

For system-wide parameters, there are several procedures that contain system class of service translations. These are listed here for reference, but most will be set with their applicable task or feature.

Procedure Usage

275 Word 1

Field 1	AIOD status
Field 2	AIOD prefix digits
Field 3	AIOD delay timing
Field 4	AIOD auxiliary ANI trunk billing number
Field 5	Call Waiting
Field 6	Multiappearance terminals and data modules used in the system
Field 7	Paging/Code Calling
Field 9	DID/CCSA digits
Field 10	Duplicated common control
Field 11	Music on hold
Field 12	CDR status
Field 13	CDR account code length
Field 14	CDR recording of incoming calls
Field 15	Tandem tie trunk access
Field 16	Trunk-to-trunk calling
Field 17	DCIU status
Field 18	Cache memory

275 Word 2

Field 1	Preselected call routing
Field 2	CAAVT status
Fields 3-7	CAAVT equipment location
Field 8	Unattended Console Service default extension
Field 9	Unattended Console Service common extension (display only)
Field 10	Share Remote Access trunks with LDNs
Field 11	Remote Access barrier code (display only)

275 Word 3

Field 1	Dial 1 for toll calls
Field 2	Home NPA
Field 3	Call Coverage caller response interval
Field 4	Call Coverage coverage point don't answer interval
Field 5	Abbreviated Dialing system list size
Field 6	Abbreviated Dialing system list access
Field 7	Multi-machine node type
Field 8	Multi-machine node local system number
Field 9	Multi-machine node CAS main system number
Field 10	Call control FRL
Field 11	Demand print password active
Field 12	CDR default variable timer
Field 13	Terminal dial information
Field 14	CDR calls blocked

275 Word 4

Field 1	Code Calling Access digits
Field 3	Trunk-to-trunk transfer
Field 4	Attendant release loop status
Field 5	Attendant release loop timed recall timer
Field 6	Default recent disconnect interval
Field 7	Maximum preemption level for all incoming calls
Field 8	Maximum preemption level for outgoing terminal calls
Field 9	Maximum preemption level for outgoing attendant calls
Field 10	AUTOVON interface system number
Field 11	ACD abandon call search
Field 13	CMS status
Field 14	ISDN status
Field 15	Even port peripheral alarms
Field 16	Trunk software alarms
Field 17	Auxiliary software alarms
Field 18	Local system number (display only)

285 Word 1

Field 1	Remote access code required
Field 2	Uniform numbering plan number of digits in location code
Field 3	Uniform numbering plan number of extension digits
Field 4	ACA enable
Field 5	Symmetrical routing depth
Field 6	Account code prefix
Field 7	Reserved digit
Field 8	Designated extension for trunk verification
Field 9	Remote maintenance extension for trunk verification
Field 10	ARS/AAR authorization code enable
Field 12	AAR dial tone suppressed

286 Word 1

Field 1	ACA Status
Field 2	ACA referral destination
Field 3	ACA referral console number
Field 4	Alternate FRL status
Field 5	Alternate FRL 0
Field 6	Alternate FRL 1
Field 7	Alternate FRL 2
Field 8	Alternate FRL 3
Field 9	Alternate FRL 4
Field 10	Alternate FRL 5
Field 11	Alternate FRL 6
Field 12	Alternate FRL 7
Field 13	ARS plan in effect
Field 14	ARS plan control mode
Field 15	Ineffective attempts recorded by CDR
Field 16	Remote Access to attendant

Class of Service — Extension

Every extension assigned to the system must be assigned a class of service (1-63). A class of service specifies the features a voice terminal user is allowed to access and the calling restrictions that apply to their extension. Class of service 31 is reserved for Remote Access users. Extension classes of service are administered in Procedure 010 Words 1, 2, 3, and 4.

010 Word 1 Administers various features to an extension class of service. The class of service for an extension is assigned in Field 7 of Procedure 000 Word 1.

- | | |
|----------|--|
| Field 1 | Enter the class of service (1-30, 32-63). |
| Field 3 | Enter the Automatic Callback assignment:
0 Disable
1 Enable |
| Field 4 | Enter the Call Forwarding — Busy Don't Answer or Call Forwarding — Don't Answer assignment:
0 Disable
1 Enable Call Forwarding — Busy Don't Answer
2 Enable Call Forwarding — Don't Answer |
| Field 5 | Enter the Call Forwarding — Follow Me assignment:
0 Disable
1 Enable |
| Field 6 | Enter the call hold assignment:
0 Disable
1 Enable |
| Field 7 | Enter the calling number display assignment:
0 Disable
1 Enable with calling number display unit
2 Enable with display unit integrated with the voice terminal |
| Field 8 | Enter the Priority Calling assignment:
0 Disable
1 Enable |
| Field 9 | Enter the Call Waiting assignment:
0 Disable
1 Enable |
| Field 10 | Enter the Override assignment:
0 Disable
1 Enable |
| Field 13 | Enter the priority paging assignment:
0 Disable
1 Enable |
| Field 14 | Enter the Conference Three Party/Transfer assignment:
0 Disable
1 Enable |

Field 15	Enter the Touch-Tone Dialing assignment: 0 Disable (rotary dialing only) 1 Enable (touch-tone and rotary dialing)
Field 16	Enter the timed recall exempt assignment: 0 Disable 1 Enable
Field 17	Enter the ring ping immediate assignment: 0 Disable 1 Enable
Field 19	Enter the ACD queue display assignment: 0 Disable 1 Enable
Field 20	Enter the ACD member assignment: 0 Disable 1 Enable
Field 21	Enter the stop hunt assignment: 0 Hunting 1 No hunting
Field 22	Enter the ACD agent override assignment: 0 Disable 1 Enable
Field 23	Enter the Send All Calls assignment: 0 Disable 1 Enable

010 Word 2 Administers various features to an extension class of service.

Field 1	Enter the class of service (1-30, 32-63).
Field 2	Enter the LWC originating assignment: 0 Disable 1 Enable
Field 3	Enter the LWC terminating assignment: 0 Disable 1 Enable
Field 4	Enter the Call Forwarding — Off Net assignment: 0 Disable 1 Enable
Field 5	Enter the CDR account code assignment: 0 Disable 1 Enable
Field 6	Enter the Malicious Call Trace control assignment: 0 Disable 1 Enable

010 Word 3 Administers various restrictions to an extension class of service.

- Field 1 Enter the class of service (1-30, 32-63).
- Fields 2-10 Enter the miscellaneous trunk group restrictions:
0 Not restricted
1 Restricted
- Field 11 Enter the APLT off-net restrictions:
0 Not restricted
1 Restricted
- Field 12 Enter the code restriction level restrictions:
0 Least restrictive
1 Most restrictive
2 More restrictive
3 Restrictive
- Field 13 Enter the Data Protection restrictions:
0 Not restricted
1 Restricted
- Field 14 Enter the DID restrictions:
0 Not restricted
1 Restricted
- Field 15 Enter the terminal-to-terminal only restrictions:
0 Not restricted
1 Restricted
- Field 16 Enter the inward call completing restrictions:
0 Not restricted
1 Restricted
- Field 17 Enter the manual terminating line restrictions:
0 Not restricted
1 Restricted
- Field 18 Enter the call origination restrictions:
0 Not restricted
1 Restricted
- Field 19 Enter the outward call restrictions:
0 Not restricted
1 Restricted
- Field 20 Enter the call termination restrictions:
0 Not restricted
1 Restricted
- Field 21 Enter the toll restrictions:
0 Not restricted
1 Restricted

Field 22 Enter the ARS toll restrictions:
0 Not restricted
1 Restricted

Field 23 Enter the FRL (0-7).

010 Word 4 Administers precedence levels, bearer capability, and ISDN access to an extension class of service.

Field 1 Enter the class of service (1-30, 32-63).

Field 2 Enter the maximum precedence level:
- Precedence calling not allowed
0 Flash override
1 Flash
2 Immediate
3 Priority
4 Routine

Field 3 Enter the bearer capability. The bearer capability in this field is assumed by the switch for facilities administered with the class of service in field 1. If you are using this extension for modem pooling with ARS, this bearer capability assignment must match the bearer capability of the ARS preference in Procedure 309 Word 5.

0 Voice or voice grade
1 Mode 1 data
2 Mode 2 data
3 Mode 3 data
4 Mode 0 data

Field 4 Enter the ISDN routing access:
- ISDN service is not supported
0 Use any facility
1 Use ISDN exclusively
2 Use ISDN if available; if not, use any available facility

Intercept Treatment

Intercept treatment is somewhat related to the system class of service. Intercept treatment defines the type of intercept treatment callers will receive depending on where the call came from and where the call was intended to complete. See the "Intercept Treatment" feature for more information.

Names Database

The names database is a database which associates names to extensions, trunk groups, or vector directory numbers (VDNs). This allows the calling and called party to be identified by name or by other identifiers such as extension number, department number, etc.

Procedure Sequence

ADD	CHANGE	REMOVE
012 Word 1	012 Word 1	012 Word 1
012 Word 2	012 Word 2	
012 Word 3	012 Word 3	

Procedure Usage

- 012 Word 1** Prepares an extension, VDN, or a trunk group so that a name can be assigned to either one.
- Field 1 Enter the extension, VDN, or trunk group number (000-99999 for extensions and VDNs, 18-999 for trunk groups).
 - Field 2 Enter the type:
 - 0 Trunk group
 - 1 Extension or VDN
 - Field 3 Enter where you want the first character to display on the 40-character alphanumeric display (1-30).
 - Field 4 Enter the outgoing trunk display:
 - An extension is entered in Field 1
 - 0 A name is not displayed for an outgoing trunk
 - 1 A name is displayed for an outgoing trunk
 - Field 5 Enter the copy mode:
 - 0 Use Word 2 to enter, add or change
 - 1 Share key to existing name
 - 2 Create name by copy
 - Field 6 Enter the extension or trunk group used to copy or share an existing name (000-99999 or 18-999).

012 Word 2 Administers the name for the extension or trunk group prepared in Procedure 012 Word 1.

Field 1 Enter the segment:

- 1 Assign characters 1-10
- 2 Assign characters 11-20
- 3 Assign characters 21-30

Fields 2-11 correspond to Character 1-10, respectively. See the Names Database — Character Encodes table.

Fields 2-11 Enter the character encodes for Characters 1-10 (00-12, 14, 15, 17-96).

NAMES DATABASE — CHARACTER ENCODES			
21 = A	93 = Y	94 = w	38 =)
22 = B	12 = Z	95 = x	39 = _
23 = C	24 = a	96 = y	40 = ~
31 = D	25 = b	15 = z	47 = [
32 = E	26 = c	00 = 0	48 =]
33 = F	34 = d	01 = 1	49 = ^
41 = G	35 = e	02 = 2	50 = blank
42 = H	36 = f	03 = 3	57 = /
43 = I	44 = g	04 = 4	58 = -
51 = J	45 = h	05 = 5	59 = +
52 = K	46 = i	06 = 6	60 = *
53 = L	54 = j	07 = 7	67 = {
61 = M	55 = k	08 = 8	68 = }
62 = N	56 = l	09 = 9	69 =
63 = 0	64 = m	10 = . (period)	70 = \
71 = P	65 = n	17 = !	77 = <
11 = Q	66 = o	18 = ?	78 = >
72 = R	74 = p	19 = ;	79 = =
73 = S	14 = q	20 = :	80 = %
81 = T	75 = r	27 = =	87 = #
82 = U	76 = s	28 = '	88 = &
83 = V	84 = t	29 = `	89 = @
91 = W	85 = u	30 = ,	90 = \$
92 = X	86 = v	37 = (

012 Word 3 Compacts the Name Database software table to free as much memory space as possible to add additional names. Put a "1" in Field 1 and do a change routine.

Field 1 Enter the specification to compact database:

- 0 No compaction
- 1 Compact name database

Remote Carrier Group (RCG) Administration

There is some basic administration required before assigning voice terminals and trunks to RCGs. modules.

Procedure Usage

260 Word 1 Administers the Remote Carrier Lines (RCL) circuit pack (ANN15B). Twenty-fourth channel signaling is required and slip count must be disabled. The RCL must not be used as a System Clock Synchronization (SCS) reference. Set the RCL as being connected to a T1 carrier or a fiber optic link.

- | | |
|----------|--|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |
| Field 6 | Enter the framing format encode:
0 D4 (superframe)
1 FE (extended superframe) |
| Field 7 | Enter a "0" for 23 B plus 1 D-channel signaling. |
| Field 8 | Enter a "0" to specify "24th channel signaling." |
| Field 9 | Enter the suppression encode:
0 Zero code suppression
1 Binary-8 zero code suppression |
| Field 10 | Enter a "0" to disable slip count. |
| Field 11 | Enter the external loop encode:
0 Disable
1 Enable |
| Field 12 | Enter a "0" to specify no equipment type. |
| Field 13 | Enter a "0" to specify there is no SCS reference. |
| Field 14 | Enter a "3" to specify the board as used with RCG. |
| Field 15 | Leave dashed. |
| Field 16 | Enter the transmission medium:
- Not applicable
0 Copper (T1)
1 Fiber optics |

Remote Carrier Group (RCG) Terminal Extension Line Service

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Extensions (See Chapter 2, "System Administration")

Class of Service — Extensions (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
250 Word 1	000 Word 1	052 Word 1
000 Word 1	051 Word 1	051 Word 1
275 Word 1	052 Word 1	000 Word 1
051 Word 1		275 Word 1
052 Word 1		250 Word 1

Procedure Usage

000 Word 1 Administers an equipment location and a class of service to an extension number. The equipment locations of the Remote Carrier Lines (RCL) circuit pack (ANN15B) and its two virtual slots are used for the equipment locations of remote voice terminals. The RCL may be located in slots 0, 5, 13, or 18. The two virtual slots are the next two slot locations of the carrier. For example, if the RCL is in slot 5, slot 6 will be virtual board 1 and slot 7 will be virtual board 2. If the extension number is to be used on a multiappearance voice terminal, leave the equipment location blank; this assignment is made in Procedure 052 Word 1.

Field 1	Enter the extension (000-99999).
Field 2	Enter the module number (0-30).
Field 3	Enter the cabinet number (0-7).
Field 4	Enter the port carrier number (0-3).
Field 5	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 6	Enter the circuit number (0-7).
Field 7	Enter the class of service (1-30 or 32-63). Features associated with a class of service are administered in Procedure 010.

-
-
- Field 8 Enter the appropriate port type:
- Extension is administered in Procedure 052
 - 6 OPS with terminal balance
 - 9 DS1 OPS line
- Field 9 Enter the desired assignment for DS1 OPS lines:
- Non-DS1 OPS line
 - 0 Signaling enable for DS1 OPS line
 - 1 Signaling disable for DS1 OPS line

When removing an extension, Special Error Code 85 may appear and procedure numbers may be displayed in Field 11. Occurrences of this extension must be removed from the procedures displayed in Field 11 before being removed in this procedure (000 Word 1).

051 Word 1 Administers the port equipment location to a multiappearance voice terminal. The equipment locations of the Remote Carrier Lines (RCL) circuit pack (ANN15B) and its two virtual slots are used for the equipment locations of remote voice terminals. The RCL may be located in slots 0, 5, 13, or 18. The two virtual slots are the next two slot locations of the carrier. For example, if the RCL is in slot 5, slot 6 will be virtual board 1 and slot 7 will be virtual board 2.

250 Word 1 Administers the SCS circuit to either the Module Control Carrier (single module system) or the Time Multiplexed Switch Carrier (multimodule system).

- Field 1 Enter the module number (0-30, 99).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter an "11" to specify DS1 port carrier type.

275 Word 1 Administers the use of multiappearance terminals in the system.

- Field 6 Enter the multiappearance/data module assignment:
- 0 Disable
 - 1 Enable

Remote Carrier Group (RCG) Trunks

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Extensions. (See Chapter 2, "System Administration")

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restrictions — Miscellaneous Trunk Restrictions

Route Advance

Attendant Direct Trunk Group Selection

Procedure Sequence

ADD	CHANGE	REMOVE
100 Word 1	100 Word 1	116 Word 1
101 Word 1	101 Word 1	103 Word 1
101 Word 2	101 Word 2	101 Word 2
103 Word 1	103 Word 1	101 Word 1
116 Word 1		100 Word 1

Procedure Usage

100 Word 1 Administers the trunk group translations. These translations include the Dial Access Code/Trunk ID, trunk type, dial access restrictions, personal central office appearance, and access to or egress from the public network.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

-
- Field 6 Enter the RCG trunk type:
103 Host access PDM
104 Host access TDM
105 3B5 AP DCPI
106 EIA 4 port
107 ISN/EIA port
- Field 7 Enter the Dial Access Restriction assignment:
0 Access to this trunk group is allowed using the DAC
1 Access to this trunk group is allowed only for testing and for unattended night service using the trunk ID code
- Field 8 Enter the Personal CO Line assignment:
0 Trunk group is not used for Personal CO Line Pickup
1 Trunk group is used for Personal CO Line Pickup
- Field 9 Enter the Public Network — Access/Egress assignment:
0 Trunk group is not used for access to or egress from the public network
1 Trunk group is used for access to or egress from the public network

101 Word 1 Administers trunk group characteristics.

- Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.
- Field 2 Enter the balance assignment:
0 Not provided
1 Provided
- Field 3 Enter the battery reversal assignment:
0 Not provided
1 Provided
- Field 4 Enter the incoming prefix digit assignment:
- No additional digits required for DID trunks
0-9 Use this additional digit for DID trunks
- Field 5 Enter the DCS assignment:
0 DCS not provided
1 DCS provided
- Field 6 Enter the touch-tone in assignment:
0 Touch-tone signals are not used for incoming trunks
1 Touch-tone signals are used for incoming trunks
- Field 7 Enter the touch-tone out assignment:
0 Touch-tone signals not used for outgoing trunks
1 Touch-tone signals used for outgoing trunks

-
- Field 8 Enter the CDR activation assignment:
0 This trunk group not recorded by CDR
1 This trunk group recorded by CDR
2 This trunk group recorded by CDR and account code required
- Field 9 Enter the AIOD billing number (-, 0000-9999). This is the default number used by the CO to bill the system for miscellaneous calls. Include any leading zeros that may be on the service order.
- Field 10 Enter the amount of time that elapses before a Timed Recall occurs on this trunk group (0-31 in minutes).
- Field 11 Enter the desired threshold (0-7). Timed Recall will not occur until the number idle trunks in a trunk group reaches the level entered into this field.
- Field 12 Enter the number of seconds before CDR begins recording call data on this trunk group (1-99). A dash (-) in this field relinquishes control of this timer to Procedure 275 Word 3 Field 12.
- Field 13 Enter the pad group assignment:
1 ISL TIE
2 EIA TIE
3 ISL DCO
4 EIA DCO
5 DTO
6 ATO
7 N12A
8 N12B
- Field 14 Enter the toll restriction assignment:
0 This trunk group not toll restricted
1 This trunk group toll restricted
- Field 15 Enter the APLT features assignment:
0 APLT features not allowed on this trunk group (CCSA only)
1 APLT features allowed on this trunk group
- Field 16 Enter the disconnect supervision assignment:
0 Disconnect supervision not given on this trunk group
1 Disconnect supervision given on this trunk group

101 Word 2 Administers the redial delay timer, hybrid balance specifications, and tie type capability for a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the redial delay time (0-50 in 0.1-second increments).

103 Word 1 Administers the network features associated with a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the FRL (0-7) for the trunk group.
- Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

- Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):
 - 0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group not an APLT trunk
 - 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk
- Field 6 Enter the authorization code assignment:
 - 0 Authorization codes not required when accessing this trunk group
 - 1 Authorization codes required when accessing this trunk group
- Field 7 Enter the bridge-on assignment:
 - 0 Bridging on to this trunk group not allowed
 - 1 Bridging on to this trunk group allowed
- Field 8 Enter the trunk reservation limit (0-15).
- Field 9 Enter the AAR/ARS prefix digit (0-9).
- Field 10 Enter the Data Protection assignment:
 - 0 Data Protection disable
 - 1 Data Protection enable
- Field 11 Enter the desired Remote Access echo suppressor control:
 - , 0 Dial tone
 - 1 Precursor tone/dial tone
 - 2 Abbreviated dial tone
- Field 12 Enter the desired AAR conditional routing assignment:
 - 0 Not a satellite facility
 - 1 Is a satellite facility
- Field 13 Enter the second TCM assignment:
 - 0 Second TCM is not used
 - 1 Second TCM is used

Field 14 Enter the desired digit collection scheme:
 0 Overlap outpulsing
 1 Collect all digits before outpulsing

116 Word 1 Administers the individual RCG trunks to trunk groups. The equipment locations of the Remote Carrier Lines (RCL) circuit pack (ANN15B) and its two virtual slots are used for the equipment locations of remote trunks. The RCL may be located in slots 0, 5, 13, or 18. The two virtual slots are the next two slot locations of the carrier. For example, if the RCL is in slot 5, slot 6 will be virtual board 1 and slot 7 will be virtual board 2.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-7).

Field 6 Enter the trunk group number (18-999).

Field 8 Enter the signaling assignment:
 0 Disable
 1 Enable

Traffic

The traffic procedures give you the ability to analyze the usage of traffic-sensitive switch resources in order to make their use most efficient and to insure adequate provisioning. The System 85 R2V4 switch provides the user with a large array of traffic measurements from which to define a traffic study. The types of traffic data available for study are:

- Performance Summary Data
- Processor Measurements
- Module Measurements
- Network and Routing Measurements
- Attendant Measurements
- Automatic Call Distribution (ACD) Measurements
- Call Coverage Measurements
- Feature Measurements
- Special Time-Coincident Measurements

Interactions with CSM Traffic Management, Monitor I, and AT&T Traffic Studies

Centralized System Management—Traffic Management (CSM-TM) and Monitor I are systems that poll and analyze traffic data from the System 85 R2V4 switch. CSM-TM or Monitor I users must set up traffic studies with CSM-TM or Monitor I and should not use the traffic procedures.

Customers who employ AT&T to do traffic studies should not use the traffic procedures without first consulting AT&T.

References

Detailed explanations of the procedures used to administer traffic studies and retrieve data are provided in *System 85 Release 2 Version 4 Administration Procedures* (555-103-506).

To fully understand and analyze your traffic data, you must use the following traffic documents.

- *DEFINITY™ Communications System Generic 2 and System 85 Traffic Measurements* (555-104-502)
- *DEFINITY™ Communications System and System 75 and System 85 Traffic Tables* (555-104-503)
- *DEFINITY™ Communications System and System 75 and System 85 Traffic Theory* (555-104-504).

How to Perform Traffic Studies

The following sections describe how your system stores traffic data, what specific data can be collected, and the traffic procedures used to define a traffic study and display and reset traffic data.

Two Independent Traffic Studies

Table 2-2 gives a brief description of the traffic procedures. System 85 R2V4 is capable of maintaining two independent traffic studies — one for AT&T services personnel and another for the customer's personnel. Two independent sets of traffic procedures are provided. The "410" series is usually reserved for AT&T services personnel; the "450" series is reserved for the customer's personnel. Reference to these procedures will be made as "Procedure 410/450 Word 1". This means Procedure 410 Word 1 or Procedure 450 Word 1.

TABLE 2-2. Traffic Procedures

PROCEDURE	USE
Procedure 410/450 Word 1	Display or change (410 only) Ringback and Off-Hook Queue peg timing. Display the traffic time-of-day clock. Change the offset minutes past the hour used to process traffic data. Copy peak and time-coincident register assignments between studies. Zero traffic study translations. Set the peak and time-coincident study size.
Procedure 411/451 Word 1	Activate or deactivate the load balance study. Specify one trunk group or all trunk groups to be studied.
Procedure 411/451 Word 2	Activate or deactivate the carrier usage studies. Specify modules and quarter carriers.
Procedure 413/453 Word 1	Define trunk group combinations for traffic studies.
Procedure 413/453 Word 2	Specify AAR and ARS patterns for traffic measurement. Specify Call Coverage groups for traffic measurement.
Procedure 414/454 Word 1	Assign traffic measurement items to peak registers. Display number of peak and time-coincident registers assigned.
Procedure 414/454 Word 2	Assign time-coincident register(s) to a peak register. Display number of peak and time-coincident registers assigned.
Procedure 415/455 Word 1	Assign a traffic satellite number to a Main/Satellite trunk group.
Procedure 421/461 Word 1	Display traffic data. Reset a single data item or an entire packet of data to zero.
Procedure 421/461 Word 2	Display equipment locations associated with the data displayed in Word 1 for ring group blockage, carrier usage, and port usage categories.
Procedure 421/461 Word 3	Display the network channels for the DCIU data displayed in Word 1, category 20.
Procedure 420 Word 1	Display processor data.

Traffic Collection Hour

Traffic data is collected for one hour before it is available for retrieval. You can define the collection hour to start and end on the hour or on five-minute increments after the hour using Procedure 410/450. For example, you can collect traffic data for the hour starting and ending at 20 minutes past every hour.

Displaying and Resetting Data

Traffic data available for retrieval can be selectively displayed and reset to zero using Procedure 421/461 Words 1-3. All traffic data available for retrieval as well as the data collected thus far during the current collection hour can be reset to zero using Procedure 410/450.

Traffic measurements are expressed in the following ways:

- *Counts:* A count is the number of occurrences of a specified event. For example, each time a connection is made, the "connection count" is incremented by one.
- *Usage Measurements:* A usage measurement is an approximation of the amount of time a facility is in use during the hour. The system periodically scans facilities and increments the appropriate usage measurement by the number of facilities currently in use. The exact usage for a facility is not measured. Instead, an assumption is made during each usage scan that any facility currently in use was in use throughout the scanning interval. The scanning interval used is generally 100 seconds, although some facilities, such as attendant consoles, are scanned more frequently. See *DEFINITY™ Communications System Generic 2 and System 85 Traffic Measurements* (555-104-502) for the scanning interval used for the various usage measurements.
- *Percent Occupancy:* Occupancy measurements for a processor are expressed as a percentage of its full capacity.

Traffic Measurements

This section lists the traffic measurements by subject area as defined in *DEFINITY™ Communications System Generic 2 and System 85 Traffic Measurements (555-104-502)*. The following information, if applicable, is given for each traffic measurement.

- *Data Type*

- *AC - Accumulated Data*

- Accumulated data accumulates hour after hour until it is reset using the traffic procedures.

- *PK - Peak Hour Data*

- Peak hour data reports the highest value reached during a single traffic hour since the data was reset using the traffic procedures.

- *TC - Time-Coincident Data*

- Time-coincident data is associated with peak hour data to capture more information about the peak hour. Time-coincident data is for the same hour as the associated peak hour data.

- If the data type can be either peak or time-coincident, it is identified as PK/TC.

- *MR - Most Recent Hour Data*

- Most recent hour or most recent occurrences for ring group blockage and authorization code data.

- *Category* — The category number used in Procedure 421/461 to display the traffic measurements.
- *Index 1-3* — Up to three index entries used to display the traffic measurements in Procedure 421/461.
- *Administration* — For some traffic measurements, you must define a study using one or more of the traffic procedures outlined in Table 2-2. In the following tables, only the “450” series of procedures is listed.

For Procedure 414/454, the type or type and item encode is shown in parentheses separated by a comma (25,2). If two type encodes are valid for a given measurement, they are shown separated by an ampersand (20 & 22).
- *Conversion* — An asterisk (*) denotes multiplication and the slash (/) denotes division when an algorithm must be applied to the value displayed in Procedure 421/461 to obtain the original magnitude of the data or the percent occupancy.

Where HHMM is denoted, the data is interpreted as a time of day (e.g., 1605 is 4:05 pm).

Where a bit number is denoted, the data displayed must be converted to binary as shown below to determine if the given bit corresponding to a binary flag is set.

If, for example, the value displayed was 137, find the bits set as follows:

— Choose the next decimal number in the chart below 137 which is 128.

Bit 7 is set for 128.

— Next $137 - 128 = 9$ and the next number below 9 is 8.

Bit 3 is set for 8.

— Next $9 - 8 = 1$ and number 1 is on the table.

Bit 0 is set for 1.

Bits 0, 3, and 7 are set (equal to 1) for 137.

Binary Flag Information

Decimal Number	Binary Bit			
	15-14-13-12	11-10-9-8	7-6-5-4	3-2-1-0
1	-0--0--0--0	-0--0-0-0	0-0-0-0	0-0-0-1
2	-0--0--0--0	-0--0-0-0	0-0-0-0	0-0-1-0
4	-0--0--0--0	-0--0-0-0	0-0-0-0	0-1-0-0
8	-0--0--0--0	-0--0-0-0	0-0-0-0	1-0-0-0
16	-0--0--0--0	-0--0-0-0	0-0-0-1	0-0-0-0
32	-0--0--0--0	-0--0-0-0	0-0-1-0	0-0-0-0
64	-0--0--0--0	-0--0-0-0	0-1-0-0	0-0-0-0
128	-0--0--0--0	-0--0-0-0	1-0-0-0	0-0-0-0
256	-0--0--0--0	-0--0-0-1	0-0-0-0	0-0-0-0
8192	-0--0--1--0	-0--0-0-0	0-0-0-0	0-0-0-0
16384	-0--1--0--0	-0--0-0-0	0-0-0-0	0-0-0-0
32768	-1--0--0--0	-0--0-0-0	0-0-0-0	0-0-0-0

Performance Summary Data

<i>System Flags</i>				
Flag	Data Type	Category	Idx 1	Conv
Reload	AC	5	0	bit 0
System translation change	AC	5	0-16	bit 2
Alarms				
Major	AC	5	0	bit 3
Minor	AC	5	0	bit 4
Warning	AC	5	0	bit 8
Cache memory	AC	5	0	bit 14

<i>Traffic Flags and Polling Data</i>				
Flag	Data Type	Category	Idx 1	Conv
Traffic studies change	AC	5	0-16	bit 1
Data zeroed	AC	5	0-16	bit 5
Data reinitialized	AC	5	0	bit 6
Short hour	AC	5	0-16	bit 7
Diagnostic processor data	AC	5	10	bit 13
Packet polled	AC	5	1-16	bit 15
Number of hours in poll	AC	5	17	
Time of poll	AC	5	18	HHMM
Time of last hourly update	AC	5	19	HHMM

<i>System-Wide Blockage Data</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Conv
TSI memory word blockages	AC	6	1		
TMS mismatch blockages	AC	6	2		
DCIU message queue blockages	AC	6	3		
Ring group blockages	MR	7	1-16		
Module blockages					
FIFO blockages					
Blockage count	AC	8	0-31	2	bits 0-15
Blockage flags	AC	8	0-31	1	
Timer blockages	AC	8	0-30	3	
Global GPP retransmissions	AC	8	0-30	4	
Digit send queue blockages	AC	8	0-30	5	
Network queue blockages	AC	8	0-31	6	
GPP send queue blockages	AC	8	0-30	7	
TMS network difficulty	AC	8	31	7	

<i>Peak Hour Call Count and Usage Data</i>				
Measurement	Data Type	Category	Idx 1	Conv
Peak call count	PK	9	16	*16
Connection usage	TC	9	2	*16
Connection count	TC	9	1	*16
Connection compensation count	TC	9	17	*16
Port usage	TC	9	14	*16
Outgoing usage	TC	9	15	*16
Intermodule usage	TC	9	5	
Intermodule connection count	TC	9	4	*16
TSI memory word usage	TC	9	7	*16
TSI memory word count	TC	9	6	*16
Dial tone measurements				
Dial tone measured	TC	9	8	*16
Dial tone delays > 3 seconds	TC	9	9	*16
Hour update time for peak	TC	9	3	HHMM

<i>Peak Hour Module and Processor Data</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Conv
501CC occupancy	TC†	9	10		*1.024/36
501CC overflow	TC†	9	11		*100
501CC audit cycles	TC†	9	12		
DCIU occupancy	TC†	9	13		*16/36
Module processor occupancy	TC†	10	0-30	1	/10
10ms interrupt accumulator	TC†	10	0-31	2	
Interject interrupt count	TC†	10	0-31	3	
TMS base level interrupt count	TC†	10	31	1	
Hour update time for peak	TC†	9	3		HHMM
† In relation to peak call count.					

Processor Measurements

<i>Occupancy Measurements</i>						
Measurement	Data Type	Category	Idx 1	Idx 2	Admin	Conv
501CC occupancy	PK/TC or PK TC‡	12,13	1-4000	1-5998	454 (3,4)	*1.024/36
Overall occupancy		16†	1			*1.024/36
100-second occupancy		17†	1-36			
501CC overflow	PK/TC	12,13	1-4000	1-5998	454 (3,5)	*100
501CC overload	AC	18	1			
Call processing stimuli	PK/TC	12,13	1-4000	1-5998	454 (3,6)	*100
DCP stimuli	PK/TC	12,13	1-4000	1-5998	454 (3,7)	*100
Audit cycles	PK/TC	12,13	1-4000	1-5998	454 (3,12)	

† Based on AT&T study hour administered in Procedure 410.
‡ In relation to category 16 overall occupancy.

<i>Call Count Measurements</i>						
Measurement	Data Type	Category	Idx 1	Idx 2	Admin	Conv
Call count	PK/TC	12,13	1-4000	1-5998	454 (3,15)	*16
Connection usage	PK/TC	12,13	1-4000	1-5998	454 (3,13)	*16
Connection count	PK/TC	12,13	1-4000	1-5998	454 (3,10)	*16
Outgoing usage	PK/TC	12,13	1-4000	1-5998	454 (3,1)	*16
Tandem usage	PK/TC	12,13	1-4000	1-5998	454 (3,2)	
Intermodule usage	PK/TC	12,13	1-4000	1-5998	454 (3,11)	
Dial tone measurements						
Dial tone measured	PK/TC	12,13	1-4000	1-5998	454 (3,9)	*16
Dial tone delays > 3 seconds	PK/TC	12,13	1-4000	1-5998	454 (3,8)	*16
AAR calls	PK/TC	12,13	1-4000	1-5998	454 (3,16)	
ARS calls	PK/TC	12,13	1-4000	1-5998	454 (3,17)	
Terminal dialed calls	AC	18	57			
Incoming calls						
DID calls encountering busy	AC	18	2			
DID calls abandoned	AC	18	3			
Incoming call queue calls abandoned	AC	18	4			
CDR measurements						
CDR usage	PK/TC	12,13	1-4000	1-5998	454 (3,19)	*16
CDR records	PK/TC	12,13	1-4000	1-5998	454 (3,18)	
CDR record blockage	AC	18	9-10			
Tone detector timeout	PK/TC	12,13	1-4000	1-5998	454 (3,14)	

<i>DCIU Measurements</i>				
Measurement	Data Type	Category	Idx 1	Idx 2
Byte count				
Bytes received	MR	19	1	1-8
Bytes transmitted	MR	19	2	1-8
Frame count				
Frames received	MR	19	3	1-8
Frames transmitted	MR	19	4	1-8
Frames retransmitted	MR	19	5	1-8
Packet count				
Data packets received	MR	20	1	1-128
Data packets transmitted	MR	20	2	1-128
Data packets retransmitted	MR	20	3	1-128
Transmission error counts				
SABM resets	MR	19	6	1-8
Logical channel resets	MR	20	4	1-128
Port blocked counters	MR	21	1-64	
Internal DCIU NMI error counter	MR	22	6	
501CC interface NMI error counter	MR	22	7	
Messages blocked	MR	23	1	1-64
DCIU Occupancy				
Queue usage	MR	23	2	1-64
Free DCIU message buffer count	MR	22	1	
Interject level occupancy counter	MR	22	2	
Base level occupancy counter	MR	22	3	
Interject level interrupts	MR	22	4	
Base level interrupts	MR	22	5	

Module Measurements*Module Processor Occupancy*

See the table *Peak Hour Module and Processor Data (categories 9-10)* in the section on Performance Summary Data.

<i>Module Usage Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
TSI memory word usage	PK/TC	12,13	1-4000	1-5998	454 (12)
Intermodule usage	PK/TC	12,13	1-4000	1-5998	454 (3,11)

<i>Module Counts</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Module TSI memory word count	PK/TC	12,13	1-4000	1-5998	454 (11)
Intermodule call count	PK/TC	12,13	1-4000	1-5998	454 (14)

<i>Module Blockage Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Module TSI memory word blockage	PK/TC	12,13	1-4000	1-5998	454 (10)
Mismatch blockage	PK/TC	12,13	1-4000	1-5998	454 (13)

<i>Load Balance Intramodule Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Intramodule usage	PK	1	0-30	1	451w1
Intercom usage	TC	1	0-30	2	451w1
Trunk to line usage	TC	1	0-30	3	451w1
Line to trunk usage	TC	1	0-30	4	451w1
Incoming tandem usage	TC	1	0-30	5	451w1
Outgoing tandem usage	TC	1	0-30	6	451w1

<i>Load Balance Intermodule Measurements</i>						
Measurement	Data Type	Category	Idx 1	Idx 2	Idx 3	Admin
Intermodule usage	PK	2	0-29	1-30	1	451w1
Intercom usage (module 1-2)	TC	2	0-29	1-30	2	451w1
Intercom usage (module 2-1)	TC	2	0-29	1-30	3	451w1
Trunk to line usage (module 1-2)	TC	2	0-29	1-30	4	451w1
Trunk to line usage (module 2-1)	TC	2	0-29	1-30	5	451w1
Line to trunk usage (module 1-2)	TC	2	0-29	1-30	7	451w1
Line to trunk usage (module 2-1)	TC	2	0-29	1-30	6	451w1
Incoming tandem usage (module 1-2)	TC	2	0-29	1-30	8	451w1
Incoming tandem usage (module 2-1)	TC	2	0-29	1-30	9	451w1
Outgoing tandem usage (module 1-2)	TC	2	0-29	1-30	10	451w1
Outgoing tandem usage (module 2-1)	TC	2	0-29	1-30	11	451w1

<i>Carrier and Port Usage Measurements</i>			
Measurement	Data Type	Category	Admin
Carrier usage	MR	3	451w2
Port usage	MR	4	451w2

Network and Routing Measurements

<i>Trunk Group Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Usage					
Total usage	PK/TC	12,13	1-4000	1-5998	454 (5)
Data usage	PK/TC	12,13	1-4000	1-5998	454 (65)
Incoming usage	PK/TC	12,13	1-4000	1-5998	454 (8)
Incoming data usage	PK/TC	12,13	1-4000	1-5998	454 (68)
Busy usage					
Maintenance busy usage	PK/TC	12,13	1-4000	1-5998	454 (70)
Call counts					
Total calls	PK/TC	12,13	1-4000	1-5998	454 (6)
Data calls	PK/TC	12,13	1-4000	1-5998	454 (66)
Incoming calls	PK/TC	12,13	1-4000	1-5998	454 (9)
Incoming data calls	PK/TC	12,13	1-4000	1-5998	454 (69)
Overflow	PK/TC	12,13	1-4000	1-5998	454 (7)
Queuing measurements					
Usage	PK/TC	12,13	1-4000	1-5998	454 (30 & 40)
Queued call count	PK/TC	12,13	1-4000	1-5998	454 (31 & 41)
Overflow	PK/TC	12,13	1-4000	1-5998	454 (32 & 42)
Calls abandoned	PK/TC	12,13	1-4000	1-5998	454 (33 & 43)
Timeout	PK/TC	12,13	1-4000	1-5998	454 (34 & 44)
Trunk group combinations					
Total usage	PK/TC	12,13	1-4000	1-5998	453w1, 454 (1)
Incoming usage	PK/TC	12,13	1-4000	1-5998	453w1, 454 (1)
Outgoing usage	PK/TC	12,13	1-4000	1-5998	453w1, 454 (1)
Glare measurements					
Glare count	PK/TC	12,13	1-4000	1-5998	454 (71)
Glare retry attempts	PK/TC	12,13	1-4000	1-5998	454 (72)
Glare retry failures	PK/TC	12,13	1-4000	1-5998	454 (73)

<i>Alternate Routing Measurements</i>						
Measurement	Data Type	Category	Idx 1	Idx 2	Idx 3	Admin
AAR Measurements						
Total AAR calls	PK/TC	12,13	1-4000	1-5998		454 (3,16)
AAR calls by pattern and preference	AC	15	1-640	1-16		453w2
AAR calls queued by pattern and preference	AC	15	1-640	17-32		453w2
ARS Measurements						
Total ARS calls	PK/TC	12,13	1-4000	1-5998		454 (3,17)
ARS calls by plan, pattern, and preference	AC	14	1-64	1-3	1-16	453w2
ARS calls queued by plan, pattern, and preference	AC	14	1-64	1-3	17-32	453w2

<i>Main/Satellite Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
DID to main	PK/TC	12,13	1-4000	1-5998	455w1, 454 (50)
DID to satellite	PK/TC	12,13	1-4000	1-5998	455w1, 454 (51)
Attendant recall from satellite	PK/TC	12,13	1-4000	1-5998	455w1, 454 (52)

<i>ISDN Measurements</i>			
Measurement	Data Type	Category	Idx 1
1 - AT&T OUTWATS	AC	18	65
2 - AT&T Operator	AC	18	66
3 - AT&T common carrier operator	AC	18	67
4 - AT&T SDN	AC	18	68
5 - AT&T MEGACOM 800	AC	18	69
6 - AT&T MEGACOM	AC	18	70
7 - AT&T INWATS	AC	18	71
8 - AT&T WATS (maximal band)	AC	18	72
9-25 (reserved for future use)	AC	18	73-89

Attendant Measurements

<i>Incoming Call Queue Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Queued call usage	PK/TC	12,13	1-4000	1-5998	454 (20,4)
Queued call count	PK/TC	12,13	1-4000	1-5998	454 (20,5)
Calls abandoned	PK/TC or AC	12,13 18	1-4000 4	1-5998	454 (20,6)

<i>Console Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Attended usage	PK/TC	12,13	1-4000	1-5998	454 (20,2 & 22)
Worked usage	PK/TC	12,13	1-4000	1-5998	454 (20,1 & 22)
Worked count	PK/TC	12,13	1-4000	1-5998	454 (20,3 & 22)

<i>Attendant Calls and Features</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
LDN calls answered	PK/TC	12,13	1-4000	1-5998	454 (20,7)
Non-LDN calls answered	PK/TC	12,13	1-4000	1-5998	454 (20,8)
Attendant recall calls	PK/TC	12,13	1-4000	1-5998	454 (20,9)
Conference calls	AC	18		34	
Call waiting	AC	18		11	
Control of trunk groups					
Activate trunk group control	AC	18		32	
Deactivate trunk group control	AC	18		33	
Malicious call trace	AC	18		60	
Attendant transferred calls abandoned	AC	18		59	
Invalid authorization code used by attendant	AC	18		44	
Attendant originated calls	PK/TC or AC	12,13 18	1-4000 35	1-5998	454 (20,10)
CAS measurements					
Usage	PK/TC	12,13	1-4000	1-5998	454 (60,1)
Call count	PK/TC	12,13	1-4000	1-5998	454 (60,2)
Abandoned calls	PK/TC	12,13	1-4000	1-5998	454 (60,3)
RLT calls answered by attendant	PK/TC	12,13	1-4000	1-5998	454 (60,4)
Unattended Console Service Measurements					
CAAVT calls	AC	18		5	
CAAVT calls abandoned	AC	18		6	

Automatic Call Distribution (ACD) Measurements

<i>ACD Split Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Answered call usage	AC	26	1-60	2	
Answered call count	AC	26	1-60	1	
Queue usage	AC	26	1-60	4	
Queued calls	AC	26	1-60	3	
Queue threshold count	PK/TC	12,13	1-4000	1-5998	454 (61)
Abandoned Call Counts					
Total calls	AC	26	1-60	5	
External calls	AC	26	1-60	6	

<i>ACD Member Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Idx 3
Answered call usage	AC	25	1-60	0-1023	3
Answered call count	AC	25	1-60	0-1023	1
External answered call count	AC	25	1-60	0-1023	2

<i>Call Redirection Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Message Center Calls					
Calls directed to Message Center	PK/TC or AC	12,13 27	1-4000 2	1-5998 3	454 (62)
Calls redirected to Message Center	PK/TC	12,13	1-4000	1-5998	454 (63)
Calls redirected by Call Coverage	AC	27	2	1	
Calls redirected by Call Forwarding	AC	27*	2	2	
AUDIX Calls					
Calls directed to AUDIX	AC	27	3	3	
Calls redirected by Call Coverage	AC	27	3	1	
Calls redirected by Call Forwarding	AC	27	3	2	
Other ACD Calls					
Calls directed to other ACD splits	AC	27	1	3	
Calls redirected by Call Coverage	AC	27	1	1	
Calls redirected by Call Forwarding	AC	27	1	2	

<i>Call Vectoring Measurements</i>					
Measurement	Data Type	Category	Idx 1	Idx 2	Admin
Call Vector Measurements					
ACD usage for the vector	AC	28	1-128	3	
ACD calls using the vector	AC	28	1-128	1	
ACD calls abandoned out of the vector	AC	28	1-128	2	

Call Coverage Measurements

Also see ACD Measurements.

<i>Call Coverage Group Measurements</i>						
Measurement	Data Type	Category	Idx 1	Idx 2	Idx 3	Admin
Calls Offered to Principals						
Total calls	AC	24	1-25	1	1	453w2
External calls	AC	24	1-25	1	2	453w2
Calls overflowing to coverage						
Total calls	AC	24	1-25	2	1	453w2
External calls	AC	24	1-25	2	2	453w2
Calls offered to each coverage point						
Total calls	AC	24	1-25	3-5	1	453w2
External calls	AC	24	1-25	3-5	2	453w2
Calls overflowing from a coverage point						
Total calls	AC	24	1-25	6-7	1	453w2
External calls	AC	24	1-25	6-7	2	453w2
Calls abandoned at each coverage point						
Total calls	AC	24	1-25	8-10	1	453w2
External calls	AC	24	1-25	8-10	2	453w2

<i>Call Redirection Measurements</i>			
Measurement	Data Type	Category	Idx 1
Calls Forwarded			
Total calls forwarded due to coverage criteria	AC	18	16
Calls forwarded due to busy or don't answer coverage criteria	AC	18	17
Send All Calls (SAC) Invoked			
Through a dial access code	AC	18	31
Through a SAC group of extensions button	AC	18	41
Through a SAC single extension button	AC	18	61

<i>Message Measurements</i>				
Measurement	Data Type	Category	Idx 1	Conv
Callback Messages Generated				
By calling party	AC	18	12	
By coverage personnel	AC	18	13	
Messages Retrieved				
By principals	AC	18	14	
By coverage personnel	AC	18	15	
LWC Message slots available	AC	18	48	†
LWC Message Overflow				
For the system	AC	18	49	
For an extension	AC	18	50	
Scrolling Measurements				
Messages received	AC	18	51	
Messages displayed	AC	18	52	
† Multiply this number by 16 and then divide by the number of hours in the poll to determine the average number of slots available per hour.				

Feature Measurements

<i>System Features</i>			
Measurement	Data Type	Category	Idx 1
RMATS Port Measurements			
Successful remote port access	AC	18	46
Failed remote port access	AC	18	47
Remote port timeout	AC	18	64
Port Contention Measurements			
Incorrect remote agent code	AC	18	53
Successful mode changes	AC	18	54
Blocked mode changes	AC	18	55
Traffic mode blockages	AC	18	56
Remote Access Measurements			
Successful remote access	AC	18	7
Failed remote access attempt	AC	18	8
Invalid Authorization Code used on Remote Access trunk	AC	18	45
Authorization Code Measurements			
Invalid code used at terminal	AC	18	42
Invalid code used on tie trunk	AC	18	43
Invalid code used by attendant	AC	18	44
Invalid code used on Remote Access trunk	AC	18	45

<i>Dial-Activated Features</i>			
Measurement	Data Type	Category	Idx 1
Abbreviated Dialing	AC	18	26
Automatic Callback	AC	18	18
Automatic Callback - Cancel	AC	18	30
Call Forwarding			
Follow Me	AC	18	23
Busy/Don't Answer	AC	18	24
Cancel	AC	18	25
Call Pickup	AC	18	20
Call Waiting - Answer Hold	AC	18	22
Code Calling	AC	18	27
Hold	AC	18	19
Loudspeaker Paging			
Call	AC	18	28
Answer	AC	18	29
Malicious Call Trace	AC	18	58
Priority Calling	AC	18	21
Queuing - Cancel	AC	18	30
Send All Calls	AC	18	31

<i>Button-Activated Features</i>			
Measurement	Data Type	Category	Idx 1
Abbreviated Dialing	AC	18	63
Automatic Callback	AC	18	36
Call Forwarding			
Follow Me	AC	18	39
Busy/Don't Answer	AC	18	40
Call Pickup	AC	18	37
Malicious Call Trace	AC	18	62
Priority Calling	AC	18	38
Send All Calls			
Group of extensions	AC	18	41
Single extension	AC	18	61

Special Time-Coincident Measurements

Measurement	Data Type	Category	Idx 1	Idx 2	Admin	Conv
Time of day	TC	12,13	1-4000	1-5998	454w2 (2,1)	HHMM
ARS plan in effect	TC	12,13	1-4000	1-5998	454w2 (2,2)	

Alarms and Failures

For information about alarms and how to clear those alarms, see *AT&T System 85 Advanced Networking Switch (R2V4) Maintenance* (555-103-108).

ATTENDANT CONSOLE ADMINISTRATION

General Information

In most cases, the attendant console will already be administered. This section is provided if you add new consoles. Administration of several console control buttons is found in the individual feature chapters.

Attendant Console Button Numbering Scheme

This section contains the button numbering information for the attendant console. The button numbering scheme for the bottom half of the console is shown in Figure 3-1.

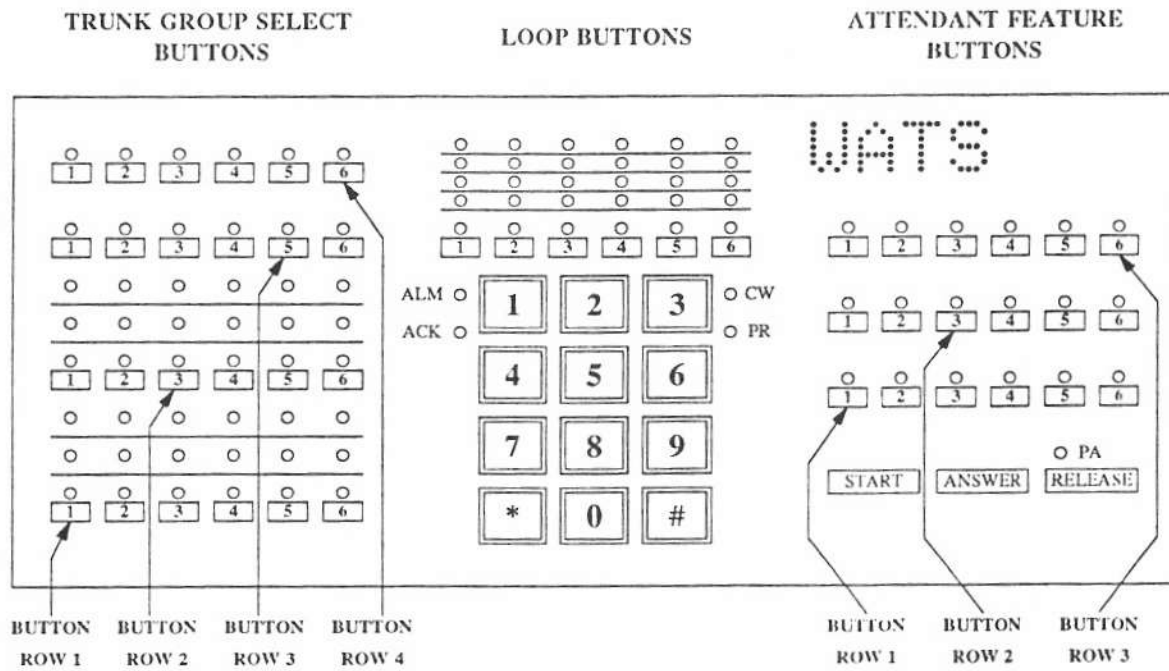


Figure 3-1. Attendant Console (Bottom Half)

The button numbering scheme for the top half of the DXS/BLF console is shown in Figure 3-2. Some consoles do not have the DXS/BLF feature.

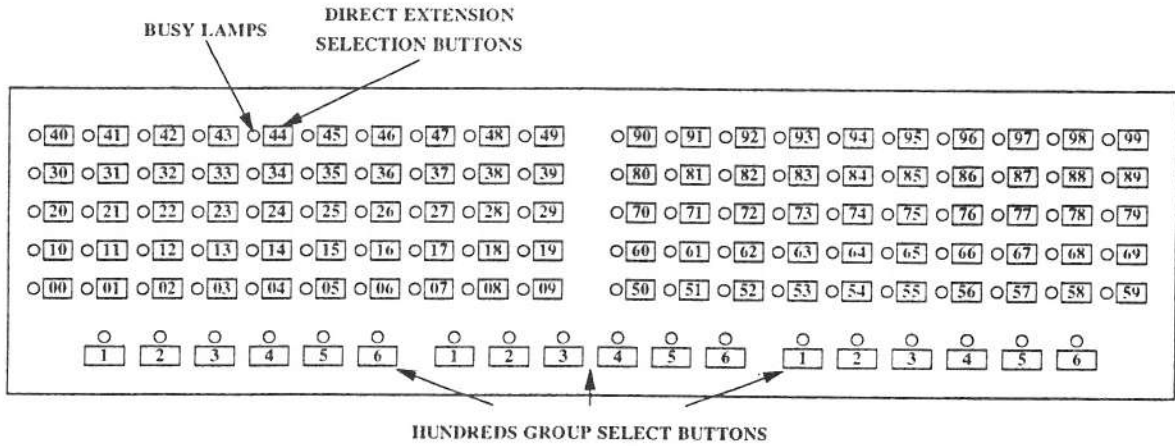


Figure 3-2. DXS/BLF Console (Top Half)

Administering the Attendant Console

The attendant console requires some basic administration to begin operations. After completing this basic administration, other console-related feature translations can be done. These features are found later in this document.

Procedure Sequence

ADD	CHANGE	REMOVE
210 Word 1	210 Word 1	210 Word 1
200 Word 1	200 Word 1	200 Word 1
203 Word 1	203 Word 1	203 Word 1

Procedure Usage

200 Word 1 Administers the specified features associated with the attendant console.

Field 1	Enter the console type:
30	No DXS/BLF buttons; 8 character display
33	6 DXS group buttons; 8 character display (not currently sold, but may be in use)
34	18 DXS group buttons; 8 character display

The following fields are attendant console related assignments. Most of the console assignments are done in the individual features listed.

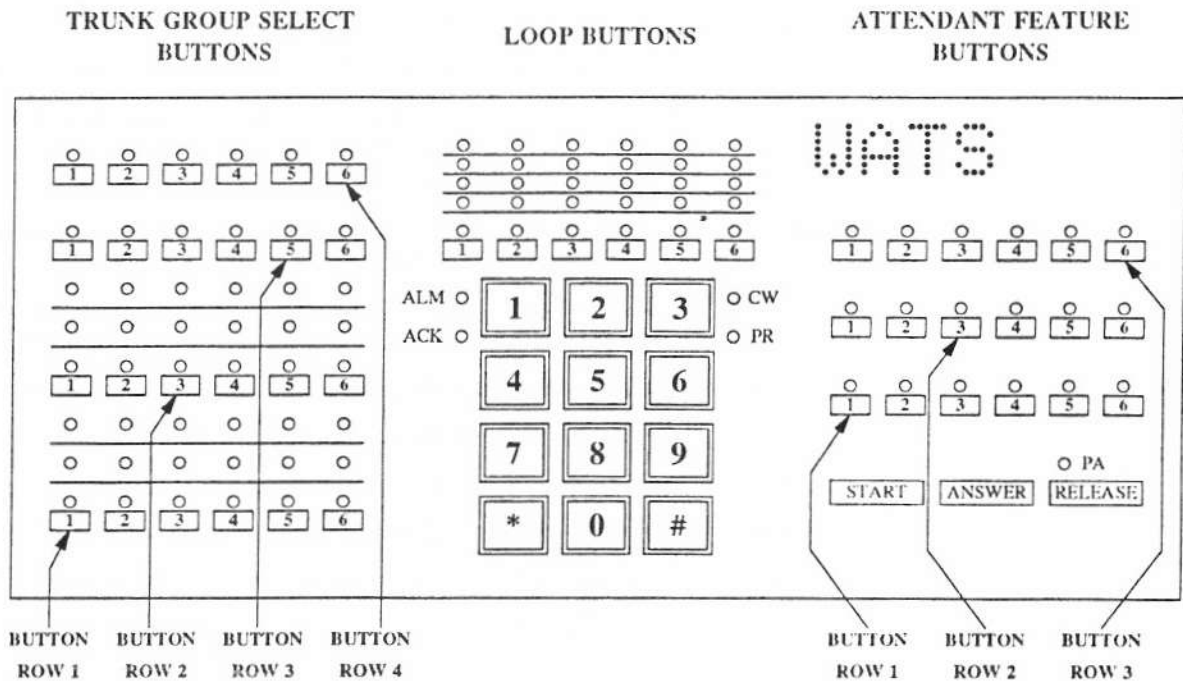
Field 2	Class of Service Display — See the Attendant Display feature.
Field 3	Direct Trunk Group Select — See the Attendant Direct Trunk Group Selection and the Trunk Group Busy/Warning Indicators To Attendant features.
Field 4	Don't Answer Timing — See the Automatic Callback and Call Forwarding — Busy and Don't Answer feature.
Field 5	Interposition Calling — See the Attendant Interposition Calling and Transfer feature and the Dial Access to Attendant feature.
Field 6	Lockout — See the Privacy — Attendant Lockout feature.
Field 7	Privacy — See the Privacy — Attendant Lockout feature.
Field 8	Trunk Test — See the Trunk Verification — Attendant feature.
Field 9	Two-Party Hold — See the Serial Calls feature.
Field 10	Extended DXS — See the Attendant Direct Extension Selection With Busy Lamp Field feature.

- Field 11 Enter the number of calls that can be waiting for processing at the console before the CW lamp lights (1-99). This acts as a warning to the attendant that the call waiting queue may be getting large.
- Field 12 Facility Restriction Level (FRL) — See the Facilities Restriction Level feature.
- Field 13 Display Trunk Group ICI — See the Attendant Display feature.

203 Word 1 Administers the various control buttons to the attendant console(s). The buttons used for these features are found on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter the row number where you want the buttons (1-3).
- Fields 2-7 Enter the button types in the desired location:
 - 3 Position Busy (shuts off console temporarily)
 - 5 Hold (used for 2-party hold on console)
 - 6 Cancel (used to cancel outgoing call attempts)
 - 8 Audible Signal (shuts off the ringing/beeping at the console)

Buttons are assigned for other attendant features found later in this document.



210 Word 1 Administers the equipment locations for the attendant interface (SN233) and the data channel (TN403) associated with each attendant console. Fields 2-6 specify the equipment locations for the attendant console interface. Fields 7-9 specify the equipment locations for the data channel associated with the attendant console.

- Field 1 Enter the attendant console number (1-40).
- Field 2 Enter the module number (0-30).
- Field 3 Enter the cabinet number (0-7).
- Field 4 Enter the port carrier number (0-3).
- Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 6 Enter the circuit number (0-3).
- Field 7 Enter a "0" to represent the common control carrier.
- Field 8 Enter the slot number (23-26).
- Field 9 Enter the circuit number (0-15).

VOICE TERMINAL AND DATA MODULE ADMINISTRATION

General Information

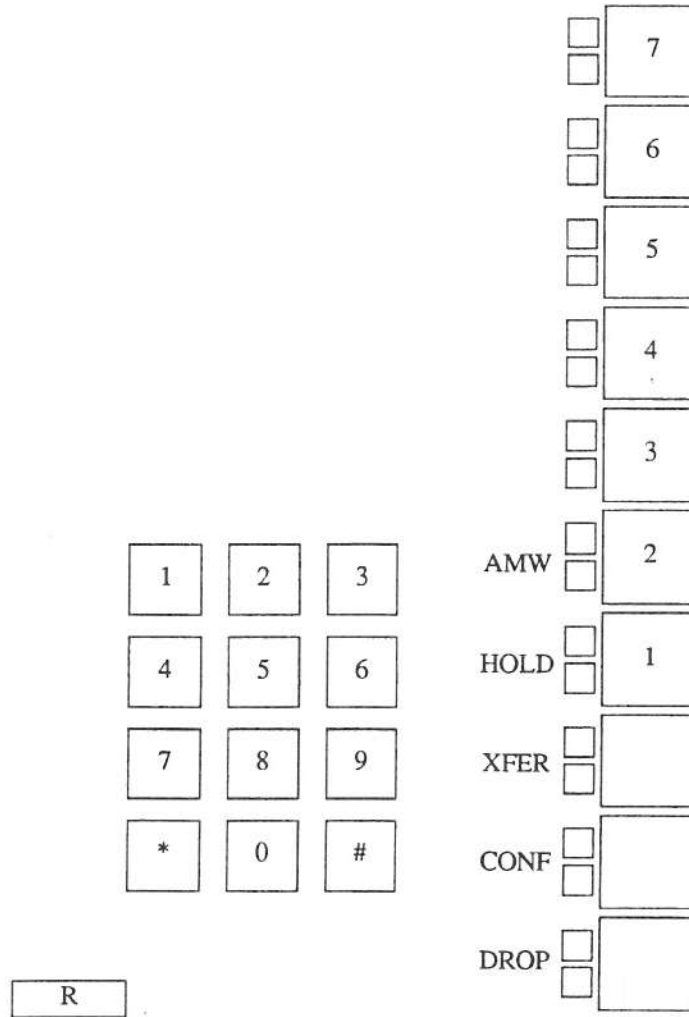
AT&T Multiappearance Voice Terminals and Data Modules

Processor Data Module (PDM)	7305S
Trunk Data Module (TDM)	7434D
7400A/B Data Module	7401D
Dual Port Data	7410D
ADFTC	7403D
EIA	7404D
Straight Line Set (SLS)	7405D
10-Button MET	7406D
20-Button MET	7407D
30-Button MET	CallMaster™
7203H	510BCT
7205H	515BCT
7303S	PC/PBX

Button Numbering Scheme

This section contains button numbering information for several AT&T multiappearance voice terminals. Button numbers 1 and 2 are the Hold button and the Automatic Message Waiting (AMW) lamp. The Hold button is automatically assigned to button number one and the assignment cannot be changed. Data modules and straight line sets are not shown since they do not have multiple buttons.

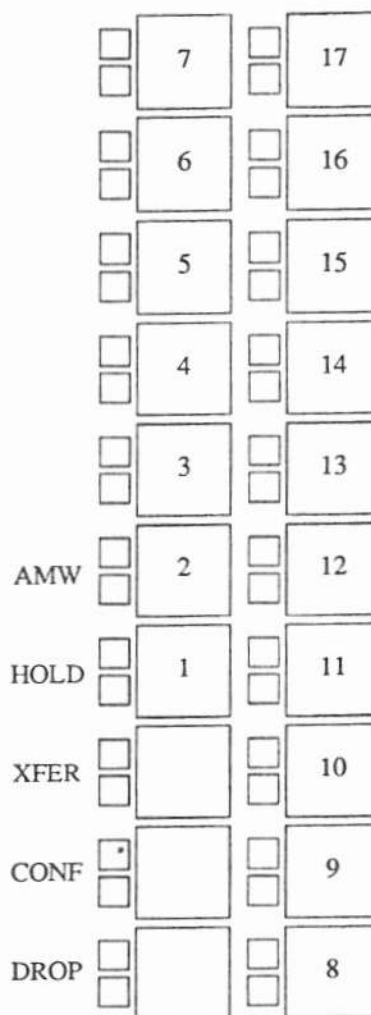
10-BUTTON MET



20-BUTTON MET



R



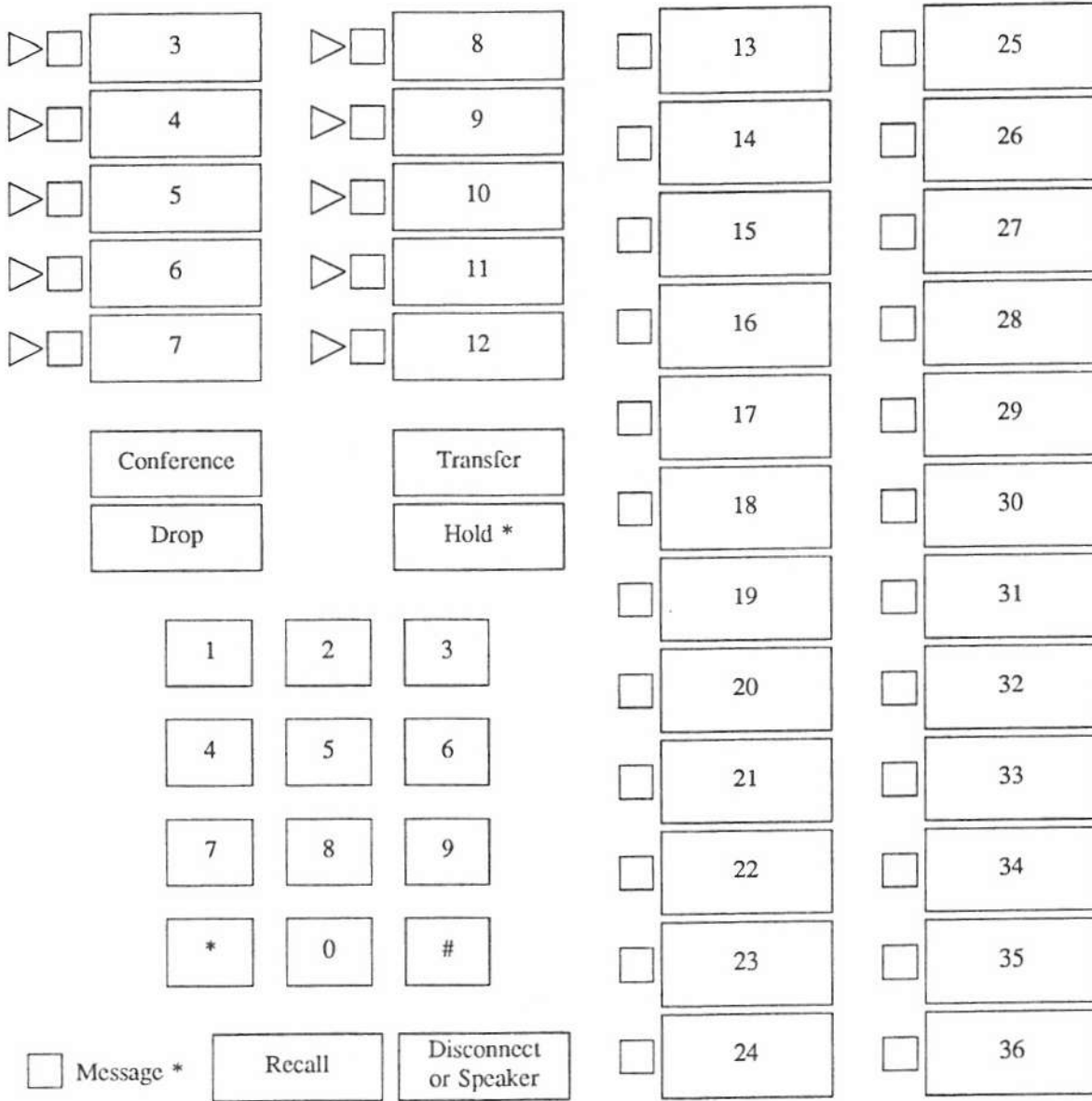
30-BUTTON MET

1	2	3
4	5	6
7	8	9
*	0	#

R

	<input type="checkbox"/> 7	<input type="checkbox"/> 17	<input type="checkbox"/> 27
	<input type="checkbox"/> 6	<input type="checkbox"/> 16	<input type="checkbox"/> 26
	<input type="checkbox"/> 5	<input type="checkbox"/> 15	<input type="checkbox"/> 25
	<input type="checkbox"/> 4	<input type="checkbox"/> 14	<input type="checkbox"/> 24
	<input type="checkbox"/> 3	<input type="checkbox"/> 13	<input type="checkbox"/> 23
AMW	<input type="checkbox"/> 2	<input type="checkbox"/> 12	<input type="checkbox"/> 22
HOLD	<input type="checkbox"/> 1	<input type="checkbox"/> 11	<input type="checkbox"/> 21
XFER	<input type="checkbox"/>	<input type="checkbox"/> 10	<input type="checkbox"/> 20
CONF	<input type="checkbox"/>	<input type="checkbox"/> 9	<input type="checkbox"/> 19
DROP	<input type="checkbox"/>	<input type="checkbox"/> 8	<input type="checkbox"/> 18

7205H, 7305S, OR 7405D VOICE TERMINALS



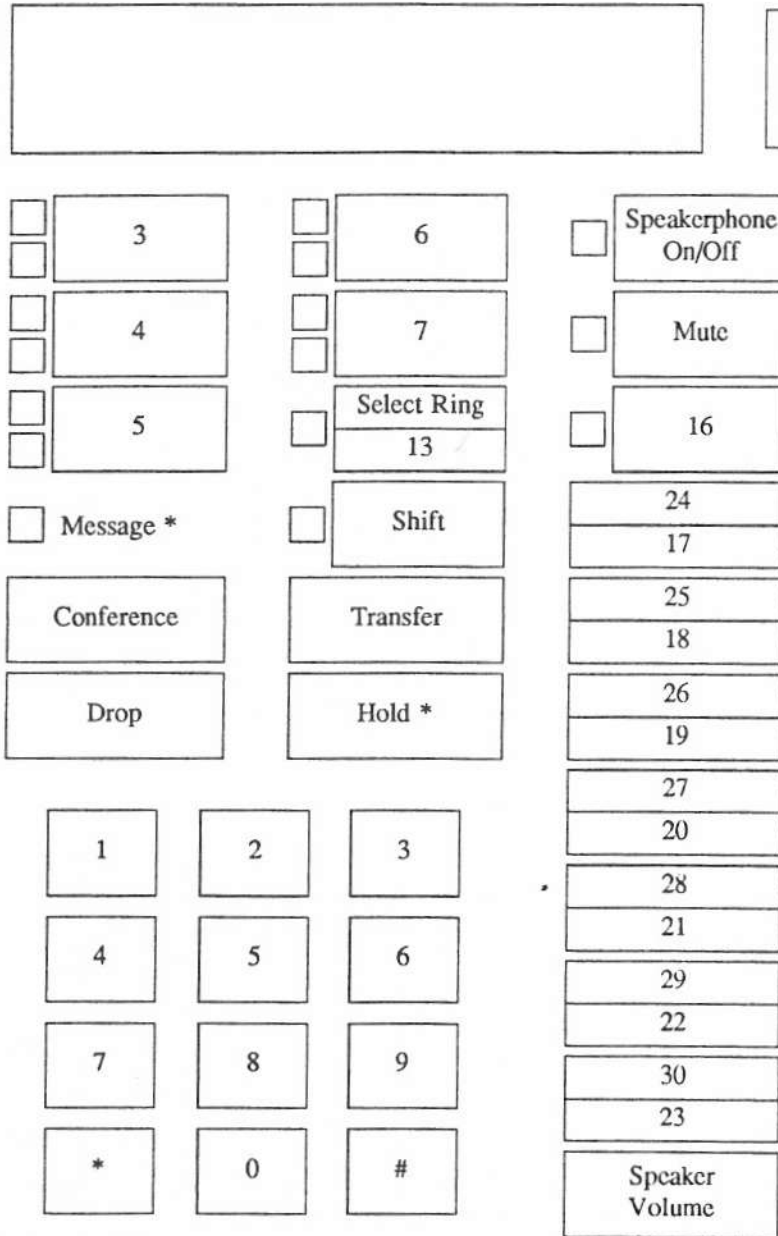
* The Hold button is button number 1. The AMW lamp is button number 2.

7404D VOICE TERMINAL

<input type="checkbox"/>	3	<input type="checkbox"/>	6
<input type="checkbox"/>	4	<input type="checkbox"/>	7
<input type="checkbox"/>	5	<input type="checkbox"/>	8
<input type="checkbox"/>	Message *	<input type="checkbox"/>	Data Call in Progress
Conference		Transfer	
Drop		Hold *	
1	2	3	
4	5	6	
7	8	9	
*	0	#	

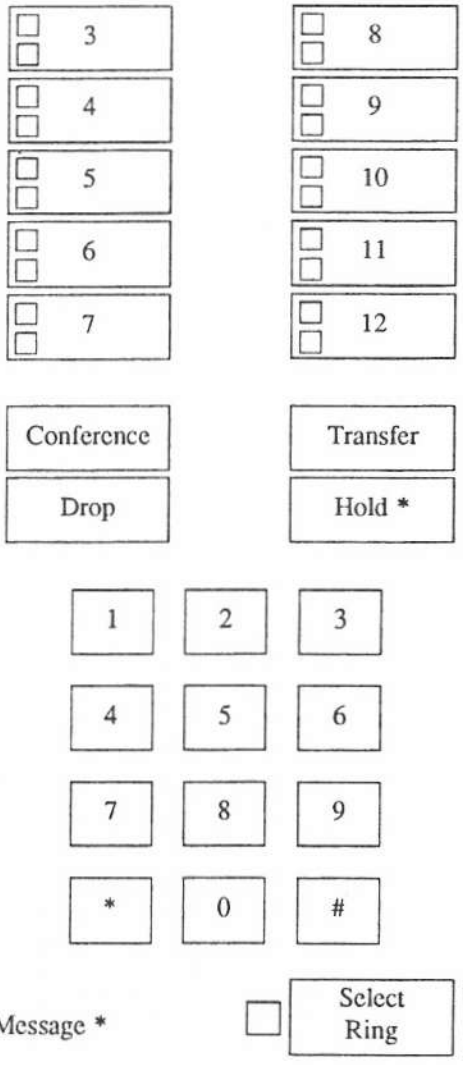
* The Hold button is button number 1. The AMW lamp is button number 2.

7406D VOICE TERMINAL (with Speakerphone)



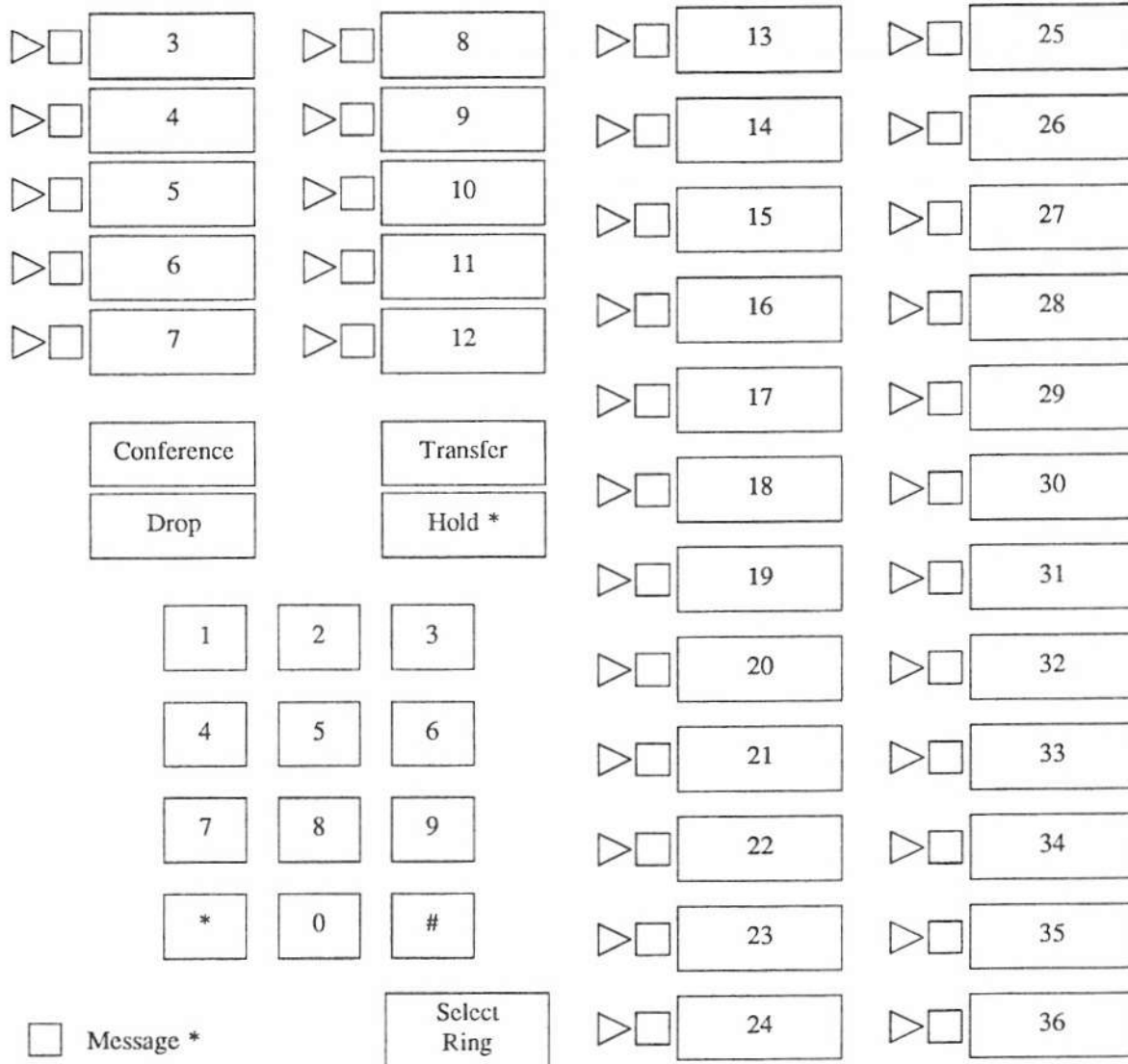
* The Hold button is button number 1. The AMW lamp is button number 2.

7410D VOICE TERMINAL



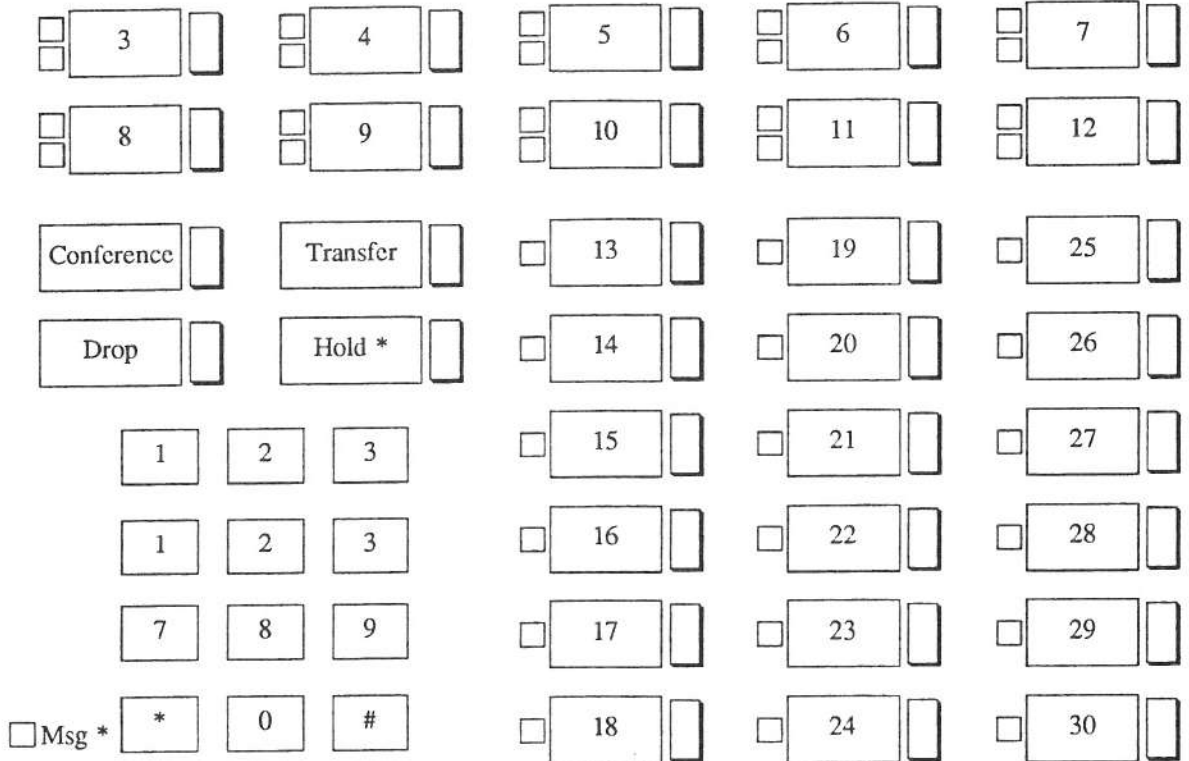
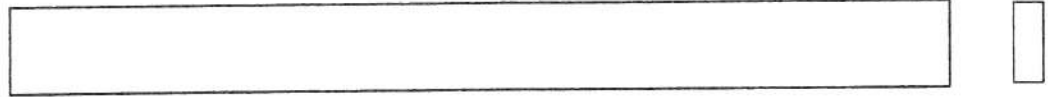
* The Hold button is button number 1. The AMW lamp is button number 2.

7434D VOICE TERMINAL



* The Hold button is button number 1. The AMW lamp is button number 2.

CALLMASTER™ DIGITAL VOICE TERMINAL

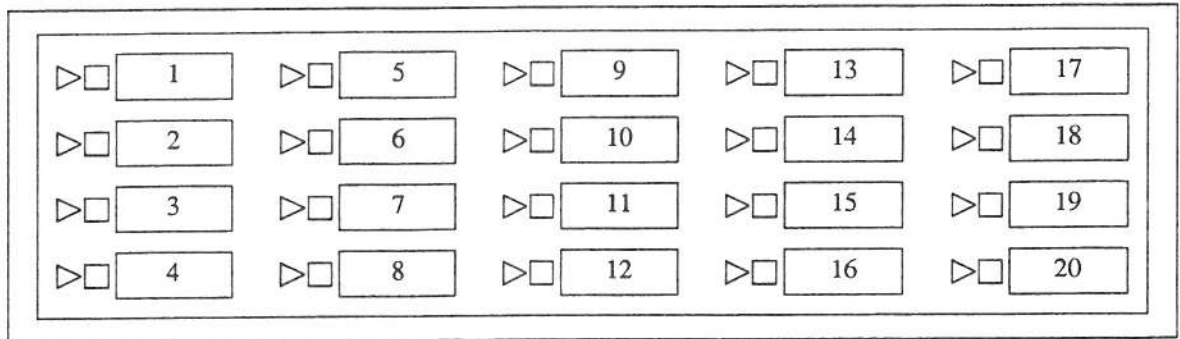


* The Hold button is button number 1. The AMW lamp is button number 2.

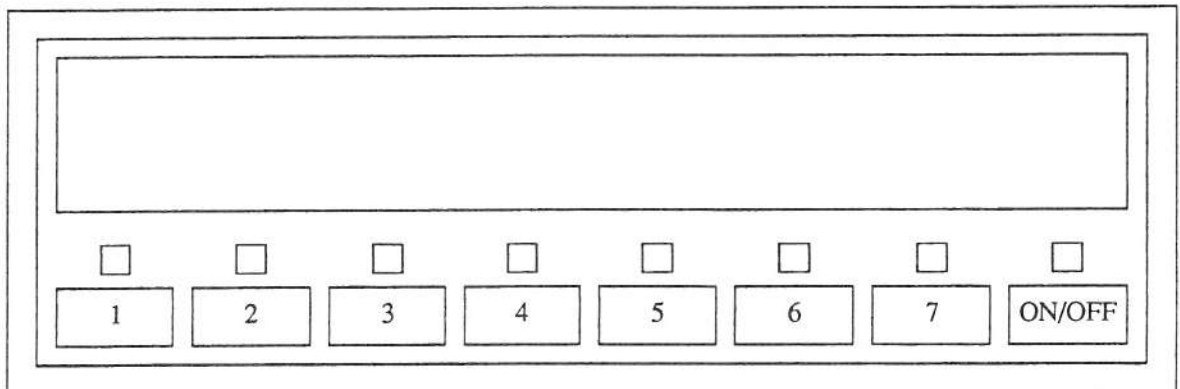
FEATURE MODULE

<input type="checkbox"/>	1	<input type="checkbox"/>	13
<input type="checkbox"/>	2	<input type="checkbox"/>	14
<input type="checkbox"/>	3	<input type="checkbox"/>	15
<input type="checkbox"/>	4	<input type="checkbox"/>	16
<input type="checkbox"/>	5	<input type="checkbox"/>	17
<input type="checkbox"/>	6	<input type="checkbox"/>	18
<input type="checkbox"/>	7	<input type="checkbox"/>	19
<input type="checkbox"/>	8	<input type="checkbox"/>	20
<input type="checkbox"/>	9	<input type="checkbox"/>	21
<input type="checkbox"/>	10	<input type="checkbox"/>	22
<input type="checkbox"/>	11	<input type="checkbox"/>	23
<input type="checkbox"/>	12	<input type="checkbox"/>	24

COVERAGE MODULE



DISPLAY MODULE



Finding an Available Equipment Location

Before assigning a voice terminal, use Procedure 290 Word 1 to find an available (unassigned) equipment location.

Analog On-Premises and Off-Premises Voice Terminals

Only one image of a line appearance can be assigned to an analog voice terminal. Consequently, analog voice terminals are also known as single-appearance voice terminals. The 2500 Series, 7101A, 7102A, and 7103A are analog voice terminals.

Prerequisite Administration

Before administering analog voice terminals, make sure the following are administered:

- Dialing Plan and Dialing Plan — Extensions (See Chapter 2, "System Administration")
- Class of Service — Extensions (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 1	000 Word 1	350 Word 3
350 Word 3	350 Word 3	000 Word 1

Procedure Usage

- 000 Word 1** Administers an equipment location and a class of service to an extension.
- Field 1 Enter the extension (000-99999).
 - Field 2 Enter the module number (0-30).
 - Field 3 Enter the cabinet number (0-7).
 - Field 4 Enter the port carrier number (0-3).
 - Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 6 Enter the circuit number (0-7).
 - Field 7 Enter the class of service (1-30 or 32-63). Features associated with a class of service are administered in Procedure 010 Words 1-4.
 - Field 8 Enter the appropriate port type:
 - 1 On-premises extension
 - 2 Off-premises extension (OPS)
 - Field 9 Leave blank.

When removing an extension, Special Error Code 85 may appear and procedure numbers may be displayed in Field 11. Occurrences of this extension must be removed from the procedures displayed in Field 11 before being removed in Procedure 000 Word 1.

350 Word 3 For the 7103A fixed feature and programmable voice terminals, use this procedure to administer the feature encodes that are assigned to the buttons on the voice terminals. The features for these terminals are assigned on a system-wide basis. For the 7103A programmable voice terminal, the user must assign a feature to a particular button at the voice terminal.

The following are the feature button encodes for Fields 1-8 (buttons 1-8).

0	Unassigned
1	Call Forwarding — Follow Me
2	Call Forwarding — Busy and Don't Answer
3	Call Forwarding — cancel
4	Hold
5	Call Pickup
6	Call Waiting — answer or hold
7	Priority Calling
8	Attendant dial access code
9	Automatic Callback or Queuing — cancel
10	Demand Printing
11	Override
13	Data Protection — temporary
16	CAAVT code
17	Loudspeaker Paging — answer
18	Code Calling Access — answer
19	Automatic Callback — activate
30	Voice terminal to selected attendant
32	ARS — nontoll route
33	ARS — toll route
36	CDR account code
55	Send All Calls — activate
56	Send All Calls — cancel
57	Burned-in code — cancel feature
61	AAR
66	Leave Word Calling — activate
67	Leave Word Calling — cancel
90	Abbreviated Dialing — access system list
91	Abbreviated Dialing — access list A
92	Abbreviated Dialing — access list B
93	Program an automatic dialing button

Administering AT&T Multiappearance Voice Terminals and Data Modules

AT&T multiappearance voice terminals and data modules include all the terminal and data module types that are listed in Procedure 051 Word 1 Field 6. Multiappearance terminals have several line appearance buttons for the same extension number. This allows the user to handle more than one call.

The Modular Data Module (MDM) is administered as either a PDM or TDM, depending on how it is used.

NOTE

You cannot administer both line and trunk data modules on the same digital circuit pack.

Prerequisite Administration

Before administering multiappearance voice terminals and data modules, make sure the following are administered.

Dialing Plan and Dialing Plan — Extensions (See Chapter 2, "System Administration")

Class of Service — Extensions (See Chapter 2, "System Administration")

Procedure 275 Word 1 Field 6 must be set to "1".

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 1	052 Word 1	052 Word 1
051 Word 1	051 Word 1	051 Word 1
052 Word 1	000 Word 1	000 Word 1

Procedure Usage

000 Word 1 Administers a class of service to an extension. When assigning an Analog/Digital Facility Test Circuit (ADFTC) for testing, you must assign two different extensions.

- | | |
|------------|--|
| Field 1 | Enter the extension (000-99999). |
| Fields 2-6 | Enter dashes. |
| Field 7 | Enter the class of service (1-30 or 32-63). Features associated with a class of service are administered in Procedure 010 Words 1-4. |
| Field 8 | Leave blank for anything but an ADFTC extension. Enter a "3" for an ADFTC extension. |
| Field 9 | Leave blank. |

When removing an extension, Special Error Code 85 may appear and procedure numbers may be displayed in Field 11. Occurrences of this extension must be removed from the procedures displayed in Field 11 before being removed in this procedure (000 Word 1).

051 Word 1 Administers the multiappearance voice terminal and data module translations, including the association between a terminal or data module and an equipment location.

If you're using an Analog/Digital Facility Test Circuit (ADFTC) board, only one circuit need be administered.

- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-3). |

The following table lists the allowed values for Fields 7-14 for each AT&T multiappearance terminal and data module type.

FIELD								
6 Terminal Type	7 Size	8 Plug 1	9 Plug 2	10 Orig Pref	11 Term Pref	12 Lock Unlck	13 Kybd Dial	14 LWC Retr
1=SLS	-	-	-	2	0	-	-	-
2=72 Series	1,2	-,1	-,2	0-3	0-2	-	-	-
3=74 Series	1,2	-,1	-,2,3	0-3	0-2	-,0,1	-	-
4=PDM or 7400A/B*	-	-	-	2	0	-	-,0,1	-
5=DTDM	-	-	-	2	0	-	-,0,1	-
6=TDM or 7400A*	-	-	-	2	0	-	-,0,1	-
7=515 BCT	1	-	3	0-3	0-2	-,0,1	0,1	0,1
8=ADFTC	-	-	-	2	0	-	-,0,1	-
9=73 Series	1,2	-	-	0-3	0-2	-	-	-
10=AP 32	-	-	-	2	0	-	0,1	-
11=510 BCT	2	-	3	2	2	-,0,1	-,0-1	0,1
12= 7404D	3	-,1	-,2,3	0-3	0-2	-,0,1	-,0,1	-,0,1
13= 7407D	2	-	3	0-3	0-2	-,0,1	-	0,1
14=EIA	-	-	-	2	0	0,1	-	-
15= 7401D	1	-	-,3	0-3	2	-,0,1	-	-,0,1
16= 7406D	4	-	-,3	0-3	0-2	-,0,1	-	0,1
17=PC	2	-,1	3	2	2	-,0,1	-,0,1	0,1

* Depending on the desired configuration, a hardware change is required for the 7400 data module. See the data module users guide.

052 Word 1 Administers one or more images of a line appearance to an assigned multiappearance voice terminal or data module. This procedure is also used to administer line type, ringing type, home terminal, originate only, and Send All Calls (SAC) group.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-3).

Field 6 Enter the device type:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC

Field 7 Enter the member (button) number (0-62). This is the number of the button to which you want to assign a line appearance or feature. Refer to "Button Numbering Scheme" for button numbering information.

Field 8 Enter the extension (000-99999).

Field 9 Enter the line appearance number (1-12).

Fields 10-14 apply to the line appearance specified in Field 9.

Field 10 Enter the line type:
0 No prime line
1 Prime line
2 Auto appearance

Field 11 Enter the ringing type:
0 No ringing
1 Ringing
2 Delayed ringing
3 Abbreviated ringing

A ringing type must be specified for each assignment, including each image of a line appearance. Assign abbreviated ringing to the primary terminal and delayed ringing to the secondary terminal.

Field 12 Enter the home terminal assignment:
0 Is not home terminal
1 Is home terminal

Field 13 Enter the originating only assignment:
0 Not originating
1 Originating

Field 14 Enter the SAC group assignment:
0 Not a member or SAC group
1 Member of SAC group

Swapping Voice Terminal Translations

Using the Terminal Swap procedure, you can move the appearance and feature button translations from voice terminal A to voice terminal B, and vice versa. The terminals that can swap translations are shown in the following table.

Compatibility of Terminal Types						
TYPE	72xxH	73xxS	74xxD	510/515	SVT	MET
72xxH	yes	yes†	yes*	no	no	yes
73xxS	yes†	yes	yes†	no	no	yes†
74xxD	yes*	yes†	yes	yes	no	yes*
510/515	no	no	yes	yes	no	no
SVT	no	no	no	no	no	no
MET	yes	yes†	yes*	no	no	yes
* Compatible if neither terminal has a display module or data.						
† Compatible if neither terminal has a display module, feature module, coverage module, or data.						
SVT = Single-appearance voice terminal.						

058 Word 1 Swaps the translations between two assigned voice terminals. Enter the equipment location of one voice terminal in Fields 1-5 and then the equipment location of the other voice terminal in Fields 10-14. Do a display routine on this information, and then do a change routine.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 8 Enter the module number (0-30).
- Field 9 Enter the cabinet number (0-7).
- Field 10 Enter the port carrier number (0-3).
- Field 11 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 12 Enter the circuit number (0-7).

TRUNK ADMINISTRATION

General Information

An alphabetical list of System 85 R2V4 features and their associated trunk types are located in this chapter. Locate the feature you are going to administer from the alphabetical feature list. Below each feature is a list of compatible trunk types. Select a suitable trunk type.

If you are administering an analog trunk, use the "Analog Trunks" section in this chapter. If you are administering a digital trunk, use the "Digital Trunks" section in this chapter.

The reason the other trunk procedures (100 Word 2, 115 Word 1, etc.) are not included in this section is because they are not always required for all types of trunk administration. For example, an ACD trunk does not necessarily require administration in Procedure 100 Word 2, but it does require administration in Procedure 115 Word 1. On the other hand, modem pooling requires administration in Procedure 103 Word 1, but does not require administration in Procedure 115 Word 1. Any additional trunk administration that is required and not mentioned here is given in the specific feature write-up.

Prerequisite Administration

Before administering trunk groups, make sure the following is administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Names Database (See Chapter 2, "System Administration")

You can assign names to trunk groups to help identify certain facilities to users that have display terminals.

Searching for Available Equipment Locations

290 Word 1 Displays status of assigned port circuit packs. You can search by port type (Field 1), equipment location (Fields 2-5), or both.

- Field 1 Enter the trunk port type:
- 3 Analog CO trunk
 - 4 Analog DID trunk
 - 5 Analog tie trunk/attendant interface
 - 6 Analog auxiliary trunk
 - 9 ANI signal distribution
 - 11 TT receiver/tone detector
 - 12 TT sender/tone detector
 - 14 Attendant conference
 - 16 Data port/analog line
 - 17 Contact interface/analog line
 - 20 ADFTC
 - 21 DS1 real
 - 22 DS1 virtual
 - 23 EIA trunk and line/DLC
 - 24 GPP used as a data trunk/digital line
 - 25 ISDN real
 - 26 ISDN virtual
- Field 2 Enter the module number (0-30).
- Field 3 Enter the cabinet number (0-7).
- Field 4 Enter the port carrier number (0-3).
- Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

290 Word 2 Displays installed circuit pack identification.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Analog Trunks

Basic analog trunk translations are done in Procedure 100 Word 1 and Procedure 150 Word 1. Additional trunk characteristics may be assigned, as needed, in Procedure 101 Words 1 and 2.

If the default signaling type is unacceptable for any reason, see the "Trunk Signaling Types" section in this chapter.

After completing the translations in this section, return to the feature you want to administer and continue.

Procedure Sequence

ADD	CHANGE	REMOVE
100 Word 1	100 Word 1	150 Word 1
101 Word 1	101 Word 1	100 Word 1
101 Word 2	101 Word 2	
150 Word 1	150 Word 1	

Procedure Usage

100 Word 1 Administers the trunk group translations. These translations include the Dial Access Code/Trunk ID, trunk type, dial access restrictions, personal central office appearance, and access to or egress from the public network.

Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.

Field 2 Enter the first digit of the dial access code:
 0-9
 11 or *
 12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

Field 6 Enter the appropriate trunk type. The trunk types associated with each feature are listed at the end of this section.

The default signaling types are shown in parenthesis. When possible, the trunk types are also identified for whether they can be administered as analog only (A), or both analog or digital (B).

- 2 Touch-tone digit register (0)^A
- 5 Attendant Conference (0)^A
- 6 Queuing (0)^A

-
- 12 CCSA/APLT 2-way with dial tone out (9)^B
 - 13 CCSA/APLT 2-way with dial tone out (10)^B
 - 14 CCSA/APLT 2-way (8)^B
 - 15 CCSA/APLT 2-way (5)^B
 - 16 CO 1-way in attendant completing (1)^B
 - 17 CO 1-way out DOD (1)^B
 - 18 CO 1-way out DOD with party test (2)^B
 - 19 CO 2-way attendant completing in/DOD out (1)^B
 - 20 CO 2-way with party test attendant completing in/DOD out (2)^A
 - 21 FX 1-way in attendant completing (1)^B
 - 22 FX 1-way out DOD (1)^B
 - 23 FX 1-way out DOD with party test (2)^A
 - 24 FX 2-way attendant completing in/DOD out (1)^B
 - 25 FX 2-way with party test attendant completing in/DOD out (2)^A
 - 26 WATS 1-way in attendant completing (1)^B
 - 27 WATS 1-way out DOD or toll terminal access for TSPS (1)^B
 - 28 WATS 1-way out DOD with party test (2)^A
 - 30 DID immediate start (3)^B
 - 31 DID wink start (3)^B
 - 32 TIE 1-way in dial repeating (4)^B
 - 33 TIE 1-way out automatic (4)^B
 - 34 TIE 1-way out dial repeating (4)^B
 - 35 TIE 1-way in automatic (4)^B
 - 36 TIE 2-way dial repeating in and out (4)^B
 - 37 TIE 2-way dial repeating in/automatic out (4)^B
 - 38 TIE 2-way automatic in/dial repeating out (4)^B
 - 39 TIE 2-way automatic in and out (4)^B
 - 40 TIE 1-way in dial repeating (27)^B
 - 41 TIE ETN 2-way dial repeating (26)^B
 - 42 TIE ETN 1-way in dial repeating (26)^B
 - 43 TIE ETN 1-way out dial repeating (26)^B
 - 44 TIE 2-way dial repeating (27)^B
 - 45 TIE 2-way dial repeating in/automatic out (27)^B
 - 46 TIE ETN 2-way dial repeating (24)^B
 - 47 TIE ETN 2-way dial repeating (24)^B
 - 50 Remote Access 2-way (1)^B
 - 51 Telephone dictation interface (7)^A
 - 52 Recorded Announcement interface (7)^A
 - 53 Code Calling interface (7)^A
 - 54 Loudspeaker Paging interface (7)^A
 - 55 Touch-Tone sender (0)^A
 - 57 CAS release link trunk 1-way outgoing from branch (13)^B
 - 58 ANI interface (6)^A
 - 62 Music on Hold interface (0)^A
 - 65 SN241 contact interface (0)^A
 - 66 CAS release link trunk 1-way incoming at main (14)^B

67	Audio interface (0) ^A
70	Main/Satellite 1-way in (15) ^B
71	Main/Satellite 1-way out (15) ^B
72	Main/Satellite 2-way (15) ^B
73	Main/Satellite 1-way in (16) ^B
74	Main/Satellite 1-way out (16) ^B
75	Main/Satellite 2-way (16) ^B
76	Main/Satellite 1-way in (17) ^B
77	Main/Satellite 1-way out (17) ^B
78	Main/Satellite 2-way (17) ^B
90	ACD first announcement or Call Vectoring announcement (7) ^A
91	ACD second announcement (7) ^A
92	ACD origin announcement (7) ^A
93	Malicious Call Trace recorder (7) ^A
100	Data-tones tone detector (0) ^A
101	Analog data modem pool (27) ^A
102	Digital data modem pool (18) ^A
103	Host access PDM (18) ^A
104	Host access TDM (18) ^A
105	3B5 AP DCPI (18) ^A
106	EIA 4 Port (18) ^A
107	ISN/EIA port (18) ^A

Field 7	Enter the dial access restriction assignment. This field is ignored when using the Conference — Attendant Six Party feature.
	0 Access to this trunk group is allowed using the DAC
	1 Access to this trunk group is allowed only for testing and for unattended night service using the trunk ID code
Field 8	Enter the Personal CO Line assignment:
	0 Trunk group is not used for Personal CO Line Pickup
	1 Trunk group is used for Personal CO Line Pickup
Field 9	Enter the Public Network — Access/Egress assignment:
	0 Trunk group is not used for access to or egress from the public network
	1 Trunk group is used for access to or egress from the public network

101 Word 1 Administers trunk group characteristics.

Field 1	Enter the trunk group number (18-999).
Field 2	Enter the balance assignment. When this field is set to "1", the system inserts an extra 2 db of loss to each trunk-to-trunk connection involving an analog CO, FX, WATS, or DID trunk. This field is set to reduce reflections on CO connections.
	0 Disable
	1 Enable

- Field 3 Enter the battery reversal assignment. Battery reversal is sent from the CO to inform the system of toll calls.
0 Disable
1 Enable
- Field 4 Enter the incoming prefix digit assignment:
- No additional digits are required for DID trunks
0-9 Use this additional digit for DID trunks
- Field 5 Enter the DCS assignment. Any trunk groups used for DCS should have this field enabled.
0 Disable
1 Enable
- Field 6 Enter the touch-tone in assignment:
0 Touch-tone signals are not used for incoming trunks
1 Touch-tone signals are used for incoming trunks
For ACCUNET Service Interface, set this assignment to "0".
- Field 7 Enter the touch-tone out assignment:
0 Touch-tone signals are not used for outgoing trunks
1 Touch-tone signals are used for outgoing trunks
For ACCUNET Service Interface, set this assignment to "0".
- Field 8 Enter the CDR activation assignment:
0 This trunk group not recorded by CDR
1 This trunk group recorded by CDR
2 This trunk group recorded by CDR and an account code is required
- Field 9 Enter the AIOD billing number (-, 0000-9999). This is the default number used by the CO to bill the system for miscellaneous calls. Include any leading zeros that may be on the service order.
- Field 10 Enter the amount of time that elapses before a timed recall occurs on this trunk group (0-31 in minutes).
- Field 11 Enter the desired threshold (0-7). Timed recall will not occur until the number idle trunks in a trunk group reaches the level entered into this field.
- Field 12 Enter the number of seconds before CDR begins recording call data on this trunk group (1-99). This timer starts at the time of trunk seizure. A dash (-) in this field relinquishes control of this timer to Procedure 275 Word 3 Field 12.

- Field 13 Enter the pad group assignment:
- 0 Determined by the trunk type assigned in Procedure 100 Word 1
 - 1 ISL TIE (S/DTT or S/ATT)
 - 2 EIA TIE (D/TT)
 - 3 ISL DCO (D/CO option -3/3)
 - 4 EIA DCO (D/CO option 0/6)
 - 5 DTO (D/TO)
 - 6 ATO (A/TO)
 - 7 N12A
 - 8 N12B
- S/DTT - Digital trunk interface to digital satellite PBX tie trunk.
- S/ATT - Analog trunk interface to analog satellite PBX tie trunk.
- D/TT - Digital trunk interface to a digital tie trunk, combination tie trunk, or any other tie trunk with a digital termination at a PBX that uses the mu-law interfaces.
- D/CO - Digital trunk interface to digital CO trunk, combination CO trunk, or any other CO trunk with a digital termination at a PBX that uses the mu-law interfaces.
- D/TO - Digital trunk interface to digital toll office trunk, combination toll office trunk, or any other toll office trunk with a digital termination at a PBX that uses the mu-law interfaces.
- A/TO - Analog trunk interface to an analog toll office trunk.
- Field 14 Enter the tie trunk toll restriction assignment:
- 0 This trunk group not toll restricted
 - 1 This trunk group toll restricted
- Field 15 Enter the APLT features allowed assignment:
- 0 APLT features are not active on this trunk group (CCSA features only)
 - 1 APLT features are active on this trunk group
- Field 16 Enter the disconnect supervision assignment:
- 0 Disconnect supervision not given on this trunk group
 - 1 Disconnect supervision given on this trunk group

101 Word 2 Administers the redial delay timer, hybrid balance specifications, and tie type capability for a trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the redial delay time in tenths-of-seconds (0-50).

- 150 Word 1** Administers analog trunks to a trunk group.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the trunk group number (17-999).
 - Field 7 Enter the night terminal extension (000-99999).
 - Field 8 Enter the AIOD equipment number (0000-99999).
 - Field 9 Enter the paging zone number (1-18).
 - Field 10 Enter the recorded announcement number (1-99).
 - Field 11 Enter the continuous announcement bit assignment:
 - 0 Disable
 - 1 Enable

Digital Trunks

Digital trunks (ACCUNET, DS1, DMI, ISDN/PRI, etc.) require administration in Procedure 260 Word 1 first. The trunk groups can then be administered in Procedure 100 Word 1. Additional trunk characteristics may be assigned, as needed, in Procedure 101 Words 1 and 2.

If the default signaling type is unacceptable for any reason, see the "Trunk Signaling Types" section in this chapter.

After completing the translations in this section, return to the feature you want to administer and continue.

Procedure Sequence

ADD	CHANGE	REMOVE
260 Word 1	260 Word 1	116 Word 1
100 Word 1	100 Word 1	100 Word 1
101 Word 1	101 Word 1	260 Word 1
101 Word 2	101 Word 2	
116 Word 1	116 Word 1	

Procedure Usage

100 Word 1 Administers the trunk group translations. These translations include the Dial Access Code/Trunk ID, trunk type, dial access restrictions, personal central office appearance, and access to or egress from the public network.

- Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).
- Field 6 Enter the appropriate trunk type. The trunk types associated with each feature are listed at the end of this section.

The default signaling types are shown in parentheses. When possible, the trunk types are also identified for whether they can be administered as digital only (D), or both digital or analog (B).

12	CCSA/APLT 2-way with dial tone out (9) ^B
13	CCSA/APLT 2-way with dial tone out (10) ^B
14	CCSA/APLT 2-way (8) ^B
15	CCSA/APLT 2-way (5) ^B
16	CO 1-way in attendant completing (1) ^B
17	CO 1-way out DOD (1) ^B
18	CO 1-way out DOD with party test (2) ^B
19	CO 2-way attendant completing in/DOD out (1) ^B
21	FX 1-way in attendant completing (1) ^B
22	FX 1-way out DOD (1) ^B
24	FX 2-way attendant completing in/DOD out (1) ^B
26	WATS 1-way in attendant completing (1) ^B
27	WATS 1-way out DOD or toll terminal access for TSPS (1) ^B
30	DID immediate start (3) ^B
31	DID wink start (3) ^B
32	TIE 1-way in dial repeating (4) ^B
33	TIE 1-way out automatic (4) ^B
34	TIE 1-way out dial repeating (4) ^B
35	TIE 1-way in automatic (4) ^B
36	TIE 2-way dial repeating in and out (4) ^B
37	TIE 2-way dial repeating in/automatic out (4) ^B
38	TIE 2-way automatic in/dial repeating out (4) ^B
39	TIE 2-way automatic in and out (4) ^B
40	TIE 1-way in dial repeating (27) ^B
41	TIE ETN 2-way dial repeating (26) ^B
42	TIE ETN 1-way in dial repeating (26) ^B
43	TIE ETN 1-way out dial repeating (26) ^B
44	TIE 2-way dial repeating (27) ^B
45	TIE 2-way dial repeating in/automatic out (27) ^B
46	TIE ETN 2-way dial repeating (24) ^B
47	TIE ETN 2-way dial repeating (24) ^B
50	Remote Access 2-way (1) ^B
57	CAS release link trunk 1-way outgoing from branch (13) ^B
66	CAS release link trunk 1-way incoming at main (14) ^B
70	Main/Satellite 1-way in (15) ^B
71	Main/Satellite 1-way out (15) ^B
72	Main/Satellite 2-way (15) ^B
73	Main/Satellite 1-way in (16) ^B
74	Main/Satellite 1-way out (16) ^B
75	Main/Satellite 2-way (16) ^B
76	Main/Satellite 1-way in (17) ^B
77	Main/Satellite 1-way out (17) ^B
78	Main/Satellite 2-way (17) ^B
108	DMI host terminating, dial repeating in/automatic out (5) ^D
109	DMI dial repeating in and out (11) ^D
120	ISDN dynamic (20) ^D

-
- Field 7 Enter the Dial Access Restriction assignment:
0 Access to this trunk group is allowed using the DAC
1 Access to this trunk group is allowed only for testing and for unattended night service using the trunk ID code
- Field 8 Enter the Personal CO Line assignment:
0 Trunk group is not used for Personal CO Line Pickup
1 Trunk group is used for Personal CO Line Pickup
- Field 9 Enter the Public Network — Access/Egress assignment:
0 Trunk group is not used for access to or egress from the public network
1 Trunk group is used for access to or egress from the public network

101 Word 1 Administers trunk group characteristics.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the balance assignment. When this field is set to "1", the system inserts an extra 2 db of loss to each trunk-to-trunk connection involving an analog CO, FX, WATS, or DID trunk. This field is set to reduce reflections on CO connections.
0 Disable
1 Enable
- Field 3 Enter the battery reversal assignment. Battery reversal is sent from the CO to inform the system of toll calls.
0 Disable
1 Enable
- Field 4 Enter the incoming prefix digit assignment:
- No additional digits are required for DID trunks
0-9 Use this additional digit for DID trunks
- Field 5 Enter the DCS assignment. Any trunk groups used for DCS should have this field enabled.
0 Disable
1 Enable
- Field 6 Enter the touch-tone in assignment:
0 Touch-tone signals are not used for incoming trunks
1 Touch-tone signals are used for incoming trunks
- Field 7 Enter the touch-tone out assignment:
0 Touch-tone signals are not used for outgoing trunks
1 Touch-tone signals are used for outgoing trunks

- Field 8 Enter the CDR activation assignment:
- 0 This trunk group is not recorded by CDR
 - 1 This trunk group is recorded by CDR
 - 2 This trunk group is recorded by CDR and an account code is required
- Field 9 Enter the AIOD billing number (-, 0000-9999). This is the default number used by the CO to bill the system for miscellaneous calls. Include any leading zeros that may be on the service order.
- Field 10 Enter the amount of time that elapses before a timed recall occurs on this trunk group (0-31 in minutes).
- Field 11 Enter the desired threshold (0-7). Timed recall will not occur until the number idle trunks in a trunk group reaches the level entered into this field.
- Field 12 Enter the number of seconds before CDR begins recording call data on this trunk group (1-99). A dash (-) in this field relinquishes control of this timer to Procedure 275 Word 3 Field 12.
- Field 13 Enter the pad group assignment:
- 0 Determined by the trunk type assigned in Procedure 100 Word 1
 - 1 ISL TIE (S/DTT or S/ATT)
 - 2 EIA TIE (D/TT)
 - 3 ISL DCO (D/CO option -3/3)
 - 4 EIA DCO (D/CO option 0/6)
 - 5 DTO (D/TO)
 - 6 ATO (A/TO)
 - 7 N12A
 - 8 N12B

S/DTT - Digital trunk interface to digital satellite PBX tie trunk.

S/ATT - Analog trunk interface to analog satellite PBX tie trunk.

D/TT - Digital trunk interface to a digital tie trunk, combination tie trunk, or any other tie trunk with a digital termination at a PBX that uses the mu-law interfaces.

D/CO - Digital trunk interface to digital CO trunk, combination CO trunk, or any other CO trunk with a digital termination at a PBX that uses the mu-law interfaces.

D/TO - Digital trunk interface to digital toll office trunk, combination toll office trunk, or any other toll office trunk with a digital termination at a PBX that uses the mu-law interfaces.

A/TO - Analog trunk interface to an analog toll office trunk.

- Field 14 Enter the tie trunk toll restriction assignment:
 0 This trunk group is not toll restricted
 1 This trunk group is toll restricted
- Field 15 Enter the APLT features allowed assignment:
 0 APLT features are not active on this trunk group
 (CCSA features only)
 1 APLT features are active on this trunk group
- Field 16 Enter the disconnect supervision assignment:
 0 Disconnect supervision is not given on this trunk
 group
 1 Disconnect supervision is given on this trunk group

101 Word 2 Administers the redial delay timer, hybrid balance specifications, and tie type capability for a trunk group.

- Field 1 Enter the trunk group number (18-999).
 Field 2 Enter the redial delay time in tenths-of-seconds (0-50).

116 Word 1 Administers digital (DS1 and ISDN/PRI) trunks to a trunk group. If you're assigning analog trunks to a trunk group, use Procedure 150 Word 1. When assigning the DS1 circuit pack, the slot to the right of the pack must be left unequipped or used only for packet adjunct ISDN applications.

- Field 1 Enter the module number (0-30).
 Field 2 Enter the cabinet number (0-7).
 Field 3 Enter the port carrier number (0-3).
 Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16,
 18-21).
 Field 5 Enter the circuit number (0-23).
 Field 6 Enter the trunk group number (18-999).
 Field 8 Enter the signaling assignment:
 - ISDN signaling
 0 Disable (for DSC)
 1 Enable (for robbed-bit signaling)
- Field 9 Enter the AIOD equipment number (0000-9999).
 Field 10 Enter the interface endpoint:
 0 PBX
 1 Host Computer
 2 Network
- Field 11 Enter the D-channel group number (1-255).

-
- 260 Word 1** Administers the DS1 and ISDN Interface circuits with signaling and SCS parameters.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the framing format encode:
0 D4 (superframe)
1 FE (extended superframe)
- Field 7 Enter the channel signaling specification:
0 23 B plus 1 D-channel
1 24 B-channel
- Field 8 Enter the signaling specification.
0 24th channel signaling (for ISDN/PRI, DS1, DMI)
1 Robbed bit signaling (for DS1 robbed bit, ACCUNET®)
- Field 9 Enter the suppression encode:
0 Zero code suppression
1 Bipolar-8 zero code suppression
- Field 10 Enter the slip Enable encode:
0 Slip count off
1 Slip count on
- Field 11 Enter the external loop encode:
0 Disable
1 Enable
- Field 12 Enter the SCS equipment type encode:
0 None
1 DS1/T1 SCS
- Field 13 Enter the SCS reference for this circuit pack. Make sure this SCS reference is coordinated between the central office and the network your system is connected to. If this circuit pack is administered as the primary SCS reference, make sure the circuit pack on the other end of the interface is administered with a "0" in this field (no SCS reference).
0 No SCS reference
1 Primary SCS reference
2 Secondary SCS reference

- Field 14 Enter the application type encode:
- 0 DS1 trunks, lines
 - 1 DMI-BOS
 - 3 DS1 RCG
 - 5 ISDN/PRI, DMI-MOS
- Field 15 Enter the encode for bit inversion.
- Not applicable
 - 0 Bit inversion
 - 1 No bit inversion
- Field 16 Enter the transmission type.
- Not applicable
 - 0 Copper (T1)
 - 1 Fiber

Trunk Types Associated With Features

This section lists the trunk types that are compatible with each feature. The number in parentheses is the default signaling type automatically assigned to the trunk group upon administration in Procedure 100 Word 1. If a signaling type other than the default is desired, see the "Trunk Signaling Type" section in this chapter.

ACCUNET® Service Interface

- 108 DMI host terminating, dial repeating in/automatic out (5)
- 109 DMI dial repeating in and out (11)

Advanced Private Line Termination

- 12 CCSA/APLT 2-way with dial tone out (9)
- 13 CCSA/APLT 2-way with dial tone out (10)
- 14 CCSA/APLT 2-way (8)
- 15 CCSA/APLT 2-way (5)
- 32 TIE 1-way in dial repeating (4)
- 33 TIE 1-way out automatic (4)
- 34 TIE 1-way out dial repeating (4)
- 35 TIE 1-way in automatic (4)
- 36 TIE 2-way dial repeating in and out (4)
- 37 TIE 2-way dial repeating in/automatic out (4)
- 38 TIE 2-way automatic in/dial repeating out (4)
- 39 TIE 2-way automatic in and out (4)
- 40 TIE 1-way in dial repeating (27)
- 41 TIE ETN 2-way dial repeating (26)
- 42 TIE ETN 1-way in dial repeating (26)
- 43 TIE ETN 1-way out dial repeating (26)
- 44 TIE 2-way dial repeating (27)
- 45 TIE 2-way dial repeating in/automatic out (27)
- 46 TIE ETN 2-way dial repeating (24)
- 47 TIE ETN 2-way dial repeating (24)

Automatic Call Distribution

- 6 Queuing (No signaling required)
- 65 SN241 contact interface (0)
- 90 ACD First announcement (7)
- 91 ACD Second announcement (7)
- 92 ACD Origin announcement (7)

Automatic Identification of Outward Dialing

- 58 ANI interface (6)

Call Park

- 54 Loudspeaker Paging interface (7)

Call Vectoring

- 90 Call Vectoring announcement (7)

Centralized Attendant Service

- 6 Queuing (No signaling required)
- 57 CAS release link trunk 1-way outgoing from branch (13)
- 65 SN241 contact interface (0)
- 66 CAS release link trunk 1-way incoming at main (14)

Code Calling Access

- 53 Code Calling Interface (7)

Conference — Attendant Six Party

- 5 Attendant Conference (0)

Data Call Setup

- 100 Data-tones tone detector (0)

Data Communications Access

- 50 Remote Access 2-way (1)
- 33 TIE 1-way out automatic (4)
- 37 TIE 2-way dial repeating in/automatic out (4)

Digital Multiplexed Interface

- 16 CO 1-way in attendant completing (1)
- 17 CO 1-way out DOD (1)
- 19 CO 2-way attendant completing in/DOD out (1)
- 21 FX 1-way in attendant completing (1)
- 22 FX 1-way out DOD (1)

71	Main/Satellite 1-way out (15)
72	Main/Satellite 2-way (15)
73	Main/Satellite 1-way in (16)
74	Main/Satellite 1-way out (16)
75	Main/Satellite 2-way (16)
76	Main/Satellite 1-way in (17)
77	Main/Satellite 1-way out (17)
78	Main/Satellite 2-way (17)
120	ISDN dynamic (20)

Foreign Exchange Access

21	FX 1-way in attendant completing (1)
22	FX 1-way out DOD (1)
23	FX 1-way out DOD with party test (2)
24	FX 2-way attendant completing in/DOD out (1)
25	FX 2-way with party test attendant completing in/DOD out (2)

Host Computer Access

103	Host access PDM (18)
104	Host access TDM (18)
106	EIA 4 Port (18)

Information Systems Network Interface

107	ISN/EIA port (18)
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Integrated Services Digital Network/Primary Rate Interface (ISDN/PRI)

16	CO 1-way in attendant completing (1)
17	CO 1-way out DOD (1)
19	CO 2-way attendant completing in/DOD out (1)
21	FX 1-way in attendant completing (1)
22	FX 1-way out DOD (1)
24	FX 2-way attendant completing in/DOD out (1)
26	WATS 1-way in attendant completing (1)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
30	DID immediate start (3)
31	DID wink start (3)
41	TIE ETN 2-way dial repeating (26)
42	TIE ETN 1-way in dial repeating (26)
43	TIE ETN 1-way out dial repeating (26)
46	TIE ETN 2-way dial repeating (24)
47	TIE ETN 2-way dial repeating (24)
50	Remote Access 2-way (1)
108	DMI host terminating, dial repeating in/automatic out (5)

- 109 DMI dial repeating in and out (11)
- 120 ISDN dynamic (20)

Intercept Treatment

- 52 Recorded Announcement interface (7)

Loudspeaker Paging Access

- 54 Loudspeaker Paging interface (7)

Main/Satellite/Tributary

- 70 Main/Satellite 1-way in (15)
- 71 Main/Satellite 1-way out (15)
- 72 Main/Satellite 2-way (15)
- 73 Main/Satellite 1-way in (16)
- 74 Main/Satellite 1-way out (16)
- 75 Main/Satellite 2-way (16)
- 76 Main/Satellite 1-way in (17)
- 77 Main/Satellite 1-way out (17)
- 78 Main/Satellite 2-way (17)

Malicious Call Trace

- 93 Malicious Call Trace recorder (7)

MEGACOM® Service Access

- 26 WATS 1-way in attendant completing (1)
- 27 WATS 1-way out DOD or toll terminal access for TSPS (1)

Modem Pooling

- 100 Data-tones tone detector (0)
- 101 Analog data modem pool (4)
- 102 Digital data modem pool (18)

Music-On-Hold Access

- 62 Music-on-Hold interface (0)

Personal Central Office Line

- 19 CO 2-way attendant completing in/DOD out (1)
- 24 FX 2-way attendant completing in/DOD out (1)
- 26 WATS 1-way in attendant completing (1)
- 27 WATS 1-way out DOD or toll terminal access for TSPS (1)

Precedence Calling

- 12 CCSA/APLT 2-way with dial tone out (9)
- 13 CCSA/APLT 2-way with dial tone out (10)
- 14 CCSA/APLT 2-way (8)
- 15 CCSA/APLT 2-way (5)

Queuing

- 67 Audio interface (0)

Radio Paging Access

- 17 CO 1-way out DOD (1)

Recorded Telephone Dictation Access

- 51 Telephone dictation interface (7)

Remote Access

- 50 Remote Access 2-way (1)

Route Advance

- 2 Touch-tone digit register (0)
- 6 Queuing (0)
- 12 CCSA/APLT 2-way with dial tone out (9)
- 13 CCSA/APLT 2-way with dial tone out (10)
- 14 CCSA/APLT 2-way (8)
- 15 CCSA/APLT 2-way (5)
- 17 CO 1-way out DOD (1)
- 18 CO 1-way out DOD with party test (2)
- 19 CO 2-way attendant completing in/DOD out (1)
- 20 CO 2-way with party test attendant completing in/DOD out (2)
- 22 FX 1-way out DOD (1)
- 23 FX 1-way out DOD with party test (2)
- 24 FX 2-way attendant completing in/DOD out (1)

25	FX 2-way with party test attendant completing in/DOD out (2)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
28	WATS 1-way out DOD with party test (2)
33	TIE 1-way out automatic (4)
34	TIE 1-way out dial repeating (4)
36	TIE 2-way dial repeating in and out (4)
37	TIE 2-way dial repeating in/automatic out (4)
38	TIE 2-way automatic in/dial repeating out (4)
39	TIE 2-way automatic in and out (4)
41	TIE ETN 2-way dial repeating (26)
43	TIE ETN 1-way out dial repeating (26)
44	TIE 2-way dial repeating (27)
45	TIE 2-way dial repeating in/automatic out (27)
46	TIE ETN 2-way dial repeating (24)
47	TIE ETN 2-way dial repeating (24)
50	Remote Access 2-way (1)
51	Telephone dictation interface (7)
53	Code Calling interface (7)
54	Loudspeaker Paging interface (7)
58	ANI interface (6)
65	SN241 contact interface (0)
66	CAS release link trunk 1-way incoming at main (14)
71	Main/Satellite 1-way out (15)
72	Main/Satellite 2-way (15)
74	Main/Satellite 1-way out (16)
75	Main/Satellite 2-way (16)
77	Main/Satellite 1-way out (17)
78	Main/Satellite 2-way (17)
93	Malicious Call Trace recorder (7)
102	Digital data modem pool (18)
103	Host access PDM (18)
104	Host access TDM (18)
105	3B5 AP DCPI (18)
106	EIA 4 Port (18)
107	ISN/EIA port (18)
108	DMI host terminating, dial repeating in/automatic out (5)
109	DMI dial repeating in and out (11)
120	ISDN dynamic (20)

Touch-Tone Calling Senderized Operation

55	Touch-Tone sender (0)
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Wide Area Telecommunications Service Access

26	WATS 1-way in attendant completing (1)
27	WATS 1-way out DOD or toll terminal access for TSPS (1)
28	WATS 1-way out DOD with party test (2)

Trunk Signaling Types

Use Procedure 100 Word 3 to change the default signaling type of a trunk group. Use the trunk signaling type compatibility table in this section to ensure that the signaling on this system is compatible with the distant system.

NOTE

You cannot assign loop start trunk signaling (19) to analog CO trunk groups.

100 Word 3 Administers the trunk group signaling type. Use this procedure when a signaling type other than the default is desired.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the signaling type from the list below. Make sure the signaling type is going to be compatible with the signaling type administered on the distant system. Use the trunk signaling type compatibility table.

- 0 No signaling required
- 1 Ground start
- 2 Ground start with party test
- 3 Loop/reverse battery, wink start
- 4 E&M immediate start in and out
- 5 E&M wink start in, immediate start out
- 6 ANI signaling
- 7 Auxiliary equipment
- 8 E&M delay dial in, immediate start out
- 9 E&M delay dial in wink/delay with dial tone out
- 10 E&M wink start in, wink/delay dial with dial tone out
- 11 E&M wink start in, wink/delay dial out (universal sequence)
- 12 E&M immediate start in, wink/delay dial out
- 13 E&M release link trunk out
- 14 E&M release link trunk in
- 15 E&M Main/Satellite, immediate start
- 16 E&M Main/Satellite, wink start
- 17 E&M Main/Satellite, delay dial
- 18 S-Channel signaling, host access-GPP, host access EIA
- 19 Loop start
- 20 Digital Multiplex Interface ISDN message oriented signaling
- 21 E&M wink start both ways
- 22 E&M delay dial both ways
- 23 E&M delay dial in, wink/delay dial out
- 24 E&M delay dial in, wink/delay dial out with fail on timeout
- 25 E&M immediate start in, wink/delay dial out with fail on timeout

- 26 E&M wink start in, wink/delay dial out with fail on timeout
- 27 Analog line loop

Trunk Signaling Compatibility

The following tables show the compatibility of signaling types between two systems. You are given the direction (incoming, outgoing, or two-way) that the trunk type must be administered.

The direction of compatibility is marked in the table by the following symbols:

two = Two-way compatibility

out = One-way compatibility outgoing

in = One-way compatibility incoming

DCIU ADMINISTRATION

General Information

This section contains a brief introduction of the Data Communications Interface Unit (DCIU) and some information to help in the administration of the DCIU. The application types of the DCIU include:

- AUDIX
- Call Management System (CMS)
- Distributed Communications System (DCS)
- Leave Word Calling (LWC) on an AP
- Message Center
- 3B2 ISDN Gateway
- DIP/DCIU Test Channel

To establish a DIP/DCIU test channel, the application type in Procedure 257 Word 5 should be set to "10" to specify that the channel being administered is for testing purposes. For more information on the testing and maintenance of the DCIU, refer to the *AT&T System 85 Advanced Networking Switch (R2V4) Maintenance (555-103-108)*.

To administer a specific feature, the corresponding DCIU section and feature section must be administered. For example, to administer DCS, both the DCS administration in the DCIU section and the DCS feature administration must be completed.

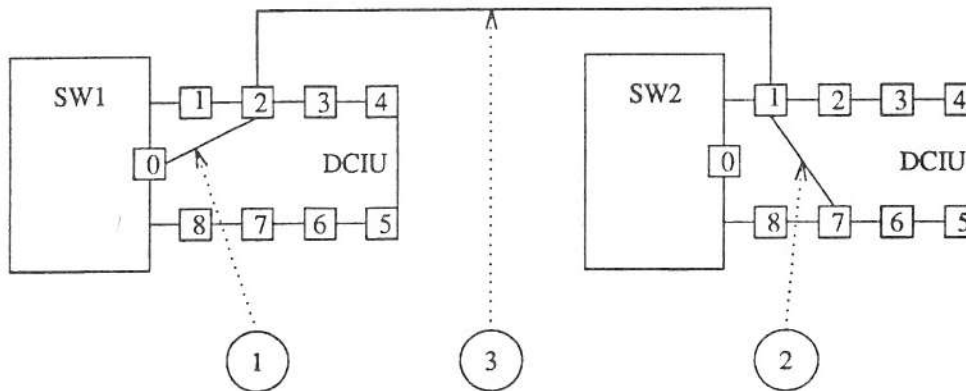
DCIU Overview

The DCIU is a special purpose processor which operates like a packet switch. The DCIU is used to pass call-related information between two systems or a system and an external processor. The connection between the two devices is accomplished using a full-duplex, synchronous data link. Each full-duplex, synchronous data link has 64 logical channels.

Basic DCIU Configurations

The DCIU has three basic configurations upon which all other configurations are based. The three basic DCIU configurations are:

1. System processor link (link 0) to a DCIU link on the same DCIU
2. One DCIU link to another DCIU link on the same DCIU
3. One DCIU link to another DCIU link on an external DCIU.



The figure above illustrates each of the three configurations listed. Each configuration is seen as a separate connection in the system and must be administered as such. This means that the link is administered using all the basic administration. The basic administration for all three configurations is made up of the following: protocol characteristics and timers (256 Words 1, 2, and 3), logical channels and routing (257 Words 1 and 2), DCIU memory values and tables (258 Words 1 and 2), and the DCIU enable (275 Word 1). However, there are some slight differences that will be discussed here.

Configuration "1" is a connection that is administered completely through software associations. There is an administration note pertaining to Procedure 257 Word 1. In this procedure, Component A will always be link 0 for this configuration. Component B will be the other end of this link connection. The logical channel number between these two endpoints may not be the same; however, for practical applications it is suggested that the logical channel between endpoints match.

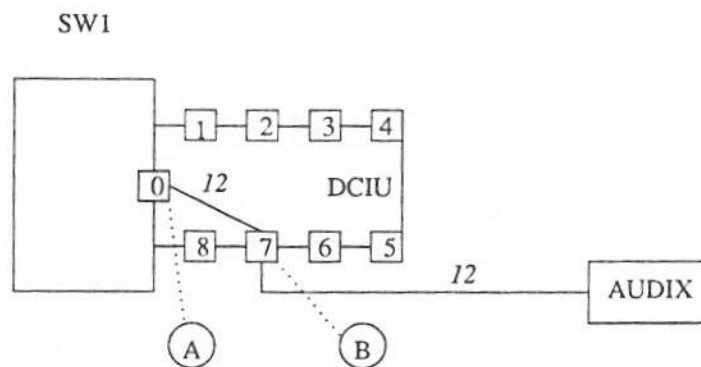
Configuration "2" is a connection that is administered completely through software associations. There is an administration note pertaining to Procedure 257 Word 1. In this procedure, both Components A and B will use hardware links (1-8) on the same DCIU. Again, the logical channel number between these two endpoints does not have to be the same, although it is suggested that the two endpoints match. This configuration is commonly referred to as a *hop*. A *hop* simply allows a data link connection to be made through a DCIU. For example, suppose a network has two nodes and a peripheral device is connected to the second node. For the first node to access the peripheral device located on the second node, the call related information (for node one) must pass or *hop* through the DCIU on the second node.

Configuration "3" is different in that there is a physical connection between two separate DCIUs. The physical connection also reflects an administration difference in Procedures 256 Word 1, 257 Word 1, and 257 Word 2. In these procedures, because the endpoints are on different DCIUs or external processors, **the characteristics of the data link must be administered at both ends.** Both ends of the link must have the same logical channel number, baud rate, protocol specifications, etc. When assigning the local DTE/DCE, one end of the link is the DTE while the other end of the link is the DCE (Procedure 256 Word 1).

DCIU Link Administration — Simple Network Example

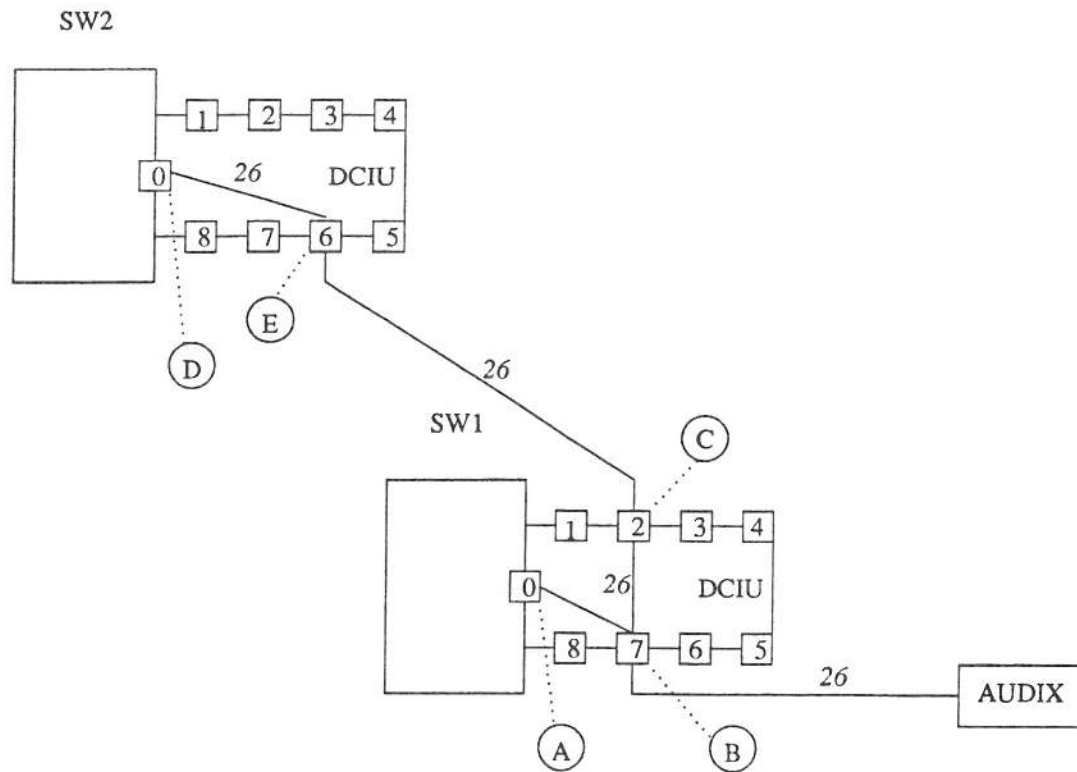
The next three figures illustrate the administration of DCIU links in a small network using the three configurations discussed earlier. The figures show the growth of a small network and the links necessary to connect the network together. Administration for a specific DCIU is done at the system where the DCIU is located. Therefore, to establish a link connecting the two systems, both ends of the link must be administered from their respective systems.

The simple network used in this example consists of three systems (PBXs) with an AUDIX machine as a peripheral device connected to one of the systems. The administration of the DCIU links is done in a step by step process showing how all the systems in the sample network can have access to the AUDIX machine.



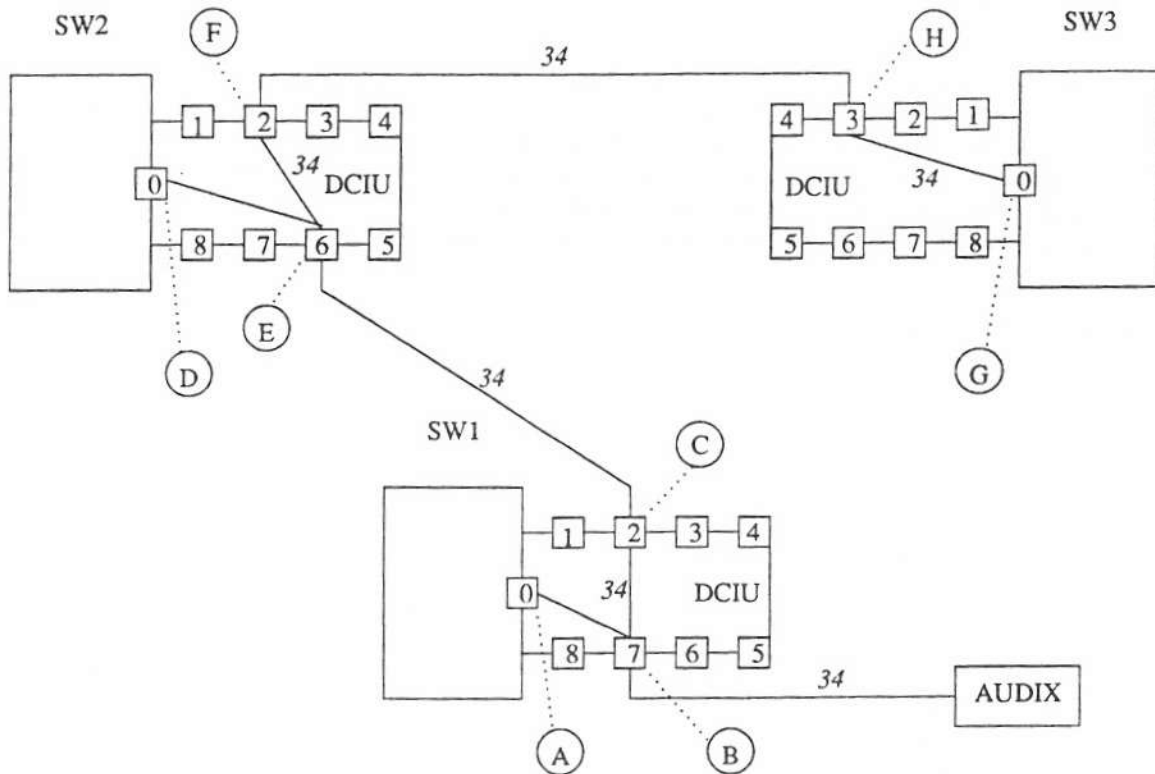
The figure above illustrates how DCIU links can be administered to connect SW1 to the AUDIX machine:

- On SW1
 - Administer link 0 (A) to link 7 (B) with a logical channel number of 12.
 - Administer link 7 (B) to the AUDIX machine with a logical channel number of 12.
- Between SW1 and the AUDIX machine
 - Physically connect link 7 (B) to the AUDIX machine.



The figure above illustrates how DCIU links can then be administered to connect SW2 to the AUDIX machine through the DCIU located on SW1:

- On SW2
 - Administer link 0 (D) to link 6 (E) with a logical channel number of 26.
- Between SW2 and SW1
 - Physically connect link 6 (E) to link 2 (C). This is the physical connection between the DCIUs on SW1 and SW2.
- On SW1
 - Administer link 2 (C) to link 7 (B) with a logical channel number of 26.
 - Administer link 7 (B) to the AUDIX machine with a logical channel number of 26.
- Between SW1 and the AUDIX machine
 - Physically connect link 7 (B) to the AUDIX machine (if not already done).



The figure above illustrates how DCIU links can be administered to connect SW3 to the AUDIX machine through the DCIUs located on SW2 and SW1:

- On SW3
 - Administer link 0 (G) to link 3 (H) with a logical channel number of 34.
- Between SW3 and SW2
 - Physically connect link 3 (H) to link 2 (F). This is the physical connection between the DCIUs located on SW3 and SW2.
- On SW2
 - Administer link 2 (F) to link 6 (E) with a logical channel number of 34.
- Between SW2 and SW1
 - Physically connect link 6 (E) to link 2 (C). This is the physical connection between the DCIUs located on SW1 and SW2.
- On SW1
 - Administer link 2 (C) to link 7 (B) with a logical channel number of 34.
 - Administer link 7 (B) to the AUDIX with a logical channel number of 34.
- Between SW1 and the AUDIX machine
 - Physically connect link 7 (B) to the AUDIX machine (if not already done).

AUDIX

The Audio Information Exchange (AUDIX) message-handling system provides subscribers with the ability to send and receive voice messages. AUDIX subscribers can also receive messages from callers using either the call answering capabilities of the AUDIX feature or the Leave Word Calling (LWC) feature. The AUDIX system uses recorded prompts and announcements to guide callers through the messaging operations. After completing the DCIU administration, you must continue with the AUDIX feature administration given later in this book.

Procedure Sequence

ADD	CHANGE	REMOVE
258 Word 2	258 Word 2	275 Word 1
256 Word 1	256 Word 1	258 Word 2
256 Word 2	256 Word 2	256 Word 3
256 Word 3	256 Word 3	256 Word 2
257 Word 5	257 Word 5	256 Word 1
257 Word 4	257 Word 4	257 Word 6
257 Word 2	257 Word 2	257 Word 1
257 Word 1	257 Word 1	257 Word 2
257 Word 6	257 Word 6	257 Word 4
258 Word 1	258 Word 1	257 Word 5
275 Word 1		258 Word 1

Procedure Usage

256 Word 1 Administers the major characteristics of the data link. Included are the link number, status, data rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.

Field 1 Enter the DCIU link number (1-8).

Field 2 Enter the link status:
 0 Unassigned
 1 Assigned

Field 3 Enter the data rate:
 0 No data rate required
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 4800 bps
 6 9600 bps
 7 19200 bps

- Field 4 Enter the local DTE/DCE assignments:
 0 Local end of DCIU link is functioning as a DTE
 1 Local end of DCIU link is functioning as a DCE
 One end of the link must be administered as the DTE while the other is administered as the DCE.
- Field 5 Enter the dial up capabilities:
 0 Link is not a dial up link
 1 Link is a dial up link
- Field 6 Enter a "1" to select the BX.25 protocol.
- Field 7 Enter a "3" to specify AUDIX as the destination machine type.
- Field 8 Enter the destination AUDIX machine number (1-8).
- Field 9 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the retransmission timer (1-255 in seconds). A typical value is 1.
- Field 3 Enter the idle timer (1-255 in seconds). A typical value is 10.
- Field 4 Enter the maximum number of retransmissions allowed (1-15). A typical value is 2.
- Field 5 Enter the maximum number of frames transmitted without acknowledgement (1-7). A typical value is 7.
- Field 6 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the activity timer (1-255 in seconds). A typical value is 180.
- Field 3 Enter the acknowledgement timer (1-255 in seconds). A typical value is 20.
- Field 4 Enter the interrupt timer (1-255 in seconds). A typical value is 180.

Field 5	Enter the reset timer (1-255 in seconds). A typical value is 8.
Field 6	Enter the restart timer (1-255 in seconds). A typical value is 8.
Fields 7-9	These fields are not used at this time.
Field 10	Enter the maximum number of unacknowledged packets (1-7). A typical value is 4.
Field 11	Enter the table indicator: -, 0 Display scratch-pad table values 1 Display machine-used table values

257 Word 1 Administers the network channel for AUDIX applications. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, and the priority. The logical channel in Fields 2 and 4 must be the same.

Field 1	Enter the local link number (Component A): 0 Local system link (commonly known as link 0) 1-8 Hardware links
Field 2	Enter the logical channel number (1-64) on the local link/system.
Field 3	Enter the link number (Component B): - Not assigned 0 Link is the system (for loop around test, Fields 1 and 3 must be set to 0) 1-8 Hardware links (this link is connected to link specified in Field 1)
Field 4	Enter the logical channel number on the link (component B): - Component A is alternate routed 1-64 Logical channel number
Field 5	Enter the priority level: 0 Low priority 1 High priority
Field 6	Enter the alternate routing flag status: 0 Link is not used as an alternate routed network channel 1 Link is used as an alternate routed network channel
Field 7	Enter the table indicator: -, 0 Display scratch-pad table values 1 Display machine-used table values

- 257 Word 2** Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.
- Field 1 Enter the local port number (1-64).
 - Field 2 Enter the AUDIX remote port/destination (-, 1-10).
 - Field 3 Enter the alternate destination routing code (-, 1-255).
 - Field 4 Enter the number of alternate DCIUs an alternate routed packet can go through before packet is terminated (-, 2-255).
 - Field 8 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values
- 257 Word 4** Administers the alternate routes associated with a destination map.
- Field 1 Enter the destination routing code (1-255).
 - Field 2 Enter the routing algorithm:
 - 0 Fixed routing
 - 1 Routing on failure
 - Field 3 Enter the number of routes:
 - 0 Fields 4-9 must be dashed
 - 1 Input expected in Fields 4-5
 - 2 Input expected in Fields 4-7
 - 3 Input expected in Fields 4-9
 - Fields 4, 6, 8 Enter the link number of corresponding route:
 - 0 Local system
 - 1-8 Link number
 - Fields 5, 7, 9 Enter the logical channel number (0-64).
- 257 Word 5** Reserves ports for feature usage.
- Field 1 Enter the port number (-, 1-64).
 - Field 2 Enter the application type:
 - 0 Unreserved
 - 13 AUDIX
 - Field 3 Enter the instance number (1-8). This number must match the AUDIX machine number.
 - Field 9 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values

258 Word 1 Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.

Field 1 Enter a "1" to swap tables and reboot DCIU.

258 Word 2 Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.

Field 1 Enter a "1" to make a copy of DCIU tables.

NOTE

This procedure overwrites the contents of the scratch-pad table.

275 Word 1 Administers the DCIU to the system class of service.

Field 17 Enter the DCIU assignment:

- Not available
- 0 Disable
- 1 Enable

Call Management System (CMS)

The Call Management System (CMS) is an adjunct processor that collects data generated by ACD users and presents the data as reports to help optimize ACD use.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Automatic Call Distribution (ACD)

Procedure Sequence

ADD	CHANGE	REMOVE
028 Word 2	028 Word 2	028 Word 2
275 Word 4	028 Word 1	115 Word 1
115 Word 1	115 Word 1	028 Word 1
028 Word 1	031 Word 1	275 Word 4
031 Word 1	258 Word 2	258 Word 2
258 Word 2	256 Word 1	257 Word 1
256 Word 1	256 Word 2	257 Word 2
256 Word 2	256 Word 3	257 Word 5
256 Word 3	257 Word 5	256 Word 3
257 Word 5	257 Word 2	256 Word 2
257 Word 2	257 Word 1	256 Word 1
257 Word 1	258 Word 1	258 Word 1
258 Word 1	028 Word 2	258 Word 2
028 Word 2		275 Word 1
275 Word 1		

Procedure Usage

028 Word 1 Administers the Call Management System (CMS) to an extension or group of extensions.

- Field 1 Enter the CMS terminal number (1-1023).
 Field 2 Enter the CMS extension low (000-99999).
 Field 3 Enter the CMS extension high (000-99999).

028 Word 2 This procedure is used to busy out CMS while translation changes are made. After making the translation changes, the CMS busy out must be released.

- Field 1 Enter the CMS busy out specifications:
 0 Not busied out
 1 Busied out

031 Word 1 Administers whether a vector directory number, is measured by CMS.

Field 1 Enter the vector directory number (000-99999).

Field 2 Enter the vector number (-, 1-128).

Field 3 Enter the measure capabilities:

0 VDN is not measured by CMS

1 VDN is measured by CMS

115 Word 1 Administers CMS measurement types to trunk groups that have already been administered to terminate at ACD splits.

Field 1 Enter the trunk group number (18-255). CMS can only measure trunk groups 18-255.

Field 2 Enter the CAS termination point:

- Trunk group terminates in an ACD group

0 Trunk group terminates on SS

1 Trunk group terminates on CAS

2 Trunk group terminates on VDN

Field 3 Enter the restricted dial code entry number (1-16, 99).

Field 5 Enter the types of CMS measurements being made:

- Trunk group not measured by CMS

0 Outgoing measurements by CMS

1 Incoming measurements by CMS

2 Both incoming and outgoing measurements by CMS

256 Word 1 Administers the major characteristics of the data link. Included are the link number, status, baud rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.

Field 1 Enter the DCIU physical link number (1-8). This is the link number of the physical port on the DCIU that is connected to the host computer for CMS.

Field 2 Enter the link status:

0 Unassigned

1 Assigned

Field 3 Enter the data rate:

0 No data rate required

1 300 bps

2 600 bps

3 1200 bps

4 2400 bps

5 4800 bps

6 9600 bps

7 19200 bps

- Field 4 Enter the local DTE/DCE assignments:
 0 Local end of DCIU link is functioning as a DTE
 1 Local end of DCIU link is functioning as a DCE
 One end of the link must be administered as the DTE while the other is administered as the DCE.
- Field 5 Enter the dial up capabilities:
 0 Link is not a dial up link
 1 Link is a dial up link
- Field 6 Enter a "1" to select the BX.25 protocol.
- Field 7 Enter the type of machine interface:
 1 AP 16
 2 3B5 AP
 8 3B2 Messaging Server or 3B2 CMS
- Field 8 Enter the destination machine number (1-7).

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

- Field 1 Enter the DCIU physical link number (1-8).
- Field 2 Enter the time in seconds before retransmitting unacknowledged frames (1-255). A typical value is 1.
- Field 3 Enter the time in seconds before frames are exchanged on a link (1-255). A typical value is 10.
- Field 4 Enter the maximum number of retransmissions of an acknowledged frame (1-15). A typical value is 2.
- Field 5 Enter the maximum number of frames transmitted on a link without acknowledgement (1-7). A typical value is 7.

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

- Field 1 Enter the DCIU physical link number (1-8).
- Field 2 Enter the time, in seconds, before sending a window advancement packet to indicate the present condition of a logical channel (1-255). A typical value is 180.
- Field 3 Enter the time, in seconds, waited for acknowledgement of data packet before resetting a logical channel (1-255). A typical value is 20.
- Field 4 Enter the time, in seconds, waited for confirmation of an interrupt packet before resetting a logical channel (1-255). A typical value is 180.

- Field 5 Enter the time, in seconds, waited before retransmitting an unconfirmed reset request package (1-255). A typical value is 8.
- Field 6 Enter the time, in seconds, waited before retransmitting an unconfirmed restart request package (1-255). A typical value is 8.
- Field 10 Enter the maximum number of times an unacknowledged data packet can be transmitted (1-7). A typical value is 4.

257 Word 1 Administers the network channel for CMS applications. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, the priority, and the alternate routing flag.

- Field 1 Enter the local link number (Component A):
0 Local system link (commonly known as link 0)
1-8 Hardware links
- Field 2 Enter the logical channel number (1-64) on the local link/system.
- Field 3 Enter the link number (Component B):
- Not assigned
0 Link is the system (for loop around test, Fields 1 and 3 must be set to 0)
1-8 Hardware links (this link is connected to the link specified in Field 1)
- Field 4 Enter the logical channel number on the link:
- Component A is alternate routed
1-64 Logical channel number
- Field 5 Enter the priority level:
0 Low priority
1 High priority
- Field 6 Enter the alternate routing flag status:
0 Link is not used as an alternate routed network channel
1 Link is used as an alternate routed network channel

257 Word 2 Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.

- Field 1 Enter the local port number (1-64).
- Field 2 Enter the remote port/destination (-, 1-11).
- Field 3 Enter the alternate destination routing code (-, 1-255).
- Field 4 Enter the number of alternate DCIUs an alternate routed packet can go through before packet is terminated (-, 2-255).

257 Word 5 Reserves ports for CMS usage including the port number, the application type, and the application instance number.

- Field 1 Enter the number of the local port (-, 1-64).
- Field 2 Enter an "11" to specify the application type as CMS.
- Field 3 Enter a "1" for the application instance number.
- Field 9 Enter the table indicator:
- , 0 Display scratch-pad table values
 - 1 Display machine-used table values

258 Word 1 Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.

- Field 1 Enter a "1" to swap the tables and reboot DCIU.

258 Word 2 Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.

- Field 1 Enter a "1" to make a copy of DCIU tables.

NOTE

This procedure overwrites the contents of the scratch-pad table.

275 Word 1 Activates the DCIU.

- Field 17 Enter the DCIU assignment:
- Feature not available
 - 0 Disable
 - 1 Enable

275 Word 4 Enables or disables CMS for the system. CMS must be busied out in Procedure 028 Word 2 before it can be enabled or disabled.

- Field 13 Enter the CMS assignment:
- Feature not available
 - 0 Disable
 - 1 Enable

Distributed Communications System (DCS)

The Distributed Communications System (DCS) is a service designed to meet the needs of customers with telecommunication requirements that exceed the capacity of a single system. Using a DCS allows the customer to operate and control multiple systems as if they were one system.

Procedure Sequence

ADD	CHANGE	REMOVE
258 Word 2	258 Word 2	258 Word 1
256 Word 1	256 Word 1	256 Word 3
256 Word 2	256 Word 2	256 Word 2
256 Word 3	256 Word 3	256 Word 1
257 Word 5	257 Word 5	257 Word 6
257 Word 2	257 Word 2	257 Word 5
257 Word 1	257 Word 1	257 Word 2
257 Word 3	257 Word 3	257 Word 3
257 Word 4	257 Word 4	257 Word 4
257 Word 6	257 Word 6	257 Word 1
258 Word 1	275 Word 1	275 Word 1
275 Word 1	258 Word 1	

Procedure Usage

256 Word 1 Administers the major characteristics of the data link. Included are the link number, status, baud rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.

Field 1 Enter the DCIU link number (1-8).

Field 2 Enter the link status:
 0 Unassigned
 1 Assigned

Field 3 Enter the data rate:
 0 No data rate required
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 4800 bps
 6 9600 bps
 7 19200 bps

Field 4 Enter the local DTE/DCE assignments:
 0 Local end of DCIU link is functioning as a DTE
 1 Local end of DCIU link is functioning as a DCE
 One end of the link must be administered as the DTE while the other is administered as the DCE.

Field 5	Enter the dial up capabilities: 0 Link is not a dial up link 1 Link is a dial up link
Field 6	Enter a "1" to select the BX.25 protocol.
Field 7	Enter the type of machine interface: 4 System 75 or DEFINITY Generic 1 5 System 85, Release 1 6 System 85, Release 2 or DEFINITY Generic 2 7 Enhanced DIMENSION PBX
Field 8	Enter the node number of the destination machine (1-63).
Field 9	Enter the table indicator: -, 0 Display scratch-pad table values 1 Display machine-used table values

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

Field 1	Enter the link number (1-8).
Field 2	Enter the retransmission timer (1-255 in seconds). A typical value is 1.
Field 3	Enter the idle timer (1-255 in seconds). A typical value is 10.
Field 4	Enter the maximum number of retransmissions allowed (1-15). A typical value is 2.
Field 5	Enter the maximum number of frames transmitted without acknowledgement (1-7). A typical value is 7.
Field 6	Enter the table indicator: -, 0 Display scratch-pad table values 1 Display machine-used table values

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

Field 1	Enter the link number (1-8).
Field 2	Enter the activity timer (1-255 in seconds). A typical value is 180.
Field 3	Enter the acknowledgement timer (1-255 in seconds). A typical value is 20.
Field 4	Enter the interrupt timer (1-255 in seconds). A typical value is 180.
Field 5	Enter the reset timer (1-255 in seconds). A typical value is 8.

- Field 6 Enter the restart timer (1-255 in seconds). A typical value is 8.
- Fields 7-9 These fields are not used at this time.
- Field 10 Enter the maximum number of unacknowledged packets (1-7). A typical value is 4.
- Field 11 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

257 Word 1 Administers the network channel for DCS applications. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, and the priority. The logical channel in Fields 2 and 4 must be the same.

- Field 1 Enter the local link number (Component A):
0 Local system link (commonly known as link 0)
1-8 Hardware links
- Field 2 Enter the logical channel number (1-64) on the local link/system.
- Field 3 Enter the link number (Component B):
- Not assigned
0 Link is the system (for loop around test, Fields 1 and 3 must be set to 0)
1-8 Hardware links (this link is connected to the link specified in Field 1)
- Field 4 Enter the logical channel number on the link:
- Component A is alternate routed
1-64 Logical channel number
- Field 5 Enter the priority level:
0 Low priority
1 High priority
- Field 6 Enter the alternate routing flag status:
0 Link is not used as an alternate routed network channel
1 Link is used as an alternate routed network channel
- Field 7 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

- 257 Word 2** Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.
- Field 1 Enter the local port number (1-64).
 - Field 2 Enter the remote port/destination:
 - Unassigned
 - 1-20 System 85, Release 1
 - 1-64 System 85, Release 2 or DEFINITY Generic 2
 - 1-20 Enhanced DIMENSION PBX
 - Field 3 Enter the alternate destination routing code (-, 1-255).
 - Field 4 Enter the number of alternate DCIUs an alternate routed packet can go through before packet is terminated (-, 2-255).
 - Field 8 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values
- 257 Word 3** Administers the local port to the trunk group number used for access to the remote DCS node.
- Field 1 Enter the local port number (1-64).
 - Field 2 Enter the trunk group number (18-255).
 - Field 3 Enter the remote DCS node number (1-63).
- 257 Word 4** Administers the alternate routes associated with a destination map.
- Field 1 Enter the destination routing code (1-255).
 - Field 2 Enter the routing algorithm:
 - 0 Fixed routing
 - 1 Routing on failure
 - Field 3 Enter the number of routes:
 - 0 Fields 4-9 must be dashed
 - 1 Input expected in Fields 4-5
 - 2 Input expected in Fields 4-7
 - 3 Input expected in Fields 4-9
 - Fields 4, 6, 8 Enter the link number of corresponding route:
 - 0 Local system
 - 1-8 Link number
 - Fields 5, 7, 9 Enter the logical channel number (0-64).

-
- 257 Word 5** Reserves ports for feature usage.
- Field 1 Enter the port number (-, 1-64).
 - Field 2 Enter the application type:
 - 0 Unreserved
 - 9 Distributed Communications System (DCS)
 - 12 Enhanced Services (ES)
 - Field 3 Enter the instance number (-, 1-63).
 - Field 9 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values
- 257 Word 6** Associates tables containing the correlations between the Enhanced Service (ES) ports, the network class, and the network numbers for DCS nodes.
- Field 1 Enter the ES port number (1-64).
 - Field 2 Enter a "3" to specify DCS as the network adjunct class.
 - Field 3 Enter the network adjunct number for DCS nodes (1-63).
 - Field 4 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values
- 258 Word 1** Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.
- Field 1 Enter a "1" to swap the tables and reboot DCIU.
- 258 Word 2** Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.
- Field 1 Enter a "1" to make a copy of DCIU tables.
- NOTE** This procedure overwrites the contents of the scratch-pad table.
- 275 Word 1** Administers the DCIU to the system class of service.
- Field 17 Enter the DCIU assignment:
 - Not available
 - 0 Disable
 - 1 Enable

Leave Word Calling on an AP

The Leave Word Calling (LWC) feature allows internal callers (internal to the local system or the DCS) to leave messages for internal principals (the called parties) without assistance of a secretary or Message Center agent. The DCIU administration for Leave Word Calling is not needed if Leave Word Calling is on the system or on AUDIX.

Procedure Sequence

ADD	CHANGE	REMOVE
258 Word 2	258 Word 2	258 Word 2
256 Word 1	256 Word 1	256 Word 3
256 Word 2	256 Word 2	256 Word 2
256 Word 3	256 Word 3	256 Word 1
257 Word 5	257 Word 5	257 Word 6
257 Word 4	257 Word 4	257 Word 1
257 Word 2	257 Word 2	257 Word 2
257 Word 1	257 Word 1	257 Word 4
257 Word 6	257 Word 6	257 Word 5
258 Word 1	275 Word 1	275 Word 1
275 Word 1	258 Word 1	258 Word 1
		258 Word 2

Procedure Usage

- 256 Word 1** Administers the major characteristics of the data link. Included are the link number, status, baud rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.
- Field 1 Enter the DCIU link number (1-8).
- Field 2 Enter the link status:
 0 Unassigned
 1 Assigned
- Field 3 Enter the data rate:
 0 No data rate required
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 4800 bps
 6 9600 bps
 7 19200 bps
- Field 4 Enter the local DTE/DCE assignments:
 0 Local end of DCIU link is functioning as a DTE
 1 Local end of DCIU link is functioning as a DCE
 One end of the link must be administered as the DTE while the other is administered as the DCE.

- Field 5 Enter the dial up capabilities:
0 Link is not a dial up link
1 Link is a dial up link
- Field 6 Enter a "1" to select the BX.25 protocol.
- Field 7 Enter the type of machine interface:
1 AP 16
2 3B5 AP
8 3B2 Messaging Server (AP)
- Field 8 Enter the destination machine number (1-7).
- Field 9 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the retransmission timer (1-255 in seconds). A typical value is 1.
- Field 3 Enter the idle timer (1-255 in seconds). A typical value is 10.
- Field 4 Enter the maximum number of retransmissions allowed (1-15). A typical value is 2.
- Field 5 Enter the maximum number of frames transmitted without acknowledgement (1-7). A typical value is 7.
- Field 6 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the activity timer (1-255 in seconds). A typical value is 180.
- Field 3 Enter the acknowledgement timer (1-255 in seconds). A typical value is 20.
- Field 4 Enter the interrupt timer (1-255 in seconds). A typical value is 180.
- Field 5 Enter the reset timer (1-255 in seconds). A typical value is 8.
- Field 6 Enter the restart timer (1-255 in seconds). A typical value is 8.

- Fields 7-9 These fields are not used at this time.
- Field 10 Enter the maximum number of unacknowledged packets (1-7).
A typical value is 4.
- Field 11 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

257 Word 1 Administers the network channel for Leave Word Calling applications. These applications are Message Waiting — Automatic, the Clock, and Leave Word Calling. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, and the priority. The logical channel in Fields 2 and 4 must be the same.

- Field 1 Enter the local link number (Component A):
0 Local system link (commonly known as link 0)
1-8 Hardware links
- Field 2 Enter the logical channel number (1-64) on the local link/system.
- Field 3 Enter the link number (Component B):
- Not assigned
0 Link is the system (for loop around test, Fields 1 and 3 must be set to 0)
1-8 Hardware links (this link is connected to the link specified in Field 1)
- Field 4 Enter the logical channel number on the link:
- Component A is alternate routed
1-64 Logical channel number
- Field 5 Enter the priority level:
0 Low priority
1 High priority
- Field 6 Enter the alternate routing flag status:
0 Link is not used as an alternate routed network channel
1 Link is used as an alternate routed network channel
- Field 7 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

- 257 Word 2** Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.
- Field 1 Enter the local port number (1-64).
 - Field 2 Enter the remote port/destination (-, 1-11).
 - Field 3 Enter the alternate destination routing code (1-255).
 - Field 4 Enter the number of alternate DCIUs an alternate routed packet can go through before packet is terminated (-, 2-255).
 - Field 8 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values
- 257 Word 4** Administers the alternate routes associated with a destination map.
- Field 1 Enter the destination routing code (1-255).
 - Field 2 Enter the routing algorithm:
 - 0 Fixed routing
 - 1 Routing on failure
 - Field 3 Enter the number of routes:
 - 0 Fields 4-9 must be dashed
 - 1 Input expected in Fields 4-5
 - 2 Input expected in Fields 4-7
 - 3 Input expected in Fields 4-9
 - Fields 4, 6, 8 Enter the link number of corresponding route:
 - 0 Local system
 - 1-8 Link number
 - Fields 5, 7, 9 Enter the logical channel number (0-64).
- 257 Word 5** Reserves ports for feature usage.
- Field 1 Enter the port number (-, 1-64).
 - Field 2 Enter the application type:
 - 0 Unreserved
 - 2 AP clock synchronization (CLK)
 - 4 LWC high priority (LWCH)
 - 5 LWC low priority (LWCL)
 - 6 Message Waiting Automatic lamp (AMWL)
 - Field 3 Enter the instance number (-, 1-7).
 - Field 9 Enter the table indicator:
 - , 0 Display scratch-pad table values
 - 1 Display machine-used table values

257 Word 6 Associates tables containing the correlations between the Enhanced Service (ES) ports, the network class, and the network numbers for DCS nodes.

Field 1 Enter the ES port number (1-64).

Field 2 Enter a "1" to specify the AP as the network adjunct class.

Field 3 Enter the network adjunct number for AP (1-99).

Field 4 Enter the table indicator:

- , 0 Display scratch-pad table values

1 Display machine-used table values

258 Word 1 Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.

Field 1 Enter a "1" to swap the tables and reboot DCIU.

258 Word 2 Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.

Field 1 Enter a "1" to make a copy of DCIU tables.

NOTE

This procedure overwrites the contents of the scratch-pad table.

275 Word 1 Administers the DCIU to the system class of service.

Field 17 Enter the DCIU assignment:

- Not available

0 Disable

1 Enable

Message Center

Message Center is an answering service for redirected calls from the called party to an agent in the Message Center. Agents enter messages from the caller at an agent data terminal. The called party can retrieve their messages later by printing the message at a nearby printer, through a digital display module, calling the Message Center agent, or through a text mail service.

Procedure Sequence

ADD	CHANGE	REMOVE
258 Word 2	258 Word 2	258 Word 1
256 Word 1	256 Word 1	256 Word 3
256 Word 2	256 Word 2	256 Word 2
256 Word 3	256 Word 3	256 Word 1
257 Word 5	257 Word 5	257 Word 6
257 Word 2	257 Word 2	257 Word 1
257 Word 1	257 Word 1	257 Word 2
257 Word 6	257 Word 6	257 Word 5
258 Word 1	275 Word 1	275 Word 1
275 Word 1	258 Word 1	

Procedure Usage

256 Word 1 Administers the major characteristics of the data link. Included are the link number, status, baud rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.

Field 1 Enter the DCIU link number (1-8).

Field 2 Enter the link status:
 0 Unassigned
 1 Assigned

Field 3 Enter the data rate:
 0 No data rate required
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 4800 bps
 6 9600 bps
 7 19200 bps

Field 4 Enter the local DTE/DCE assignments:
 0 Local end of DCIU link is functioning as a DTE
 1 Local end of DCIU link is functioning as a DCE
 One end of the link must be administered as the DTE while the other is administered as the DCE.

- Field 5 Enter the dial up capabilities:
 0 Link is not a dial up link
 1 Link is a dial up link
- Field 6 Enter a "1" to select the BX.25 protocol.
- Field 7 Enter the type of machine interface:
 1 AP 16 Messaging Server
 2 3B5 AP
 8 3B2 Messaging Server (AP)
- Field 8 Enter the destination machine number (1-7).
- Field 9 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the retransmission timer (1-255 in seconds). A typical value is 1.
- Field 3 Enter the idle timer (1-255 in seconds). A typical value is 10.
- Field 4 Enter the maximum number of retransmissions allowed (1-15). A typical value is 2.
- Field 5 Enter the maximum number of frames transmitted without acknowledgement (1-7). A typical value is 7.
- Field 6 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

- Field 1 Enter the link number (1-8).
- Field 2 Enter the activity timer (1-255 in seconds). A typical value is 180.
- Field 3 Enter the acknowledgement timer (1-255 in seconds). A typical value is 20.
- Field 4 Enter the interrupt timer (1-255 in seconds). A typical value is 180.
- Field 5 Enter the reset timer (1-255 in seconds). A typical value is 8.
- Field 6 Enter the restart timer (1-255 in seconds). A typical value is 8.

- Fields 7-9 These fields are not used at this time.
- Field 10 Enter the maximum number of unacknowledged packets (1-7). A typical value is 4.
- Field 11 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

257 Word 1

Administers the network channel for Message Center applications. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, and the priority. The logical channel in Fields 2 and 4 must be the same.

- Field 1 Enter the local link number (Component A):
 0 Local system link (commonly known as link 0)
 1-8 Hardware links
- Field 2 Enter the logical channel number (1-64) on the local link/system.
- Field 3 Enter the link number (Component B):
 - Not assigned
 0 Link is the system (for loop around test, Fields 1 and 3 must be set to 0)
 1-8 Hardware links (this link is connected to the link specified in Field 1)
- Field 4 Enter the logical channel number on the link:
 - Component A is alternate routed
 1-64 Logical channel number
- Field 5 Enter the priority level:
 0 Low priority
 1 High priority
- Field 6 Enter the alternate routing flag status:
 0 Link is not used as an alternate routed network channel
 1 Link is used as an alternate routed network channel
- Field 7 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values

257 Word 2

Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.

- Field 1 Enter the local port number (1-64).
- Field 2 Enter the remote port/destination (-, 1-11).
- Field 3 Leave blank.

- Field 4 Leave blank.
- Field 8 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values
- 257 Word 5** Reserves ports for feature usage.
- Field 1 Enter the port number (-, 1-64).
- Field 2 Enter the application type:
 0 Unreserved
 2 AP clock synchronization (CLK)
 3 Message Center (MCS)
- Field 3 Enter the instance number (-, 1-7).
- 257 Word 6** Associates tables containing the correlations between the Enhanced Service (ES) ports, the network class, and the network numbers for DCS nodes.
- Field 1 Enter the ES port number (1-64).
- Field 2 Enter a "1" to specify AP as the network adjunct class.
- Field 3 Enter the network adjunct number for AP (1-99).
- Field 4 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values
- 258 Word 1** Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.
- Field 1 Enter a "1" to swap the tables and reboot DCIU.
- 258 Word 2** Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.
- Field 1 Enter a "1" to make a copy of DCIU tables.
- NOTE** This procedure overwrites the contents of the scratch-pad table.
- 275 Word 1** Administers the DCIU to the system class of service.
- Field 17 Enter the DCIU assignment:
 - Not available
 0 Disable
 1 Enable

3B2 ISDN Gateway

The 3B2 ISDN Gateway receives call information from the switch, translates the information into a form that a software application can use, and sends that information to the application. This application can use the information it receives from the 3B2 ISDN Gateway to send pertinent data about a call to a selected agent's terminal screen.

Procedure Sequence

ADD	CHANGE	REMOVE
258 Word 2	258 Word 2	258 Word 1
256 Word 1	256 Word 1	256 Word 3
256 Word 2	256 Word 2	256 Word 2
256 Word 3	256 Word 3	256 Word 1
257 Word 5	257 Word 5	257 Word 1
257 Word 2	257 Word 2	257 Word 2
257 Word 1	257 Word 1	257 Word 5
258 Word 1	275 Word 1	275 Word 1
275 Word 1	258 Word 1	

Procedure Usage

256 Word 1	Administers the major characteristics of the data link. Included are the link number, status, baud rate, DTE/DCE, type of link, protocol, destination machine type, and the destination machine number.
Field 1	Enter the DCIU link number (1-8).
Field 2	Enter the link status: 0 Unassigned 1 Assigned
Field 3	Enter a "6" for the 9600 bps data rate.
Field 4	Enter a "0" to set the switch as DTE.
Field 5	Enter a "0" to not allow the link to be a dial-up link.
Field 6	Enter a "1" to select the BX.25 protocol.
Field 7	Enter an "8" to set the machine type.
Field 8	Enter the destination machine number (1-7). This should match the number assigned to the ACD split in Procedure 026 Word 1.
Field 9	Enter the table indicator: -, 0 Display scratch-pad table values 1 Display machine-used table values

256 Word 2 Administers the BX.25 level 2 characteristics. Included are the link number, the retransmission timer, the idle timer, the maximum number of retransmissions, and the maximum number of unacknowledged frames allowed on the link.

- Field 1 Enter the link number (1-8).
- Field 2 Enter a "1" for the retransmission timer.
- Field 3 Enter a "10" for the idle timer.
- Field 4 Enter a "2" for the maximum number of retransmissions allowed.
- Field 5 Enter a "7" for the maximum number of frames transmitted without acknowledgement.
- Field 6 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

256 Word 3 Administers the BX.25 level 3 characteristics. Included are the link number, the activity timer, the acknowledgement timer, interrupt timer, the restart timer, the maximum number of unacknowledged packets.

- Field 1 Enter the link number (1-8).
- Field 2 Enter a "180" for the activity timer.
- Field 3 Enter a "20" for the acknowledgement timer.
- Field 4 Enter a "180" for the interrupt timer.
- Field 5 Enter an "8" for the reset timer.
- Field 6 Enter an "8" for the restart timer.
- Fields 7-9 These fields are not used at this time.
- Field 10 Enter a "4" for the maximum number of unacknowledged packets.
- Field 11 Enter the table indicator:
-, 0 Display scratch-pad table values
1 Display machine-used table values

257 Word 1 Administers the network channel for the 3B2 ISDN Gateway application. Included are the system link, the logical channel on the local port, the hardware link, the logical channel, and the priority.

- Field 1 Enter a "0" for the local system link (Component A).
- Field 2 Enter the logical channel number on the local link/system (1, 10, 15, 30, 38, 46, or 54).
- Field 3 Enter the link number (Component B) (1-7). This number corresponds to the machine number.
- Field 4 Enter a "1" for the logical channel number on the link.

- Field 5 Enter a "1" to get high priority.
- Field 6 Enter a "0" for the alternate routing flag status.
- Field 7 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values
- 257 Word 2** Administers the port characteristics including the local port, the remote port/destination, the alternate routing destination routing code, and the alternate routing postage.
- Field 1 Enter the local port number (1, 10, 15, 30, 38, 46, or 54).
- Field 2 Enter a "1" for the remote port/destination.
- Fields 3-4 Leave blank.
- Field 8 Enter the table indicator:
 -, 0 Display scratch-pad table values
 1 Display machine-used table values
- 257 Word 5** Reserves ports for feature usage.
- Field 1 Enter the port number (1, 10, 15, 30, 38, 46, or 54 depending on the instance number in Field 3).
- Field 2 Enter a "3" for the application type.
- Field 3 Enter the instance number (-, 1-7). This number corresponds to the ISDN Gateway machine number.
- 258 Word 1** Swaps the changes made to the DCIU scratch-pad table with the machine-read memory. Use this procedure *after* making any DCIU changes.
- Field 1 Enter a "1" to swap the tables and reboot DCIU.
- 258 Word 2** Copies the DCIU machine read memory values to the scratch-pad table. Use this procedure *before* making any DCIU changes.
- Field 1 Enter a "1" to make a copy of DCIU tables.
- NOTE** This procedure overwrites the contents of the scratch-pad table.
- 275 Word 1** Administers the DCIU to the system class of service.
- Field 17 Enter the DCIU assignment:
 - Not available
 0 Disable
 1 Enable

ABBREVIATED DIALING

The Abbreviated Dialing feature allows terminal users to dial frequently called or emergency numbers with significantly fewer button presses than if the number were dialed in the usual way (i.e., one digit at a time). Abbreviated Dialing can be used to dial on- or off-premises numbers.

Assignment of the Abbreviated Dialing feature is on a per-system and per-terminal basis.

Special Functions

The following special functions can be programmed within an Abbreviated Dialing entry for special dialing needs:

Pause (PA)

Used when a second dial tone is required before sending additional digits. This is typically used when a wait of 1.5 seconds is required for second dial tone provided on a trunk call.

Wait (WT)

Used when a longer pause is required before sending additional digits. This is used when a pause of 4 to 10 seconds is required before sending additional digits. This longer pause allows for trunk dial tone to be provided from other systems (long distance calls).

Mark (MK)

Used when an outgoing call requires the digit * or # to be outpulsed. Without the mark, a * or # is interpreted as the first digit of a dial access code and is not outpulsed. When the mark function is programmed into a stored number, the function is activated after a talk path is established with another system via a trunk. If the user has an ABRVDIAL MARK button, the lamp lights when the function is active. It remains active for the duration of the call. A * or # can be entered in the stored number after the mark or can be dialed manually after accessing the stored number.

Stop or Wait for Dial Tone (DT)

Used in conjunction with Data Terminal (Keyboard) Dialing. It conditions the data terminal for return of dial tone from the system. See the Data Call Setup feature.

Suppress

Used when a security code, such as a password or authorization code, is used in an Abbreviated Dialing list entry and a terminal with the Display — Voice Terminal feature is used. By enclosing the password or authorization code in the suppress function, the characters of the security code are converted to "s" on the display. This avoids the possibility of inadvertently compromising the security code.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
059 Word 5	059 Word 5	059 Word 3
059 Word 1	059 Word 1	059 Word 4
059 Word 2	059 Word 2	059 Word 2
059 Word 3	059 Word 3	059 Word 1
059 Word 4	059 Word 4	275 Word 3
275 Word 3	275 Word 3	350 Word 2
350 Word 2	350 Word 2	

Procedure Usage

059 Word 1 Administers the following to a voice terminal equipment location: the list type, the group list number, the list size, the group list controller, and system list access. Use the following table to help you select the desired input:

Purpose	Field					
	1-5	6	7	8	9	10
To administer group list	-	0	group #	size	-	-
To share terminal to a group list with control	equipment location	1,2	group #	-	1	-
To share terminal to a group list without control	equipment location	1,2	group #	-	0	-
To assign a personal list to a terminal	equipment location	1,2	-	size	-	-
To assign or deny terminal access to system list	equipment location	3	-	-	-	0,1

- Field 1 Enter the module number (0-30).
 Field 2 Enter the cabinet number (0-7).
 Field 3 Enter the port carrier number (0-3)
 Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21)

- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the list type:
 - 0 Group list
 - 1 List A access
 - 2 List B access
 - 3 System list access
- Field 7 Enter the group list number (-, 1-9999).
- Field 8 Enter the list size (-, 5-95).
- Field 9 Enter the assignment that identifies this voice terminal as a group list controller:
 - 0 Not the controller of a group list
 - 1 Is the controller of a group list
- Field 10 Enter the system list access assignment:
 - 0 No access
 - 1 Access

059 Word 2 Administers the following to a voice terminal equipment location: the list type, the group list number or system list item, the list item, the segment number, read/write mode, and the dialed digits. This procedure is also used to add list items to a group list. It is not necessary to administer each voice terminal's abbreviated dialing list from this procedure; users usually do that from their voice terminals. Use the following table to help you select the desired input:

Purpose	Field					
	1-5	6	7	8	9	10
To assign group list item	-	0	group #	item #	1-5	-,0,1
To assign personal list item	equipment location	1,2	-	item #	1-5	-,0,1
To assign system list item	-	3	item #	-	1-5	-,0,1

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21)
- Field 5 Enter the circuit number (0-7).

- Field 6 Enter the list type:
 0 Group list
 1 List A
 2 List B
 3 System list
- Field 7 Enter the group list number or system list item (0-9999).
- Field 8 Enter the group list number or personal list item (1-95).
- Field 9 Enter the segment number:
 1 Characters 1-4
 2 Characters 5-8
 3 Characters 9-12
 4 Characters 13-16
 5 Characters 17-20
- Field 10 Enter the read/write mode:
 -, 1 Read/Write - machine-used table
 0 Read/Write - scratch-pad table
- For a display (read) routine:
 -, 1 Read list item from machine-used table
 0 Read list item from scratch-pad table
- For a change (write) routine:
 1 Write list item to machine-used table
 0 Write list item to scratch-pad table
- Fields 11-14 Enter the dialed digits and special functions:
 0-9
 11 or *
 12 or #
 13 Function entry
 14 Pause (wait for dial tone)
 15 Wait (wait for dial tone)
 16 Mark
 17 Await dial tone
 18 Manual digit entry
 19 Suppress display
 1-15 Number of digits that will be dialed manually (must follow encode 18)

059 Word 3 Administers the list-access and special function buttons to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).

- Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC

- Field 7 Enter the member (button) number (1-62).

- Field 8 Enter the button type:
 - 1 List A item
 - 2 List B item
 - 3 System list item
 - 4 List A access
 - 5 List B access
 - 6 System list access
 - 7 Program
 - 13 Function entry
 - 14 Pause (for dial tone)
 - 15 Wait (for dial tone)
 - 16 Mark
 - 17 Await dial tone
 - 18 Manual digit entry
 - 19 Suppress display

- Field 9 Enter the list item index:
 - 1-9999 System list
 - 1-95 List A or list B

059 Word 4 Administers the following to a voice terminal equipment location: button-stored numbers, the segment number, read/write mode, and the dialed digits. This procedure is used for multiappearance voice terminals with feature buttons.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC

-
- Field 7 Enter the member (button) number (0-62).
- Field 8 Enter the segment number:
- Assign automatic dialing button
 - 1 Characters 1-4
 - 2 Characters 5-8
 - 3 Characters 9-12
 - 4 Characters 13-16
 - 5 Characters 17-20
- Field 9 Enter the read/write mode:
- , 1 Read/Write - machine-used table
 - 0 Read/Write - scratch-pad table
- For a display (read) routine:
- , 1 Read list item from machine-used table
 - 0 Read list item from scratch-pad table
- For a change (write) routine:
- 1 Write list item to machine-used table
 - 0 Write list item to scratch-pad table
- Fields 10-13 Enter the additional characters and special functions:
- 0-9
 - 11 or *
 - 12 or #
 - 13 Function entry
 - 14 Pause (wait for dial tone)
 - 15 Wait (wait for dial tone)
 - 16 Mark
 - 17 Await dial tone
 - 18 Manual digit entry
 - 19 Suppress display
 - 1-15 Number of digits that will be dialed manually (must follow encode 18)

059 Word 5 Displays the amount of space in the system for additional lists.

275 Word 3 Administers the system list size and enables system-wide access to the system list. This procedure is not used if administering personal or group lists.

- Field 5 Enter the system list size:
- 1 System list size 1-9
 - 2 System list size 01-99
 - 3 System list size 001-999
 - 4 System list size 0001-9999
- Field 6 Enter the system list access capabilities:
- 0 Access is on a per extension basis
 - 1 Universal access

350 Word 2 Administers the dial access codes for the Abbreviated Dialing feature.

- Field 1 Enter the feature encode:
- 90 Dial the System (global) List - touch tone terminal
 - 91 Dial List A - touch-tone terminal
 - 92 Dial List B - touch-tone terminal
 - 93 Program auto dial number or list
 - 94 Dial the System List - rotary terminal
 - 95 Dial List A - rotary terminal
 - 96 Dial List B - rotary terminal
- Field 2 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

ACCUNET® SERVICE INTERFACE

The ACCUNET Service Interface feature provides an interface between the System 85 and the AT&T Communications ACCUNET Switched 56 Service. The ACCUNET Service Interface feature is similar to the DS1 Interface feature, with a special in-band signaling mode to provide 56 Kbps access to ACCUNET Switched 56 Service. Unlike standard in-band (robbed bit) signaling used with the DS1 feature (voice grade service), neither Data Preindication (the Data Call Setup feature), nor a Modem Pooling conversion resource is needed for data communications over this service.

Assignment of the ACCUNET Service Interface feature is on a per-system basis and a trunk group basis within the system.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Digital Multiplexed Interface (DMI)

The message oriented signaling (MOS) version of DMI can support the ACCUNET Service Interface feature.

Integrated Services Digital Network/Primary Rate Interface (ISDN/PRI)

ISDN trunks can support the ACCUNET Service Interface feature.

Restriction — Miscellaneous Trunk Restrictions

Route Advance

Trunk-to-Trunk Connections

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	103 Word 1	115 Word 1
115 Word 1	115 Word 1	275 Word 1
275 Word 1	275 Word 1	

Procedure Usage

103 Word 1 Administers the network translations for assigned trunks (e.g., Data Protection, FRL, bridge-on).

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the FRL (0-7) for the trunk group.
- Field 7 Enter the bridge-on capabilities:
 - 0 Trunk verification bridge-on is not permitted
 - 1 Trunk verification bridge-on is permitted
- Field 10 Enter the trunk group data protection assignment:
 - 0 Disable
 - 1 Enable

115 Word 1 Administers the trunk group termination point.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the trunk group termination point:
 - Trunk group terminates in an ACD group
 - 0 Trunk group terminates on special services (SS) attendant
 - 1 Trunk group terminates on CAS attendant
- Field 3 Enter the ACD split number:
 - Trunk group terminates on SS or CAS, not at ACD
 - 1-60 ACD split number which is the destination of specified trunk group
- Field 4 Enter the ACD priority of termination:
 - Nonpriority ACD split termination
 - 1 Priority ACD split termination
- Field 5 Enter the CMS measurement type:
 - Group ignored by CMS
 - 1 Outgoing measurements
 - 2 Incoming measurements
 - 3 Two-way measurements

275 Word 1 Administers the optional tandem tie trunk and trunk-to-trunk calling features.

- Field 15 Enter the tandem tie trunk feature enable:
- Feature not available
 - 0 Tandem tie trunk feature disable
 - 1 Tandem tie trunk feature enable
- Field 16 Enter the trunk-to-trunk calling enable:
- Feature not available
 - 0 Trunk-to-trunk calling disable
 - 1 Trunk-to-trunk calling enable

ADVANCED PRIVATE LINE TERMINATION

The Advanced Private Line Termination (APLT) feature provides access to and termination from the following private line networks:

- Common Control Switching Arrangement (CCSA)
- Enhanced Private Switched Communications Service (EPSCS).

These private networks provide call routing over dedicated facilities. Based on the network numbering plan, on-network calls are routed to terminals or attendants within the network. Private networks can optionally provide off-network calling to a desired destination based on the 7- or 10-digit public network number.

Assignment of the APLT feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Attendant Direct Trunk Group Selection
- Intercept Treatment
- Restriction — Miscellaneous Trunk Restrictions
- Route Advance
- Trunk-to-Trunk Connections

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 3 103 Word 1	010 Word 3 103 Word 1	103 Word 1 010 Word 3

Procedure Usage

010 Word 3 Administers the miscellaneous trunk restriction groups, APLT off-net permissions, and FRL to an extension class of service.

Field 1 Enter the class of service (1-30, 32-63).

Field 11 Enter the APLT off-net permissions:
 0 Not restricted
 1 Restricted

Field 12 Enter the FRL (0-7).

103 Word 1 Administers the FRL associated with an assigned trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

ATTENDANT AUTO-MANUAL SPLITTING

The Attendant Auto-Manual Splitting feature allows an attendant, when completing an incoming call to a voice terminal user, to first identify the calling party to the called voice terminal user. The caller is automatically "split away" from the attendant and the called party when the attendant presses either the START or a direct extension selection (DXS) button. The feature is activated manually by pressing the SPLIT button provided on the attendant console. Pressing the SPLIT button changes the condition from split to unsplit or from unsplit to split.

Assignment of the Attendant Auto-Manual Splitting feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

Attendant Direct Extension Selection/Busy Lamp Field

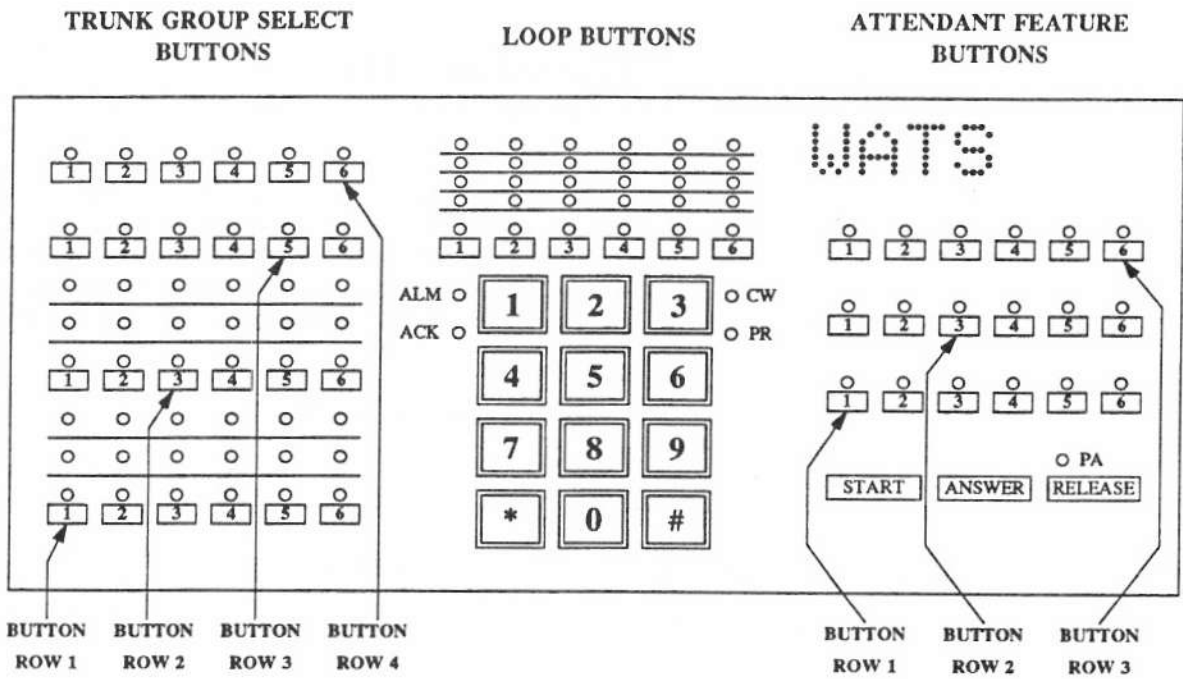
Procedure Usage

203 Word 1 Administers the SPLIT button to the attendant console(s). The buttons used for this feature are located on the right half of the attendant console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

Field 1 Enter the row number (1-3).

Fields 2-7 Enter a "4" in the desired button location to assign the SPLIT button.

To remove the button assignment, enter a "0" in that button location (Fields 2-7).



ATTENDANT CALL WAITING

The Attendant Call Waiting feature allows a call to “camp-on” and wait for an answer when an attendant extends that call to a busy single- or multi-appearance voice terminal. Allowing the call to wait permits the attendant to continue with other work.

Two bursts of distinctive tone signal the busy terminal user that a call is waiting. The busy terminal user can answer the call by momentarily pressing the switchhook and dialing the answer-hold access code or by going on-hook. This allows a single-appearance voice terminal to function like two terminals. An individual who is busy on a 2-party call can be alerted to the arrival of another call, and can answer the call if desired.

Assignment of the Attendant Call Waiting feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Usage

275 Word 1 Administers Call Waiting in the system class of service. This also controls call waiting for voice terminal users.

Field 5	Enter the Call Waiting assignment:
0	Disable
1	Enable

ATTENDANT CONTROL OF TRUNK GROUP ACCESS

The Attendant Control of Trunk Group Access (ACTGA) feature prevents voice terminal users from directly accessing selected trunk groups. If a voice terminal user dials a dial access code to a controlled trunk group, the call routes to an attendant. The attendant then decides, based on instructions from the system administrator, whether to allow the caller to use that trunk facility.

During high demand periods, efficient use of trunk groups can be increased by limiting access. For example, an attendant can control trunk-group usage during peak outgoing call demand periods and can allow access during other periods. This has the effect of allowing outgoing calls on a priority basis. Also, an attendant can control outgoing access on 2-way trunk groups during peak incoming call demand periods. This would have the effect of reserving 2-way trunk groups for incoming calls.

Assignment of the ACTGA feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Attendant Console Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Attendant Direct Trunk Group Selection

Procedure Sequence

ADD	CHANGE	REMOVE
204 Word 1	204 Word 1	204 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

204 Word 1 Administers the desired alphanumeric display for ACTGA on the attendant console(s). This specifies what is to be displayed on the attendant console when a controlled trunk group DAC is dialed by a voice terminal user and the call is redirected to the console.

- Field 1 Enter "2291" as the ACTGA call type.
 Field 2 Enter the message number 4-63 (whatever is available).
 Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

- Field 7 Leave blank.

350 Word 2 Administers the dial access codes for the ACTGA feature.

- Field 1 Enter the feature encodes:
 20 Attendant control of trunk group access - activate
 21 Attendant control of trunk group access - cancel
- Field 2 Enter the first digit of the dial access code:
 0-9
 11 or *
 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

ATTENDANT DIRECT EXTENSION SELECTION WITH BUSY LAMP FIELD

The Attendant Direct Extension Selection with Busy Lamp Field (DXS/BLF) feature allows an attendant to select an extension from as many as 1800 extension numbers by pressing two buttons instead of dialing the entire extension number. The BLF indicates the busy/idle status of the extension number. The BLF minimizes the time between an attendant's answer of an incoming call and the attendant's report that a voice terminal is busy. An attendant need only look at the busy lamp field to determine whether the terminal is busy or idle.

Assignment of the Attendant DXS/BLF feature is on a per-system basis. This feature does not work when the system has 5-digit dialing, only 3- or 4-digit dialing plans. This feature does not work with console type 30 (it does not have a DXS/BLF field).

When changing from DXS/BLF to Extended DXS/BLF, the data for DXS/BLF in Procedure 201 Word 1 is hidden (not displayed) and a note is displayed directing the administrator to use Procedure 201 Word 2. The data in Procedure 201 Word 1 is still present and will be active when changing back to standard DXS/BLF.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
200 Word 1	201 Word 1	203 Word 1
201 Word 1	201 Word 2	201 Word 1
201 Word 2	203 Word 1	201 Word 2
203 Word 1		200 Word 1

Procedure Usage

200 Word 1 Administers whether you have standard DXS/BLF or extended DXS/BLF.

Field 10 Enter the DXS/BLF assignment:
0 Disable (standard DXS/BLF)
1 Enable (extended DXS/BLF)

If Field 10 is disabled, use Procedure 201 Word 1 only.

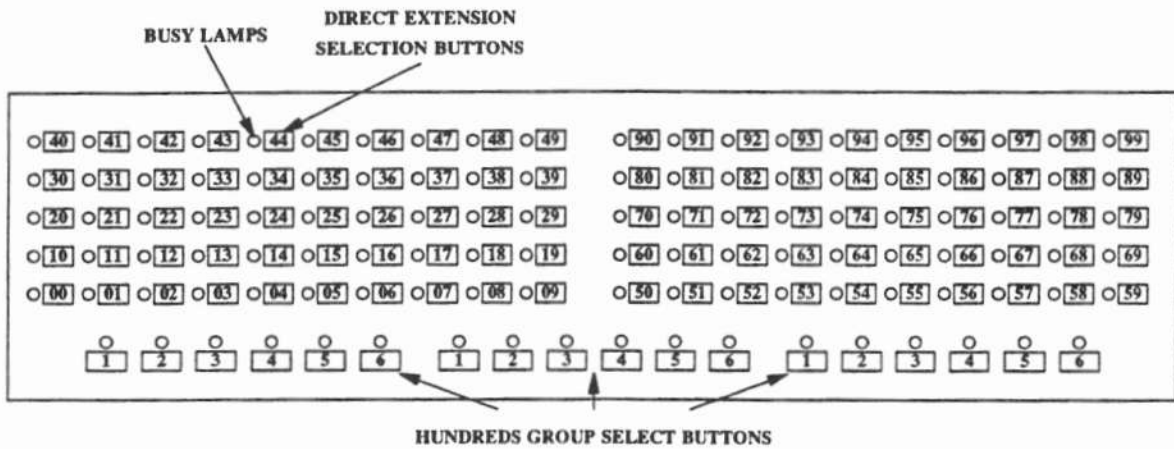
If Field 10 is enabled, use Procedure 201 Word 2 and Procedure 203 Word 1.

201 Word 1 Administers the standard DXS/BLF group selection buttons to the attendant console(s). The buttons are added by assigning hundreds group numbers to button locations. The first two digits must correspond to the system dialing plan. Console type 33 only uses the middle button group. Console type 34 uses all three button groups.

Fields 1-3 Enter a "1" in one of these fields to select the left, middle, or right hundreds button groups.

Fields 4-9 Enter the two digits that represent the thousands and hundreds digits desired for this button assignment.

The button assignments are removed by changing the assignment to 00.



201 Word 2 Administers the hundreds groups accessible to Extended DXS/BLF.

Field 1 Enter the thousands digit that requires extended hundreds groups (0-9).

Field 2 Enter the hundreds digit to be assigned for Extended DXS/BLF (0-9). If Field 1 has a "0", you can't put a "0" in this field.

203 Word 1 Administers the control buttons for Extended DXS/BLF. The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

Field 1 Enter the row number where you want the buttons (1-3).

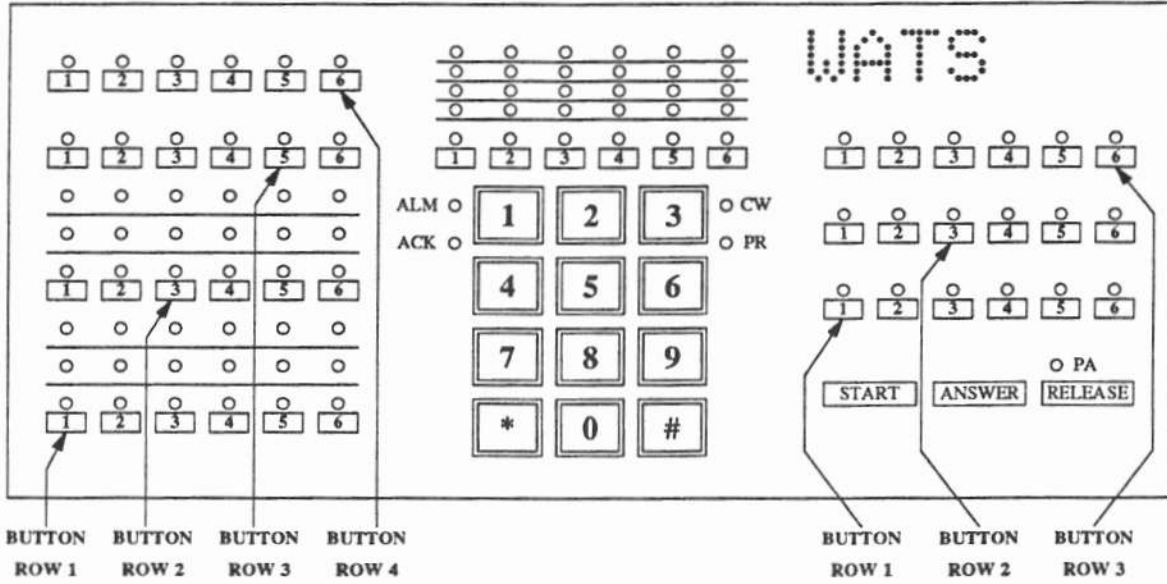
Fields 2-7 Enter the button types in the desired location:

- 17 Extended DXS group select (GROUP SELECT)
- 18 Extended DXS group display (GROUP DISPLAY)

**TRUNK GROUP SELECT
BUTTONS**

LOOP BUTTONS

**ATTENDANT FEATURE
BUTTONS**



ATTENDANT DIRECT TRUNK GROUP SELECTION

The Attendant Direct Trunk Group Selection (ADTGS) feature allows an attendant to access an idle outgoing trunk by pressing the button assigned to the desired trunk group. The single-button operation reduces the time and effort needed in handling outgoing calls. Each console has 24 DTGS buttons located on the left half of the attendant console. Twelve of these buttons also have control, warning, and busy lamps that light when that status is obtained.

Assignment of the Attendant Direct Trunk Group Selection feature is on a per-trunk group dial access code basis. Before adding any buttons, use Procedure 100 Word 1 or Procedure 178 Word 1 to verify that the selected trunk dial access codes have been assigned.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
200 Word 1	202 Word 1	202 Word 1
202 Word 1		200 Word 1

Procedure Usage

200 Word 1	Administers the ADTGS feature on a console-wide basis.	
	Field 3	Enter the direct trunk group select assignment:
		0 Disable
		1 Enable

202 Word 1 Administers the Direct Trunk Group Select buttons to the attendant console(s). The buttons used for this feature are on the left half of the console. The rows are numbered from bottom-to-top (1-4) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter the desired row number (1-4).
- Field 2 Enter the desired button number (1-6).
- Field 3 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 4 Enter the second digit of the dial access code (0-9).
- Field 5 Enter the third digit of the dial access code (0-9).
- Field 6 Enter the fourth digit of the dial access code (0-9).
- Field 7 Enter the desired trunk group busy/warning status:
0 Busy for this trunk group only
1 Busy for this trunk group and route advance trunk groups
2 Busy/warning for this trunk group only
3 Busy/warning for this trunk group and route advance trunk groups
- Field 8 Enter the warning lamp level (1-7). When the number of idle trunks is less than or equal to the number in this field, the applicable warning lamp will light.
- Field 9 Enter the remote flag indicator (0, 1). A "1" in this field when there is nothing in Fields 10-12 means that the trunk group (DAC in Fields 3-6) homes on this system but may be controlled or selected by a remote system. Having a "1" in this field when there is a DAC in Fields 10-12 means that trunk the group is remote to this system, but may be controlled or selected by this system. In this case, the local DAC (Fields 3-6) will access the tie trunk to the remote system.
- Field 10 Enter the first digit of the remote dial access code:
-, 0-9
11 or *
12 or #
- Field 11 Enter the second digit of the remote dial access code (-, 0-9).
- Field 12 Enter the third digit of the remote dial access code (-, 0-9).

ATTENDANT DISPLAY

The Attendant Display feature is provided through an alphanumeric display on the attendant console. This display provides information needed for call identification and rapid call completion. The attendant can display the extension or trunk number, nature, status, and class of service of the calling line or trunk.

Assignment of the Attendant Display feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
200 Word 1	200 Word 1	203 Word 1
203 Word 1	203 Word 1	204 Word 1
204 Word 1	204 Word 1	

Procedure Usage

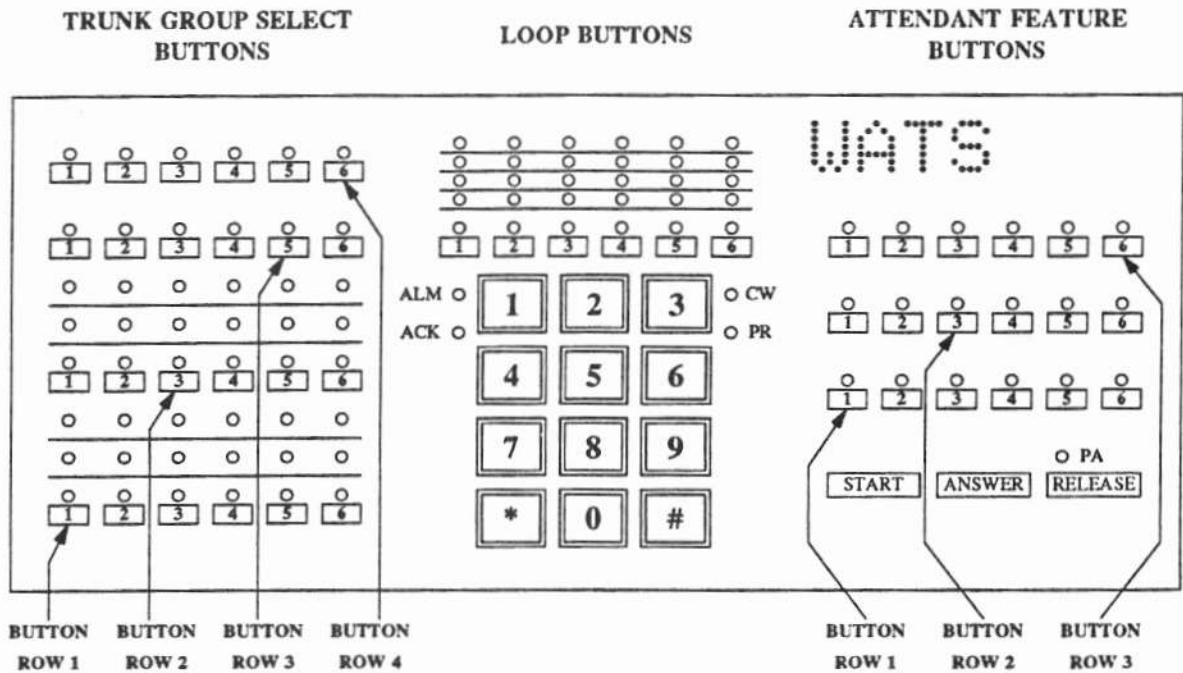
200 Word 1 Administers what display is given on the console when calls come in from on-site extensions.

Field 2 Enter the class of service display assignment:
 0 Class of service numbers 1-63 are displayed
 1 Messages NON, FULL, TOLL, REST are displayed

203 Word 1 Administers the display buttons for the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

Field 1 Enter the row number where you want the buttons (1-3).

Fields 2-7 Enter the button types in the desired location:
 1 Class of service (CLASS)
 28 Trunk identification (TRK-ID)
 42 Station identification (STA-ID)



204 Word 1 Administers the desired alphanumeric display for trunk groups, LDNs, and other call types.

Field 1

Enter the call type or trunk group number:

- 18-999 Trunk group number
- 1001-1999 Listed Directory Numbers (LDNs)
- 2290 Call Forwarding
- 2291 Attendant Control of Trunk Group Access
- 2292 Manual line termination
- 2293 Controlled restriction
- 2294 Timed recall on outgoing trunks
- 2295 Recall from six-party conference
- 2297 Interposition call
- 2298 Automatic Circuit Assurance (ACA) - short call
- 2299 Automatic Circuit Assurance (ACA) - long call
- 2300 Flash override
- 2301 Flash
- 2302 Immediate
- 2303 Priority
- 2304 Routine
- 2305 Calls to vacant dial access code
- 2306 Calls to restricted features or trunks
- 2307 Calls to recently disconnected terminal
- 2308 Attendant diversion to recorded announcement
- 2320 Centralized Attendant Service (CAS) branch identification

Field 2 Enter the message number or CAS branch number. For LDNs, leave blank. For call type 2320 (CAS), use 1-40. For trunks groups or other call types, use 4-63.

Fields 3-6 Enter the desired character encodes in each field.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Enter the Listed Directory Number (LDN) if the call type in Field 1 is 1001-1999.

ATTENDANT INTERPOSITION CALLING AND TRANSFER

The Attendant Interposition Calling and Transfer allows an attendant at one position, in a multiposition (multiconsole) system, to call another attendant by dialing an access code and the position's assigned number. The called attendant receives a special alphanumeric display (e.g., IPC) to designate the interposition call. This process is used for consultation or when questions about call processing arise. The attendant can also transfer a call to another position on the same system for special handling. You can also use this feature to allow voice terminal user's to dial a particular console position.

Assignment of the Attendant Interposition Calling and Transfer feature is on a per-system basis. To use this feature, multiple attendant console positions must have already been administered.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
200 Word 1	200 Word 1	200 Word 1
204 Word 1	204 Word 1	204 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

200 Word 1 Administers the Interposition Calling and Transfer feature.

Field 5

Enter the interposition calling assignment:

- 0 Disable
- 1 Interposition calling only
- 2 Interposition calling plus extension to selected attendant

204 Word 1 Administers the desired alphanumeric display for interposition calling on the attendant console(s).

- Field 1 Enter "2297" as the interposition calling call type.
- Field 2 Enter the member number (4-63, whatever is available).
- Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

350 Word 2 Administers the feature dial access code for Interposition Calling and Transfer and extension to selected attendant.

- Field 1 Enter the feature encode:
 - 29 Interposition call
 - 30 Extension to selected attendant
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

ATTENDANT RECALL

The Attendant Recall feature allows a voice terminal user on a 2-party call or on a conference call to call the attendant for assistance. The Incoming Call Identification (ICI) displays "RCL", or the extension number of one party in the 2-party connection to indicate an attendant recall.

The Attendant Recall feature, as such, does not require administration. However, if administrable recall buttons are needed, they are administered on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Attendant Console Administration

Voice Terminal and Data Module Administration

Procedure Usage

054 Word 1 Administers the recall button to an assigned multiappearance voice terminal that doesn't have a fixed recall button.

- | | |
|----------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |
| Field 6 | Enter the device type where the button will be assigned:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC |
| Field 7 | Enter the member (button) number (1-62). |
| Field 8 | Leave blank. |
| Field 9 | Enter "27" for the RECALL button. |
| Field 10 | Leave blank. |

ATTENDANT RELEASE LOOP OPERATION

Attendant Release Loop Operation allows an attendant to hold an incoming trunk call off the console if completion of the call has to be delayed (such as Call Waiting on a busy extension or an idle extension that does not answer). The call will automatically return to the attendant console after an administered time interval. This frees the switch loop and allows the attendant to handle other incoming calls. Therefore, by relieving congestion at the attendant console, this feature is useful to customers with a high volume of incoming console traffic.

Assignment of the Attendant Release Loop feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Attendant Console Administration

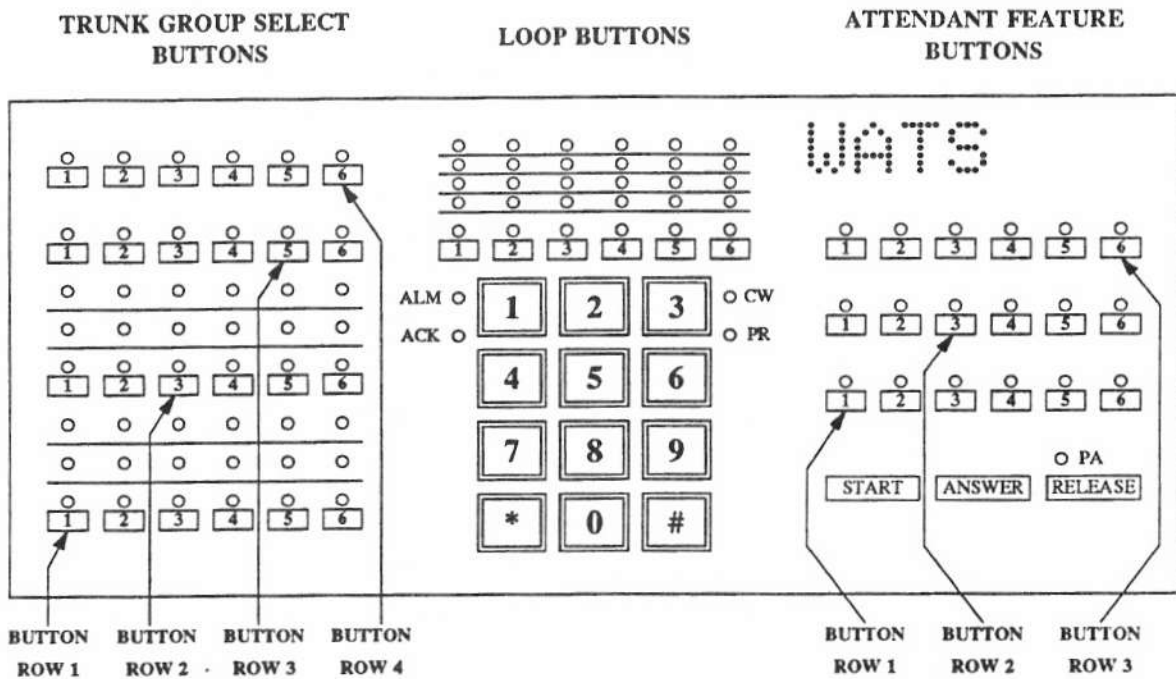
Procedure Sequence

ADD	CHANGE	REMOVE
203 Word 1	203 Word 1	203 Word 1
275 Word 4	275 Word 4	275 Word 4
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

203 Word 1 Administers the console control button for extension number display at the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

- Field 1 Enter the row number where you want the buttons (1-3).
- Fields 2-7 Enter a "42" for the STA-ID button type in the desired location.



275 Word 4 Administers the Attendant Release Loop Operation feature to the system class of service.

Field 4 Enter the timed recall activation assignment:
 0 Disable
 1 Enable

Field 5 Enter the timed reminder interval (0-98 in 2-second intervals). This is the amount of time that passes before the attendant is reminded of a held call.

350 Word 2 Administers the dial access code used by the attendant to change the timed reminder interval.

Field 1 Enter a "31" for the Attendant Release Loop time change feature.

Field 2 Enter the first digit of the dial access code:
 0-9
 11 or *
 12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

AUDIX

The Audio Information Exchange (AUDIX) message-handling system provides subscribers with the ability to send and receive voice messages. AUDIX subscribers can also receive messages from callers using either the call answering capabilities of the AUDIX feature or the Leave Word Calling feature. The AUDIX system uses recorded prompts and announcements to guide callers through the messaging operations.

Administration of the AUDIX system must be done both on the system and on the individual AUDIX adjuncts. A description of system and AUDIX administration is available in *AUDIX-L Installation* (585-300-101 for AUDIX Large) and *AUDIX-S Installation* (585-302-105 for the single- and two-cabinet AUDIX Small). *AUDIX Administration* (999-700-503IS for AUDIX Release 1, Version 1 or 585-302-501 for AUDIX Release 1, Version 2) is used for AUDIX administration only.

AUDIX is assigned on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Touch-Tone Senders (See Chapter 2, "System Administration")

AUDIX (See Chapter 6, "DCIU Administration")

The Data Communications Interface Unit (DCIU) link is necessary between the system and the AUDIX adjunct.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Automatic Call Distribution (ACD)

The ACD feature (previously called EUCD) serves as the gateway to the AUDIX system.

NOTE

An AUDIX adjunct can have as many as 32 voice ports. Therefore, an ACD gateway split should be configured to contain 16 or 32 (usually 32) members.

Call Coverage

The AUDIX system (i.e., ACD split number) can be assigned as the final point in a coverage path.

Call Forwarding

The AUDIX system can be assigned as the destination for Call Forwarding.

Call Vectoring

The Call Vectoring feature can be used in conjunction with the ACD feature on a per-system basis. When this is done, some of the standard ACD functions are disabled and replaced by the more flexible vector processing.

Leave Word Calling

The Leave Word Calling feature is also available on the AUDIX adjunct.

Message Waiting — Automatic***Procedure Usage***

350 Word 2	Administers the call transfer into AUDIX dial access code.
Field 1	Enter a "58" for the call transfer into AUDIX feature.
Field 2	Enter the first digit of the dial access code: 0-9 11 or * 12 or #
Field 3	Enter the second digit of the dial access code (0-9).
Field 4	Enter the third digit of the dial access code (0-9).
Field 5	Enter the fourth digit of the dial access code (0-9).

AUTHORIZATION CODES

Voice terminal users and attendants can use Authorization Codes in conjunction with the Facilities Restriction Level (FRL) feature to access special trunks. These codes add flexibility and improve the effectiveness of the FRL feature. Authorization Codes can also be used for billing purposes, as a "movable" personal identifier.

Assignment of the Authorization Codes feature is on a per-system basis.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Facilities Restriction Level (FRL)

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	283 Word 1	283 Word 1
281 Word 1	103 Word 1	103 Word 1
282 Word 1	281 Word 1	281 Word 1
285 Word 1	282 Word 1	282 Word 1
	285 Word 1	285 Word 1

Procedure Usage

103 Word 1	Administers the network trunk group parameters and authorization code requirements for incoming tie trunks.
Field 1	Enter the trunk group number (18-999).
Field 2	Enter the FRL (0-7).
Field 6	Enter the requirement for authorization code:
0	Authorization code required only when incoming trunk default FRL is less than the FRL associated with route
1	Authorization code always required

- 281 Word 1** Administers the authorization code algorithm parameters.
- Field 1 Enter the number of digits in a valid authorization code (4-7).
 - Fields 2-4 Enter the digit places to be deleted (1-7).
- 282 Word 1** Administers a single authorization code its FRL, the network access flag, and the extension partition using this authorization code.
- Field 1 Enter the valid authorization code (any 4-, 5-, 6-, or 7-digit number 0000-9999999). This number cannot start with a "1".
 - Field 2 Enter the FRL associated with authorization code (0-7).
 - Field 3 Enter the network access flag assignment:
 - 0 On-net access to off-net users not allowed
 - 1 On-net access to off-net users allowed
 - Field 4 Enter the extension partition number (0-999).
- 283 Word 1** Displays all Authorization Codes associated with a specific FRL.
- Field 1 Enter the FRL to search on (0-7).
 - Field 2 Enter a "3" to view Authorization Codes associated with specified FRL.
- 285 Word 1** Administers the authorization code requirements for access to AAR/ARS.
- Field 10 Enter the AAR/ARS authorization code access assignment:
 - 0 Disable
 - 1 Enable

AUTOMATIC ALTERNATE ROUTING

The Automatic Alternate Routing (AAR) feature provides alternate routing of private network calls. With alternate routing, more than one route can be made available for a call to reach its final destination.

For calls between two systems, available routes are grouped into routing patterns. Routing patterns are ordered lists of the trunk groups the system can use to complete a particular call. Each routing pattern has one or more trunk groups. For patterns with more than one trunk group, the trunk groups are arranged in order of preference (first-choice, second-choice, etc.).

Assignment of the Automatic Alternate Routing feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Attendant Direct Trunk Group Selection
- Authorization Codes
- Queuing
 - Administer the number of trunk groups in an AAR pattern used for Queuing.
- Trunk-to-Trunk Connections

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	350 Word 2	321 Word 5
350 Word 2	285 Word 1	321 Word 4
285 Word 1	320 Word 1	321 Word 3
103 Word 1	321 Word 1	321 Word 2
320 Word 1	321 Word 2	321 Word 1
321 Word 1	321 Word 3	350 Word 2
321 Word 2	321 Word 4	103 Word 1
321 Word 3	321 Word 5	285 Word 1
321 Word 4	103 Word 1	276 Word 1
321 Word 5	275 Word 3	275 Word 3
275 Word 3		

Procedure Usage

103 Word 1 Administers the network trunk group parameters for incoming tie trunk access to AAR, conditional routing attributes, and the number of trunks that are reserved for first-choice AAR trunk groups.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7).

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

Field 5 Enter the AAR trunk access:
 0 Incoming tie trunks do not have AAR access
 1 Incoming tie trunks have AAR access

Field 6 Enter the authorization code requirements:
 0 No
 1 Yes

Field 8 Enter the number of trunks (0-15) that are reserved for first choice AAR routes.

Field 9 Enter the AAR dialing prefix (0-9).

- Field 12 Enter the AAR conditional routing specifications:
 0 Is not a satellite facility
 1 Is a satellite facility
- Field 13 Enter the second TCM specification:
 0 Disable
 1 Enable
- Field 14 Enter the digit collection specifications:
 0 Overlap outpulsing
 1 Collect digits before outpulsing
- 275 Word 3** Administers the home NPA (area code) for this switch.
 Field 2 Enter the home NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
- 276 Word 1** Administers the standard network feature group.
 Field 1 Enter the standard network feature assignment:
 0 Disable
 1 Enable
- 285 Word 1** Administers the network parameters to the system class of service, including remote access code requirements, numbering plan data, symmetrical routing depth, AAR/ARS authorization code enabled, and AAR dial tone suppressed. With symmetrical routing, tandem-to-tandem calls route only on the first-choice trunk group.
 Field 1 Enter the Remote Access code requirements:
 0 No barrier code is required
 1 Barrier code is required
 2 AAR authorization code required
- Field 2 Enter the number of digits in location code:
 0 No digits (undefined)
 2-3 Number of digits in location code of network uniform numbering plan
- Field 5 Enter the symmetrical routing depth:
 0 Hierarchical routing depth
 1-9 Symmetrical routing depth
- Field 12 Enter the AAR dial tone suppress:
 0 Provide dial tone after AAR access code
 1 Suppress dial tone after AAR access code
- 320 Word 1** Administers the routing attributes to call categories.
 Field 1 Enter the call category (0-2).
 Field 2 Enter the number of satellite links used (-, 0-2).

-
- 321 Word 1** Administers the routing pattern parameters for AAR including: pattern number, preference number, trunk group number, FRL, warning tone, off net (to a DDD or IDDD location), number of digits deleted for an on-net route, whether the network has OXXX extension numbers or not, and the IXC identifier.
- Field 1 Enter the AAR Pattern Number (1-640).
- Field 2 Enter the preference number (1-16).
- Field 3 Enter the trunk group number (18-999).
- Field 4 Enter the FRL (0-7).
- Field 5 Enter the warning tone enable:
 0 No warning tone given
 1 Warning tone given to the calling party on a toll call
- Field 6 Enter the off-net route specification:
 0 The route is on-network from this system
 1 The route is off-network from this system to a distant location
 2 The route is off-network from this system to an IDDD location
- Field 7 Enter the number of digits deleted (0-7).
- Field 8 Enter the Digit Collect (DC) Signal Ignore:
 0 Disable
 1 Enable
- Field 9 Enter the network extension OXXX enable:
 0 Calls with "0" as first digit do not exist at distant system
 1 Calls with "0" as first digit do exist at distant system
- Field 10 Enter the IXC/ISDN network identifier:
 0 No IXC/ISDN carrier
 1-999 IXC/ISDN identifier

- 321 Word 2** Defines the digit grouping and dialing format (touch-tone or rotary) for a trunk group in an AAR pattern.
- Field 1 Enter the AAR pattern number (1-640).
- Field 2 Enter the preference number (1-16).
- Field 3 Enter the pause length (2-16 in even increments) in seconds before the outpulsing of group one digits.
- Fields 4,7,10 Enter the number of digits in groups 1, 2, and 3, respectively (0-15).
- Fields 5,8,11,13 Enter the type of signal to be outpulsed:
 0 Touch-tone signals to be outpulsed
 1 Rotary signals to be outpulsed
- Fields 6,9,12 Enter the pause length (0-16 in even increments) in seconds before the outpulsing of digits for groups 2, 3, and 4, respectively.
- 321 Word 3** Defines the digits to insert for a trunk group in an AAR pattern that uses subnetwork trunking. Defined digits include the pattern, the preference, the digit groups, and the digits.
- Field 1 Enter the AAR pattern number (1-640).
- Field 2 Enter the preference number (1-16).
- Field 3 Enter the digit group:
 1 Digits 1-8
 2 Digits 9-16
 3 Digits 17-20
- Fields 4-11 Enter the specific digits:
 - Field not used
 0-9
 11 or *
 12 or #
- 321 Word 4** Associates a location code (RNX) and call category with an AAR pattern number.
- Field 1 Enter the RNX location code (20-99, 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999).
- Field 2 Enter the node number (-, 1-999).
- Field 3 Enter the call category (0-2).
- Field 4 Enter the AAR pattern number (1-640, 641 for HNPA).
- Field 5 Enter the first digit (0-9).

321 Word 5 Administers the ISDN parameters to AAR preferences including ISDN trunk type, the network service value, and bearer capability.

Field 1 Enter the AAR pattern number (1-640).

Field 2 Enter the preference number (1-16).

Field 3 Enter the ISDN trunk type:

- Not applicable (trunk type in Procedure 100 Word 1 is not ISDN dynamic)

17 CO 1-way out DOD

27 WATS 1-way out DOD or toll terminal access to TSPS

41 TIE ETN 2-way dial repeating

43 TIE ETN 1-way out dial repeating

46 TIE ETN 2-way dial repeating

47 TIE ETN 2-way dial repeating

108 DMI host terminating, dial repeating in/automatic out

109 DMI dial repeating in and out

Field 4 Enter the network service value (1-511, 999).

Fields 5-9 Enter the bearer capability assignment for the different grades of service (voice, mode 1 data, mode 2 data, mode 3 data, mode 0 data).

0 Not supported

1 Supported

350 Word 2 Administers the feature access code for the AAR feature.

Field 1 Enter a "61" for the AAR feature.

Field 2 Enter the first digit of the dial access code:

0-9

11 or *

12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

AAR With International Call Routing

Previous to System 85 R2V4 Issue 1.3, international calls (011) were routed to a single ARS pattern administered in Procedure 309 Word 1. Now international calls can be routed based on the dialed digit string. For example, if a user dials 011 xxx xxx xxxx, the switch can choose private facilities or least cost services based on the dialed digits following the 011. If you wish to use private facilities (AAR) for international calls, these facilities can be administered with ARS for greater routing capabilities.

With the addition of Procedure 354 Word 2, it is possible to assign dialed digit strings to routing designators. Routing designators are simply ARS routing patterns administered in Procedure 309 Word 1. In other words, routing designators are synonymous with ARS patterns. The routing designator is always the same number for all three ARS plans.

312 Word 3 Administers digit strings to routing designators.

- | | |
|-------------|---|
| Field 1 | Enter the International Access Code (010-019). |
| Fields 2-16 | Enter the digit string in fields 4 through 18 (-,0-9). This digit string is associated with the routing designator (ARS pattern). |
| Field 17 | Enter the routing designator (1-64). |

AUTOMATIC CALL DISTRIBUTION

The Automatic Call Distribution (ACD) feature permits incoming trunk calls, local voice terminal calls, and attendant extended calls to terminate to specified voice terminals in the following ways:

- **Linear Hunting** — Linear hunting starts with the first specified agent and hunts toward the last specified agent in the split. Linear hunting is most useful when a priority of answering positions is desired.
- **Circular Hunting** — Circular hunting starts where the hunting process left off during the previous scan and continues through the list of agents. Circular hunting is most useful when an even balance of call distribution is desired.
- **Most Idle Agent (MIA)** — MIA extends ACD calls to the available agent for whom the longest period of time has elapsed since the agent has finished an ACD call. MIA is most useful when the duration of ACD calls vary significantly.

The answering positions appear as normal voice terminals to the system and are also able to place and receive calls in the usual manner. This feature can provide an economical alternative to Direct Inward Dialing for departments that receive a high volume of similarly natured calls. Selected terminal users (agents) are organized into a split (collection of agents) to allow for balanced call distribution to the agents.

Assignment of the ACD feature is on a per-system, per-trunk group, and a per-terminal class of service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Trunk Administration

Call Vectoring

If you are going to use Call Vectoring with ACD, you should administer Call Vectoring first.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Display

Call Coverage

Call Coverage is often used to redirect calls to ACD splits.

Call Management System (CMS) (See Chapter 6, "DCIU Administration")

Look-Ahead Interflow

ACD calls may be diverted through a system by Look-Ahead Interflow.

Procedure Sequence

ADD	CHANGE	REMOVE
350 Word 2	350 Word 2	054 Word 2
354 Word 1	001 Word 1	054 Word 1
010 Word 1	275 Word 4	052 Word 1
001 Word 1	155 Word 1	060 Word 2
275 Word 4	204 Word 1	060 Word 1
155 Word 1	026 Word 1	027 Word 1
204 Word 1	026 Word 2	027 Word 2
026 Word 1	026 Word 3	027 Word 3
026 Word 2	026 Word 4	075 Word 1
026 Word 3	075 Word 1	115 Word 1
026 Word 4	115 Word 1	026 Word 1
115 Word 1	027 Word 1	026 Word 2
027 Word 1	027 Word 2	026 Word 3
027 Word 2	027 Word 3	026 Word 4
027 Word 3	060 Word 1	155 Word 1
060 Word 1	060 Word 2	010 Word 1
060 Word 2	054 Word 1	350 Word 2
052 Word 1	054 Word 2	001 Word 1
054 Word 1	052 Word 1	
054 Word 2	010 Word 1	

Procedure Usage

- 001 Word 1** Administers an associated extension number to a split supervisor's individual extension number.
- Field 1 Enter the primary extension number (000-99999).
- Field 2 Enter the associated extension number (000-99999).
- 010 Word 1** Administers ACD membership to an agent's voice terminal class of service and agent override to an observer's class of service. Also, use this procedure to assign ACD queue-status display to an ACD agent's class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 19 Enter the ACD queue status:
- 0 Disable
- 1 Enable

Field 20 Enter the ACD membership status:
 0 Disable
 1 Enable

Field 22 Enter the ACD agent override status:
 0 Disable
 1 Enable

026 Word 1 Administers the split size, the ICI message number, the queuing trunk group, the outflow and inflow levels, the lamp control circuit for the queue warning indicators, type of hunting to an ACD split, the type of ACD split, and machine number.

Field 1 Enter the split number (1-60).

Field 2 Enter the split size (1-1024). After a number is entered, and a display routine is done, the system automatically rounds up the split size to the next increment of 16.

Field 3 Enter the ICI message number:
 -, 0 No ICI message
 4-63 ICI message number

Field 4 Enter the queuing trunk group number (18-999).

Field 5 Enter the outflow level (-, 1-99).

Field 6 Enter the lamp control circuit board index number (-, 0-7).

Field 7 Enter the lamp control circuit index number (-, 0-7).

Field 8 Enter the inflow level (-, 0-98).

Field 9 Enter the hunt type:
 0 UCD (circular hunting)
 1 DDC (terminal hunting)
 2 Most idle agent hunting; agent remains in the same relative queue position after an outgoing call
 3 Most idle agent hunting; agent moves to the bottom (last) queue position after an outgoing call

Field 10 Enter the split type:
 0 Regular
 1 MCS
 2 AUDIX
 3 ISDN Gateway (number only)
 4 ISDN Gateway (name and number)

Field 11 Enter the machine number (-, 0-8).
 If Field 10 is Regular (0), then enter a "0".
 If Field 10 is Message Center (1), then enter the machine number (1-7).
 If Field 10 is AUDIX (2), then enter the AUDIX machine number (1-8).
 If Field 10 is ISDN Gateway (3 or 4), then enter the machine number (1-7).

026 Word 2 Administers the split supervisor's extension number, the queue directory number, and priority extension number to a split. This procedure also assigns multiple call handling to a split and the auto available status.

- Field 1 Enter the split number (1-60).
- Field 2 Enter the supervisor extension number (000-99999).
- Field 3 Enter the queue directory number (-, 000-99999).
- Field 4 Enter the priority extension number (-, 000-99999).
- Field 5 Enter the multiple call handling status:
 - , 0 Not active
 - 1 Active
- Field 6 Enter the auto available status:
 - , 0 Not active
 - 1 Active

026 Word 3 Administers nonsupervisory members to a split in the order in which direct or circular hunting is to take place. When most idle agent queuing is used, the order here is unimportant.

- Field 1 Enter the split number (1-60).
- Field 2 Enter the member number:
 - 0-1023 If displaying numbers
 - 1-1023 If adding numbers
- Field 3 Enter the member extension number (000-99999).

026 Word 4 Administers the ACD system supervisor console number and warning tone for service observing.

- Field 1 Enter the system supervisor console number (1-40).
- Field 2 Enter the warning tone status:
 - 0 No warning tone (closed microphone) while observing
 - 1 Warning tone (open microphone) while observing

027 Word 1 Administers the first delay recorded announcement equipment location and the timing intervals preceding the first and second delay recorded announcements to an ACD split.

- Field 1 Enter the split number (1-60).
- Field 2 Enter the module number (0-30).
- Field 3 Enter the cabinet number (0-7).
- Field 4 Enter the port carrier number (0-3).
- Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

- Field 6 Enter the circuit number (0-3).
- Field 7 Enter the first wait time:
 - 0 No recorded announcement
 - 1-15 Number of 2-second intervals for first recorded announcement
- Field 8 Enter the second wait time:
 - , 0 No recorded announcement
 - 1-15 Number of 2-second intervals for second recorded announcement

The second wait time cannot be set until the second recorded announcement is administered in Procedure 027 Word 2.

027 Word 2 Administers the ACD second recorded announcement equipment location to the system. After doing this, go back to Procedure 027 Word 1 and set the second wait time.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-3).
- Field 6 Enter the second recorded announcement trunk group number (18-999).

027 Word 3 Administers an ACD split or trunk group for a queue-of-origin or city-of-origin recorded announcement.

- Field 1 Enter the ACD split or trunk group number (1-999 for split, 18-999 for trunk group).
- Field 2 Enter the ACD split/trunk group:
 - 0 ACD split queue-of-origin announcement
 - 1 Trunk group city-of-origin announcement
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).
- Field 5 Enter the port carrier number (0-3).
- Field 6 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 7 Enter the circuit number (0-3).

052 Word 1 Administers automatic answering (line type) to an appearance (or a set of appearances) to an assigned multiappearance voice terminals used for ACD.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 10 Enter a "2" to set the line type for auto appearance.

054 Word 1 Administers the ACD feature buttons to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type where the button will be assigned:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the button number where the assignment will be made (1-62).
- Field 8 Enter the extension number (-, 000-99999).
- Field 9 Enter a "26" for the ACD button type.
- Field 10 Enter the button subtype:
 - 1 Release
 - 2 Automatic in
 - 3 Manual in
 - 4 Auxiliary work
 - 5 Staff
 - 6 Repeat city-of-origin announcement
 - 10-19 Stroke count buttons

054 Word 2 Administers the service observing feature button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter an "8" to specify the button type as "Service Observing."

060 Word 1 Administers a split member to a position on the 106B display unit. Administered is the 106B equipment location, the display column, the ACD split, and the member of that split. The 106B display units connect to the SN224.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the display column (0-9).
- Field 7 Enter the split number (1-60).
- Field 8 Enter the ACD member (button) number (0-1023).

060 Word 2 Administers the first half of the 106B display unit (Fields 1-5) to the second half of the 106B display unit (Fields 6-10).

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-3).

Field 6	Enter the module number (0-30).
Field 7	Enter the cabinet number (0-7).
Field 8	Enter the port carrier number (0-3).
Field 9	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 10	Enter the circuit number (0-3).

075 Word 1 Displays Call Coverage groups that have ACD splits in that group's path. The group number is displayed in Field 2.

Field 1	Enter search type "7" for coverage groups with ACD splits in the path.
Field 3	Enter the ACD split (1-60).

115 Word 1 Administers the termination point for an incoming trunk group to an ACD split with or without ACD priority.

Field 1	Enter the trunk group number (18-999).
Field 2	Leave blank to set termination to an ACD split.
Field 3	Enter the ACD split (-, 1-60).
Field 4	Enter the ACD priority: <ul style="list-style-type: none"> - Non-priority ACD split termination 1 Priority ACD split termination

155 Word 1 Administers the contact interface circuit for the queue warning indicators. Included are the equipment type, the board index, the equipment location, and trunk group. The warning level and lamp indicators are assigned in Procedure 026 Word 1.

Field 1	Enter a "3" to specify the equipment type as "ACD split status."
Field 2	Enter the board index (0-13).
Field 3	Enter the module number (0-30).
Field 4	Enter the cabinet number (0-7).
Field 5	Enter the port carrier number (0-3).
Field 6	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 7	Enter the trunk group number (18-999).

204 Word 1 Designates the desired alphanumeric display for incoming calls to a split's special queue trunk group that reach an attendant. Administered are the call type, the message number, and the message. This message number is used in Procedure 026 Word 1.

Field 1 Enter the trunk group (18-999).

Field 2 Enter the message number (4-63, whatever is available).

Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

275 Word 4 Administers ACD abandon call search to the system class of service.

Field 11 Enter the ACD abandon call search assignment:

0 Disable

1 Enable

350 Word 2 Administers the ACD feature dial access codes.

Field 1	Enter the feature encode: 70 Auto In 71 Aux Work 72 Manual In 73 Staffed 74 Member Add 75 Member Delete 76 Announcement Verify 77 Agent Override 78 Agent Override (tone) 79 Reload Lamp Out 84 Overload - Balance All 85 Overload - Overflow 86 Overload - Balance Default 87 Overload - Balance Cancel 88 Agent Log In 89 Agent Log Out
Field 2	Enter the first digit of the dial access code: 0-9 11 or * 12 or #
Field 3	Enter the second digit of the dial access code (0-9).
Field 4	Enter the third digit of the dial access code (0-9).
Field 5	Enter the fourth digit of the dial access code (0-9).

AUTOMATIC CALLBACK

The Automatic Callback feature allows voice terminal users to call a busy extension number, activate the Automatic Callback feature, and have their calls automatically placed by the system when the called extension becomes idle. The system monitors the busy/idle status of both extensions. When both extensions are idle, the calling terminal receives distinctive 3-burst ringing. When the calling terminal goes off-hook, the called terminal rings.

With Automatic Callback, the calling party doesn't waste time and effort by repeatedly calling a busy terminal. Communication is increased by reaching the busy terminal as soon as both terminals are idle and before the called party leaves the busy terminal.

Assignment of the Automatic Callback feature is on a per extension class of service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

 Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

 Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	054 Word 2	010 Word 1
054 Word 2	200 Word 1	054 Word 2
200 Word 1	350 Word 2	200 Word 1
350 Word 2		350 Word 2

Procedure Usage

010 Word 1	Administers the Automatic Callback feature to an extension class of service.
Field 1	Enter the desired class of service (1-30, 32-63).
Field 3	Enter the Automatic Callback assignment:
	0 Disable
	1 Enable

054 Word 2 Administers the Automatic Callback button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type where the button will be assigned:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter a "6" to specify the button type as "Automatic Callback."

200 Word 1 Administers the don't answer timing intervals for the Automatic Callback feature. This don't answer interval is also used by Call Forwarding — Busy and Don't Answer.

- Field 4 Enter the number of ring cycles before an automatic callback is stopped (1-8).

350 Word 2 Administers the Automatic Callback dial access codes.

- Field 1 Enter the feature encode:
- 9 Automatic Callback - cancel
 - 19 Automatic Callback - activate
- Field 2 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

AUTOMATIC CIRCUIT ASSURANCE

The Automatic Circuit Assurance (ACA) feature provides a means of early detection of possible trunk problems. Early detection of problems can reduce out-of-service time caused by trunks not performing up to standards.

Assignment of the ACA feature is on a per-system and on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
120 Word 1	120 Word 1	120 Word 1
203 Word 1	203 Word 1	203 Word 1
204 Word 1	204 Word 1	204 Word 1
285 Word 1	286 Word 1	285 Word 1
286 Word 1	350 Word 2	286 Word 1
350 Word 2		350 Word 2

Procedure Usage

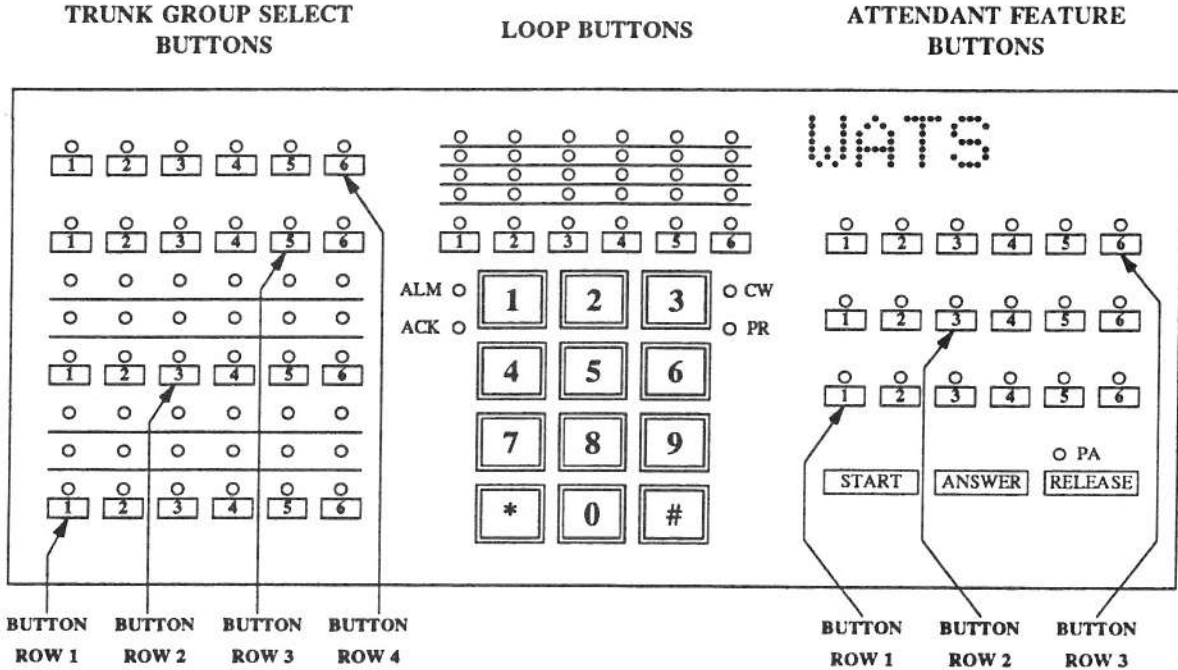
120 Word 1 Administers the short call threshold, the long call limit, and the short call referral level for each trunk group.

- | | |
|---------|--|
| Field 1 | Enter the trunk group number (18-999). |
| Field 2 | Enter the short call threshold (0-160 in even-numbered seconds). |
| Field 3 | Enter the long call limit (0-24 in hour increments). |
| Field 4 | Enter the short call referral level (0-30 in even numbers). |

203 Word 1 Administers the TRK ID button to the attendant console. The buttons used for this feature are found on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

Field 1 Enter the row number of desired button location (1-3).

Fields 2-7 Enter a "28" for the trunk id (TRK-ID) button in an available button location.



204 Word 1 Administers the desired alphanumeric display for ACA on the attendant console(s).

- Field 1 Enter the call type:
 - 2298 Short call threshold
 - 2299 Long call limit threshold
- Field 2 Enter the message number (4-63, whatever is available).
- Fields 3-6 Enter the desired encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

285 Word 1 Administers the ACA feature to the system class of service.

- Field 4 Enter the ACA status:
 - 0 Disable
 - 1 Enable

286 Word 1 Administers the call referral characteristics of ACA. Before doing this, the console(s) must have been previously assigned.

- Field 1 Enter the ACA feature status:
 - 0 ACA not active on any trunk group
 - 1 ACA active on all appropriate trunk groups
- Field 2 Enter the attendant/remote/off referral destination:
 - 0 ACA failures are not referred to the attendant
 - 1 ACA failures are referred to a local or CAS attendant
 - 2 ACA failure indicators are sent to a remote system (e.g., CSM)
- Field 3 Enter the console number:
 - No attendant console, or failure indicator sent to a remote system
 - 0 ACA referrals are directed to CAS main system
 - 1-40 ACA referrals are directed to a local system attendant

350 Word 2 Administers the ACA dial access codes used by the attendant.

Field 1 Enter the feature encode:
62 ACA Start
63 ACA Stop

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

AUTOMATIC IDENTIFICATION OF OUTWARD DIALING

The Automatic Identification of Outward Dialing (AIOD) feature is used by both the telephone company and the customer to provide valuable information about outgoing calls. The AIOD feature identifies, translates, and transmits the calling party's extension number and trunk access code to the serving Central Office (CO), or either the Common Control Switching Arrangement (CCSA) or Enhanced Private Switched Communications Service (EPSCS) switching office. The CO, CCSA, or EPSCS switching office uses Automatic Message Accounting (AMA) equipment for recording the information. The collected information is used by the phone company for billing their customers.

The AIOD feature is assigned on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Trunk Administration

Voice Terminal and Data Module Administration

Procedure Sequence

ADD.	CHANGE	REMOVE
000 Word 2	000 Word 2	000 Word 2
101 Word 1	101 Word 1	101 Word 1
204 Word 1	204 Word 1	204 Word 1
275 Word 1	275 Word 1	275 Word 1

Procedure Usage

000 Word 2 Administers whether toll calls made from an assigned extension will be billed to a common number (assigned in Procedure 275 Word 1) or will be billed to its own extension.

Field 1 Enter the extension number (-, 000-99999).

Field 3 Enter the auxiliary ANI number assignment:

0 Bill to the extension number

1 Bill to a common number administered in Procedure 275 Word 1

- 101 Word 1** Administers an AIOD billing number to assigned trunk groups.
- Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.
 - Field 9 Enter the AIOD billing number (-, 0000-9999). This is the default number used by the CO to bill the system for miscellaneous calls. Include any leading zeros that may be on the service order.

- 204 Word 1** Administers a listed directory number for the attendant. This number will be used for billing outgoing calls made from the attendant console. Enter the call type, the character encodes, and the listed directory number.

- Field 1 Enter the call type (1001-1999).
- Field 2 Leave blank (dash).
- Fields 3-6 Enter the desired encodes. These fields can also be left blank (dashed).

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

- Field 7 Enter the LDN (0000-99999).

- 275 Word 1** Administers the AIOD ANI Timing Delay and Auxiliary ANI number to the system class of service.

- Field 1 Enter the AIOD status assignment:
 - Feature not available
 - 0 Disable
 - 1 Enable
- Field 2 Enter the prefix digits (-, 0-99).
- Field 3 Enter the ANI delay timing (-, 0-99 in 0.1-second increments).
- Field 4 Enter the auxiliary ANI number (-, 0-9999). This is the number that calls are billed to if an extension is not billed to its own extension.

AUTOMATIC ROUTE SELECTION

The Automatic Route Selection (ARS) feature provides alternate routing, also known as least cost routing, of public network calls. The ARS feature provides automatic selection from multiple routes for a call to reach its final destination. These routes are grouped into routing patterns. Routing patterns are ordered lists of trunk groups that the system can use to complete a particular call. Each ARS routing pattern has a first-choice trunk group and one or more alternate trunk groups arranged in order of preference.

Assignment of the ARS feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Trunk Administration

It is recommended that you do not assign a trunk group with trunk type 30 to an ARS pattern.

System Clock (Time of Day) (See Chapter 2, “System Administration”)

Attendant Console Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Direct Trunk Group Selection

Authorization Codes

The Authorization Codes feature is commonly used with the ARS feature.

Queuing

Administer the number of trunk groups in an ARS pattern used for Queuing.

Procedure Sequence

ADD	CHANGE	REMOVE
350 Word 2	350 Word 2	350 Word 2
103 Word 1	010 Word 3	010 Word 3
275 Word 3	010 Word 4	010 Word 4
010 Word 3	286 Word 1	286 Word 1
010 Word 4	275 Word 3	103 Word 1
286 Word 1	103 Word 1	275 Word 3
287 Word 1	309 Word 1	287 Word 1
316 Word 1	309 Word 2	312 Word 1
309 Word 1	309 Word 3	312 Word 2
309 Word 2	309 Word 4	313 Word 1
309 Word 3	309 Word 5	309 Word 1
309 Word 4	311 Word 1	309 Word 2
309 Word 5	311 Word 2	309 Word 5
311 Word 1	311 Word 3	311 Word 1
311 Word 2	316 Word 1	311 Word 2
311 Word 3	287 Word 1	311 Word 3
203 Word 1	203 Word 1	316 Word 1
312 Word 1	312 Word 1	203 Word 1
312 Word 2	312 Word 2	
313 Word 1	313 Word 1	

Procedure Usage

010 Word 3 Administers the ARS toll restriction and FRL to an extension class of service.

- Field 1 Enter the class of service (1-30, 32-63).
- Field 22 Enter the ARS toll restriction assignment:
 0 No ARS toll restriction
 1 ARS toll restriction
- Field 23 Enter the FRL (0-7).

010 Word 4 Administers routing over ISDN facilities to an extension class of service.

- Field 1 Enter the class of service (1-30, 32-63).
- Field 3 Enter the ISDN routing assignment:
 - ISDN is not supported
 0 Use any facility
 1 Use ISDN exclusively
 2 Use ISDN if available; if not, use any available facility

103 Word 1 Administers the network trunk group parameters for incoming tie trunk access to ARS.

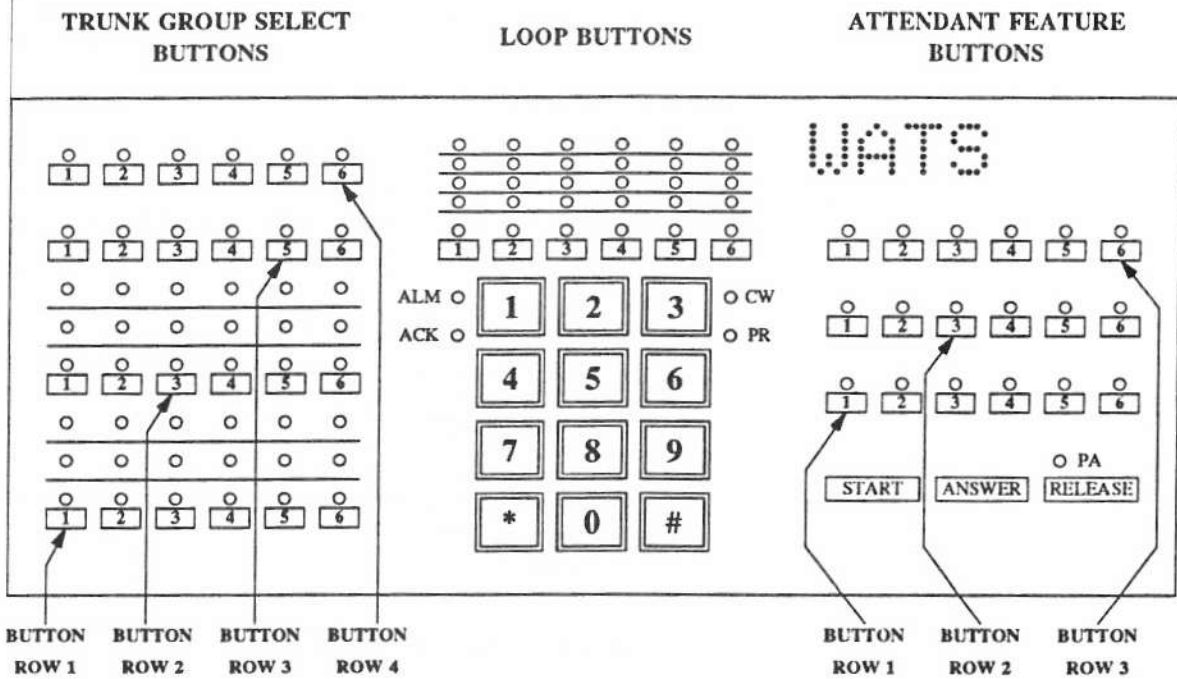
- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the FRL (0-7).
- Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

- Field 5 Enter whether the trunk group is an incoming tie trunk and if it is allowed to access ARS.
 - 0 Disable
 - 1 Enable
- Field 6 Enter the authorization code requirements:
 - 0 No
 - 1 Yes
- Field 8 Enter the number of trunks (0-15) that are reserved for first choice ARS routes.
- Field 9 Enter the ARS dialing prefix (0-9).
- Field 14 Enter the digit collection specifications:
 - 0 Overlap outpulsing
 - 1 Collect digits before outpulsing

203 Word 1 Administers the Alternate FRL and display route plan buttons on the attendant console. The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter a row number (1-3).
- Fields 2-7 Enter the appropriate button encode in the desired button location:
 - 19 Alternate FRL
 - 27 Display Route Plan



275 Word 3 Defines dial 1 requirements for toll calls and assigns the home numbering plan area (HNPA, also know as the local area code) and an FRL to the system class of service to be used in conjunction with the Unauthorized Call Control feature.

Field 1 Enter the dial 1 requirements:
 0 Not required
 1 Required for NPA calls
 2 Required for all toll calls

Field 2 Enter the HNPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).

Field 10 Enter the call control FRL (0-7).

285 Word 1 Administers ARS system COS parameters.

Field 1 Enter the Remote Access code requirements:
 0 No barrier code required for remote access
 2 AAR/ARS authorization code required for remote access.

Field 5 Enter the symmetrical routing depth assignment:
 0 Hierarchical routing
 1-9 Symmetrical routing used by AAR and ARS

Field 10 Enter the ARS authorization codes status:
 0 Disable
 1 Enable

If a "2" is entered in Field 1, this field must be enabled.

286 Word 1 Administers the ARS plan in effect and the control mode (automatic, manual override, or clocked manual override).

Fields 5-12 Enter the alternate FRLs (0-7) for ARS.

Field 13 Enter the ARS plan in effect (1-3).

Field 14 Enter the ARS control mode assignment:
 0 Automatic
 1 Manual or clocked manual override

287 Word 1 Administers the clocked manual override for the ARS plan. This allows a user to change to a different ARS plan to take advantage of special plan rates that are only available during certain times.

Field 1 Enter the day:
 1 Monday
 2 Tuesday
 3 Wednesday
 4 Thursday
 5 Friday
 6 Saturday
 7 Sunday

Field 2 Enter the hour:
 0 12 midnight
 1 1 a.m.
 ↓ ↓
 12 12 noon
 13 1 p.m.
 ↓ ↓
 23 11 p.m.

Field 3 Enter the clocked manual override:
 0 0 minutes
 15 15 minutes
 30 30 minutes
 45 45 minutes

Field 4 Enter the ARS plan used for override (1-3).

- Field 5 Enter the day to return to automatic control (manual override can only last for seven days before going back to automatic scheduling):
- 1 Monday
 - 2 Tuesday
 - 3 Wednesday
 - 4 Thursday
 - 5 Friday
 - 6 Saturday
 - 7 Sunday
- Field 6 Enter the hour to return to automatic control:
- 0 12 midnight
 - 1 1 a.m.
 - ↓ ↓
 - 12 12 noon
 - 13 1 p.m.
 - ↓ ↓
 - 23 11 p.m.
- Field 7 Enter the minute to return to automatic control:
- 0 0 minutes
 - 15 15 minutes
 - 30 30 minutes
 - 45 45 minutes

309 Word 1 Administers the routing pattern parameters for ARS such as FRLs, dial 1 for toll requirements, toll table index, etc.

- Field 1 Enter the ARS plan number (1-3).
- Field 2 Enter the ARS pattern number (1-64).
- Field 3 Enter the preference number (1-16) leaving no gaps.
- Field 4 Enter the trunk group Number (18-999).
- Field 5 Enter the FRL (0-7).
- Field 6 Enter the warning tone parameter:
 - 0 Tone not returned on a toll call
 - 1 Tone returned on a toll call
- Field 7 Enter the HNPA at distant end of route (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).

- Field 8 Enter the dial 1 requirements:
 - 0 Not required
 - 1 Required for foreign NPA
 - 2 Required for all toll calls
- Field 9 Enter the office codes which are toll calls:
 - 0 All office codes are toll calls
 - 1-63 Use the indexes assigned in Procedure 309 Word 2
- Field 10 Enter the number of beginning digits to be deleted (0-7).
- Field 11 Enter the digit collect (DC) signal ignore assignment:
 - 0 Send digits after trunk signals its readiness (wink start of delay dial)
 - 1 Ignore wink start or delay dial and wait entire pause length (administered in Procedure 309 Word 3)
- Field 12 Enter the IXC/ISDN network identifier:
 - 0 No IXC/ISDN carrier
 - 1-999 IXC/ISDN identifier

309 Word 2 Administers the ARS toll tables and defines the office code(s) at the distant end of an ARS route.

- Field 1 Enter the toll table index (1-63).
- Field 2 Enter the office code (200-999) at distant end of route.
- Field 3 Enter the toll call classification:
 - 0 Office code of Field 2 is a toll call (default)
 - 1 Office code of Field 2 is a local call

309 Word 3 Defines the digit grouping, dialing format (touch-tone or rotary), and inserted digits a trunk group in an ARS pattern required for subnetwork trunking.

- Field 1 Enter the ARS plan number (1-3).
- Field 2 Enter the ARS pattern number (1-64).
- Field 3 Enter the preference number (1-16).
- Field 4 Enter the pause length (2-16 in even increments) in seconds before the outpulsing of group one digits.
- Fields 5,8,11 Enter the number of digits to be outpulsed for groups 1, 2, and 3, respectively.
- Fields 6,9,12,14 Enter the type of signals to be outpulsed for groups 1, 2, 3, and 4, respectively:
 - 0 Touch-tone
 - 1 Rotary
- Fields 7,10,13 Enter the pause length (0-16 in even increments) in seconds before the outpulsing of digits for groups 2, 3, and 4, respectively.

309 Word 4 Administers the ARS digit insertion for subnetwork trunking.

Field 1 Enter the ARS plan number (1-3).

Field 2 Enter the ARS pattern number (1-64).

Field 3 Enter the preference number (1-16).

Field 4 Enter the digit group segment:

- 1 Digits 1-8
- 2 Digits 9-16
- 3 Digits 17-20

Field 5 Enter digit 1, 9, or 17:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 6 Enter digit 2, 10, or 18:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 7 Enter digit 3, 11, or 19:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 8 Enter digit 4, 12, or 20:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 9 Enter digit 5 or 13:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 10 Enter digit 6 or 14:

- Not assigned
- 0-9
- 11 or *
- 12 or #

Field 11 Enter digit 7 or 15:

- Not assigned
- 0-9
- 11 or *
- 12 or #

- 311 Word 3** Associates a combined office code and NPA (6-digit translation) with an ARS pattern number.
- Field 1 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
 - Field 2 Enter the Office Code (200-999).
 - Field 3 Enter the Routing Designator (1-64).
- 312 Word 1** Administers the 10-digit conversion feature. This procedure sets the same values as Procedure 312 Word 2.
- Field 1 Enter the location code (221-999).
 - Field 2 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
 - Field 3 Enter the office code (200-999).
 - Fields 4-7 Enter digits 7-10 (0-9).
- 312 Word 2** Administers the 10-digit conversion feature. This procedure sets the same values as Procedure 312 Word 1.
- Field 1 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
 - Field 2 Enter the office code (200-999).
 - Fields 3-6 Enter the digits 7-10 (-, 0-9).
 - Field 7 Enter the location code (221-999).
- 313 Word 1** Administers unauthorized call control.
- Field 1 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
 - Field 2 Enter the office code (200-999).
 - Fields 3-6 Enter digits 7-10 (-, 0-9).
 - Field 7 Enter the status of the number:
 - 0 Number is not controlled
 - 1 Number is controlled

316 Word 1 Administers the ARS 7-day clock for automatic plan change times. You can have up to six plan changes every day.

Field 1 Enter the day of plan switch:

- 1 Monday
- 2 Tuesday
- 3 Wednesday
- 4 Thursday
- 5 Friday
- 6 Saturday
- 7 Sunday

Field 2 Enter the hour of plan switch:

- 0 12 midnight
- 1 1 a.m.
- ↓ ↓
- 12 12 noon
- 13 1 p.m.
- ↓ ↓
- 23 11 p.m.

Field 3 Enter the minute (0-59) of plan switch.

Field 4 Enter the ARS plan number (1-3).

Field 5 Enter the plan availability:
0 Plan not available
1 Plan available

350 Word 2 Administers the ARS feature dial access codes.

Field 1 Enter the ARS feature codes:

- 32 ARS nontoll route
- 33 ARS toll route
- 60 Network ARS plan switch

Field 2 Enter the first digit of the dial access code:

- 0-9
- 11 or *
- 12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

ARS With International Call Routing

Previous to System 85 R2V4 Issue 1.3, international calls (011) were routed to a single ARS pattern administered in Procedure 309 Word 1. Now international calls can be routed based on the dialed digit string. For example, if a user dials 011 xxx xxx xxxx, the switch can choose private facilities or least cost services based on the dialed digits following the 011. If you wish to use private facilities (AAR) for international calls, these facilities can be administered with ARS for greater routing capabilities.

With the addition of Procedure 354 Word 2, it is possible to assign dialed digit strings to routing designators. Routing designators are simply ARS routing patterns administered in Procedure 309 Word 1. In other words, routing designators are synonymous with ARS patterns. The routing designator is always the same number for all three ARS plans.

312 Word 3 Administers digit strings to routing designators.

- | | |
|-------------|---|
| Field 1 | Enter the International Access Code (010-019). |
| Fields 2-16 | Enter the digit string in fields 4 through 18 (-,0-9). This digit string is associated with the routing designator (ARS pattern). |
| Field 17 | Enter the routing designator (1-64). |

AUTOMATIC TRANSMISSION MEASUREMENT SYSTEM

The Automatic Transmission Measurement System (ATMS) feature allows the customer to measure transmission characteristics of private network and public network trunk facilities. The transmission characteristics that can be measured include loss, noise, and echo impairments. The customer can make transmission measurements on demand or set up an automatic test schedule.

Transmission measurements are made by setting up a connection between an Originating Test Line (OTL) in the customer's System 85 (near-end system) and a Terminating Test Line (TTL) in the far-end system through the trunk to be tested.

The ATMS feature is assigned on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan, Dialing Plan — Features and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Administer a terminal test extension in Procedure 000 Word 1 with a class of service of 31 and set Field 8 = 3.

The terminal type in Procedure 051 Word 1 Field 6 must be administered as ADFTC (type 5).

Associate the equipment location (Procedure 051 Word 1) with the extension (Procedure 000 Word 1) in Procedure 052 Word 1 and set Field 6 = 4.

Procedure Sequence

ADD	CHANGE	REMOVE
106 Word 1	106 Word 1	106 Word 1
107 Word 1	107 Word 1	107 Word 1
107 Word 2	107 Word 2	107 Word 2
107 Word 3	107 Word 3	107 Word 3
107 Word 4	107 Word 4	107 Word 4
107 Word 5	107 Word 5	107 Word 5
107 Word 6	107 Word 6	107 Word 6
107 Word 7	107 Word 7	107 Word 7
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

106 Word 1 Displays information about trunks that have been busied out for maintenance purposes. You can search on the dial access code (Fields 1-4), the trunk group (Field 5), or the trunk group and trunk number (Fields 5 and 6).

- Field 1 Enter the first digit of the trunk dial access code:
0-9
11 or *
12 or #
- Field 2 Enter the second digit of the trunk dial access code (-, 0-9).
- Field 3 Enter the third digit of the trunk dial access code (-, 0-9).
- Field 4 Enter the fourth digit of the trunk dial access code (-, 0-9).
- Field 5 Enter the trunk group number (18-999).
- Field 6 Enter the trunk number (1-999).

107 Word 1 Administers a test line type and TTL telephone number to a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the test line type:
0 Disable
1 102 or old 100-type
2 New 100-type
3 LC145 or SN260A
4 SN260B
5 56A or 105-type without return loss
6 SN261, ZLC12, or 105-type with return loss
- Fields 3-18 Enter digits 1-16 (-, 0-9).

107 Word 2 Administers the types of transmission measurements to be made to a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the 1004 HZ loss maximum:
0-21 db
91 -1 db
92 -2 db
- Field 3 Enter the 1004 HZ loss minimum:
0-21 db
91 -1 db
- Field 4 Enter the positive deviation for 404 HZ Max (-, 0-9 db).
- Field 5 Enter the negative deviation for 404 HZ Max (-, 0-9 db).
- Field 6 Enter the positive deviation for 2804 HZ Max (-, 0-9 db).
- Field 7 Enter the negative deviation for 2804 HZ Max (-, 0-9 db).

- Field 8 Enter the noise without tone (-, 15-55 dbmc).
- Field 9 Enter the noise with tone (-, 34-74 dbmc).
- Field 10 Enter the low frequency singing return loss (-, 0-40 db).
- Field 11 Enter the echo return loss (-, 0-40 db).
- Field 12 Enter the high frequency singing return loss (-, 0-40 db).

107 Word 3 Administers the automatic testing parameters to a test schedule including the days of the week tests will be made, starting hour, duration, and weeks between tests.

- Field 1 Enter the schedule number (1-16).
- Field 2 Enter the test schedule:
 - 0 Schedule is run only once
 - 1-99 Weeks between tests
- Field 3 Enter the starting hour (0-23 - based on 24-hour clock).
- Field 4 Enter the duration:
 - 0 Disable
 - 1-24 Testing duration in hours
- Fields 5-11 Enter the days of the week you want tests to run:
 - 0 Disable
 - 1 Enable

107 Word 4 Administers a trunk group to a test schedule number and a test type.

- Field 1 Enter the schedule number (1-16).
- Field 2 Enter the trunk group number (18-999).
- Field 3 Enter the test type:
 - 0 All tests
 - 1 All tests except return loss
 - 2 All 105 tests except self test
 - 3 All 105 tests except self test and return loss
 - 4 Supervision test only

107 Word 5 Displays the trunk groups and test types assigned to a test schedule number. Use Next Data to display the assigned tests. Up to five test schedules are displayed at a time. Fields 2-11 display the test schedule information.

- Field 1 Enter the schedule number (1-16).

107 Word 6 Administers unacceptable transmission measurement thresholds for the measurements assigned in Procedure 107 Word 2, and the maximum percentage of trunks that can be automatically made maintenance busy for a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the 1004 HZ loss maximum:
0-21 db
91 -1 db
92 -2 db
- Field 3 Enter the 1004 HZ loss minimum:
0-21 db
91 -1 db
- Field 4 Enter the positive deviation for 1004 HZ Max (-, 0-9 db).
- Field 5 Enter the negative deviation for 1004 HZ Max (-, 0-9 db).
- Field 6 Enter the positive deviation for 1004 HZ Max (-, 0-9 db).
- Field 7 Enter the negative deviation for 1004 HZ Max (-, 0-9 db).
- Field 8 Enter the noise without tone (-, 15-55 dbmrc).
- Field 9 Enter the noise with tone (-, 34-74 dbmrc).
- Field 10 Enter the low frequency singing return loss (-, 0-40 db).
- Field 11 Enter the echo return loss (-, 0-40 db).
- Field 12 Enter the high frequency singing return loss (-, 0-40 db).
- Field 13 Enter the percent busy:
0 0%
1 25%
2 50%
3 75%
4 100%

107 Word 7 Administers the number of trunks in a trunk group that must have failed the unacceptable transmission measurement thresholds twice before a minor alarm is raised.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the number of trunks (0-120).

350 Word 2 Administers a dial access code for the Trunk Verification — Voice Terminal feature.

- Field 1 Enter the feature encode:
42 Maintenance busy a trunk
43 Maintenance release a trunk
44 Trunk Verification — Voice Terminal
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

BRIDGED CALL

The Bridged Call feature allows voice terminal users *sharing an appearance* to bridge onto an existing call on that appearance. A 2-party call becomes a 3-party call.

This feature is useful for monitoring a call, note taking, or consulting by a third party. Executives, secretaries, and consultants are potential users of this feature.

The Bridged Call feature is provided whenever images (shared appearances) of an appearance are administered.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

052 Word 1 Administers the images (shared appearances) of a line appearance. The extension number and line appearance must have the same values across two voice terminals to assign bridging.

For example, at one equipment location you could have extension 2000 with line appearance 3. At another equipment location you would also have extension 2000 with line appearance 3. These would be shared appearances.

- | | |
|---------|--|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |
| Field 6 | Enter the device type in use:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC |
| Field 7 | Enter the member (button) number (0-62). |
| Field 8 | Enter the extension (000-99999). |

- Field 9 Enter the line appearance (1-12).
- Field 10 Enter the desired line type:
 0 No prime line
 1 Prime line
 2 Auto appearance
- Field 11 Enter the ringing type:
 0 No ringing
 1 Ringing
 2 Delayed ringing
 3 Abbreviated ringing
- Field 12 Enter the whether the terminal is the home terminal:
 0 Not home terminal
 1 Is home terminal

BUSY VERIFICATION OF LINES

The Busy Verification of Lines feature allows the attendant to check the status of an apparently busy extension number. This check verifies that the called extension number is busy or appears busy. The extension number can appear busy when the terminal is left off-hook or is in need of maintenance. Being able to verify whether a line is really busy or not increases the efficient use of time and equipment.

Before allowing the attendant to connect onto a 2-way connection, the talking parties will hear a burst of warning tone. This tone is reapplied at 15-second intervals as long as the attendant is on the connection. The first burst of tone lasts for 2 seconds. Thereafter, the duration is 1/2 second.

Assignment of the Busy Verification of Lines feature is on a per-console basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

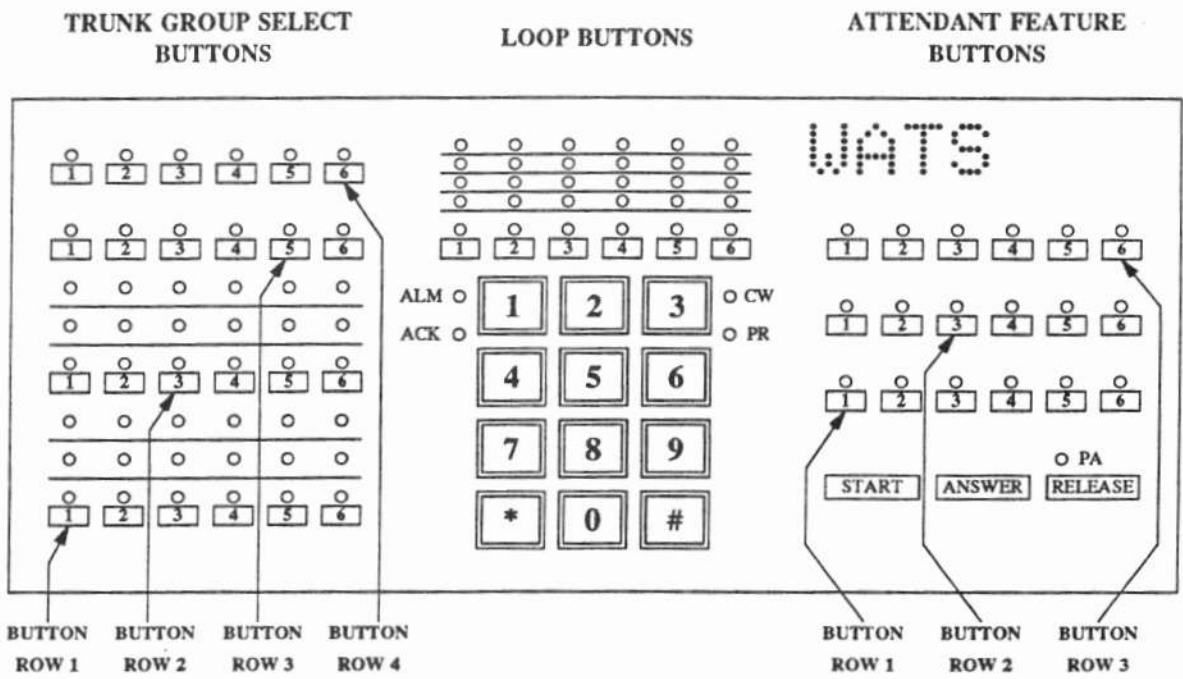
Attendant Console Administration

Procedure Usage

203 Word 1 Administers the VERIFY button for the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

Field 1 Enter the row number where you want the button (1-3).

Fields 2-7 Enter a "7" for the VERIFY button type to the desired location.



CALL COVERAGE

The Call Coverage feature provides alternate answering points for calls that might otherwise go unanswered. For a *principal* (user with Call Coverage active), Call Coverage provides automatic redirection of calls that meet specified conditions. Calls are redirected to a *coverage path*.

Assignment of the Call Coverage feature is defined by the coverage paths(s) and criteria for the group and then assigning the principal to a group.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Message Waiting — Automatic

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	075 Word 1	075 Word 1
010 Word 1	000 Word 2	010 Word 1
011 Word 1	010 Word 1	011 Word 1
054 Word 1	011 Word 1	054 Word 1
054 Word 4	054 Word 1	054 Word 4
275 Word 3	054 Word 4	275 Word 3
350 Word 2	275 Word 3	350 Word 2
	350 Word 2	

Procedure Usage

000 Word 2 Administers a coverage group to an assigned extension and designates whether a covering user is authorized to use coverage message retrieval.

Field 1	Enter the extension number (-, 000-99999).
Field 6	Enter the coverage group: - No coverage 0 Not assigned 1-1999 Single path 2000-4094 Dual path (even numbers only)
Field 7	Enter the message retrieval status: - No coverage in system 0 No message retrieval 1 Message retrieval

010 Word 1 Administers ring-ping and Send All Calls to a voice terminal class of service.

Field 1	Enter the class of service (1-30, 32-63).
Field 17	Enter the ring ping immediate assignment: 0 Disable 1 Enable
Field 23	Enter the send all calls assignment: 0 Disable 1 Enable

011 Word 1 Administers the coverage path(s) and criteria for a coverage group. The coverage criteria (Fields 2-5) are defined as follows:

- Extension active — Call goes to coverage when any appearance of that extension is active.
- Extension busy — Non-priority call goes to coverage when all appearances (except origination-only) of an extension are busy.
- All — Non-priority call goes to coverage at all times.
- D/A — Non-priority call goes to coverage if there is no answer during the don't answer interval.

This procedure also assigns the principal don't answer interval, the coverage point indicator, the coverage point, and the coverage point extension or ACD split.

Field 1	Enter the call coverage group: 1-1999 Single path coverage group number 2000-4095 Dual path coverage group number
---------	---

- Field 2 Enter the action taken when extension is active:
- 0 No coverage
 - 1 Extension calls go to coverage
 - 2 Attendant or trunk calls go to coverage
 - 3 Both extension and attendant or trunk calls go to coverage
- Field 3 Enter the action taken when extension is busy:
- 0 No coverage
 - 1 Extension calls go to coverage
 - 2 Attendant or trunk calls go to coverage
 - 3 Both extension and attendant or trunk calls go to coverage
- Field 4 Enter the action taken at all times:
- 0 No coverage
 - 1 Extension calls go to coverage
 - 2 Attendant or trunk calls go to coverage
 - 3 Both extension and attendant or trunk calls go to coverage
- Field 5 Enter the action taken when extension doesn't answer:
- 0 No coverage
 - 1 Extension calls go to coverage
 - 2 Attendant or trunk calls go to coverage
 - 3 Both extension and attendant or trunk calls go to coverage
- Field 6 Enter the principal don't answer interval:
- 0 Don't answer interval disabled
 - 2-6 Number of ring cycles
- Field 7 Enter the coverage point indicator:
- 0 Extension
 - 1 ACD split
 - 2 Vector directory number (VDN)
- Field 8 Enter the coverage point (1-3).
- Field 9 Enter the coverage point extension, VDN, or ACD split:
- 000-99999 Extension number or VDN
 - 1-60 ACD split

Extensions assigned in this field can also have bridging assigned. This will create a "group" coverage point for a coverage path. When the call redirects to that extension, anyone on a bridged appearance can answer the call. If the call remains unanswered, the call simply redirects to the next point in the coverage path. The extension assigned for this "group" coverage should be a unique extension so the user's will know where the call is being redirected from.

-
- 054 Word 1** Administers the Call Coverage buttons to an assigned multiappearance voice terminal.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type where the button will be assigned:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the button number where the assignment will be made (1-62).
- Field 8 Enter the extension number (-, 000-99999). This is only required with button type 29 in Field 9.
- Field 9 Enter the encodes to specify desired button types:
- 19 Send All Calls — Group of Extensions
 - 20 Consult
 - 23 Coverage Callback
 - 29 Send All Calls — Extension
- 054 Word 4** Administers the desired display feature buttons to an assigned multiappearance voice terminal with display capabilities.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).

Field 8	Enter the display feature button type:
	0 Normal
	1 Inspect
	2 Time of Day/Date
	3 Message Retrieval
	4 Coverage Message Retrieval
	5 Step
	6 Delete
	7 Return Call
	8 Elapsed Time
	9 Scroll

075 Word 1 Displays all voice terminals having the same call coverage group assignment.

Field 1	Enter the search type:
	4 Principal for the given coverage group (see Procedure 000 Word 2)
	5 Coverage points for the given coverage group (see Procedure 011 Word 1)
	6 Coverage points for the given coverage point extension (see Procedure 011 Word 1)
	7 Call coverage groups for the given coverage point ACD split (see Procedure 011 Word 1)

Field 2 Enter the class of service/group (-, 1-9999). Use this field only when Field 1 is 4 or 5.

Field 3 Enter the extension/ACD split number. Use this field only when Field 1 is 6 or 7.

000-99999	Extension number
1-60	ACD split number

275 Word 3 Specifies the caller response interval and the coverage don't answer interval.

Field 3	Enter the caller response interval:
	0 No interval assigned
	1-5 Number of 2-second intervals

Field 4	Enter the coverage point don't answer interval:
	- Not available
	2-6 Number of ring cycles before call continues to next coverage point

350 Word 2 Administers the dial access codes for the Call Coverage feature.

- Field 1 Enter the feature encode:
55 Send All Calls - activate
56 Send All Calls - cancel
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

CALL DETAIL RECORDING

The Call Detail Recording (CDR) feature collects call detail information about voice and data calls. A CDR record is generated by the system for each incoming or outgoing trunk seizure. These records contain data that system management can use for:

- Computing call expenses
- Detecting malfunctions in the system
- Detecting abuse of expensive facilities
- Optimizing network facilities.

In the past, the process of recording and processing CDR records has gone by several feature names (i.e., Variable Format Call Detail Recording [VFCDR], Station Message Detail Recording [SMDR], etc). These features are now all part of what is called the CDR feature. The old CDR feature terminology is still used to differentiate between CDR configurations. The following is a list of different CDR configurations.

- Variable Format Call Detail Recording (VFCDR)
The CDR generator is administered with a *15-24 word custom format* and is sending records out across the *PCC* port to a *Call Detail Recording Utility (CDRU)* or customer provided peripheral. This configuration uses all the procedures in the “ADD” list except Procedure 253 Word 1.
- Station Message Detail Recording (SMDR)
The CDR generator is administered with a *15-word default format* and is sending records out across the *SMDR* port to an *SMDR* adjunct. This configuration uses all the procedures in the “ADD” list except Procedure 255 Words 1 and 2, and Procedure 288 Word 2. The only difference in administration between SMDR and CMDR/NCOSS is the unit type administered in Procedure 253 Word 1 Field 5.
- Centralized Message Detail Recording/Network Control Operations Support System (CMDR/NCOSS)
The CDR generator is administered with an *18-word default format* and is sending records out across the CMDR/NCOSS ports to one or more *94A LSUs* being polled by a *93B CMDR* or *3B2 CDRP (Call Detail Record Poller)*. This configuration uses all the procedures in the “ADD” list except Procedure 255 Words 1 and 2, and Procedure 288 Word 2. The only difference in administration between CMDR/NCOSS and SMDR is the unit type administered in Procedure 253 Word 1 Field 5.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Trunk Administration

Procedure Sequence

ADD	CHANGE	REMOVE
275 Word 1	350 Word 2	350 Word 2
288 Word 1	275 Word 1	275 Word 1
288 Word 2	288 Word 1	288 Word 1
275 Word 1	288 Word 2	288 Word 2
651 Test 1 or 2	651 Test 1 or 2	651 Test 1 or 2
253 Word 1	253 Word 1	253 Word 1
255 Word 1	255 Word 1	255 Word 1
255 Word 2	255 Word 2	255 Word 2
651 Test 1 or 2	651 Test 1 or 2	275 Word 3
275 Word 3	275 Word 3	285 Word 1
285 Word 1	285 Word 1	286 Word 1
286 Word 1	286 Word 1	
010 Word 2	101 Word 1	
101 Word 1	010 Word 2	
350 Word 2		

Procedure Usage

- 010 Word 2** Administers forced account code entry to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 5 Enter the CDR account code requirements:
- 0 Not required
- 1 Required
- 101 Word 1** Administers CDR characteristics to assigned trunk groups.
- Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.
- Field 8 Enter the CDR Activation assignment:
- 0 Information on this trunk group is not recorded by CDR
- 1 Information on this trunk group is recorded by CDR
- 2 Information on this trunk group is recorded by CDR and an account code is required
- Field 12 Enter the number of seconds before CDR begins recording call data on this trunk group (1-99). A dash (-) in this field relinquishes control of this timer to Procedure 275 Word 3 Field 12.

253 Word 1 Administers the TN403 data channels for the SMDR or CMDR configuration. For CMDR-multiple port output (rotational output), administer the equipment locations as unit type 14. The TN474B PCC port which is used for the VFCDR and CDRP configurations is administered in Procedure 255 Word 1.

- Field 1 Enter a "5" to specify the unit type as SMDR, or enter a "14" to specify the unit type as CMDR/NCOSS.
- Field 2 Enter a "0" for the control carrier number.
- Field 3 Enter the slot number (23-26).
- Field 4 Enter the circuit number (0-15).
- Field 5 Enter the unit or extension (000-99999 for unit type 5 or 1-8 for unit type 14).

255 Word 1 Administers the PCC (TN474) equipment location and associated data parameters for VFCDR and CDRP configurations. If administering a TN403 board for SMDR or CMDR/NCOSS, use Procedure 253 Word 1.

- Field 1 Enter a "1" to specify application type as CDR.
- Field 2 Enter the slot number in the common control carrier (24-26).
- Field 3 Enter the circuit number (0-1).
- Field 4 Enter the PCC link speed:
- | | |
|---|-----------|
| 2 | 300 bps |
| 3 | 600 bps |
| 4 | 1200 bps |
| 5 | 2400 bps |
| 6 | 4800 bps |
| 7 | 9600 bps |
| 8 | 19200 bps |
- Field 5 Enter the parity:
- | | |
|---|------------------------|
| 0 | No parity/not assigned |
| 1 | Odd |
| 2 | Even |
- Field 6 Enter the number of stop bits:
- | | |
|---|-------|
| 1 | 1 |
| 2 | 1 1/2 |
| 3 | 2 |
- Field 7 Enter the character length (8-bit must be assigned for BTC protocol):
- | | |
|---|------------------|
| 1 | 5-bit characters |
| 2 | 6-bit characters |
| 3 | 7-bit characters |
| 4 | 8-bit characters |
- Field 8 Enter a "1" to set the 501-to-PCC data type to "4 hex nibbles."

Field 9	Enter the PCC-to-peripheral data type: 1 2 Hex nibbles (default) 2 1 ASCII characters
Field 10	Enter the low FIFO threshold out: 0 0-999 1 1000-1999 2 2000-2999 3 3000-3999 4 4000-4999 5 5000-5999 6 6000-6999 7 7000-7999
Field 11	Enter the high FIFO threshold out: 0 0-999 1 1000-1999 2 2000-2999 3 3000-3999 4 4000-4999 5 5000-5999 6 6000-6999 7 7000-7999
Field 12	Enter the low FIFO threshold in: 0 0-999 1 1000-1999 2 2000-2999 3 3000-3999 4 4000-4999 5 5000-5999 6 6000-6999 7 7000-7999
Field 13	Enter the high FIFO threshold in: 0 0-999 1 1000-1999 2 2000-2999 3 3000-3999 4 4000-4999 5 5000-5999 6 6000-6999 7 7000-7999

255 Word 2 Administers additional attributes to the CDR application and displays mismatches, if any, between system translation and circuit (TN474B) translation.

Field 1 Enter a "1" to specify application type as CDR.

Field 2 Enter the one-way communication enable (1).

Field 3	Enter the message format: 1 Message length in message 2 STX/ETX delimited (this is the recommended value) 3 Fixed message length
Field 4	Enter the message length (-, 1-128). A length must be set if Field 3 is 1 or 3. If Field 3 is 2, this field should be dashed.
Field 5	Enter the message protocol: 1 BTC protocol (default) 2 Direct output - 18-word format 3 Direct output - unformatted
Field 6	Enter the message failure threshold (1-15). This is the number of retries made to send a call record to the peripheral before deleting the call record.

275 Word 1 Administers the CDR features to the system class of service. Features include CDR status, account code length, and recording incoming calls. Before changes can be made in Procedure 288 Word 1, CDR must be disabled using this procedure. After making the changes in Procedure 288 Word 1, reactivate CDR using this procedure.

Field 12	Enter the CDR status: - CDR not available 0 Disable 1 Enable 2 Enable and an account code is required for all ARS calls This field must be a "1" or a "2" before any trunk calls are recorded by CDR.
Field 13	Enter the account code length (-, 1-15).
Field 14	Enter the incoming/outgoing call recording status: - No calls recorded 0 Only outgoing calls are recorded 1 Both incoming and outgoing calls are recorded

275 Word 3 Administers the timing delay for the variable start timer. Used for individual trunk groups and the system default.

Field 12	Enter the CDR default variable timer: - 6 seconds (default) 1-99 (in seconds)
Field 14	Enter the CDR calls blocked assignment: 0 All calls are blocked 1 All calls not going to the attendant are blocked 2 No calls are blocked

Calls are blocked when the system is unable to send CDR records over the PCC.

- 285 Word 1** Administers the prefix for the CDR account numbers.
- Field 6 Enter the account code prefix:
- Account codes not used
 - 0 No digit
 - 2-9 Account code prefix digit for CDR for use with AAR access
- 286 Word 1** Administers whether ineffective attempts are recorded by CDR.
- Field 15 Enter the desired assignment:
- 0 Ineffective attempts are not recorded by CDR
 - 1 Ineffective attempts are recorded by CDR
- 288 Word 1** Administers the CDR record length, opcodes provided, format, and CDR message length. You must also disable CDR in Procedure 275 Word 1 Field 12 before making any changes to this procedure.
- Field 1 Enter the CDR record length (15-24).
- Field 2 Enter the opcodes provided:
- 0 Not provided (if Field 3 = 1)
 - 1 Provided
- Field 3 Enter the CDR format:
- 0 Default (if Field 1 = 15 or 18)
 - 1 Custom
- Field 4 Enter the message length:
- 15 15 Words (SMDR)
 - 18 18 Words (LSU or CDRU)

- 288 Word 2** Allows the formatting of CDR records (to a maximum length of 24 words) by administering the starting position and field length for a data item encode. Only administrable if the CDR feature is deactivated in Procedure 275 Word 1.

If a custom format is desired, use the following diagram to plan the record layout. Once the desired data items are selected, arrange them in the order you wish them to appear on the record. Notice that each data item administered in this procedure must have a starting cell number (Field 2) and the number of cells (same as digits) it occupies (Field 3). The easiest way to do this is to enter the first data item's starting position in Field 2. Determine how many cells (or digits) the data item will occupy and enter this number in Field 3. Add (not an add routine) the contents of Field 2 to Field 3 and the total equals the first available starting cell number for the next data item. If you want space between each data item, add the number of spaces desired to the total of Fields 2 and 3. The items marked with asterisks (*) are left-justified in the data record.

- Field 1 Enter the data item encode:
- 0 Not used
 - 1 Call duration-hours
 - 2 Call duration-minutes

3	Call duration-tenths of a minute
4	Condition code
5	Trunk access code dialed
6	Trunk access code used
7	Dialed number
8	Calling number (*)
9	Account code (*)
10	Authorization code
11	Time in queue
12	Facility restriction level
13	10-thousands digit of 5-digit calling extension
14	Incoming circuit ID
15	Feature flags
16	Outgoing circuit ID
17	Outgoing circuit ID (hundreds digit)
18	Incoming circuit ID (hundreds digit)
19	Interexchange carrier code/ISDN network identifier
20	Time of day-hours
21	Time of day-minutes
22	Date-month
23	Date-day
24	Date-year
25	Incoming trunk dial access code (*)
26	Precedence level digit
27	Attendant console number
28	ISDN network service value
29	Extension partition number
30	Node number
31	ISDN bearer capability
32	QDN/VDN
33	Agent login
34	ISDN cause value
35	User to User Information (UUI) counter
36-39	Spare
50	Control Mode (*)
51	Time of day pattern set
52	1st dial access code
53	2nd dial access code
54	3rd dial access code
55	4th dial access code
56	5th dial access code
57	6th dial access code
58	7th dial access code
59	8th dial access code
60	9th dial access code
61	10th dial access code
62	11th dial access code
63	12th dial access code
64	13th dial access code
65	14th dial access code

66 15th dial access code
67 16th dial access code
68 17th dial access code
69 18th dial access code
70 19th dial access code
71 20th dial access code
72 21st dial access code
73 22nd dial access code
74 23rd dial access code
75 24th dial access code
76-127 Spare

Field 2 Enter the starting cell number (1-96).

Field 3 Enter the item length (1-31).

Words	4 Bits per Cell				4 Cells per Word											
	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01	00
1		1				2				3				4		
2		5				6				7				8		
3		9				10				11				12		
4		13				14				15				16		
5		17				18				19				20		
6		21				22				23				24		
7		25				26				27				28		
8		29				30				31				32		
9		33				34				35				36		
10		37				38				39				40		
11		41				42				43				44		
12		45				46				47				48		
13		49				50				51				52		
14		53				54				55				56		
15		57				58				59				60		
16		61				62				63				64		
17		65				66				67				68		
18		69				70				71				72		
19		73				74				75				76		
20		77				78				79				80		
21		81				82				83				84		
22		85				86				87				88		
23		89				90				91				92		
24		93				94				95				96		

NOTE: To compose an 18-word record, do not administer the lower portion of the figure, starting with word 19 (cell 73). For a 15-word record, do not administer words 16-24.

Ensure that the 3B2 CDRU has been administered either for opcodes or for no opcodes, corresponding to the CDR record layout you have administered on the system. Refer to the *Call Detail Recording Utility — Installation, Administration, and Maintenance* (555-006-110).

350 Word 2 Administers the CDR dial access codes.

- Field 1 Enter the feature encode:
36 CDR — account code
37 CDR — start
38 CDR — stop
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

651 Test 1-2 Use this procedure to busy out the PCC board before making administration changes in Procedure 255 Words 1 and 2.

- Field 1 Before making changes to Procedure 255 Words 1 and 2, select the PCC circuit to be changed by pressing the next circuit repeatedly or enter the desired equipment location. Busy out the PCC by executing busy out twice. Field 7 must equal a one before proceeding to Procedure 255. After making changes in Procedure 255, come back to this procedure and execute the release busy command. For more information, see *AT&T System 85 Advanced Networking Switch (R2V4) Maintenance (555-103-108)*.

CALL FORWARDING — BUSY AND DON'T ANSWER

The Call Forwarding — Busy and Don't Answer feature redirects calls made to one extension by sending them to another specified extension or to the attendant console.

Assignment of the Call Forwarding — Busy and Don't Answer feature is on a per-terminal, class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	010 Word 1	010 Word 1
054 Word 2	054 Word 2	054 Word 2
200 Word 1	200 Word 1	200 Word 1
204 Word 1	204 Word 1	204 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

010 Word 1 Administers Call Forwarding — Busy and Don't Answer to an extension class of service. You can have one or the other, but not both.

Field 1 Enter the class of service (1-30, 32-63).

Field 4 Enter the Call Forwarding assignment:

- 0 Disable
- 1 Enable Call Forwarding — Busy and Don't Answer
- 2 Enable Call Forwarding — Don't Answer

054 Word 2 Administers the Call Forwarding — Busy and Don't Answer button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter a "4" to specify the button type as "Call Forwarding — Busy and Don't Answer."

200 Word 1 Administers the don't-answer timing interval for Call Forwarding. This is the number of ring cycles allowed before the call is forwarded. This interval also controls the Automatic Callback don't answer interval.

- Field 4 Enter the desired number of ringing cycles (1-8).

204 Word 1 Administers the desired alphanumeric display for calls forwarded to the attendant console(s).

- Field 1 Enter "2290" as the Call Forwarding call type.
- Field 2 Enter the message number (4-63, whatever is available).
- Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

- Field 7 Leave blank.

350 Word 2 Administers the feature dial access codes.

- Field 1 Enter the applicable feature encode:
2 Call Forwarding — Busy and Don't Answer
3 Call Forwarding — cancel
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

32-4 CALL FORWARDING — BUSY AND DONT ANSWER

CALL FORWARDING — FOLLOW ME

The Call Forwarding — Follow Me feature forwards all calls from a given extension number to another selected extension number, to the attendant queue, or to a telephone in the nontoll public network. Either a voice terminal user or the attendant can activate or cancel this feature. When a call is placed to a voice terminal with Call Forwarding — Follow Me active, ring ping (a quick burst of ringing [0.1 seconds]) is provided at the forwarding terminal. This is to remind the user that the terminal is still in the forwarding mode.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)
- Voice Terminal and Data Module Administration

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

Automatic Route Selection (ARS)

If the Automatic Route Selection feature is administered for the system, Call Forwarding — Follow Me off-net calls can only access local office codes. Toll and local office codes are administered in the ARS administration plan in Procedure 309 Words 1-2.

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	000 Word 2	000 Word 2
010 Word 1	054 Word 2	010 Word 1
010 Word 2	204 Word 1	010 Word 2
054 Word 2	350 Word 2	054 Word 2
204 Word 1		204 Word 1
350 Word 2		350 Word 2

Procedure Usage

- 000 Word 2** Administers the AUDIX machine used for message taking on this extension. You can use Call Forwarding — Follow Me to forward calls to the AUDIX system. These calls are handled the same as when calls are redirected to AUDIX using Call Coverage.
- Field 1 Enter an extension (000-99999).
- Field 10 Enter the AUDIX machine number that provides coverage for that extension (1-8).
- 010 Word 1** Administers Call Forwarding — Follow Me to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 5 Enter the Call Forwarding — Follow Me assignment:
- 0 Disable
 - 1 Enable
- 010 Word 2** Administers Call Forwarding — Off Net to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 4 Enter the Call Forwarding — Off Net assignment:
- 0 Disable
 - 1 Enable
- 054 Word 2** Administers the Call Forwarding — Follow Me button on an assigned multiappearance voice terminal.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter a "3" to specify the button type as "Call Forwarding — Follow Me."

204 Word 1 Administers the desired alphanumeric display for calls forwarded to the attendant console(s).

- Field 1 Enter "2290" as the Call Forwarding call type.
- Field 2 Enter an unused message number (4-63, whatever is available).
- Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

350 Word 2 Administers the feature dial access codes.

- Field 1 Enter the applicable feature encode:
 - 1 Call Forwarding — Follow Me
 - 3 Call Forwarding — cancel
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

CALL PARK

The Call Park feature is used to place a call on hold and then transfer the call to an answer-back channel. That call can then be answered on any other voice terminal within the system. The call is reanswered by dialing the answer-back access code and the answer-back channel number.

This procedure is useful when call-related information is in another area, or the call could be handled more conveniently in another area. This feature also allows an option to have music while waiting for an answer-back.

Assignment of the Call Park feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Voice Terminal and Data Module Administration
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Music-on-Hold Access
- Restriction — Miscellaneous Trunk Restrictions

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	054 Word 1	010 Word 1
054 Word 1	350 Word 2	054 Word 1
275 Word 1		275 Word 1
350 Word 2		350 Word 2

Procedure Usage

- 010 Word 1** Administers the Conference — Three Party/Transfer to an extension class of service for use with the Call Park feature.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 14 Enter the Conference — Three Party/Transfer assignment:
 - 0 Disable
 - 1 Enable
- 054 Word 1** Administers a recall button to an assigned multiappearance voice terminal that doesn't have a fixed RECALL button.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the device type where the button will be assigned:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
 - Field 7 Enter the button number where the assignment will be made (1-62).
 - Field 8 Enter the extension number (-, 000-99999).
 - Field 9 Enter a "27" to specify button type as "Recall."
- 275 Word 1** Administers the Call Park feature in the system class of service. Note that changes to this data also affects Code Calling and Loudspeaker Paging.
- Field 7 Enter the Call Park assignment:
 - Feature not available
 - 0 Disable
 - 1 Enable

350 Word 2 Administers the Call Park dial access code.

- | | |
|---------|---|
| Field 1 | Enter a "17" as the paging answer-back feature. |
| Field 2 | Enter the first digit of the dial access code:
0-9
11 or *
12 or # |
| Field 3 | Enter the second digit of the dial access code (0-9). |
| Field 4 | Enter the third digit of the dial access code (0-9). |
| Field 5 | Enter the fourth digit of the dial access code (0-9). |

34-4 CALL PARK

CALL PICKUP

The Call Pickup feature allows anyone within a specified call pickup group to answer, at their own voice terminal, a call that is ringing at another extension within the group. This provides a simple means of answering unattended voice terminal calls.

Assignment of the Call Pickup feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	075 Word 1	075 Word 1
054 Word 2	000 Word 2	000 Word 2
350 Word 2	054 Word 2	054 Word 2
	350 Word 2	350 Word 2

Procedure Usage

000 Word 2	Administers an extension to a call pickup group.
Field 1	Enter the extension number (000-99999).
Field 4	Enter the call pickup group (0-999).

- 054 Word 2** Administers the Call Pickup button to an assigned multiappearance voice terminal.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
 - Field 7 Enter the member (button) number (1-62).
 - Field 8 Enter a "7" to specify button type as "Call Pickup."
- 075 Word 1** Displays the extensions assigned to a Call Pickup group.
- Field 1 Enter a "1" to search for Call Pickup assignments.
 - Field 2 Enter the Call Pickup group (-, 1-999).
- 350 Word 2** Administers the Call Pickup dial access code.
- Field 1 Enter a "5" for the Call Pickup feature.
 - Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
 - Field 3 Enter the second digit of the dial access code (0-9).
 - Field 4 Enter the third digit of the dial access code (0-9).
 - Field 5 Enter the fourth digit of the dial access code (0-9).

CALL VECTORING

The Call Vectoring feature is an enhanced and highly flexible way of processing incoming calls to the switch. Vectors are the basis of the Call Vectoring feature. These vectors are programmed using methods that resemble a "high-level" programming language. Using a vector (a discrete set of predefined call-processing steps), the customer can design appropriate and desirable ways of treating specific incoming calls.

Assignment of the Call Vectoring feature is on a per-trunk group and on a per-vector directory number basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Besides incoming and outgoing trunk groups, Call Vectoring requires queuing and recorded announcement trunk groups.

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

Automatic Call Distribution (ACD)

If you want both ACD and Call Vectoring, you must coordinate the administration. Do Call Vectoring first and ACD second.

Call Coverage

Look-Ahead Interflow

Names Database (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	354 Word 1	030 Word 2
354 Word 1	010 Word 3	032 Word 1
010 Word 3	000 Word 1	031 Word 2
000 Word 1	059 Word 1	031 Word 1
059 Word 1	059 Word 2	030 Word 1
059 Word 2	030 Word 1	030 Word 1
030 Word 1	030 Word 2	033 Word 1
030 Word 2	032 Word 1	000 Word 1
030 Word 3	030 Word 3	010 Word 3
031 Word 1	031 Word 1	354 Word 1
031 Word 2	031 Word 2	276 Word 1
033 Word 1	033 Word 1	
031 Word 2		
032 Word 1		
033 Word 1		

Procedure Usage

000 Word 1	Administers an extension, the class of service, and the port type as "Vector Directory Number (VDN)."
Field 1	Enter an extension (000-99999).
Field 2	Enter the module number (0-30).
Field 3	Enter the cabinet number (0-7).
Field 4	Enter the port carrier number (0-3).
Field 5	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 6	Enter the circuit number (0-7).
Field 7	Enter the class of service (1-30, 32-63). Features associated with a class of service are administered in Procedure 010 Words 1-4.
Field 8	Enter a "4" to specify the port type as VDN.
Field 9	Leave blank.

When removing an extension, Special Error Code 85 may appear with procedure numbers display in Field 11. Occurrences of this extension must be removed from those procedures before being removed in this procedure.

-
- Field 4 Enter the step type:
- Not assigned
 - 1 Queue-to-main-split
 - 2 Check-backup-split
 - 3 Route-to
 - 4 Announcement
 - 5 Delay
 - 6 Go-to-step
 - 7 Forced-disconnect
 - 8 Forced-busy
 - 9 Stop
- Field 5 Enter the destination (-, 1-99).
- Field 6 Enter the priority level:
- Not applicable
 - 0 Low priority
 - 1 Medium priority
 - 2 High priority
 - 3 Top priority
- Field 7 Enter the condition:
- Unconditional branch (null test)
 - 0 Go to step if number of available agents is greater than the threshold (Field 8)
 - 1 Go to step if number of available agents is less than the threshold (Field 8)
 - 2 Go to step if number of staffed agents is greater than the threshold (Field 8)
 - 3 Go to step if number of staffed agents is less than the threshold (Field 8)
 - 4 Go to step if number of calls queued is greater than the threshold (Field 8)
 - 5 Go to step if number of calls queued is less than the threshold (Field 8)
 - 6 Go to step if oldest call waiting is greater than the threshold (Field 8)
 - 7 Go to step if oldest call waiting is less than the threshold (Field 8)
 - 8 Go to step if time of day equal to or after starting time
 - 9 Go to step if time of day equal to or before starting time
- If Field 4 is 5, the following encodes apply in this field:
- 0 Silence
 - 1 Ringback
 - 2 Music
- Field 8 Enter the threshold (-, 0-1024).
- Field 9 Enter the split number (-, 1-60).

Field 10 Enter the day:
 - Not applicable
 0 Everyday
 1 Monday
 2 Tuesday
 3 Wednesday
 4 Thursday
 5 Friday
 6 Saturday
 7 Sunday

Field 11 Enter the hour (-, 0-23).

Field 12 Enter the minute (-, 0-59).

031 Word 1 Administers a VDN termination to a vector number, VDN measuring, the VDN ICI message, the return call assignment and the VDN override flag. The machine number of the return-call adjunct is displayed in the VDN field.

Field 1 Enter the VDN (000-99999).

Field 2 Enter the vector number (-, 1-128).

Field 3 Enter the measure capabilities:
 0 VDN is not measured
 1 VDN is measured

Fields 4-7 Enter the desired character encodes. If one field has characters, all four fields must have characters.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 8 Enter the return call indicator:
 -, 0 Not a return call VDN
 1 MCS return call VDN
 2 AUDIX return call VDN

Field 9 Enter the VDN override flag:
-, 0 Disable
1 Enable

When a call is routed to another VDN using vector processing, setting the VDN override flag to 1 does two things:

1. It allows the "routed-to" VDN name to be displayed instead of the "called" VDN name.
2. It also allows the answering ACD split agent to hear the "routed-to" VDN origin announcement instead of the "called" VDN origin announcement.

Neither of these apply when the call is routed to another VDN by Call Coverage or Call Forwarding.

031 Word 2 Administers termination of a trunk group to a VDN.

Field 1 Enter the trunk group number (-, 18-999).

Field 2 Enter the VDN (-, 000-99999).

032 Word 1 Administers the vectors that queue to or check the queue of a particular split (either main or backup).

Field 1 Enter the split number (1-60).

Field 2 Enter the split type:
1 Main split
2 Backup split

Field 3 Enter the vector number (-, 1-128).

033 Word 1 Administers queue-of-origin announcements for Automatic Call Distribution (ACD) splits, city-of-origin announcements for trunk groups and VDN-of-origin announcements for VDNs.

Field 1 Enter the VDN (000-99999), trunk group (18-999), or ACD split (1-60) number.

Field 2 Enter the type of data in Field 1:
0 ACD split
1 Trunk group
2 VDN

Field 3 Enter the recorded announcement number (16-99).

059 Word 1 Administers an Abbreviated Dialing group list used for Call Vectoring.

Fields 1-5 Leave blank.

Field 6 Enter a "0" as the group list type.

Field 7 Enter the group list number (-, 1-9999).

-
-
- Field 8 Enter the list size (-, 5-95 in increments of 5).
- Field 9 Enter the group list controller:
0 Terminal not controller
1 Terminal is controller
- Field 10 Enter the system list access:
0 No access
1 Access

059 Word 2 Administers Abbreviated Dialing group list items.

- Fields 1-5 Leave blank.
- Field 6 Enter a "0" as the group list type.
- Field 7 Enter the group list number (-, 0-9999).
- Field 8 Enter the list item (1-95).
- Field 9 Enter the segment:
1 Characters 1-4
2 Characters 5-8
3 Characters 9-12
4 Characters 13-16
5 Characters 17-20
- Field 10 Enter the read/write mode:
-, 1 Read/Write - machine-used table
0 Read/Write - scratch-pad table
- For a display (read) routine:
-, 1 Read list item from machine-used table.
0 Read list item from scratch-pad table.
- For a change (write) routine:
1 Write list item to machine-used table.
0 Write list item to scratch-pad table.
- Fields 11-14 Enter the digits of the list item (-, 0-19).
0-9
11 or *
12 or #

276 Word 1 Administers Call Vectoring to the feature group class of service.

- Field 5 Enter the call vectoring assignment:
0 Disable
1 Enable

354 Word 1 Administers the blocks of extension used for VDNs. VDNs are assigned in Procedure 000 Word 1.

Field 1 Enter the first extension number in a group (any 3-, 4-, or 5-digit number ending in 0).

Field 2 Enter the last extension number in a group (any 3-, 4-, or 5-digit number ending in 9). The last extension number (Field 2) must be larger than the first extension number (Field 1) and both numbers must have the same number of digits.

CALL WAITING

The Call Waiting feature allows a call to a busy single-appearance voice terminal to be held waiting on the called voice terminal. The calling party hears call waiting ringback tone, and the called party hears a special tone indicating that a call is waiting. One burst of tone indicates a terminal-to-terminal call, and two bursts of tone indicate an attendant or an outside call.

Assignment of the Call Waiting feature is on a per-system and per-voice terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	010 Word 1	010 Word 1
275 Word 1	350 Word 2	275 Word 1
350 Word 2		350 Word 2

Procedure Usage

- 010 Word 1** Administers the Call Waiting feature to an extension class of service.
- Field 1 Enter the class of service* (1-30, 32-63).
 - Field 9 Enter the Call Waiting assignment:
 - 0 Disable
 - 1 Enable
- 275 Word 1** Administers the Call Waiting feature to the system class of service. Changes to this field also affect the Attendant Call Waiting feature.
- Field 5 Enter the Call Waiting assignment:
 - 0 Disable
 - 1 Enable

350 Word 2 Administers the Call Waiting answer hold dial access code.

Field 1 Enter a "6" for Call Waiting — answer hold.

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

CENTRALIZED ATTENDANT SERVICE

The Centralized Attendant Service feature allows a System 85 R2V4 served by systems at two or more locations to consolidate the attendant positions at one of these locations. At unattended branch locations, calls requiring attendant services route over RLTs (release link trunks) to the centralized (main) location.

Assignment of the CAS feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Attendant Console Administration

- Dialing Plan and Dialing Plan — Extensions (See Chapter 2, “System Administration”)

- Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, “System Administration”)

- Trunk Administration

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

- Force Administration Data System (FADS)

- Remote Access

Common Administration for Main and Branch Locations
Procedure Sequence

ADD	CHANGE	REMOVE
001 Word 1	155 Word 1	115 Word 1
155 Word 1	275 Word 3	155 Word 1
115 Word 1	001 Word 1	001 Word 1
275 Word 3	115 Word 1	275 Word 3

Procedure Usage

- 001 Word 1** Administers the associated extensions to the primary extension for uniform numbering.
- Field 1 Enter the primary extension number (a valid assigned extension number within the range of 000-99999).
- Field 2 Enter the associated extension number (a valid unassigned extension number within the range of 000-99999).
- 115 Word 1** Administers the termination point for an incoming trunk group to the CAS or special services (SS) attendant.
- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the termination point:
 Trunk group terminates on an ACD split (main administration)
 0 Trunk group terminates on SS (branch administration)
 1 Trunk group terminates on CAS (branch administration)
- 155 Word 1** Administers the equipment location of a contact interface trunk (SN241) to its trunk group number. The equipment type and board index must be identified.
- Field 1 Enter the type of contact interface board assigned:
 1 CAS (outgoing) status, branch
 2 CAS (incoming) status, main
- Field 2 Enter the index used to identify a board of a given type:
 0-2 CAS outgoing valid range
 0-13 CAS incoming valid range
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).
- Field 5 Enter the port carrier number (0-3).
- Field 6 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 7 Enter the contact interface trunk group assigned in
Procedure 100 Word 1.

275 Word 3 Enter the the DCS node number of the main location.

Field 9 Enter the CAS main system number:
1-40 CAS main system

Administration for Main Locations

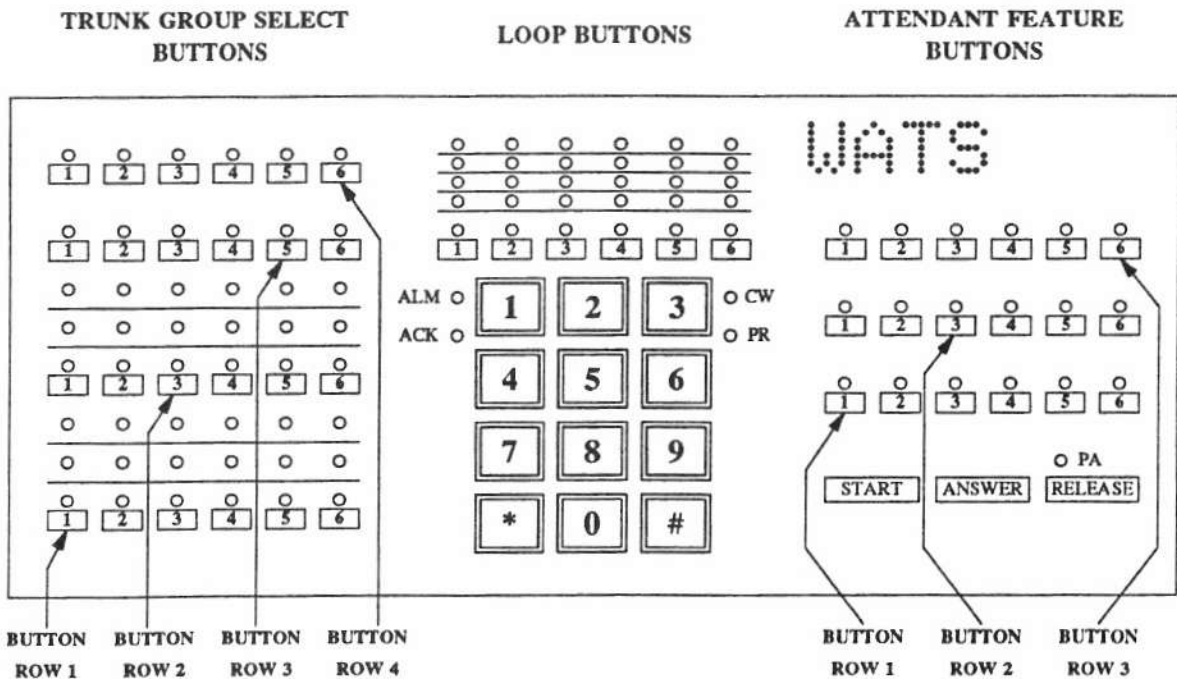
Procedure Sequence

ADD	CHANGE	REMOVE
203 Word 1	203 Word 1	203 Word 1
204 Word 1	204 Word 1	204 Word 1
212 Word 1	212 Word 1	212 Word 2
212 Word 2	212 Word 2	212 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

203 Word 1 Administers the RLT RELEASE button to the CAS consoles. The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter the row number of control button (1-3).
- Fields 2-7 Enter a "29" for the RLT RELEASE button in the desired location.



204 Word 1 Administers the desired alphanumeric display for CAS on the attendant console(s).

- Field 1 Enter "2320" as the CAS call type.
- Field 2 Enter the CAS branch number (1-40, whatever is available).
- Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

212 Word 1 Administers the branch number, the incoming RLT trunk group, and the branch type.

- Field 1 Enter the branch number (1-40).
- Field 2 Enter the incoming RLT trunk group number (18-999).
- Field 3 Enter the branch type indicator:
 - 0 Non-ESS branch
 - 1 ESS branch

212 Word 2 Administers the branch number, the RLT equipment location, and the lamp control circuit.

- Field 1 Enter the branch number (1-40).
- Field 2 Enter the module number (0-30).
- Field 3 Enter the cabinet number (0-7).
- Field 4 Enter the port carrier number (0-3).
- Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 6 Enter the circuit number (0-7).
- Field 7 Enter the lamp control circuit index of SN241 (0-8).
- Field 8 Enter the circuit to which the lamp is connected on the above board (0-7).

350 Word 2 Administers the CAS feature access codes.

- Field 1 Enter the CAS feature access codes:
45 CAS control - activate
48 CAS attendant puts remote call in hold state
64 CAS main lamp test
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

Administration for a Branch Location
Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 1	000 Word 1	211 Word 2
000 Word 2	000 Word 2	211 Word 1
252 Word 2	211 Word 1	000 Word 1
275 Word 4	211 Word 2	000 Word 2
211 Word 1	252 Word 2	252 Word 2
211 Word 2	350 Word 2	275 Word 4
350 Word 2		350 Word 2

Procedure Usage

- 000 Word 1** Administers CAS backup terminal equipment location and class of service.
- Field 1 Enter the extension number (000-99999).
 - Field 2 Enter the module number (0-30).
 - Field 3 Enter the cabinet number (0-7).
 - Field 4 Enter the port carrier number (0-3).
 - Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 6 Enter the circuit number (0-7)
 - Field 7 Enter the class of service (1-30, 32-63).
- 000 Word 2** Administers the hunt-to assignments for the CAS backup terminal.
- Field 1 Enter an extension (000-99999).
 - Field 2 Enter the "hunt-to" extension (000-99999).
- 211 Word 1** Administers the following CAS attendant features: timed reminder time, LDN tones, special queue group trunk group, and queue overflow level.
- Field 1 Enter the timed reminder time in minute increments:
 - No timed reminder
 - 1-31 Time, in minutes, after which the CAS attendant will be reminded of calls which have not been sent to the proper destination

- Field 2 Enter the LDN tone indicator:
 0 ICI display is used on LDN calls
 1 Special tone given to CAS attendant on LDN calls
- Field 3 Enter the CAS queue group (18-999).
- Field 4 Enter the CAS overflow level:
 - No overflow warning
 1-99 Overflow warning level

211 Word 2 Administers the RLT equipment location, the backup extension number, and the start pulse. The backup extension number will receive calls which are directed to the release link trunk if the RLT is out of service or the CAS is in backup mode.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the extension (000-99999).
- Field 7 Enter the start pulse:
 0 Disable
 1 Enable (wink signaling is sent)

252 Word 2 Administers an auxiliary tone plant (SN253) for use with CAS. The equipment type, the tone plant number, and the equipment location must be administered.

- Field 1 Enter the equipment type (1 or 2).
- Field 2 Enter the tone plant number (0-1).
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).
- Field 5 Enter the port carrier number (0-3).
- Field 6 Enter a "0" for the circuit number.

275 Word 4 Administers trunk-to-trunk transfer to the system class of service.

- Field 3 Enter a "1" to enable trunk-to-trunk transfer.

350 Word 2 Administers the CAS feature access codes.

- Field 1 Enter the feature encodes:
- 8 Attendant DAC (for local attendant console, if provided)
 - 45 CAS control - activate
 - 46 Control of CAS backup terminal - activate
 - 47 Call Answer From Any Voice Terminal (CAAVT) for CAS backup - activate
 - 48 CAS attendant puts remote call in hold state
 - 49 Call to CAS attendant
 - 50 CAS branch lamp test
- Field 3 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

CODE CALLING ACCESS

The Code Calling Access feature allows attendants, voice terminal users, and tie trunk users to page a specific individual using coded chime signals, which are broadcast over a loudspeaker system. The paged party answers the page by dialing an answer-back code from any voice terminal within the system.

The Code Calling Access feature is assigned on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Voice Terminal and Data Module Administration

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Direct Trunk Group Selection

Restriction — Miscellaneous Trunk Restrictions

Procedure Sequence

ADD	CHANGE	REMOVE
252 Word 2	252 Word 2	252 Word 2
275 Word 1	275 Word 4	275 Word 1
275 Word 4	350 Word 2	275 Word 4
350 Word 2		350 Word 2

Procedure Usage

- 252 Word 2** Administers the auxiliary tone plant (SN253) for use with chime paging.
- Field 1 Enter the equipment type:
 - 1 CAS and tone detector only
 - 2 CAS and tone detector with code calling. Only 1 assignment of this type allowed
 - Field 2 Enter the tone plant (0-1).
 - Field 3 Enter the module number (0-30).
 - Field 4 Enter the cabinet number (0-7).
 - Field 5 Enter the port carrier number (0-3).
 - Field 6 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 7 Enter the circuit number (0-7).
- 275 Word 1** Administers the Code Calling Access feature to the system class of service.
- Field 7 Enter the Paging/Code Calling assignment:
 - Not available
 - 0 Disable
 - 1 Enable with audible ring back
 - 2 Active with music
- 275 Word 4** Administers the number of digits used in the Code Calling Access — Traditional paging tone.
- Field 1 Enter the code calling access digits:
 - Not available
 - 0 Disable
 - 2 2-digit called party code
 - 3 3-digit called party code
- 350 Word 2** Administers the feature and answer-back dial access codes for code calling.
- Field 1 Enter an "18" for the Code Calling answer back feature.
 - Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
 - Field 3 Enter the second digit of the dial access code (0-9).
 - Field 4 Enter the third digit of the dial access code (0-9).
 - Field 5 Enter the fourth digit of the dial access code (0-9).

CONFERENCE — ATTENDANT SIX PARTY

The Conference — Attendant Six Party feature allows an attendant to set up a conference for up to six conferees, plus the attendant.

Conferees do not need to be on the same system. External conferees can be included in a conference call.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Attendant Console Administration

Trunk Administration

Procedure Sequence

ADD	CHANGE	REMOVE
054 Word 1	054 Word 1	054 Word 1
202 Word 1	202 Word 1	202 Word 1
204 Word 1	204 Word 1	204 Word 1

Procedure Usage

054 Word 1 Administers the recall button to an assigned multiappearance voice terminal that doesn't have a fixed recall button.

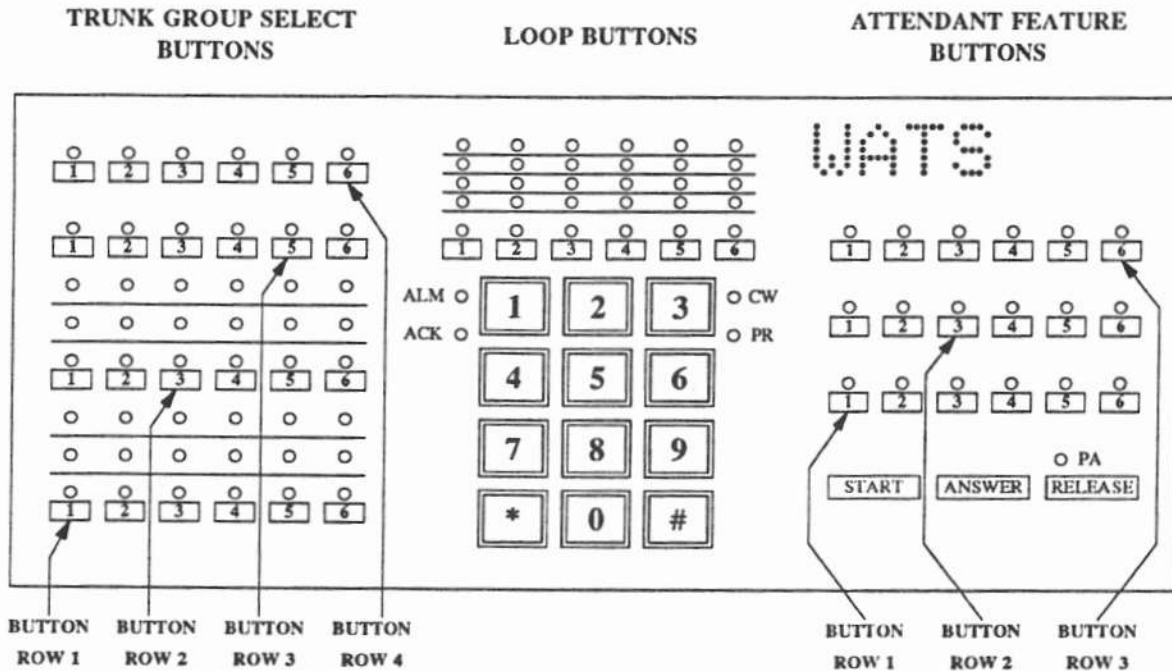
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).

- Field 6 Enter the device type where the button will be assigned:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the button number where the assignment will be made (1-62).
- Field 8 Enter the extension number (-, 000-99999).
- Field 9 Enter a "27" to specify button type as "Recall."

202 Word 1 Administers the Direct Trunk Group Selection buttons to the attendant console(s). The buttons used for this feature are on the left half of the console. The rows are numbered from bottom-to-top (1-4) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter the desired row number (1-4).
- Field 2 Enter the desired button number (1-6).
- Field 3 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 4 Enter the second digit of the dial access code (0-9).
- Field 5 Enter the third digit of the dial access code (0-9).
- Field 6 Enter the fourth digit of the dial access code (0-9).
- Field 7 Enter the desired trunk group busy/warning status:
- 0 Busy for this trunk group only
 - 1 Busy for this trunk group and route advance trunk groups
 - 2 Busy/warning for this trunk group only
 - 3 Busy/warning for this trunk group and route advance trunk groups
- Field 8 Enter the warning lamp level (1-7). When the number of idle trunks is less than or equal to the number in this field, the applicable warning lamp will light.
- Field 9 Enter the remote flag indicator (0, 1). A "1" in this field when there is nothing in Fields 10-12 means that the trunk group (DAC in Fields 3-6) homes on this system but may be controlled or selected by a remote system. Having a "1" in this field when there is a DAC in Fields 10-12 means that the trunk group is remote to this system, but may be controlled or selected by this system. In this case, the local DAC (Fields 3-6) will access the tie trunk to the remote system.

- Field 10 Enter the first digit of the remote dial access code:
0-9
11 or *
12 or #
- Field 11 Enter the second digit of the remote dial access code (0-9).
- Field 12 Enter the third digit of the remote dial access code (0-9).



204 Word 1 Administers the desired alphanumeric display on the attendant console(s).

- Field 1 Enter "2295" as the conference recall call type.
- Field 2 Enter an unused message number 4-63 (whatever is available).

Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

CONFERENCE — THREE PARTY

The Conference — Three Party feature allows voice terminal users to set up 3-party conferences without attendant assistance. This is done by adding the third party to an established 2-party connection. Participants can include stations that are external to the system.

Assignment of the Conference — Three Party feature is on a per-line class of service basis for single-appearance terminals. Multiappearance terminals are always provided with the Conference — Three Party feature (not administrable). When required, the trunk-to-trunk transfer option is administered on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1 275 Word 4		010 Word 1 275 Word 4

Procedure Usage

010 Word 1	Administers the Conference — Three Party feature to an extension class of service. Field 1 Enter the class of service (1-30, 32-63). Field 14 Enter the Conference — Three Party/Transfer assignment: 0 Disable 1 Enable
275 Word 4	Administers the trunk-to-trunk transfer capability to the system class of service. Field 3 Enter the trunk-to-trunk transfer assignment: 0 Disable 1 Enable

DATA CALL SETUP

The Data Call Setup feature provides access to the System 85 R2V4 data services from most types of data endpoints. Data endpoints may be located on-premises or off-premises and may use either analog or digital interfaces. Standard data rates supported are:

- Low (300 bps and below)
- 300 bps
- 1200 bps
- 2400 bps
- 4800 bps
- 9600 bps
- 19200 bps.

The Data Call Setup feature is assigned on a line class of service (COS) basis. The data preindication, 1-button data call transfer, and return-to-voice functions of the DATA button are assigned individually on a per button, per voice terminal basis. Keyboard Dialing, also known as terminal dialing, is assigned on a per data terminal or data module basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Trunk Administration

Voice Terminal and Data Module Administration

Use Procedure 051 Word 1 to administer keyboard dialing to an assigned multiappearance voice terminal (Field 13).

Use Procedure 052 Word 1 to administer voice and data line appearances to an assigned multiappearance voice terminal.

Procedure Sequence

ADD	CHANGE	REMOVE
013 Word 3	013 Word 3	013 Word 1
013 Word 1	013 Word 1	055 Word 2
013 Word 2	013 Word 2	059 Word 4
055 Word 2	055 Word 2	350 Word 2
059 Word 4	059 Word 4	
350 Word 2	350 Word 2	

Procedure Usage

013 Word 1 Administers the alphanumeric strings (names) for the mnemonic dialing function. These strings would be used by the user to dial a computer.

Field 1 Enter the segment (-, 1).

Fields 2-11 Enter the character string. The first character must be alphabetic. The rest may be alphanumeric.

21 = A	53 = L	91 = W	44 = g	14 = q	00 = 0
22 = B	61 = M	92 = X	45 = h	75 = r	01 = 1
23 = C	62 = N	93 = Y	46 = i	76 = s	02 = 2
31 = D	63 = O	12 = Z	54 = j	84 = t	03 = 3
32 = E	71 = P	24 = a	55 = k	85 = u	04 = 4
33 = F	11 = Q	25 = b	56 = l	86 = v	05 = 5
41 = G	72 = R	26 = c	64 = m	94 = w	06 = 6
42 = H	73 = S	34 = d	65 = n	95 = x	07 = 7
43 = I	81 = T	35 = e	66 = o	96 = y	08 = 8
51 = J	82 = U	36 = f	74 = p	15 = z	09 = 9
52 = K	83 = V				

013 Word 2 Administers the telephone numbers to the alphanumeric strings entered in Procedure 013 Word 1 for mnemonic dialing.

Field 1 Enter the segment:

- 1 Characters 1-5
- 2 Characters 6-10
- 3 Characters 11-15
- 4 Characters 16-20

Field 2 Enter the read/write mode:

- Machine-used tables
- 0 Scratch-pad tables
- 1 Machine-used tables

Fields 3-7 Enter the character encodes for characters 1-5:

- 0-9
- 11 or *
- 12 or #
- 13 Function entry
- 14 Pause (for dial tone)
- 15 Wait (for dial tone)
- 16 Mark
- 17 Await dial tone
- 18 Manual digit entry (must be followed by a number 1-15)

013 Word 3 Displays the number of mnemonic dialing names that can still be added to the system list.

055 Word 2 Administers a data button to an assigned multiappearance voice terminal. Fields 1-5 specify the equipment location for the terminal equipment. Fields 8-12 specify the equipment location for the data module equipment.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-7).

Field 6 Enter the device type:

- 0 Basic set
- 1 Feature module
- 2 Coverage module
- 3 Display module
- 4 ADFTC

Field 7 Enter the member (button) number (1-62).

Field 8 Enter the module number (0-30).

Field 9 Enter the cabinet number (0-7).

Field 10 Enter the port carrier number (0-3).

Field 11 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 12 Enter the circuit number (0-7).

- 059 Word 4** Administers an Abbreviated Dialing item for calling a data module with one button push.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC
- Field 7 Enter the member (button) number (0-36).
- Field 8 Enter the segment:
1 Characters 1-4
2 Characters 5-8
3 Characters 9-12
4 Characters 13-16
5 Characters 17-20
- Assign automatic dialing button
- Field 9 Enter the read/write mode:
-, 1 Read/Write - machine-used table
0 Read/Write - scratch-pad table
- For a display (read) routine:
-, 1 Read list item from machine-used table
0 Read list item from scratch-pad table
- For a change (write) routine:
1 Write list item to machine-used table
0 Write list item to scratch-pad table
- Fields 10-13 Enter the button assignments for characters 1-4. The encodes are as follows:
0-9
11 or *
12 or #
13 Function entry
14 Pause (for dial tone)
15 Wait (for dial tone)
16 Mark
17 Await dial tone
18 Manual digit entry (must be followed by a number from 1-15)
19 Suppress display

350 Word 2 Administers the dial access code for terminal entry of default dialing (Abbreviated Dialing) list item.

- Field 1 Enter the feature encode:
- 90 Dial the System List - touch-tone terminal
 - 91 Dial List "A" - touch-tone terminal
 - 92 Dial List "B" - touch-tone terminal
 - 93 Program auto dial number or list
 - 94 Dial the System List - rotary terminal
 - 95 Dial List "A" - rotary terminal
 - 96 Dial List "B" - rotary terminal
- Field 2 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

DATA COMMUNICATIONS ACCESS

The Data Communications Access (DCA) feature provides an analog interface to local (on-premises) computer facilities. This feature is useful for host computers already setup with data sets (modems) for analog conversion. DCA can also be useful when a large percentage of calls to the supported host will be from analog facilities (analog trunk calls or analog interfaced local terminals). DCA ports are connected directly to analog tie trunk circuits on the System 85 R2V4.

The DCA feature is administered by assigning DCA ports to equipment locations and assigning the equipment locations to one or more trunk groups. The trunk groups are then administered as DCA trunk groups.

Prerequisite Administration

To administer this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restriction — Miscellaneous Trunk Restrictions

Restriction — Voice Terminal Restrictions

Trunk-to-Trunk Connections

DATA PROTECTION

The Data Protection feature blocks intrusions by bridge-on features (e.g., Call Waiting, Override, Busy Verification) that would disrupt data transmissions. This protection applies to intrusions from the local system only. Unwanted tones generated by a distant system must be blocked at that end. Any signals present on an incoming data transmission are seen as data.

Data Protection — Temporary is assigned on a per-system basis. Dial access is then provided to all users provided with the access code. Data Protection — Permanent is assigned on a per-line class-of-service basis or on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Trunk Administration

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 3	350 Word 2	010 Word 3
103 Word 1		103 Word 1
350 Word 2		350 Word 2

Procedure Usage

010 Word 3 Administers the Data Protection — Permanent feature to an extension class of service. Note that a "1" in Field 13 will cause extensions for that class of service to receive 1-burst ringing on incoming trunk calls and attendant calls.

Field 1 Enter the class of service (1-30, 32-63).

Field 13 Enter the Data Protection (permanent) restrictions:

0 Not restricted

1 Restricted

103 Word 1 Administers the Data Protection — Permanent feature to an assigned trunk group.

Field 1 Enter the trunk group number (18-999).

Field 10 Enter the Data Protection assignment:
0 Disable
1 Enable

350 Word 2 Administers the Data Protection — Temporary dial access code.

Field 1 Enter "13" for the Data Protection — temporary feature.

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

DEDICATED SWITCH CONNECTIONS

A Dedicated Switch Connection (DSC) acts like a hard-wired link between two ports on the system. In effect, this feature provides a full time open line between the assigned end points.

Once administered, the connection remains intact until removed. If a power failure occurs or a reinitialization of the system is required, the connection is automatically reestablished when power is restored or the initialization is complete.

The Dedicated Switch Connections feature is assigned on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Extensions (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 3 360 Word 1	000 Word 3 360 Word 1	000 Word 3 360 Word 1

Procedure Usage

000 Word 3 Administers a code for a "dedicated mode" message used with some data modules. This code cannot be used with PDMs, TDMs, or MDMs. The 7400 data module will use this code.

Field 3 Enter the dedicated switch connection message assignment:

0	Not supported (TDM, PDM, MDM, DTDM)
1	Supported (7400 or 3270 Data Module)

360 Word 1 Administers a dedicated switch connection between two line or trunk ports. Each port must first be administered as a line or a trunk.

- Field 1 Enter the DSC status:
0 Off
1 On
- Field 2 Enter the DSC number desired for this connection (0-1023).
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).
- Field 5 Enter the port carrier number (0-3).
- Field 6 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 7 Enter the circuit number (0-7).
- Field 8 Enter the desired I-channel assignment:
- Use this if not on a GPP
0 I-channel 1
1 I-channel 2
- Field 10 Enter the module number (0-30).
- Field 11 Enter the cabinet number (0-7).
- Field 12 Enter the port carrier number (0-3).
- Field 13 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 14 Enter the circuit number (0-7).
- Field 15 Enter the desired I-channel assignment:
- Use this if not on a GPP
0 I-channel 1
1 I-channel 2

DIAL ACCESS TO ATTENDANT

The Dial Access to Attendant feature allows a voice terminal user to access an attendant by dialing a code, usually zero (0), or by dialing an listed directory number (LDN). In a system with multiple attendants, a specific attendant can be accessed when an individual access code is assigned.

Administration of the Dial Access to Attendant feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Attendant Console Administration

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

- Attendant Interposition Calling and Transfer

Procedure Usage

- 350 Word 2** Administers the attendant dial access codes.
- | | |
|---------|---|
| Field 1 | Enter the feature encode:
8 Attendant dial access code
30 Extension to selected attendant |
| Field 2 | Enter the first digit of the dial access code:
0-9
11 or *
12 or # |
| Field 3 | Enter the second digit of the dial access code (0-9). |
| Field 4 | Enter the third digit of the dial access code (0-9). |
| Field 5 | Enter the fourth digit of the dial access code (0-9). |

DIGITAL MULTIPLEXED INTERFACE

The Digital Multiplexed Interface (DMI) feature provides digital connectivity between the System 85 R2V4 and other facilities. The DMI feature can be administered with bit oriented signaling (BOS) or message oriented signaling (MOS). DMI-BOS uses the ANN11 circuit pack (same as DS1) while DMI-MOS uses the ANN35 circuit pack (same as ISDN/PRI).

DMI-BOS is administered with the same procedures used to administer the DS1 feature. The main difference between DMI-BOS and DS1 is that DS1 has a wider range of applications than DMI-BOS. Currently, the only applications of DMI-BOS are host computer access and data connectivity to private and public networks that support DMI-BOS signaling. On the other hand DS1 is used for several trunking applications.

The DMI-MOS version is administered with the same procedures used to administer the ISDN/PRI feature. The main difference between DMI-MOS and ISDN/PRI is that DMI-MOS is only used for data connections to a host computer, while ISDN/PRI is used for several trunking applications.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Restriction — Miscellaneous Trunk Restrictions
- Automatic Alternate Routing (AAR)
 - DMI trunks can be administered to AAR routing patterns.
- Automatic Route Selection (ARS)
 - DMI trunks can be administered to ARS routing patterns.
- Attendant Direct Trunk Group Selection
- Route Advance

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 4	010 Word 4	108 Word 1
010 Word 4	100 Word 2	103 Word 1
100 Word 2	100 Word 3	290 Word 1
100 Word 3	103 Word 1	290 Word 2
103 Word 1	108 Word 1	354 Word 3
108 Word 1	290 Word 1	262 Word 1
260 Word 1	290 Word 2	260 Word 1
262 Word 1	260 Word 1	275 Word 4
354 Word 3	262 Word 1	275 Word 1
275 Word 1	354 Word 3	010 Word 4
275 Word 4		

Procedure Usage

- 000 Word 4** Administers the code for the ISDN calling number identification.
- Field 1 Enter the extension (000-99999).
- Field 4 Enter the NPA-NXX designator (1-99).
- 010 Word 4** Administers the DMI-MOS (and ISDN) access and routing to an extension class of service. The DMI-MOS and ISDN access are treated as the same feature by this procedure. This procedure is not used for DMI-BOS.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 3 Enter the DMI-MOS (ISDN) routing access assignment:
- DMI-MOS (ISDN) service is not supported
 - 0 Use any facility
 - 1 Use DMI-MOS (ISDN) exclusively
 - 2 Use DMI-MOS (ISDN) if available; else use any available facility
- 100 Word 2** Administers a bearer capability class of service to an assigned trunk group.
- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the bearer capability class of service (0-255).
- 100 Word 3** Administers the trunk types and specific signaling for DMI trunk groups.
- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter "20" for all DMI trunk groups.

Field 3	Enter the glare control: 0 Treat glare as a single error 1 This system is in control of glare 2 This system backs off from glare
Field 4	Enter the retry specifications (for use with trunk types 41, 42, 43, 46, 47, and 120 that have signaling type 20): 0 Not active 1 Active
Field 5	Enter the outgoing seizure on maintenance busy out specifications: 0 Not active 1 Active
Field 6	Enter the incoming permanent seizure specifications: 0 Not active 1 Active
Field 7	Enter the failure threshold limit (only on trunk types 41, 42, 43, 46, and 47): 0 No failure threshold 1-99 Failure threshold limit
Field 8	Enter the data if the optional DMI information element is included in the DMI message: - Not applicable 0 Optional information element group included in ISDN message 1 Optional information element group not included in ISDN message
103 Word 1	Administers the trunk group translations for network trunks. Field 1 Enter the trunk group number (18-999). Field 14 Enter a "1" to collect all digits before outpulsing.
108 Word 1	Administers the DMI-MOS (ISDN) terminating test line telephone digits. Field 1 Enter the trunk group number (18-999). Fields 2-17 Enter the test line dialed digits (0-9).
260 Word 1	Administers the DMI (DS1) circuits to equipment locations and assigns signaling requirements and transmission type. When assigning the DS1 circuit pack, the slot to the right of the pack must be left unequipped or used only for packet adjunct ISDN applications. Field 1 Enter the module number (0-30). Field 2 Enter the cabinet number (0-7). Field 3 Enter the port carrier number (0-3). Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

- Field 6 Enter the framing format encode:
0 D4 superframe
1 FE or extended superframe (ESF)
The framing format is dependent on the equipment connected to the interface.
- Field 7 Enter a "0" for DMI-BOS applications or the channel signaling encode for DMI-MOS applications:
0 23 B plus 1 D-channel
1 24 B-channels
- Field 8 Enter a "0" for 24th channel signaling.
- Field 9 Enter the suppression encode.
0 Zero code suppression
1 Binary-8 zero suppression
- Field 10 Enter the slip enable encode:
0 Slip count off
1 Slip count on
- Field 11 Enter the external loop encode:
0 Disable
1 Enable
- Field 12 Enter a "0" for DMI-BOS applications or the SCS equipment type encode for DMI-MOS applications:
0 None
1 DS1/T1 SCS
- Field 13 Enter a "0" for DMI-BOS applications or the SCS reference encode for DMI-MOS applications:
0 None
1 Primary source
2 Secondary source
- Field 14 Enter the application type encode:
1 DMI-BOS (if this encode is chosen, don't administer Procedure 262 Word 1)
5 ISDN/PRI, DMI-MOS (if this encode is chosen, administration of Procedure 262 Word 1 is required)
- Field 15 Enter the bit inversion encode for DMI-MOS applications only:
0 Inversion
1 No Inversion
- Field 16 Enter the transmission type encode:
0 Copper
1 Fiber

- 262 Word 1** Administers the DMI-MOS specific options such as interface type, ISDN facility test type, terminal endpoint identifier (TEI), and ISDN level 2 protocol parameters. Do not use this procedure if administering DMI-BOS.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the interface type:
 - 0 For user side (to CO to other PBX)
 - 1 For network side (to other PBX or DMI)
 - Field 6 Enter the ISDN facility test code:
 - 0 None
 - 1 Level 2
 - 2 Level 3
 - 3 Both level 2 and level 3
 - Field 7 Enter a "0" to specify a nonswitched DMI-MOS link to a host computer. *This is the only field that DMI-MOS and ISDN/PRI administration differ.*
 - Field 8 Enter the timer T203 delay in seconds (0-255).
 - Field 9 Enter the timer T200 delay in tenths-of-seconds (0-255).
 - Field 10 Enter the Counter N200 (1-10).
 - Field 11 Enter the Counter K (1-7).
- 275 Word 1** Administers the optional tandem tie trunk and trunk-to-trunk calling features.
- Field 15 Enter the tandem tie trunk enable:
 - Feature not available
 - 0 Tandem tie trunk disable
 - 1 Tandem tie trunk enable
 - Field 16 Enter the trunk-to-trunk enable:
 - Feature not available
 - 0 Trunk-to-trunk calling disable
 - 1 Trunk-to-trunk calling enable
- 275 Word 4** Administers the additional system class-of-service features including ISDN and DMI-MOS).
- Field 14 Enter the ISDN feature activation:
 - Feature not available
 - 0 ISDN not active
 - 1 ISDN active (DMI-MOS)

290 Word 1 Displays DS1 trunk interface and SCS circuit equipment locations and identification information. You can display on port type (Field 1), equipment location (Fields 2-5), or both.

Field 1 Enter the DMI port type:

- 21 DS1 Real
- 22 DS1 Virtual
- 25 ISDN Real
- 26 ISDN Virtual

Field 2 Enter the module number (0-30).

Field 3 Enter the cabinet number (0-7).

Field 4 Enter the port carrier number (0-3).

Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

290 Word 2 Displays the circuit pack identification of installed circuit packs.

Field 1 Enter the module number (0-30, 99).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

354 Word 3 Administers the prefix digits (NPA-NXX-X) to the extension translation codes assigned in Procedure 000 Word 4 and Procedure 210 Word 2. These are used to provide DMI calling number display.

Field 1 Enter the NPA/NXX designator (1-99).

Field 2 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, and 900-919).

Field 3 Enter the NXX (200-999).

Field 4 Enter the thousands digit (-, 0-9).

DIGITAL SERVICE (DS1) INTERFACE

The Digital Service level 1 (DS1) Interface multiplexes up to twenty-four 64 Kbps channels (digitized voice or data signals) onto a single carrier. This feature provides the System 85 R2V4 with digital connections to other System 85 systems, DEFINITY™ Generic 2 systems, System 75 systems, DIMENSION systems (FP8, Issue 3), Central Offices (COs), or toll offices where special access arrangements are available.

The main difference between the standard version of DS1 and ISDN/PRI is signaling. DS1 uses a form of bit oriented signaling (BOS), while ISDN/PRI uses message oriented signaling (MOS).

DS1 is very similar to DMI-BOS. The main difference is that DS1 has a wider range of applications than DMI-BOS. Currently, the only application of DMI-BOS is host computer access, while DS1 is used for several trunking applications.

The DS1 feature can provide an economical alternative to analog trunking arrangements. DS1 service can replace the following types of analog facilities:

- Data communications access (computer access) facilities via the DS1/Digital Multiplexed Interface (DMI) capability
- Private network tie trunks
 - Common Control Switching Arrangement (CCSA)
 - Distributed Communications System (DCS)
 - Enhanced Private Switching Communications Service (EPSCS)
 - Electronic Tandem Network (ETN)
 - Main/Satellite/Tributary networks
- Public network CO trunks
 - Ground-start and loop-start CO trunks
 - Ground-start and loop-start foreign exchange (FX) trunks
 - Ground-start and loop-start Wide Area Telecommunications Service (WATS) trunks
 - Ground-start Remote Access trunks
 - Battery-reversal Direct Inward Dialing (DID) trunks
- Off-premises extension link.

The DS1 Interface feature is installed on a per-system basis. Administration within the system is on a per trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Trunk Administration

If administering host computer access, make sure the DMI trunks (types 108 and 109) have been administered, and see the Host Computer Access feature.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Automatic Alternate Routing (AAR)

DS1 trunks can be administered to AAR routing patterns.

Automatic Route Selection (ARS)

DS1 trunks can be administered to ARS routing patterns.

Console Direct Trunk Group Select Buttons

Direct Trunk group select buttons can be administered to DS1 trunks.

Procedure Sequence

ADD	CHANGE	REMOVE
178 Word 1	178 Word 1	178 Word 1
250 Word 1	290 Word 1	290 Word 1
260 Word 1	290 Word 2	290 Word 2
000 Word 1	250 Word 1	260 Word 1
103 Word 1	103 Word 1	000 Word 1
350 Word 2	260 Word 1	250 Word 1
	000 Word 1	

Procedure Usage

000 Word 1 Administers the voice terminal (line assignments) to DS1 ports and disables signaling for DSC applications.

- Field 1 Enter the extension (000-99999).
- Field 2 Enter the module number (0-30).
- Field 3 Enter the cabinet number (0-7).
- Field 4 Enter the port carrier number (0-3).
- Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

- Field 6 Enter the circuit number (0-3 for DS1 trunk circuit packs, 0-7 for DS1 line circuit packs).
- Field 7 Enter the class of service (1-30, 32-63).
- Field 8 Enter a "9" to select port type of "DS1 OPS line."
- Field 9 Enter the signaling status for DS1 OPS line:
 0 Signaling enable
 1 Signaling disable

103 Word 1 Administers network features associated with a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the FRL (0-7) for the trunk group.
- Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

- Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):
 0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk
 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk
- Field 6 Enter the authorization code assignment:
 0 Authorization codes are not required when accessing this trunk group
 1 Authorization codes are required when accessing this trunk group
- Field 7 Enter the bridge-on assignment:
 0 Bridging on to this trunk group is not allowed
 1 Bridging on to this trunk group is allowed
- Field 8 Enter the trunk reservation limit (0-15).
- Field 9 Enter the AAR/ARS prefix digit (0-9).
- Field 10 Enter the Data Protection assignment:
 0 Disable
 1 Enable

-
- | | |
|----------|---|
| Field 11 | Enter the desired Remote Access echo suppressor control:
-, 0 Dial tone
1 Precursor tone/dial tone
2 Abbreviated dial tone |
| Field 12 | Enter the desired AAR conditional routing assignment:
0 Not a satellite facility
1 Is a satellite facility |
| Field 13 | Enter the second TCM assignment:
0 Second TCM is not used
1 Second TCM is used |
| Field 14 | Enter the desired digit collection scheme:
0 Overlap outpulsing
1 Collect all digits before outpulsing |
- 178 Word 1** Displays administered equipment locations on a trunk group, trunk group dial access code, or equipment location basis, so that locating DS1 trunk translations is easier.
- 250 Word 1** Administers the SCS circuit to either the Module Control Carrier (single module system) or the Time Multiplexed Switch Carrier (multimodule system).
- | | |
|---------|---|
| Field 1 | Enter the module number (0-30, 99). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter an "11" to specify DS1 port carrier type. |
- 260 Word 1** Administers the DS1 circuits (ANN11 circuit pack) to equipment locations and assigns signaling requirements.
- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 6 | Enter the signaling format:
0 D4 (Superframe)
1 FE (Extended Superframe) |
| Field 7 | Enter a "0" for 23 B plus 1 D-channel. |
| Field 8 | Enter the signaling encode:
0 24th channel signaling
1 Robbed bit signaling |

-
- | | |
|----------|--|
| Field 9 | Enter the suppression encode:
0 Zero code suppression
1 Binary-8 zero suppression |
| Field 10 | Enter the slip enable encode:
0 Slip count off
1 Slip count on |
| Field 11 | Enter the external loop encode:
0 Disable
1 Enable |
| Field 12 | Enter the SCS equipment type:
0 None (required for stratum 3 clock)
1 DS1/T1 SCS |
| Field 13 | Enter the SCS reference encode:
0 None (required for stratum 3 clock)
1 Primary
2 Secondary |
| Field 14 | Enter the application type encode:
0 DS1 trunks (lines mixed)
2 DS1 off premises station (OPS)
3 Remote carrier group (RCG) |
| Field 16 | Enter the transmission type encode:
0 Copper (T1)
1 Fiber |
| Field 17 | Enter the SA/FX encode:
0 FX (except Canada)
1 SA (except Canada) |
- 290 Word 1** Displays circuit status for assigned port circuit packs.
- | | |
|---------|---|
| Field 1 | Enter the port (equipment) type:
21 DS1 Real
22 DS1 Virtual |
| Field 2 | Enter the module number (0-30). |
| Field 3 | Enter the cabinet number (0-7). |
| Field 4 | Enter the port carrier number (0-3). |
| Field 5 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
- 290 Word 2** Displays identification of installed circuit packs.
- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |

DIRECT INWARD DIALING

The Direct Inward Dialing (DID) feature allows calls from the public network to connect to the dialed extension without attendant assistance. The DID feature can be used to access data stations, local attendants, Centralized Attendant Service attendants, and voice terminals at remote locations without attendant assistance. Extension number steering is used to access terminals at remote locations.

Assignment of the DID feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restriction — Miscellaneous Trunk Restrictions

Intercept Treatment

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 3	010 Word 3	010 Word 3
275 Word 1	275 Word 1	275 Word 1

Procedure Usage

010 Word 3 Administers the DID restrictions to an extension's class of service. No restrictions on DID indicate that a extension's class of service can receive DID calls; restrictions on DID indicate that a class of service extensions cannot receive DID calls.

Field 1 Enter the class of service (1-30, 32-63).

Field 14 Enter the DID restrictions:

0 Not restricted
1 Restricted

275 Word 1 Specifies the number of dial digits forwarded to the system by the serving CO. This should be the number of digits assigned in the dialing plan (Procedure 350 Word 1).

Field 9 Enter the DID/CCSA digits (-, 0, 3-5).

DIRECT OUTWARD DIALING

The Direct Outward Dialing (DOD) feature allows a System 85 R2V4 terminal user to access the public network without attendant assistance. Direct access to the public network is rapid and efficient for terminal users and reduces the attendant's work load.

Assignment of the DOD feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Direct Trunk Group Selection

Intercept Treatment

Restriction — Miscellaneous Trunk Restrictions

Route Advance

Procedure Usage

103 Word 1 Administers the network features associated with a DOD trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

- Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):
- 0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk
 - 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk
- Field 6 Enter the authorization code assignment:
- 0 Authorization codes are not required when accessing this trunk group
 - 1 Authorization codes are required when accessing this trunk group
- Field 7 Enter the bridge-on assignment:
- 0 Bridging on to this trunk group is not allowed
 - 1 Bridging on to this trunk group is allowed
- Field 8 Enter the trunk reservation limit (0-15).
- Field 9 Enter the AAR/ARS prefix digit (0-9).
- Field 10 Enter the Data Protection assignment:
- 0 Disable
 - 1 Enable
- Field 11 Enter the desired Remote Access echo suppressor control:
- ,0 Dial tone
 - 1 Precursor tone/dial tone
 - 2 Abbreviated dial tone
- Field 12 Enter the desired AAR conditional routing assignment:
- 0 Not a satellite facility
 - 1 Is a satellite facility
- Field 13 Enter the second TCM assignment:
- 0 Second TCM is not used
 - 1 Second TCM is used
- Field 14 Enter the desired digit collection scheme:
- 0 Overlap outpulsing
 - 1 Collect all digits before outpulsing

DISPLAY — VOICE TERMINAL

The Display — Voice Terminal feature makes call and message information available to voice terminal users who have a terminal with display capabilities. This information can come from the Audio Information Exchange (AUDIX) feature, Leave Word Calling (LWC) feature, or the Message Center feature.

Two different pieces of hardware can be used to display call information to voice terminals users. The standard equipment is a voice terminal with a display module or an integrated display. The other is an older calling number display unit. These will be discussed separately.

Assignment of the Display — Voice Terminal feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Use Procedure 051 Word 1 to administer an equipment location, display capabilities, and the lock/unlock option to a multiappearance voice terminal.

Names Database (See Chapter 2, "System Administration")

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

ISDN Calling Number Display

This capability is used for ISDN trunk calls only. There is no special administration for PRI using the Display-Voice terminal feature. See the ISDN/PRI feature for ISDN calling number display administration.

Integrated Voice Terminal Display Units

The integrated display units are found attached to DCP voice terminals or integrated within the body of DCP voice terminals.

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	054 Word 4	010 Word 1
054 Word 4	350 Word 2	054 Word 4
261 Word 1		261 Word 1
350 Word 2		350 Word 2

Procedure Usage

- 010 Word 1** Administers the calling number display feature to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 7 Enter a "2" for integrated voice terminal displays.
- 054 Word 4** Administers the desired display buttons to an assigned multiappearance voice terminal with display capabilities.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
 - Field 7 Enter the member (button) number (1-62).

Field 8 Enter the display feature button type:

0	Normal
1	Inspect
2	Time of Day/Date
3	Message Retrieval
4	Coverage Message Retrieval
5	Step
6	Delete
7	Return Call
8	Elapsed Time
9	Scroll

261 Word 1 Administers the scrolling capability to AP Messaging. Scrolling must be set for every AP that has message coverage for any extensions on the system.

Field 6 Enter the scrolling specifications:

-	Does not apply
0	Does not support n-digit scrolling
1	Remote supports n-digit scrolling

350 Word 2 Administers the feature dial access codes.

Field 1 Enter the feature encode:

68	Lock message retrieval
69	Unlock message retrieval

Field 2 Enter the first digit of the dial access code:

0-9	
11 or *	
12 or #	

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

Calling Number Display to Station

The Calling Number Display to Station feature uses an auxiliary number display unit to identify the extension numbers of calls made to an extension within the system.

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1 253 Word 1	253 Word 1	010 Word 1 253 Word 1

Procedure Usage

- 010 Word 1** Administers the calling number display feature to an extension class of service. The extension you assign in Procedure 253 Word 1 must have a class of service with this feature enabled.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 7 Enter a "1" to enable calling number display with the auxiliary display unit.
- 253 Word 1** Administers the calling number display unit to a TN403 data channel equipment location and to the desired extension number.
- Field 1 Enter unit type "1".
 - Field 2 Enter carrier "0".
 - Field 3 Enter the slot number (23-26).
 - Field 4 Enter the circuit number (0-15).
 - Field 5 Enter the extension that will use the calling number display unit (000-99999).

DISTRIBUTED COMMUNICATIONS SYSTEM

The Distributed Communications System (DCS) is a service designed to meet the needs of customers with telecommunication requirements that exceed the capacity of a single system. Using a DCS allows the customer to operate and control multiple systems as if they were one system.

Assignment of the DCS feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Distributed Communications System (See Chapter 6, "DCIU Administration")

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Automatic Alternate Routing (AAR)

Attendant Direct Trunk Group Select Buttons

Extension Number Portability

Integrated Services Digital Network / Primary Rate Interface (ISDN/PRI)

To get transparency using ISDN/PRI trunks make sure you set Procedure 010 Word 4 Field 3 to a "1" (use ISDN exclusively).

Main/Satellite Tributary

Restriction — Miscellaneous Trunk Restrictions

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	354 Word 1	275 Word 3
354 Word 1	010 Word 2	261 Word 1
010 Word 2	261 Word 1	354 Word 1
261 Word 1	275 Word 3	276 Word 1
275 Word 3	202 Word 1	

Procedure Usage

- 010 Word 2** Administers Call Forwarding — Off-Net to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 4 Enter the Call Forwarding — Off Net capabilities:
- 0 Disable
 - 1 Enable
- 261 Word 1** Provides the translation between an internal AP or AUDIX number and the network AP or AUDIX number. Included are the local adjunct, the local adjunct number, the local adjunct type, the version number, digit format, scrolling, and network adjunct number.
- Field 1 Enter the local adjunct:
- 1 AP
 - 2 AUDIX
 - 3 DCS
- Field 2 Enter the local adjunct number:
- 1-7 AP
 - 1-8 AUDIX
 - 1-63 DCS
- Field 3 Enter the local adjunct type:
- 1 AP 16
 - 2 3B5 AP or 3B2
 - 3 AUDIX
 - 4 System 75 PBX
 - 5 System 85 Release 1
 - 6 System 85 Release 2 or DEFINITY Generic 2
 - 7 Enhanced DIMENSION PBX
- Field 4 Enter the version number (-, 0-999).
- Field 5 Enter the N-digit format:
- Does not apply
 - 0 Remote does not support N-digit format
 - 1 Remote supports N-digit format
- Field 6 Enter the N-digit scrolling:
- Does not apply
 - 0 Does not support N-digit scrolling
 - 1 Supports N-digit scrolling
- Field 7 Enter the network adjunct number (-, 1-99).

275 Word 3 Administers the multi-machine type, the local system number, and the CAS main system number.

Field 7 Enter the multi-machine type:

- No DCS, no number portability
- 1 DCS system number
- 2 Number portability system
- 3 Both DCS and number portability

Field 8 Enter the local system number:

- No DCS
- 1-999 DCS system number (with/without number portability)

Field 9 Enter the CAS main system number:

- No DCS
- 0 DCS; No CAS
- 1-40 CAS main system number

276 Word 1 Administers the DCS to a feature-group class of service.

Field 3 Enter the DCS assignment:

- 0 Disable
- 1 Enable

EXTENSION NUMBER PORTABILITY

The Extension Number Portability feature allows a user in a private network to move from one node to another (i.e., system-to-system) without changing extensions. Portability is ideal in a Distributed Communications System (DCS) environment as it provides added transparency. It can also be used in an Electronic Tandem Network (ETN) or Automatic Voice Network (AUTOVON) arrangement. Not only does the user's extension remain unchanged, but the ETN, AUTOVON, and Direct Inward Dialing (DID) numbers also remain unchanged.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Extensions (See Chapter 2, "System Administration")

Automatic Alternate Routing

Procedure Sequence

ADD	CHANGE	REMOVE
275 Word 3	275 Word 3	322 Word 1
276 Word 1	276 Word 1	354 Word 2
285 Word 1	285 Word 1	354 Word 1
354 Word 1	354 Word 1	321 Word 4
321 Word 4	321 Word 4	285 Word 1
322 Word 1	322 Word 1	276 Word 1
354 Word 2	354 Word 2	275 Word 3

Procedure Usage

275 Word 3 Administers the machine type and the local system number. Use encode 2 or 3 in Field 7 for number portability.

Field 7 Enter the system type assignment:
2 Number portability system
3 Both DCS and number portability

Field 8 Enter the local system (node) number (1-999).

- 276 Word 1** Administers standard network and multipremise to the feature group class of service.
- Field 1 Enter the standard network assignment:
0 Disable
1 Enable
- Field 2 Enter the multipremise assignment:
0 Disable
1 Enable
- 285 Word 1** Administers the number of digits in the location codes and the number of digits in the network uniform numbering plan. For 4- or 5-digit dialing, you must enter a "3" in Field 2 and a "4" in Field 3.
- Field 2 Enter the number of digits in the location code (0 or 2-3).
- Field 3 Enter the number of digits in the network uniform numbering plan (0 or 2-4).
- 321 Word 4** Administers the association between an RNX location code, a node number, a call category, the AAR pattern, and first digit. First digits can only be assigned in 5-digit dialing plans.
- Field 1 Enter the RNX location code (20-99, 220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999).
- Field 2 Enter the node number (-, 1-999).
- Field 3 Enter the call category (0-2).
- Field 4 Enter the AAR pattern number (1-640, 641 for HNPA).
- Field 5 Enter the first digit (0-9).
- 322 Word 1** Administers the relationship between the first and second digit (Fields 1 and 2) to an RNX location code. A first and second digit combination may have only one RNX, but the same RNX may be assigned more than one first and second digit combination.
- Field 1 Enter the first digit (0-9).
- Field 2 Enter the second digit (0-9). If nothing is entered here, all second digits of the first digit in Field 1 are administered as part of the RNX.
- Field 3 Enter an RNX location code (220-299, 320-399, 420-499, 520-599, 620-699, 720-799, 820-899, 920-999).

- 354 Word 1** Administers the blocks of extension numbers for a 4- or 5-digit dialing plan. This procedure is also used to identify the node where the extension number resides.
- Field 1 Enter the first extension number in a group (any 4- or 5-digit number ending in 0).
- Field 2 Enter the last extension number in a group (any 4- or 5-digit number ending in 9). The last extension number (Field 2) must be larger than the first extension number (Field 1) and both numbers must have the same number of digits.
- Field 3 For 4- or 5-digit dialing plans, enter the node (system) number where the extension numbers reside (1-999). For a 3-, 4-, or 5-digit dialing plan, enter a dash to define blocks of extension numbers on the local system.
- 354 Word 2** Administers dial access codes to extensions, steering codes, and RNXs for portability on extensions outside of a local system.
- Field 1 Enter the valid extension or steering code (00000-99999).
- Field 2 Enter the desired use for this extension or steering code:
- 3 Extension assigned to a node number
- When the extension is already assigned elsewhere, the following encodes will be displayed, but cannot be changed:
- 0 Not allocated
- 1 Single extension on local system (Procedure 000 Word 1)
- 5 VDN on local system (Procedure 000 Word 1)
- 6 Allocated but not assigned
- 7 Extension is in recent disconnect (Procedure 003 Word 1)
- 8 Extension is an LDN
- Field 7 Enter the node number (1-999).

Administration Examples

Each system in the portability subnetwork must be administered properly so that each system is capable of routing calls to the correct user, wherever in the subnetwork they may be located.

Initial Administration for the Subnetwork

The following administration must be performed at each system in the portability subnetwork.

Procedure 275 Word 3 — System COS - Miscellaneous

— Multimachine nodes:

- a. Type 2 (portability) or type 3 (DCS and portability)
- b. Local system number (unique node number for the system in this system)

Procedure 285 Word 1 — System COS - Network

— Network Uniform Numbering Plan:

- a. Number of digits in location code - 3
- b. Number of extension digits - 4

This administration is required to support 4 or 5-digit extension number portability.

Procedure 350 Word 1 — Dialing Plan - First Digit

— In a System 85 R2V4, any digit 0-9 can be assigned as the first digit of a group of extensions. These assignments must be common to all nodes in the portability subnetwork

- a. First digit - 0-9 assigned one digit at a time with the following characteristics:
 - Number of digits - 4 or 5
 - Call type - 1

Procedure 354 Word 1 — Extension Number Groups

— Each extension in the subnetwork must be assigned at each node in order to be portable. Extensions are initially assigned in groups. Extension groups assigned to voice terminals at other subnetwork nodes must be assigned a node number.

- a. First extension of the group (e.g., 70000)
- b. Last extension of the group (e.g., 79999)
- c. Node number (1 to 999)

The extensions assigned to the local node can be assigned to features, restrictions, groups, etc. Remote extensions are assigned to their respective nodes so that calls to these numbers can be translated into a 7-digit ETN number for routing to that node.

Procedure 321 Word 4 — Automatic Alternate Routing — Routing

— Each RNX used by the portability subnetwork must be assigned as a “home” RNX at each node. Other RNXs are assigned to another node within the DCS, ETN, or AUTOVON arrangement.

- a. Location code - Either home or remote to the subnetwork, enter one at a time
- b. Node number - Remote DCS, ETN, or AUTOVON node for remote location codes
- c. Pattern number - AAR pattern used to route calls using the displayed RNX
- d. First digit - Used for home-RNXs, the digit prepended to last four digits of the uniform number to form a 5-digit extension

Procedure 322 Word 1

— The RNX assigned to the first or first/second digit of an extension. Used to convert 4 or 5-digit subnetwork extensions into 7-digit uniform numbers for routing between subnetwork nodes.

- a. First digit
- b. Second digit (optional)
- c. Location code (RNX)

Porting an Extension Number to a Different Node

Whenever an extension is moved to a different node, each node must be administered in one of three ways:

- As the node which presently homes the extension
- As the new home node
- As an uninvolved node.

The only administration required at an uninvolved node is the assignment of the extension to a node. The individual extension, rather than a group, is assigned to a new node in Procedure 354 Word 2.

At the old home node, the extension must be removed from all line, feature, and group assignments; and the node assignment must be changed from the old node to the new node in Procedure 354 Word 2.

At the new home node, the node assignment for the extension is changed to the local node; and the extension is assigned to features, restrictions, etc.

FACILITIES RESTRICTION LEVEL

The Facilities Restriction Level (FRL) feature provides access control and protection from unauthorized use for private system and network facilities. Each originating facility (voice and data terminals, incoming trunk, remote access trunks, and attendant positions) is assigned an FRL. Each trunk group in an Automatic Alternate Routing (AAR) or Automatic Route Selection (ARS) pattern is also assigned an FRL. However, since a particular trunk group can be assigned to more than one routing pattern, its FRL may be different in different routing patterns. To illustrate, a public network trunk group may have an FRL of five in an AAR pattern and an FRL of two in an ARS pattern.

Assignment of the Facilities Restriction Level is on a per-line class of service and per-trunk group basis.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Automatic Alternate Routing (AAR)
- Automatic Route Selection (ARS)
- Restriction — Miscellaneous Trunk Restrictions

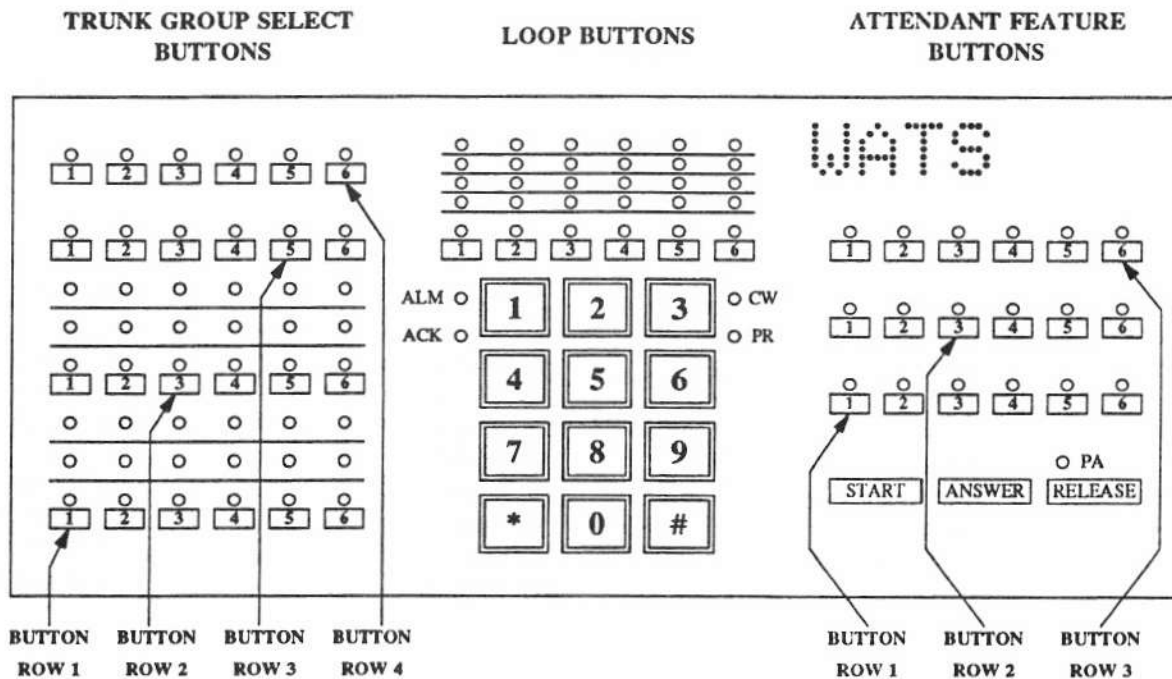
Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 3	283 Word 1	283 Word 1
103 Word 1	010 Word 3	010 Word 3
200 Word 1	103 Word 1	103 Word 1
203 Word 1	200 Word 1	200 Word 1
286 Word 1	203 Word 1	203 Word 1
309 Word 1	286 Word 1	286 Word 1
321 Word 1	309 Word 1	309 Word 1
	321 Word 1	321 Word 1

Procedure Usage

- 010 Word 3** Administers the miscellaneous trunk restriction groups to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 23 Enter the FRL (0-7, 0 being most restrictive and 7 being least restrictive).

- 103 Word 1** Administers an FRL to an assigned trunk group.
- Field 1 Enter the trunk group number (18-999).
 - Field 2 Enter the FRL (0-7, 0 being most restrictive and 7 being least restrictive).
- 200 Word 1** Administers an FRL to an attendant console.
- Field 12 Enter the FRL (0-7, 0 being most restrictive and 7 being least restrictive).
- 203 Word 1** Administers the Alternate FRL button to the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).
- Field 1 Enter the row number where you want the buttons (1-3).
 - Fields 2-7 Enter a "19" for the Alternate FRL button type.



- 283 Word 1** Displays the extensions, trunk groups, or authorization codes associated with a specific FRL.
- Field 1 Enter the FRL (0-7).
 - Field 2 Enter the type:
 - 1 Search for extension number
 - 2 Search for trunk group number
 - 3 Search for authorization code
- 286 Word 1** Administers the alternate FRLs. The alternate FRLs are activated by the attendant.
- Field 4 Enter the alternate FRL status:
 - 0 Disable
 - 1 Enable
 - Fields 5-12 Enter the alternate FRLs (0-7). The values entered here change the standard meanings for FRLs 0-7.
- 309 Word 1** Administers an FRL to an assigned ARS preference.
- Field 1 Enter the ARS plan number (1-3).
 - Field 2 Enter the pattern number (1-64).
 - Field 3 Enter the preference number (1-16).
 - Field 5 Enter the FRL (0-7, 0 being most restrictive, 7 being least restrictive).
- 321 Word 1** Administers an FRL to an assigned AAR preference.
- Field 1 Enter the pattern number (1-640).
 - Field 2 Enter the preference number (1-16).
 - Field 4 Enter the FRL (0-7, 0 being the most restrictive, 7 being the least restrictive).
- 330 Word 1** Administers the threshold and raised to FRLs for trunk Queuing on outgoing calls.
- Field 1 Enter the queuing status:
 - 0 Not active
 - 1 Active
 - Field 2 Enter the threshold FRL (0-7).
 - Field 3 Enter the raised FRL (0-7).

FORCE ADMINISTRATION DATA SYSTEM

The Force Administration Data System (FADS) feature collects and stores traffic-related information for Centralized Attendant Service (CAS). This information allows the customer to intelligently adjust the make-up of the CAS attendants to suit the call-load requirements.

Assignment of this feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

System Clock (Time of Day) (See Chapter 2, "System Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
253 Word 1 426 Word 1	253 Word 1 426 Word 1	253 Word 1 426 Word 1

Procedure Usage

253 Word 1	<p>Administers the FADS unit type to a data channel circuit of a TN403 circuit pack.</p> <p>Field 1 Enter the FADS unit type (13).</p> <p>Fields 2-4 Enter the equipment location for a data channel in the common control carrier (carrier 0, slots 23-26, circuits 0-15).</p> <p>Field 5 Leave blank.</p>
426 Word 1	<p>Administers the feature characteristics for FADS.</p> <p>Field 1 Enter the FADS assignment: 0 FADS not active 1 FADS active</p> <p>Field 2 Enter the auto print assignment: 0 Auto print not active 1 Auto print active</p> <p>Field 3 Enter the number of minutes after the hour when print jobs will be done automatically (0-55 in 5-minute increments).</p>

FOREIGN EXCHANGE ACCESS

The Foreign Exchange (FX) Access feature provides connectivity to central office (CO) trunks from areas outside of the local service area where the System 85 R2V4 is located. This feature provides the same functionality to the FX CO service area as is provided by local CO trunks in the local dialing area. This includes use of features such as Direct Inward Dialing (DID), Direct Outward Dialing (DOD), Listed Directory Number (LDN), Remote Access, and Personal CO Line.

Assignment of the FX Access feature is on a per-system and per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Attendant Direct Trunk Group Selection
- Attendant Display
- Intercept Treatment
- Restriction — Miscellaneous Trunk Restrictions
- Route Advance

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	103 Word 1	103 Word 1
115 Word 1	115 Word 1	115 Word 1

Procedure Usage

103 Word 1 Administers the network characteristics to an assigned FX trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):

0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk

1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk

Field 6 Enter the authorization code assignment:

0 Authorization codes are not required when accessing this trunk group

1 Authorization codes are required when accessing this trunk group

Field 7 Enter the bridge-on assignment:

0 Bridging on to this trunk group is not allowed

1 Bridging on to this trunk group is allowed

Field 8 Enter the trunk reservation limit (0-15).

Field 9 Enter the AAR/ARS prefix digit (0-9).

Field 10 Enter the Data Protection assignment:

0 Data Protection disable

1 Data Protection enable

Field 11 Enter the desired Remote Access echo suppressor control:

-, 0 Dial tone

1 Precursor tone/dial tone

2 Abbreviated dial tone

Field 12 Enter the desired AAR conditional routing assignment:

0 Not a satellite facility

1 Is a satellite facility

Field 13 Enter the second TCM assignment:

0 Second TCM is not used

1 Second TCM is used

Field 14 Enter the desired digit collection scheme:
 0 Overlap outpulsing
 1 Collect all digits before outpulsing

115 Word 1 Administers an incoming termination point to a trunk group (if desired).

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the trunk group termination point:
 - Trunk group terminates in an ACD group
 0 Trunk group terminates on SS
 1 Trunk group terminates on CAS
 2 Trunk group terminates on VDN

HOLD

The Hold feature allows a voice terminal user to hold incoming, outgoing, or intraoffice calls. This frees the same extension number to originate another call, activate a feature, or return to a previously held call. This last capability also allows a user to alternate between two calls, holding one while connected to the other. Additionally, an existing call can be placed on hold to prevent the held party from overhearing office discussions.

Assignment of the Hold feature is on an extension class-of-service and then on a per-line basis. On multiappearance voice terminals, the hold button is fixed and cannot be changed (Procedure 054 Word 3). On single-appearance voice terminals, the Hold feature is used and all other procedures in this chapter must be used.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1 350 Word 2	350 Word 2	010 Word 1 350 Word 2

Procedure Usage

010 Word 1	Administers the Hold feature to an extension class of service.
Field 1	Enter the class of service (1-30, 32-63).
Field 6	Enter the Hold assignment: 0 Disable 1 Enable

350 Word 2 Administers the Hold dial access code.

- Field 1 Enter a "4" for the Hold feature.
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

HOST COMPUTER ACCESS

The Host Computer Access feature provides switched digital access between data endpoints with Digital Communications Protocol (DCP) interface to a System 85 R2V4 and a host computer. Host computers are connected to a general purpose port (GPP) or digital line on the system through a data module or directly to an EIA port circuit or a data line circuit (DLC). The data module or EIA port converts the EIA RS-232C signals from the host computer to the DCP format of the switch and vice versa. Both formats are digital, but the communications and signaling channels differ. The switch's terminals can also interface to data modules. Another digital host access arrangement is provided by the Digital Multiplexed Interface (DMI) feature.

Assignment of the Host Computer Access feature is on a system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Restriction — Miscellaneous Trunk Restrictions
- Route Advance

Procedure Usage

103 Word 1 Administers Data Protection to an assigned trunk group.

- | | |
|----------|-----------------------------------|
| Field 1 | Enter the trunk group number. |
| Field 10 | Enter the Data Protection encode: |
| | 0 Disable |
| | 1 Enable |

HOT LINE

The Hot Line feature provides automatic dialing of a predesignated number by going off-hook. Either single-line analog voice terminals or data modules administered for default dialing can be assigned as Hot Line stations. An analog voice terminal is used for Hot Line voice service. The voice terminal is assigned a personal abbreviated dialing list (see the Abbreviated Dialing feature). When administered as a Hot Line station, the first entry in the "A" list is dialed automatically when the terminal goes off-hook. The Hot Line number can have up to 20 digits. This provides Hot-Line service to either on- or off-premises destinations. Any other entries in the list are ignored with this arrangement, and it is not generally possible to activate other calling features and services from a Hot Line station. Unless separately restricted, Hot Line stations can receive incoming calls normally.

Assignment of the Hot Line feature is on a per station basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Attendant Console Administration

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 3	059 Word 1	000 Word 3
059 Word 1	059 Word 2	059 Word 1
059 Word 2	059 Word 4	
059 Word 4		

Procedure Usage

000 Word 3 Administers the Hot Line service to a voice terminal or data module extension number.

Field 1 Enter an extension (000-99999).

Field 2 Enter the Hot Line assignment:

0 This extension is not a hot line

1 This extension is a hot line

059 Word 1 Administers a personal abbreviated dialing list to an equipment location of a voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter a "1" to specify access to "List A."
- Field 7 Enter the group list number (1-9999).
- Field 8 Enter the list size (5-95).
- Field 9 Leave blank.
- Field 10 Leave blank.

059 Word 2 Administers list item number one for a voice terminal used for Hot Line service.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter a "1" to specify access to "List A."
- Field 7 Leave blank.
- Field 8 Enter a "1" for personal list item 1.
- Field 9 Enter the segment number:
 - 1 Characters 1-4
 - 2 Characters 5-8
 - 3 Characters 9-12
 - 4 Characters 13-16
 - 5 Characters 17-20

- Field 10 Enter the read/write mode:
 -, 1 Read/Write - machine-used table
 0 Read/Write - scratch-pad table
- For a display (read) routine:
 -, 1 Read list item from machine-used table
 0 Read list item from scratch-pad table
- For a change (write) routine:
 1 Write list item to machine-used table
 0 Write list item to scratch-pad table
- Fields 11-14 Enter the characters and special functions that will be dialed when the list item is selected:
 0-9
 11 or *
 12 or #
 13 Function entry
 14 Pause (wait for dial tone)
 15 Wait (wait for dial tone)
 16 Mark
 17 Await dial tone
 18 Manual digit entry (followed by a number from 1-15)
 19 Suppress display

059 Word 4 Administers a Hot Line assignment for calls to a data module.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 0 Basic set
 1 Feature module
 2 Coverage module
 3 Display module
 4 ADFTC
- Field 7 Enter the member (button) number (0-62).

- Field 8 Enter the segment number:
- Assign automatic dialing button
 - 1 Characters 1-4
 - 2 Characters 5-8
 - 3 Characters 9-12
 - 4 Characters 13-16
 - 5 Characters 17-20
- Field 9 Enter the read/write mode:
- , 1 Read/Write - machine-used table
 - 0 Read/Write - scratch-pad table
- For a display (read) routine:
- , 1 Read list item from machine-used table
 - 0 Read list item from scratch-pad table
- For a change (write) routine:
- 1 Write list item to machine-used table
 - 0 Write list item to scratch-pad table
- Fields 10-13 Enter the additional characters and special functions:
- 0-9
 - 11 or *
 - 12 or #
 - 13 Function entry
 - 14 Pause (wait for dial tone)
 - 15 Wait (wait for dial tone)
 - 16 Mark
 - 17 Await dial tone
 - 18 Manual digit entry (must be followed by a number from 1-15)
 - 19 Suppress display

HUNTING

The Hunting feature routes calls directed to a busy terminal to other terminals in a predetermined group (hunt group). The status (busy or idle) of extensions within the group is checked in order. If an extension is busy, the call routes (hunts) to the next extension. This hunting process continues until an idle extension is found or the hunt group has been exhausted, depending on the type of hunting that is used. There are two types of hunting or search patterns that can be used: circular or linear.

Assignment of Hunting is on a per-extension basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	000 Word 2	000 Word 2
010 Word 1		010 Word 1

Procedure Usage

- 000 Word 2** Administers a hunt-to extension to an extension in a hunt group.
- Field 1 Enter an extension that you want to hunt from.
 - Field 2 Enter an extension that you want to hunt to.
- 010 Word 1** Administers "stop hunt" to an extension class of service.
- Field 21 Enter the stop hunt assignment:
 - 0 Hunting
 - 1 No hunting

INFORMATION SYSTEMS NETWORK INTERFACE

The Information Systems Network (ISN) Interface is a packet-switched Local Area Network (LAN) that connects digital processors and devices in an asynchronous distributed processing system. The distribution system and carrier medium can be all-wire or a combination of wire and optical fiber. The ISN Packet Controller is a high-speed packet switch that moves packets of information from one network component to another. A single packet controller can service as many as 1920 asynchronous data devices (ISN stations). Additional information on the ISN can be found in *An Introduction to ISN* (555-300-020).

Prerequisite Administration

To administer this feature, make sure the following is administered:

Trunk Administration

The trunk ports that connect the System 85 R2V4 switch to the ISN are assigned on a per-trunk basis. To administer the ISN interface, refer to the "Trunk Administration" section.

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Extension Number Portability

Restriction — Miscellaneous Trunk Restrictions

Route Advance

INTEGRATED SERVICES DIGITAL NETWORK/PRIMARY RATE INTERFACE

The Integrated Services Digital Network/Primary Rate Interface (ISDN/PRI) feature provides system-to-system ISDN capability to the System 85 R2V4. The PRI, while not extending ISDN connectivity to the terminal level for Digital Communication Protocol (DCP) terminals, does provide signaling and service advantages between systems and improved informational services available at the terminal level.

With PRI, individual stations work within the network provided by the local system. Generally, these do not have direct ISDN connectivity. The features and services available to each station are provided by the local system and not by the ISDN. The North American arrangement corresponds to the North American DS1 format with common channel signaling.

In the North American version, the main difference between ISDN/PRI and the standard version of DS1 is signaling. ISDN uses Message Oriented Signaling (MOS), while standard DS1 uses a form of Bit Oriented Signaling (BOS). ISDN/PRI is very similar to DMI-MOS, the main difference being ISDN/PRI has a larger message set than DMI-MOS.

The ISDN/PRI feature is assigned on a per system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")

Trunk Administration

The Trunk Administration section contains a subsection called digital trunks. The digital trunks section includes trunk administration of ISDN/PRI.

Automatic Alternate Routing (AAR)

Calls placed over ISDN/PRI trunk facilities must use the AAR or ARS feature.

Automatic Route Selection (ARS)

Calls placed over ISDN/PRI trunk facilities must use the AAR or ARS feature.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Display

This feature allows the attendant to display incoming call identification (ICI) information over incoming ISDN trunks.

Administers LDNs to attendant consoles and associated partitions. For ISDN, each attendant console must be assigned an LDN for use in the outgoing call message when an ISDN call is placed from the attendant console.

Bearer Capability

Defining a bearer capability for ISDN facilities can reduce the number of call failures and optimize facility use (only capable users will access defined facilities).

Display-Voice Terminal

Voice terminals with ISDN/PRI access can use this feature to display the calling and connected parties name and number over a trunk call. The calling number display function can be used on ISDN/PRI calls to send the calling number over the trunk, this capability is administered in this feature (Procedure 354 Word 3).

Restriction-Miscellaneous Trunk Restrictions**Restriction-Voice Terminal Restrictions****Route Advance****Trunk Verification — Attendant****Trunk Verification — Voice Terminal***Procedure Sequence*

ADD	CHANGE	REMOVE
100 Word 3	100 Word 3	100 Word 3
103 Word 1	290 Word 1	290 Word 1
260 Word 1	290 Word 2	000 Word 4
262 Word 1	260 Word 1	354 Word 3
210 Word 2	262 Word 1	262 Word 1
354 Word 3	354 Word 3	103 Word 1
000 Word 4	000 Word 4	354 Word 3
010 Word 4	010 Word 4	000 Word 4
275 Word 4	210 Word 2	210 Word 2
	010 Word 4	275 Word 4
	275 Word 4	

Procedure Usage

000 Word 4 Administers the single terminal translations, including a code for the NPA-NXX designator used with ISDN calling number identification. (See also Procedure 354 Word 3.)

Field 1 Enter an extension (000-99999).

Field 4 Enter the NPA-NXX (1-99).

-
- 010 Word 4** Administers the ISDN access and routing to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 3 Enter the ISDN routing access:
 - ISDN service is not supported
 - 0 Use any facility
 - 1 Use ISDN exclusively
 - 2 Use ISDN if available else use any available facility
- 100 Word 3** Administers the trunk types and specific signaling for ISDN trunk groups.
- Field 1 Enter the trunk group number (18-999).
 - Field 2 Enter a "20" for all ISDN trunk groups.
 - Field 4 Enter the retry specifications (for use with trunks 41, 42, 43, 46, 47, and 120):
 - 0 Disable
 - 1 Enable
 - Field 5 Enter the outgoing seizure on maintenance busy out specifications:
 - 0 Disable
 - 1 Enable
 - Field 6 Enter the incoming permanent seizure specifications:
 - 0 Disable
 - 1 Enable
 - Field 7 Enter the failure threshold limit (only on trunk types 41, 42, 43, 46, and 47):
 - 0 No failure threshold
 - 1-99 Failure threshold limit
 - Field 8 Enter the encode if the optional ISDN information is included in the ISDN message:
 - Not applicable — ISDN service is not available
 - 0 Optional information element group included in ISDN message
 - 1 Optional information element group not included in ISDN message
- 103 Word 1** Administers the network translations for assigned trunk groups.
- Field 1 Enter the trunk group number (18-999).
 - Field 14 Enter a "1" to collect all the digits before outpulsing.
- 108 Word 1** Administers the ISDN Terminating Test Line telephone digits.
- Field 1 Enter the trunk group number (18-999).
 - Fields 2-17 Enter the test line dialed digits (-, 0-9).

- 210 Word 2** Administers an NPA-NXX designator to an attendant console for use with the ISDN Calling Number Display function.
- Field 1 Enter the console number (1-40).
 - Field 5 Enter the NPA-NXX designator (-, 1-99).
- 260 Word 1** Administers the ISDN interface circuits with signaling and SCS parameters. The ISDN circuit pack is the ANN35.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 6 Enter the framing format encode:
 - 0 D4 (superframe)
 - 1 FE (extended superframe)
 - Field 7 Enter the channel signaling specification:
 - 0 23 B plus 1 D-channel (standard PRI)
 - 1 24 B-channel
 - Field 8 Enter a "0" to specify "24th channel signaling."
 - Field 9 Enter the suppression encode:
 - 0 Zero code suppression
 - 1 Binary-8 zero code suppression
 - Field 10 Enter a "0" to disable slip count.
 - Field 11 Enter the external loop encode:
 - 0 Disable
 - 1 Enable
 - Field 12 Enter a "1" to specify that this circuit is receiving the incoming synchronization source from an SCS on another system.
 - Field 13 Enter the SCS reference for this circuit pack. Make sure this SCS reference is coordinated between the central office and the network your system is connected to. If this circuit pack is administered as the primary SCS reference, make sure the circuit pack on the other end of the interface is administered with a "0" in this field (no SCS reference).
 - 0 No SCS reference
 - 1 Primary SCS reference
 - 2 Secondary SCS reference
 - Field 14 Enter a "5" to specify the application type as "ISDN/PRI, DMI-MOS."

- Field 15 Enter the encode for bit inversion.
- Not applicable
 - 0 Bit inversion
 - 1 No bit inversion
- Field 16 Enter the transmission type.
- Not applicable
 - 0 Copper (T1)
 - 1 Fiber

262 Word 1 Administers specific ISDN board options such as interface type, ISDN facility test type, Terminal Endpoint Identifier (TEI), and ISDN level 2 protocol parameters.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the interface type:
- 0 For user side (to CO to other PBX)
 - 1 For network side (to other PBX)
- Field 6 Enter the ISDN facility test type:
- 0 None
 - 1 Level 2
 - 2 Level 3
 - 3 Both level 2 and level 3
- Field 7 Enter a "0" as the assigned terminal endpoint identifier for use with Procedure 648.
- Field 8 Enter the timer delay in seconds (0-255, default is 30).
- Field 9 Enter the timer delay in tenths-of-seconds (0-255, default is 10).
- Field 10 Enter the number of retransmissions allowed (1-10, default is 3).
- Field 11 Enter the maximum number of outstanding data packets to be transmitted (1-7, default is 7).

275 Word 4 Administers the ISDN status for the system class of service.

- Field 14 Enter the ISDN feature activation:
- Feature not available
 - 0 ISDN not active
 - 1 ISDN active

- 290 Word 1** Displays DS1 trunk interface and SCS circuit equipment locations and identification information.
- Field 1 Enter the port type:
 - 25 ISDN Real
 - 26 ISDN Virtual
- 290 Word 2** Displays the circuit pack identification of installed circuit packs.
- Field 1 Enter the module number (0-30, 99).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- 354 Word 3** Administers the prefix digits (NPA-NXX-X) to the extension translation codes assigned in Procedure 000 Word 4 and Procedure 210 Word 2. These are used to provide ISDN calling number display.
- Field 1 Enter the NPA/NXX designator (1-99).
 - Field 2 Enter the NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
 - Field 3 Enter the NXX (200-999).
 - Field 4 Enter the thousands digit (-, 0-9).

INTERCEPT TREATMENT

The Intercept Treatment feature provides consistent treatment for calls that cannot complete in the normal manner.

Assignment of the Intercept Treatment feature is on a per-call type basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)
Trunk Administration

Procedure Sequence

ADD	CHANGE	REMOVE
204 Word 1	204 Word 1	204 Word 1
289 Word 1	289 Word 1	289 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

204 Word 1 Administers the console messages for the three classes of intercepted calls: vacant dial access code, restricted feature or facility, or recently disconnected extension. This procedure also administers a message for attendant diversion to recorded announcement. You need the call type, the message number, and the message characters.

- Field 1 Enter the call type:
- 2305 Calls to vacant dial access code
 - 2306 Calls to restricted features or trunks
 - 2307 Calls to recently disconnected extensions
 - 2308 Attendant diversion to recorded to recorded announcement
- Field 2 Enter an unused message number (4-63, whatever is available).

Fields 3-6 Enter the desired characters or encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

289 Word 1 Administers the intercept treatment for calls from the public network, a private network, or from extensions. Set the source, the intercept treatment, and the recorded announcement number (only if the intercept treatment is to use a recorded announcement). If Field 1 is "0", you must have a "1" in Field 2.

Field 1 Enter the intercept type:

- 0 Attendant diversion to recorded announcement independent of source
- 1 Calls from a public network to a vacant DAC
- 2 Calls from a public network to restricted features or trunks
- 3 Calls from a public network to recently disconnected extensions
- 9 Calls from a private network to a vacant DAC
- 10 Calls from a private network to restricted features or trunks
- 11 Calls from a private network to recently disconnected extensions
- 17 Calls from an extension to a vacant DAC
- 18 Calls from an extension to restricted features or trunks
- 19 Calls from an extension to recently disconnected extensions

Field 2 Enter the intercept treatment:

- 0 Appropriate tone (reorder or intercept depending on source)
- 1 Recorded announcement
- 2 Diversion to the attendant
- 3 Recorded announcement followed by diversion to the attendant

Field 3 Enter the recorded announcement number (1-15).

350 Word 2 Administers the feature dial access codes for diverting attendant calls to recorded announcement.

- Field 1 Enter the feature encode:
80 Divert attendant calls to recorded announcement - activate
81 Divert attendant calls to recorded announcement - cancel
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

INTERCOM — AUTOMATIC

The Automatic Intercom feature provides the equivalent of a dedicated talking path between two multiappearance voice terminals. One of six different ringing patterns can be used to alert the called terminal when the calling terminal goes off-hook. This choice of ringing is made on a per-system basis and is used for both Automatic and Dial Intercom.

Assignment of the Intercom feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
056 Word 1	056 Word 1	056 Word 1
061 Word 1	061 Word 1	

Procedure Usage

056 Word 1	Administers the intercom type and ring rate for an assigned multiappearance voice terminal.
Field 1	Enter a "0" for the automatic intercom type.
Field 2	Enter the intercom number (1-300).
Field 3	Enter the module number (0-30).
Field 4	Enter the cabinet number (0-7).
Field 5	Enter the port carrier number (0-3).
Field 6	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 7	Enter the circuit number (0-7).

- Field 8 Enter the device type:
 0 Basic set
 1 Feature module
 2 Coverage module
 3 Display module
 4 ADFTC
- Field 9 Enter the member (button) number (1-62).
- Field 10 Leave blank.
- Field 11 Enter a "1" for the automatic signal type.

061 Word 1 Specifies the six possible intercom ringing patterns.

- Field 1 Enter the intercom ringing pattern:
 0 Ring 1
 1 Ring 2
 2 Ring 3
 3 Ring-ping
 4 Buzz 1
 5 Buzz 2

INTERCOM — DIAL

The Dial Intercom feature allows multiappearance voice terminal users to gain rapid access to 27 other multiappearance voice terminal users in the same intercom group. There is a choice of six different ringing patterns that the called party can receive when reached. This choice of ringing is made on a per-system basis, and is used for both Dial and Automatic Intercom. The selected pattern lets the called party know that someone within the intercom group is calling. This feature also reduces dialing time.

Assignment of the Intercom feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
056 Word 1 061 Word 1	056 Word 1 061 Word 1	056 Word 1

Procedure Usage

056 Word 1	Administers the intercom type, dial code, and signal type for an assigned multiappearance voice terminal.
Field 1	Enter a "1" for the dial intercom type.
Field 2	Enter the intercom number (1-280).
Field 3	Enter the module number (0-30).
Field 4	Enter the cabinet number (0-7).
Field 5	Enter the port carrier number (0-3).
Field 6	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 7	Enter the circuit number (0-7).

- Field 8 Enter the device type:
 0 Basic set
 1 Feature module
 2 Coverage module
 3 Display module
 4 ADFTC
- Field 9 Enter the member (button) number (1-62).
- Field 10 Enter the terminal's unique intercom-dial code (-, 00-99).
- Field 11 Leave blank.

061 Word 1 Specifies the six possible intercom ringing patterns.

- Field 1 Enter the intercom ring rate:
 0 Ring 1
 1 Ring 2
 2 Ring 3
 3 Ring-ping
 4 Buzz 1
 5 Buzz 2

INTERCOM — MANUAL

The Manual Intercom feature allows a multiappearance terminal user to access other multiappearance terminals assigned to the same intercom group. At any one time, up to three users in the group can be connected to a single call.

Assignment of the Intercom feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
053 Word 1	053 Word 1	053 Word 1
056 Word 1	056 Word 1	056 Word 1

Procedure Usage

053 Word 1 Administers a signaling and a signaled terminal for Manual Signaling. The first equipment location is for the signaling terminal (Fields 1-7). The second equipment location is for the signaled terminal (Fields 8-12).

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).

Field 6	Enter the device type: 0 Basic set 1 Feature module 2 Coverage module 3 Display module 4 ADFTC
Field 7	Enter the member (button) number (1-62).
Field 8	Enter the module number (0-30).
Field 9	Enter the cabinet number (0-7).
Field 10	Enter the port carrier number (0-3).
Field 11	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 12	Enter the circuit number (0-7).

056 Word 1 Administers the intercom type and features to an assigned multiappearance voice terminal.

Field 1	Enter a "0" for the manual intercom type.
Field 2	Enter the intercom number (1-300).
Field 3	Enter the module number (0-30).
Field 4	Enter the cabinet number (0-7).
Field 5	Enter the port carrier number (0-3).
Field 6	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 7	Enter the circuit number (0-7).
Field 8	Enter the device type: 0 Basic set 1 Feature module 2 Coverage module 3 Display module 4 ADFTC
Field 9	Enter the member (button) number (1-62).
Field 10	Leave blank.
Field 11	Enter a "0" for the manual signal type.

INTEREXCHANGE CARRIER ACCESS

The Interexchange Carrier (IXC) Access feature allows customers to specify the particular interexchange carrier vendor (e.g., AT&T, MCI, Sprint, etc.) to be used for calls to a given dialing destination. The IXC feature uses the capabilities of Automatic Alternate Routing (AAR) and Automatic Route Selection (ARS) by routing calls to administratively selected long distance service vendors. This feature is transparent to the calling voice terminal user.

Assignment of the IXC feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

When used with ARS, the ARS feature must first be administered. When used with AAR, the AAR feature must first be administered.

Procedure Sequence

ADD	CHANGE	REMOVE
309 Word 1 321 Word 1	309 Word 1 321 Word 1	309 Word 1 321 Word 1

Procedure Usage

309 Word 1 Administers the IXC identifier to an ARS pattern that has already been defined.

Field 12 Enter the IXC network identifier:
 0 No IXC assigned
 1-999 This IXC assigned

321 Word 1 Administers the IXC identifier to an AAR pattern that has already been defined.

Field 10 Enter the IXC network identifier:
 0 No IXC assigned
 1-999 This IXC assigned

INTERPARTITION ACCESS

The Interpartition Access (IPA) feature provides greater calling flexibility in a partitioned System 85 R2V4. Using IPA, a voice terminal user in one extension partition can call a voice terminal user in another extension partition, provided *both* partitions belong to the same partition group. See the chapter on "Tenant Services" in this manual for more information on partitioning.

Assignment of the Interpartition Access feature is on a per-extension partition basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Tenant Services

Procedure Usage

- 270 Word 1** Administers an extension partition to a partition group.
- | | |
|---------|--|
| Field 1 | Enter the extension partition (0-999). |
| Field 2 | Enter the attendant partition (-, 0-40). |
| Field 3 | Enter the partition group (-, 1-500). |

LAST NUMBER DIALED

The Last Number Dialed (LND) feature enables a voice terminal user to easily redial the last internal or external call. This function is primarily used for (one button) redialing a busy number. It also frees the user from repeatedly locating telephone numbers in the directory.

Assignment of the LND feature is on a per-system, per-trunk group, and per-voice terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Trunk Administration

Procedure Sequence

ADD	CHANGE	REMOVE
054 Word 2	054 Word 2	054 Word 2
101 Word 2	101 Word 2	101 Word 2
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

054 Word 2	Administers the LND feature button to an assigned multiappearance voice terminal.
Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the port carrier number (0-3).
Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).

Field 6 Enter the device type:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC

Field 7 Enter the member (button) number (1-62).

Field 8 Enter a "1" to specify the button type as "LND."

101 Word 2 Administers the LND redial delay timer to a trunk group. Any trunk groups that can be accessed through LND should have a redial timer set. This interval is between 0 and 5 seconds in 0.1-second increments (with a default of 0 seconds).

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the redial delay time in tenths-of-seconds (0-50).

350 Word 2 Administers the LND dial access code.

Field 1 Enter a "59" for the LND feature.

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

LEAVE WORD CALLING

The Leave Word Calling (LWC) feature allows internal callers (internal to the local system or the Distributed Communications System) to leave messages for internal principals (the called parties) without the assistance of a secretary or Message Center agent.

Assignment of LWC is on a line class-of-service basis. Assignment of the message-storage destination is on a per-voice terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

LWC on an AP or on AUDIX (See Chapter 6, "DCIU Administration")

Message Waiting — Automatic

Names Database (See Chapter 2, "System Administration")

Display — Voice Terminal

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	063 Word 2	000 Word 2
010 Word 2	000 Word 2	010 Word 2
051 Word 1	054 Word 1	051 Word 1
054 Word 1	054 Word 2	054 Word 1
054 Word 2	261 Word 1	054 Word 2
261 Word 1	350 Word 2	063 Word 2
275 Word 3		261 Word 1
350 Word 2		275 Word 3
		350 Word 2

Procedure Usage

- 000 Word 2** Administers the LWC destination and the adjunct assigned for LWC messages. The LWC destination may be one of 3 possible destinations: AP, AUDIX, or the system. If LWC on the system is administered, none of the DCIU procedures must be administered (Procedures 256, 257, and 258).
- Field 8 Enter the AP destination:
0 Not assigned to an AP
1-7 Assigned to an AP
- Field 9 Enter the LWC destination:
0 Not assigned
1 Switch (system)
2 AP
3 AUDIX
- Field 10 Enter the AUDIX destination:
0 Not assigned
1-8 Assigned to AUDIX
- 010 Word 2** Administers LWC originating and LWC terminating to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 2 Enter the LWC originating:
0 Disable
1 Enable
- Field 3 Enter the LWC terminating:
0 Disable
1 Enable
- 051 Word 1** Administers the lock/unlock option and the LWC — global retrieval capability to an assigned multiappearance voice terminal with display capabilities.
- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 12 Enter the lock/unlock availability:
0 Not available
1 Available
- Field 14 Enter the LWC global retrieval assignment:
0 LWC global retrieval not allowed
1 LWC global retrieval allowed

054 Word 1 Administers the LWC — activate button to an assigned multiappearance voice terminal. It is recommended that you assign this feature to a button that has a status lamp. This allows the user to get better feedback on LWC status.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type where the button will be assigned:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the button number where the assignment will be made (1-62).
- Field 8 Enter the extension number (-, 000-99999).
- Field 9 Enter a "22" to specify the button type as "LWC — activate."

054 Word 2 Administers the LWC — cancel button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter a "0" to specify the button type as "LWC — cancel."

-
- 063 Word 2** Searches and displays message waiting coverage (AP or AUDIX) for extension numbers.
- Field 1 Enter the extension number (000-99999).
 - Field 2 Enter the AP number (-, 1-7).
 - Field 3 Enter the AUDIX number (-, 1-4).
 - Field 4 Enter the audible automatic message waiting assignment:
 - Not assigned
 - 1 Assigned
- 261 Word 1** Provides the translation between an internal AP or AUDIX number and the network AP or AUDIX number. Included are the local adjunct, the local adjunct number, the local adjunct type, the version number, digit format, scrolling, and network adjunct number.
- Field 1 Enter the local adjunct:
 - 1 AP
 - 2 AUDIX
 - 3 DCS
 - Field 2 Enter the local adjunct number:
 - 1-7 AP
 - 1-8 AUDIX
 - 1-63 DCS node
 - Field 3 Enter the local adjunct type:
 - 1 AP 16
 - 2 3B5 AP or 3B2
 - 3 AUDIX
 - 4 System 75 or DEFINITY Generic 1
 - 5 System 85 Release 1
 - 6 System 85 Release 2 or DEFINITY Generic 2
 - 7 Enhanced DIMENSION PBX
 - Field 4 Enter the version number (-, 0-999).
 - Field 5 Enter the N-digit format:
 - Does not apply
 - 0 Remote does not support N-digit format
 - 1 Remote supports N-digit format
 - Field 6 Enter the N-digit scrolling:
 - Does not apply
 - 0 Does not support N-digit scrolling
 - 1 Supports N-digit scrolling
 - Field 7 Enter the network adjunct number (-, 1-99).

275 Word 3 Administers the demand print password activation.

Field 11 Enter the demand print password activation:
0 No password
1 Password required

350 Word 2 Administers the feature dial access codes.

Field 1 Enter the feature encode:
10 Demand Printing
14 Demand Print-Accessed
66 LWC - activate
67 LWC - cancel
68 Lock Message Retrieval
69 Unlock Message Retrieval

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

LINE LOCKOUT

The Line Lockout feature places a voice terminal in a lockout condition when the user goes off-hook and does not dial within 10 seconds or pauses for more than 10 seconds while dialing. This feature frees switching facilities for other calls. When the user's extension number is taken out of service, the system returns intercept tone for 10 seconds as a warning to the user. Going on-hook for 0.3 seconds restores service.

Procedure Usage

The Line Lockout feature is always provided. Feature administration is not required.

LINE/FEATURE STATUS INDICATION

The Line/Feature Status Indication feature provides a visual indication of a call's status and/or a feature's status (activated or deactivated) for each button on a multiappearance voice terminal. The visual indication is provided by lamps located beside the button they monitor. This feature reduces the likelihood of inadvertent call interruption and serves as a reminder of what features are active.

Procedure Usage

The Line/Feature Status Indication feature is provided automatically when an appearance or feature button is assigned to a multiappearance voice terminal.

LOOK-AHEAD INTERFLOW

The Look-Ahead Interflow feature is primarily used to interflow ACD calls to remote systems that back-up ACD splits and other answering locations. If a call comes into a local ACD split and cannot be answered, the call is routed to a remote location on a conditional basis. That is, if the call can be serviced within the customer's criteria.

To benefit from all the capabilities of Look-Ahead Interflow, the systems at both ends of the interflowed calls must have this feature administered.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Automatic Alternate Routing (AAR)

In order to route intertandem tie trunk calls, AAR must be administered on the sending and receiving system. If an AAR pattern is selected that does not use ISDN facilities (which is required to transmit the information elements), Look-Ahead Interflow call processing drops out of the call and the call is routed unconditionally. That is, no checking can be done to ensure the call will complete successfully.

Automatic Route Selection (ARS)

In order to route calls over the public network, ARS must be administered on the sending system. If an ARS pattern is selected that does not use ISDN facilities (which is required to transmit the information elements), Look-Ahead Interflow call processing drops out of the call and the call is routed unconditionally. That is, no checking can be done to ensure the call will complete successfully.

Call Vectoring

Call Vectoring is required at the sending and receiving system. The sending system uses vectoring processing to decide whether or not a call is interflowed to a receiving system. The receiving system uses vector processing to decide if the call is to be accepted or rejected.

Integrated Services Digital Network/Primary Rate Interface (ISDN/PRI)

In order to query the receiving system, the sending system must use an ISDN/PRI trunk group. In order for the the receiving system to respond, it must also use an ISDN/PRI trunk group. The ISDN routing class of service (Procedure 010 Word 4 Field 3) should be set for off-net routing.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Automatic Call Distribution (ACD)

ACD calls may be diverted through a system by Look-Ahead Interflow. Typically, calls routed with Call Vectoring terminate at ACD splits.

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1 100 Word 3	276 Word 1 100 Word 3	276 Word 1 100 Word 3

Procedure Usage

- 100 Word 3** Allows the Look Ahead Interflow feature to be used on ISDN trunks.
- Field 8 Enter the optional ISDN information inhibited encode:
- ISDN not available
 - 0 Data included in ISDN message
 - 1 Data not included in ISDN message
- 276 Word 1** Administers the Look-Ahead Interflow feature.
- Field 9 Enter the Look-Ahead Interflow enable:
- 0 Disable
 - 1 Enable

LOUDSPEAKER PAGING ACCESS

The Loudspeaker Paging Access feature allows attendants and voice terminal users to make announcements over a voice paging system. This simplifies contacting a given party by reducing the need for a messenger or repeated dialing. Paging is also useful for announcements during safety or emergency situations.

Assignment of the Loudspeaker Paging Access feature is on a per-system class of service and a per-line class of service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Trunks (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Restriction — Miscellaneous Trunk Restrictions

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	010 Word 1	010 Word 1
054 Word 1	054 Word 1	054 Word 1
203 Word 1	203 Word 1	203 Word 1
275 Word 1		275 Word 1
350 Word 2		350 Word 2

Procedure Usage

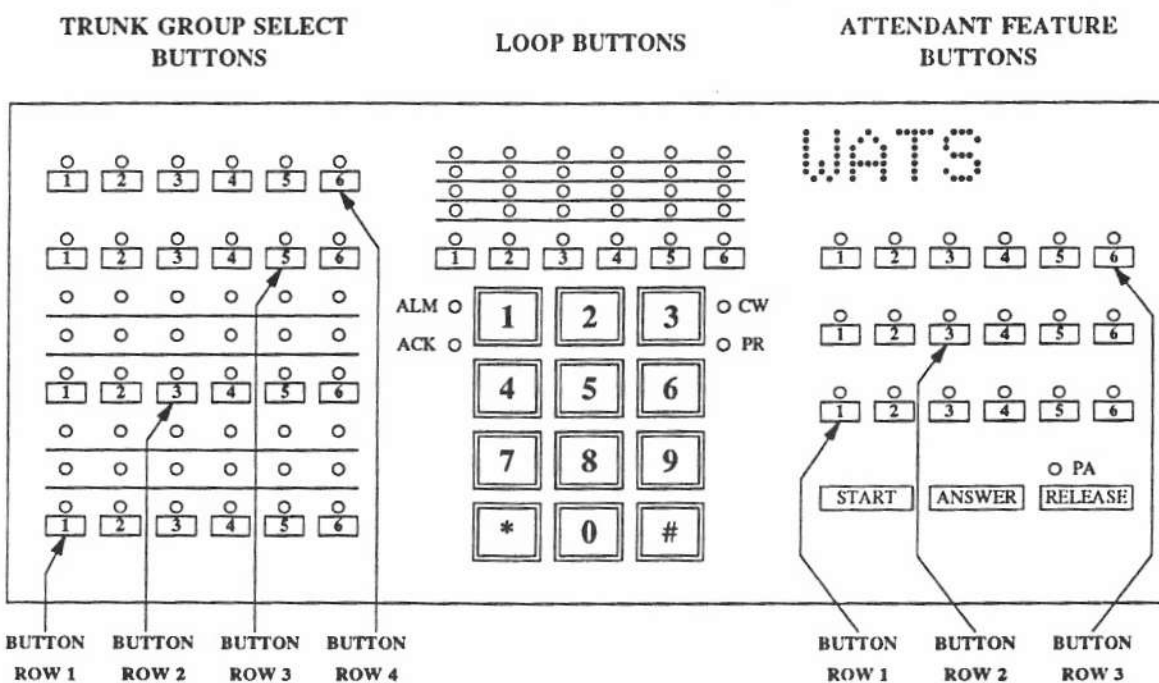
- 010 Word 1** Administers priority paging to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 13 Enter the Priority Paging assignment:
 - 0 Disable
 - 1 Enable

054 Word 1 Administers the recall button to an assigned multiappearance voice terminal that doesn't have a fixed recall button.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type where the button will be assigned:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the button number where the assignment will be made (1-62).
- Field 8 Enter the extension number (-, 000-99999).
- Field 9 Enter a "27" to specify button type as "Recall."

203 Word 1 Administers the paging buttons on the attendant console. The buttons used for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).

- Field 1 Enter the row number where you want the buttons (1-3).
- Fields 2-7 Enter the button types in the desired location:
- 10 All zones
 - 11 Regular zone 1
 - 12 Regular zone 2
 - 13 Regular zone 3
 - 14 Regular zone 4
 - 15 Regular zone 5
 - 16 Regular zone 6
 - 21 Priority zone 1
 - 22 Priority zone 2
 - 23 Priority zone 3
 - 24 Priority zone 4
 - 25 Priority zone 5
 - 26 Priority zone 6



275 Word 1 Administers Loudspeaker Paging Access to the system class of service. Use of encode 2 requires that music-on-hold be administered.

- Field 7 Enter the Paging/Code Calling assignment:
- 0 Disable
 - 1 Paging with ringback
 - 2 Paging with music-on-hold

350 Word 2 Administers the answer-back dial access code.

- Field 1 Enter a "17" for paging answer-back.
- Field 2 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

MAIN/SATELLITE/TRIBUTARY

A Main/Satellite/Tributary configuration (see Figure 75-1) is an independent private network configuration that can also function as an Electronic Tandem Network access arrangement. For a Main/Satellite configuration, attendant positions and public network trunk facilities are concentrated at the main, and calls to or from satellite locations pass the main. To a caller outside the Main/Satellite complex, the system appears to be a single system with one listed directory number. A tributary location is similar to a satellite location with the following exceptions: (1) a tributary has one or more attendant positions, and (2) a tributary has its own listed directory number.

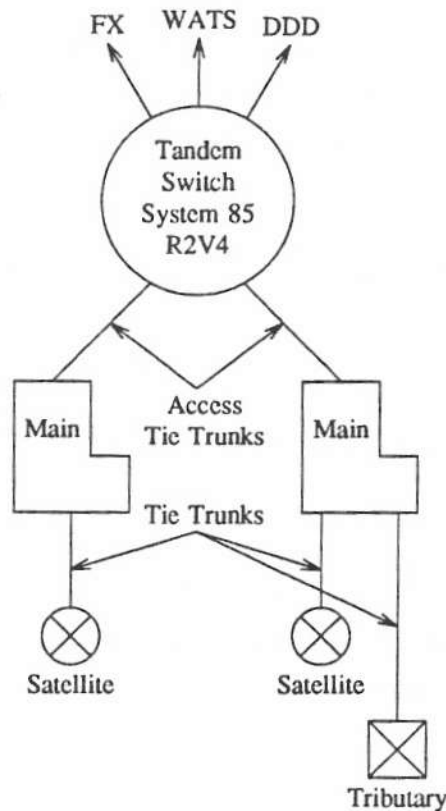


Figure 75-1. Main/Satellite and Main/Tributary Configuration

A small business can start with a single Main/Satellite or Main/Tributary complex and add trunk and switching facilities as the business grows. Figure 75-2 illustrates a Main/Satellite configuration in which tie trunks connect the main locations within an urban area and the public network carries intercity call traffic. This arrangement favors a medium-sized organization or one that has small isolated locations where intercity traffic volume is not heavy enough to justify the cost of tie trunks. In a partially connected network such as this, private network features are only available between systems connected by tie trunks.

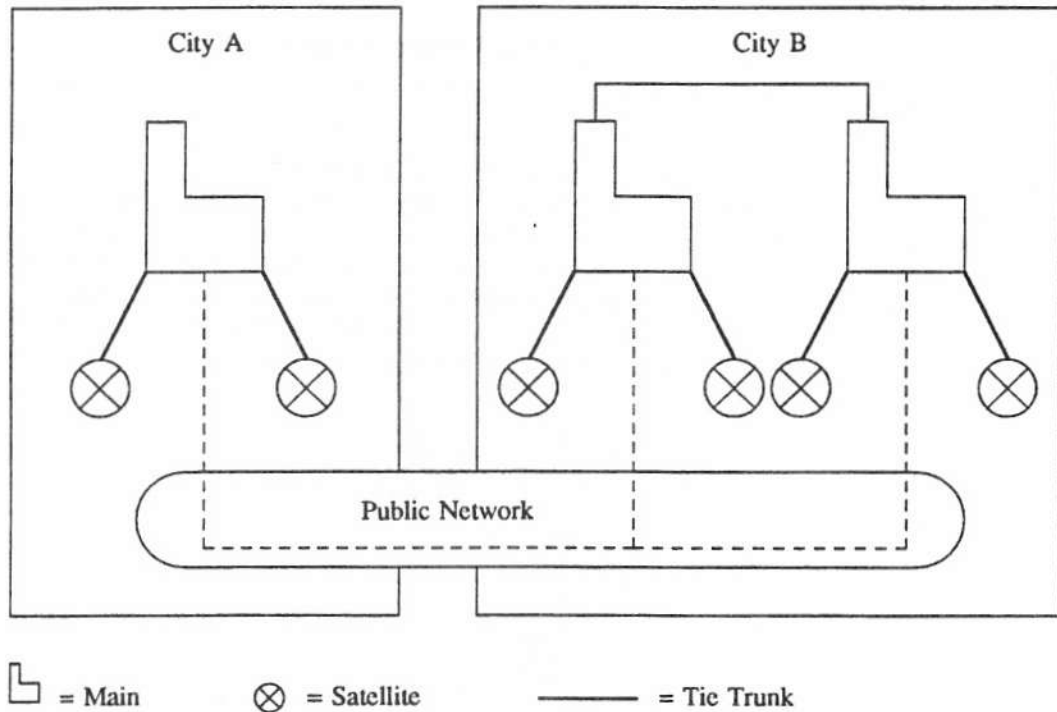


Figure 75-2. Partially Connected Main/Satellite Configuration

Assignment of the Main/Satellite/Tributary feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, “System Administration”)

Extension Number Portability

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation.

See the “Interactions With Other Features” section in the “Main/Satellite/Tributary” feature of *DEFINITY™ Communications System Generic 2 and System 85 Feature Descriptions* (555-104-301).

Automatic Alternate Routing (AAR)

Automatic Route Selection (ARS)

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	275 Word 1	276 Word 1
275 Word 1	104 Word 1	275 Word 1
275 Word 4	104 Word 2	275 Word 4
104 Word 1		104 Word 2
104 Word 2		104 Word 1

Procedure Usage

104 Word 1 Administers the Main/Satellite status, remote dial transfer, and ETA trunk group.

- Field 1 Enter the Main/Satellite status:
 - 0 Non-Main/Satellite system
 - 1 Satellite system
 - 2 Main system
- Field 2 Enter the remote dial transfer activation:
 - 0 Remote dial transfer not active
 - 1 Remote dial transfer active
- Field 3 Enter the extended trunk access trunk group (18-999).

104 Word 2 Administers the trunk group parameters for Main/Satellite trunk group access, number of digits sent, defer prefix digit, transfer action type, and the prefix digits.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the trunk group parameters for Main/Satellite trunk group access:
 - 0 Not in Main/Satellite service
 - 1 In Main/Satellite service
- Field 3 Enter the number of digits to be sent:
 - 1-way incoming trunks
 - 1-4 4-digit dialing
 - 2-5 5-digit dialing
- Field 4 Enter the defer prefix requirements:
 - 0 Defer prefix not required
 - 1 Defer prefix immediately
- Field 5 Enter the transfer action type:
 - 0 No transfer action
 - 1 Attendant transfer
 - 2 Dial transfer

Field 6 Enter the first prefix digit:
0-9
11 or *
12 or #

Field 7 Enter the second prefix digit (-, 0-9).

Field 8 Enter the third prefix digit (-, 0-9).

275 Word 1 Administers the number of digits in the extension numbering plan and tandem tie trunk access.

Field 9 Enter the number of digits sent by the local CO or CCSA system (-, 0, 3-5).

Field 15 Enter the tandem tie trunk access:
- Feature is not available
0 Tandem tie trunk disable
1 Tandem tie trunk enable

275 Word 4 Administers trunk-to-trunk transfer.

Field 3 Enter the trunk-to-trunk transfer assignment:
- Not available
0 Disable
1 Enable

276 Word 1 Administers the multipremises feature group for Main/Satellite.

Field 2 Enter the assignment for multipremises feature group for Main/Satellite:
0 Disable
1 Enable

MALICIOUS CALL TRACE

The Malicious Call Trace (MCT) feature allows the customer to obtain information that may identify the calling party of a malicious call. This feature is useful for tracing the source of bomb threats, menacing calls, and obscene calls, and is especially desirable when these types of calls are more than a rare occurrence. Organizations that may wish to use the Malicious Call Trace feature include airlines, corporations, government agencies, and universities.

The Malicious Call Trace feature is assigned on a per-voice terminal and voice terminal class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Trunk Administration

Voice Terminal and Data Module Administration

Attendant Console Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

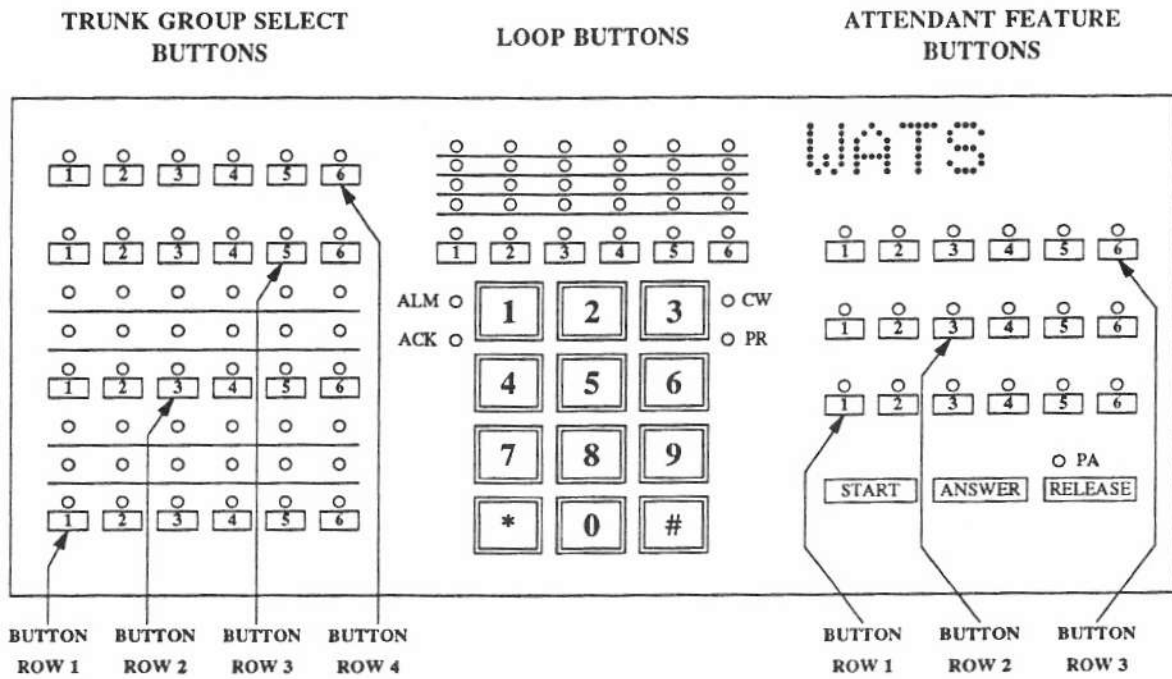
Attendant Interposition Calling and Transfer

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 2	010 Word 2	010 Word 2
054 Word 2	054 Word 2	054 Word 2
203 Word 1	203 Word 1	203 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

- 010 Word 2** Activates Malicious Call Trace on an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 6 Enter the malicious call trace control:
 - 0 Cannot be used with this class of service
 - 1 Can be used with this class of service
- 054 Word 2** Administers the EMERGENCY button to an assigned multiappearance voice terminal.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
 - Field 7 Enter the member (button) number (1-62).
 - Field 8 Enter a "9" to specify the button type as "Malicious Call Trace (EMERGENCY)."
- 203 Word 1** Administers the MCT — Activate and the MCT — Control buttons to the attendant console(s). The buttons for these features are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left-to-right (1-6).
- Field 1 Enter the row number where you want the buttons (1-3).
 - Fields 2-7 Enter the button types in the desired location:
 - 48 MCT — Activate
 - 49 MCT — Control



350 Word 2 Administers the Malicious Call Trace dial access codes.

- Field 1 Enter the feature encode:
99 MCT — cancel
100 MCT — activate
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

MANUAL SIGNALING

The Manual Signaling feature allows a multiappearance terminal user to signal a preselected multiappearance terminal. Each button press at the calling terminal causes one short beep at the called terminal. This feature may be used with the Manual Intercom feature to provide signaling.

Manual Signaling can also be used to signal a preselected group of voice terminals. In this way, a message can be quickly and effectively conveyed (e.g., "Departmental meeting is convening") to an organized group of individuals.

Assignment of the Manual Signaling feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

053 Word 1 Administers the association between a signaling and a signaled terminal for Manual Signaling. The first equipment location is for the signaling terminal (Fields 1-7). The second equipment location is for the signaled terminal (Fields 8-12).

Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the port carrier number (0-3).
Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).
Field 6	Enter the device type: 0 Basic set 1 Feature module 2 Coverage module 3 Display module 4 ADFTC
Field 7	Enter the member (button) number (1-62).
Field 8	Enter the module number (0-30).
Field 9	Enter the cabinet number (0-7).

- Field 10 Enter the port carrier number (0-3).
- Field 11 Enter the slot number in the port carrier (0-3, 5-8, 13-16,
18-21).
- Field 12 Enter the circuit number (0-7).

MEGACOM® SERVICE ACCESS

The MEGACOM Service Access feature can provide the users of the System 85 R2V4 with cost-effective access to the AT&T long-distance network.

Using “special access” to an AT&T 4 ESS™ switch, MEGACOM Service provides *outward* calling to any telephone number (outside the LATA) throughout the mainland, Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands.

The MEGACOM 800 Service provides a similar, but separate, service for *incoming* calls.

Incoming MEGACOM 800 Service calls can be directed to the attendant queue, to an ACD, EUCD, or UCD/DDC split, to a specific System 85 extension, or to a remote location using the Remote Access feature.

Assignment of the MEGACOM Service Access feature is on a per-system and per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restriction — Miscellaneous Trunk Restrictions

Attendant Direct Trunk Group Selection.

Procedure Usage

103 Word 1	Administers network features associated with a trunk group.
Field 1	Enter the trunk group number (18-999).
Field 2	Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

- Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):
- 0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk
 - 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk
- Field 6 Enter the authorization code assignment:
- 0 Authorization codes are not required when accessing this trunk group
 - 1 Authorization codes are required when accessing this trunk group
- Field 7 Enter the bridge-on assignment:
- 0 Bridging on to this trunk group is not allowed
 - 1 Bridging on to this trunk group is allowed
- Field 8 Enter the trunk reservation limit (0-15).
- Field 9 Enter the AAR/ARS prefix digit (0-9).
- Field 10 Enter the Data Protection assignment:
- 0 Disable
 - 1 Enable
- Field 11 Enter the desired Remote Access echo suppressor control:
- 0 Dial tone
 - 1 Precursor tone/dial tone
 - 2 Abbreviated dial tone
- Field 12 Enter the desired AAR conditional routing assignment:
- 0 Not a satellite facility
 - 1 Is a satellite facility
- Field 13 Enter the second TCM assignment:
- 0 Second TCM is not used
 - 1 Second TCM is used
- Field 14 Enter the desired digit collection scheme:
- 0 Overlap outpulsing
 - 1 Collect all digits before outpulsing

MESSAGE CENTER

Message Center is an answering service for redirected calls from the called party to an agent in the Message Center. Agents enter messages from the caller at a 500 BCT, 515 BCT, PC 6300, or PC 7300 running 513 BCT emulation. The called party can retrieve their messages later by printing the message at a nearby printer, through a digital display module, calling the Message Center agent, or through a text mail service.

Message Center is assigned on a per-system and per-voice terminal basis. The Message Center feature uses ACD or Call Vectoring to route calls to Message Center agents. An ACD split must be set up before administering Message Center.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Message Center (See Chapter 6, "DCIU Administration")
- Message Waiting — Automatic
- Automatic Call Distribution (ACD)
- Display — Voice Terminal

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Leave Word Calling (LWC)

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	000 Word 2	000 Word 2
051 Word 1	051 Word 1	051 Word 1
261 Word 1	261 Word 1	261 Word 1
275 Word 3	275 Word 3	275 Word 3
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

000 Word 2 Administers the extension number to its Message Center AP, the LWC destination, and AUDIX messaging. You can have either Message Center on an AP or AUDIX messaging, but not both.

Field 1 Enter the extension number (000-99999).

Field 8 Enter the AP destination:
0 Not assigned
1-7 Assigned to an AP

Field 9 Enter the LWC destination:
0 Not assigned
1 Switch (system)
2 AP
3 AUDIX

Field 10 Enter the AUDIX destination:
0 Not assigned
1-8 Assigned to AUDIX

051 Word 1 Administers an equipment location and the lock/unlock option to a multiappearance voice terminal with display capabilities.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-7).

Field 12 Enter the lock/unlock option:
0 Not available
1 Available

261 Word 1 Provides the translation between an internal AP or AUDIX number and the network AP or AUDIX number. Included are the local adjunct, the local adjunct number, the local adjunct type, the version number, digit format, scrolling, and network adjunct number.

- Field 1 Enter the local adjunct:
- 1 AP
 - 2 AUDIX
 - 3 DCS
- Field 2 Enter the local adjunct number:
- 1-7 AP
 - 1-8 AUDIX
 - 1-63 DCS
- Field 3 Enter the local adjunct type:
- 1 AP 16
 - 2 3B5 AP or 3B2
 - 3 AUDIX
- Field 4 Enter the version number (-, 0-999).
- Field 5 Enter the N-digit format:
- Does not apply
 - 0 Remote does not support N-digit format
 - 1 Remote supports N-digit format
- Field 6 Enter the N-digit scrolling:
- Does not apply
 - 0 Does not support N-digit scrolling
 - 1 Supports N-digit scrolling
- Field 7 Enter the network adjunct number (-, 1-99).

275 Word 3 Administers the demand print password activation:

- Field 11 Enter the demand print password activation:
- 0 No password required
 - 1 Password required

350 Word 2 Administers the Message Center dial access codes.

- Field 1 Enter the feature encode:
10 Demand Printing
14 Demand Print-Accessed
68 Lock Message Retrieval
69 Unlock Message Retrieval
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

MESSAGE WAITING — AUTOMATIC

The Message Waiting — Automatic feature provides two ways of notifying a user that a message is waiting to be retrieved from one or more of the System 85 R2V4 messaging services. As there are several different messaging services, and not all voice terminals have the same alerting facilities, Message Waiting — Automatic is available in two different forms that should meet the needs of most System 85 users.

Assignment of the Message Waiting feature is on a voice terminal basis. When using Message Waiting — Automatic without an adjunct (AP or AUDIX), the only administration required are Procedures 063 Words 1-2 and 000 Word 2.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Message Center, if required (See Chapter 6, "DCIU Administration")

AUDIX, if required (See Chapter 6, "DCIU Administration")

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	063 Word 2	063 Word 2
000 Word 3	000 Word 2	000 Word 2
063 Word 1	063 Word 1	000 Word 3 063 Word 1

Procedure Usage

000 Word 2 Administers where the LWC will be stored (AUDIX, AP, or Switch). Also administers if facilities other than LWC can control the Message Waiting Lamp administered in Procedure 063 Word 1.

Field 8	Enter the AP assignment: 0 Not assigned 1-7 Assigned to Message Center
Field 9	Enter the LWC Destination assignment: 0 Not assigned 1 Switch (system) 2 AP 3 AUDIX

Field 10 Enter the AUDIX assignment:
0 Not assigned
1-8 Assigned

000 Word 3 Administers audible Message Waiting — Automatic to an extension.

Field 1 Enter the extension number (000-99999).

Field 4 Enter the desired assignment:
0 Disabled
1 Enabled

063 Word 1 Administers the Message Waiting — Automatic lamp to assigned voice terminal extension numbers. A message waiting lamp is not necessarily assigned to a voice terminal where the extension is also assigned.

Field 1 Enter the extension number (000-99999).

Field 2 Enter the module number (0-30).

Field 3 Enter the cabinet number (0-7).

Field 4 Enter the port carrier number (0-3).

Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 6 Enter the circuit number (0-7).

Field 7 Enter the device type:
-, 0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC

Field 8 Enter the member (button) number (-, 0-62).

063 Word 2 Searches and displays message waiting coverage (AP or AUDIX) for extension numbers. This is helpful when changing message waiting assignments.

Field 1 Enter the extension number (000-99999).

Field 2 Enter the AP number (-, 1-7).

Field 3 Enter the AUDIX number (-, 1-4).

Field 4 Enter the audible automatic message waiting assignments:
- Not assigned
1 Assigned

MESSAGE WAITING — MANUAL

The Message Waiting — Manual feature enables a multiappearance voice terminal user to light the green status lamp at another preassigned multiappearance voice terminal by pressing a manual message waiting button. The status lamp lights at both terminals and can be turned off by either voice terminal.

The Message Waiting feature normally indicates a need to contact the activating party. The status lamp could also indicate to a secretary DO NOT DISTURB or NOT AVAILABLE while lighted. In these cases, the user should relabel the lamps.

Assignment of the Message Waiting feature is on a voice terminal basis for multiappearance voice terminals.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

053 Word 2 Administers the buttons for the controlling and signaled voice terminals. Fields 1-7 are for the controlling terminal. Fields 9-15 are for the signaled terminal.

Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the port carrier number (0-3).
Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).
Field 6	Enter the device type (0-4).
Field 7	Enter the member (button) number (1-62).
Field 9	Enter the module number (0-30).
Field 10	Enter the cabinet number (0-7).
Field 11	Enter the port carrier number (0-3).
Field 12	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 13	Enter the circuit number (0-7).

Field 14 Enter the device type (0-3).

Field 15 Enter the member (button) number (1-62).

MODEM POOLING

The Modem Pooling feature provides a "pool" of conversion resources that is available on an as needed basis to convert analog data signals to the Digital Communications Protocol (DCP) used with the System 85 R2V4.

Assignment of the Modem Pooling feature is on a per-system basis. Assignment within the system is made on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Procedure Sequence

ADD	CHANGE	REMOVE
100 Word 2	100 Word 2	180 Word 1
180 Word 1	180 Word 1	100 Word 2

Procedure Usage

100 Word 2 Administers the bearer capability class of service and modem pooling characteristics.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the bearer capability class of service (0-255).
- Field 3 Enter the originate mode assignment:
 - 0 Originate mode not active
 - 1 Originate mode active
- Field 4 Enter the answer mode assignment:
 - 0 Answer mode not active
 - 1 Answer mode active
- Field 5 Enter the modem type assignment
 - 0 Modem can only operate in one mode
 - 1 Modem can operate in both modes
- Field 6 Enter a "1" if this is a first choice modem pool.

- Field 7 Enter the desired test type:
- 0 Disable digital facility testing
 - 1 No EIA loop back control
 - 2 EIA local loop back control
 - 3 EIA local and EIA remote loop back control

180 Word 1 Administers the digital circuits to analog circuits in pairs. An SN270 cannot have both analog and digital trunks assigned on the same circuit pack.

- Field 1 Enter the digital trunk group number (-, 18-999).
- Field 2 Enter the member (button) number (1-99).
- Field 3 Enter the module number (0-30).
- Field 4 Enter the cabinet number (0-7).
- Field 5 Enter the port carrier number (0-3).
- Field 6 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 7 Enter the circuit number (0-7).
- Field 8 Enter the analog trunk group number (-, 18-999).
- Field 9 Enter the module number (0-30).
- Field 10 Enter the cabinet number (0-7).
- Field 11 Enter the port carrier number (0-3).
- Field 12 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 13 Enter the circuit number (0-7).

The following table lists data attributes for some AT&T analog data sets:

Modem	Duplex	Synch/ Asynch	Speed (bps)	Answer Mode	Originate Mode
103JR	full	asynch	low	yes	yes
212AR	full	asynch	low, 1200	yes	yes
212AR	full	synch	1200	yes	yes
201CR	half	synch	2400	yes	yes
208BR	half	synch	4800	yes	yes
2224A	full	asynch	low, 1200, 2400	yes	yes
2224A	full	synch	1200, 2400	yes	yes

MULTIAPPEARANCE PRESELECTION AND PREFERENCE

The Multiappearance Preselection and Preference feature provides multiappearance voice terminal users with options for placing (originating) or answering (terminating) calls on selected appearances.

- Preselection — Allows voice terminal users to manually select an appearance by pressing the appropriate button before going off-hook. All appearance preference options are overridden.
- Ringing Appearance Preference* — Automatically selects a ringing appearance for voice terminal users upon going off-hook.
- Calling Appearance Preference* — Automatically selects an appearance with an incoming call whether that line is ringing or not. Calling Appearance Preference or Preselection can be used to answer calls that would otherwise go unanswered from an appearance on another voice terminal.
- Idle Appearance Preference† — Automatically connects voice terminal users to an idle appearance upon going off-hook.
- Prime Appearance Preference† — Automatically selects the terminal's primary appearance for a voice terminal user going off-hook. Prime Appearance Preference can be used when a particular appearance is preferred for toll or interfacility calling. This operation serves to improve the recognition of calling costs.
- No Appearance Preference‡ — The voice terminal user must manually select an appearance to place or answer a call.
- Last Appearance Preference† — The last appearance used is selected automatically (actually remains in use) when going off-hook to place a call or when a call terminates on the line.

Assignment of the Multiappearance Preselection and Preference feature is on a per-multiappearance basis.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Use Procedure 051 Word 1 to specify the desired type of originating and terminating preference for a multiappearance voice terminal (Fields 10 and 11).

Use Procedure 052 Word 1 to administer a prime appearance (prime line) to a multiappearance voice terminal (Field 10).

* This is a "terminating" preference.

† This is an "originating" preference.

‡ This is a "terminating" and "originating" preference.

MULTIPLE LISTED DIRECTORY NUMBERS

The Multiple Listed Directory Numbers feature helps the attendant identify the purpose of incoming public network calls. It does this through the Incoming Call Identification (ICI) display. With only a single Listed Directory Number (LDN), the ICI display shows only that the call is an LDN call. This situation does not provide much feedback for the attendant of a large, diversified System 85 R2V4. Using multiple LDNs, the attendant can then determine something about the purpose of an LDN call before the call is even answered.

Assignment of the Multiple Listed Directory Numbers feature is on a system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
204 Word 1 275 Word 2	204 Word 1 275 Word 2	204 Word 1 275 Word 2

Procedure Usage

204 Word 1 Administers the LDNs and the ICI displays for the LDNs. For a Direct Inward Dialing (DID) LDN, assign a call type, the character encodes, and the LDN.

For a non-DID LDN, assign an attendant-completing trunk group number, a message number, and the alpha characters.

Field 1 Enter the call type (1001-1999).

Field 2 Enter an unused message number (4-63, whatever is available).

Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Enter the LDN. This number is assigned by the local serving office.

275 Word 2 Allows one trunk group to be shared for LDNs and Remote Access.

Field 10 Enter the shared trunk group feature assignment:

- Feature not available

0 Disable

1 Enable

MUSIC-ON-HOLD ACCESS

The Music-on-Hold feature provides music to a held party. Music assures the held party that the connection is still in effect.

Assignment of the Music-on-Hold Access feature is on a per-system class-of-service basis, on a per-system or per-module basis, and on a per-trunk group basis.

Music sources can be assigned one per system or one per module (not every module has to have a music source). If you administer more than one music source, the music given on hold depends on which modules have a music source. When an extension in a module places a call on hold, music is added to the held party's time slot by that module's music source (if provided). Otherwise, music is added to the time slot using the music source attached to the *lowest numbered module* that does have a music source. Therefore, assign your primary music source to module 0. This will give most users access to that music source.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Procedure Usage

275 Word 1 Administers Music-on-Hold Access to the system class of service. Music-on-Hold Access can also be used with Code Calling Access and Loudspeaker Paging Access answer-back channels.

Field 11	Enter the music-on-hold assignment:
-	Feature not available
0	Disable
1	Enable

OFF-PREMISES DATA-ONLY EXTENSIONS

The Off-Premises Data-Only Extension feature provides switched access to data equipment at a remote location (greater than 5000 feet) from a System 85 R2V4, using analog or digital private line facilities that do not compete with voice traffic. This feature is used for data communications when a significant volume of data is exchanged between a System 85 and a remote host computer or cluster of data terminals. Operation of this feature is transparent to all users. The users of the remote terminal cluster can access System 85 data endpoints using data terminal (keyboard) dialing. Unless specifically restricted, any terminal on the system that can originate data calls can access a remote data endpoint as though it were on-premises.

Assignment of the Off-Premises Data-Only Extensions feature is on a per-line basis as a data module with keyboard dialing capabilities.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Use Procedure 051 Word 1 to administer an off-premises data-only extension as a TDM with keyboard dialing.

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 1 010 Word 3	000 Word 1 010 Word 3	000 Word 1 010 Word 3

Procedure Usage

- 000 Word 1** Administers the extension characteristics for off-premises extensions.
- Field 1 Enter an extension (000-99999).
 - Field 2 Enter the module number (0-30).
 - Field 3 Enter the cabinet number (0-7).
 - Field 4 Enter the port carrier number (0-3).
 - Field 5 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 6 Enter the circuit number (0-7).
 - Field 7 Enter the class of service (1-30, 32-63). Features associated with a class of service are administered in Procedure 010 Words 1-4.
 - Field 8 Enter the appropriate port type:
 - Extension is administered in Procedure 052 Word 1
 - 2 Off-premises extension (OPS)
 - 6 OPS with terminal balance
 - 9 DS1 OPS line
 - Field 9 Enter the desired assignment for a DS1 OPS lines:
 - Non-DS1 OPS line
 - 0 Signaling enable for DS1 OPS line
 - 1 Signaling disable for DS1 OPS line

When removing an extension, Special Error Code 85 may appear with procedure numbers display in Field 11. Occurrences of this extension must be removed from those procedures before being removed in this procedure.

- 010 Word 3** Administers Data Protection to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
 - Field 13 Enter the data protection (permanent) capabilities:
 - 0 Not restricted
 - 1 Restricted

OVERRIDE

The Override feature permits authorized multiappearance voice terminal users to interrupt other terminal users who are on a 2-party connection. Only terminal users who require the ability to contact other terminal users on a preemptive basis should be assigned this feature.

Assignment of the Override feature is on a per-terminal class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	054 Word 2	010 Word 1
054 Word 2	350 Word 2	054 Word 2
350 Word 2		350 Word 2

Procedure Usage

- 010 Word 1** Administers Override to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 10 Enter the override capabilities:
- 0 Disable
 - 1 Enable

054 Word 2 Administers the override button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter a "5" to specify the button type as "Override."

350 Word 2 Administers the Override dial access code.

- Field 1 Enter an "11" for the Override feature.
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (-, 0-9).
- Field 4 Enter the third digit of the dial access code (-, 0-9).
- Field 5 Enter the fourth digit of the dial access code (-, 0-9).

PERSONAL CENTRAL OFFICE LINE

The Personal Central Office Line feature provides a multiappearance voice terminal user with direct access to dedicated central office (CO) trunks. Typical users are executives, dispatchers, or buyers with a high volume of calls going outside the system. Businesses with specialized incoming traffic (such as a service department) can also benefit from these dedicated circuits.

Assignment of the Personal CO Line feature is on a per-voice terminal and a per-appearance button basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Trunks (See Chapter 2, “System Administration”)

Trunk Administration

Voice Terminal and Data Module Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Trunk Verification — Attendant

Procedure Sequence

ADD	CHANGE	REMOVE
057 Word 1	057 Word 2	057 Word 2
	057 Word 3	057 Word 3
	057 Word 1	057 Word 1

Procedure Usage

057 Word 1 Administers a Personal CO Line appearance to a button on an assigned multiappearance voice terminal button and sets the ringing option.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).
Field 6	Enter the device type: 0 Basic set 1 Feature module 2 Coverage module 3 Display module 4 ADFTC
Field 7	Enter the member (button) number (3-12).
Field 8	Enter the module number (0-30).
Field 9	Enter the cabinet number (0-7).
Field 10	Enter the port carrier number (0-3).
Field 11	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 12	Enter the circuit number (0-7).
Field 13	Enter the ringing type: 0 No ringing 1 Ringing

057 Word 2 Searches for Personal CO Line assignments based on a trunk equipment location. Fields 1-5 contain the trunk equipment location. Fields 6-10 displays the terminal equipment location.

Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the port carrier number (0-3).
Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).

057 Word 3 Searches for Personal CO Line assignments based on a trunk group number. The trunk type and equipment locations are displayed in Fields 2-8.

Field 1	Enter the trunk group number (18-999).
---------	--

PC/PBX CONNECTION

The Personal Computer/Private Branch Exchange (PC/PBX) Connection feature is a set of PC-to-PBX interface products for the System 85 R2V4. These products offer the users of AT&T PCs (personal computers) and other IBM-compatible PCs the voice and data capabilities of a fully integrated voice/data workstation. In so doing they provide a set of communications-oriented services that make communications more efficient.

For operational instructions, refer to the *PC/PBX Connection Release 3 Documentation Set* (555-016-715).

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

054 Word 1 Administers the wait for principal button to an assigned multiappearance voice terminal. This is the only button that is unique for the PC/PBX Connection feature.

- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |
| Field 6 | Enter the device type where the button will be assigned:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC |
| Field 7 | Enter the button number where the assignment will be made (1-62). |
| Field 8 | Enter the extension number (-, 000-99999). |
| Field 9 | Enter a "30" to specify the button type as "wait for principal." |

POWER FAILURE TRANSFER

The Power Failure Transfer feature provides service during a local power failure for selected voice terminals on the system by directly connecting (transferring) these terminals to predesignated Central Office (CO) trunks. These selected terminals are sometimes referred to as Power Failure Transfer terminals.

Procedure Usage

The Power Failure Transfer feature is provided by hardware and requires no administration.

PRECEDENCE CALLING

Precedence Calling is the interface to Automatic Voice Network (AUTOVON). However, Precedence Calling can be adapted for use with any private network that uses a 'star' or hub-like configuration. Two capabilities are provided: *preemption* and automatic *diversion to attendant assistance*. These capabilities help to ensure the rapid completion of important calls. Precedence Calling is specifically designed for national defense and emergency calling situations. On a System 85 R2V4, the Precedence Calling feature enables the system to interface effectively with the AUTOVON environment and can extend this ability to an associated Distributed Communications System (DCS) network.

Precedence Calling is assigned on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Trunk Administration
- Tone Plants (See Chapter 2, "System Administration")
- Intercept Treatment
- Voice Terminal and Data Module Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Route Advance
- Attendant Direct Trunk Group Selection
- Distributed Communications System (DCS)
 - If used with DCS, the DCS administration section should be consulted.

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	204 Word 1	204 Word 1
350 Word 2	203 Word 1	203 Word 1
103 Word 1	010 Word 4	010 Word 4
275 Word 3	356 Word 1	356 Word 1
275 Word 4	305 Word 1	305 Word 2
305 Word 1	305 Word 2	305 Word 1
305 Word 2	275 Word 3	275 Word 4
356 Word 1	275 Word 4	275 Word 3
010 Word 4	103 Word 1	103 Word 1
203 Word 1	350 Word 2	350 Word 2
204 Word 1		276 Word 1

Procedure Usage

010 Word 4 Administers the maximum precedence level to an extension class of service.

Field 1 Enter the class of service (1-30, 32-63).

Field 2 Enter the maximum precedence level:

- Precedence calling not allowed
- 0 Flash override
- 1 Flash
- 2 Immediate
- 3 Priority
- 4 Routine

Field 3 Enter the ISDN routing:

- ISDN service is not supported
- 0 Use any facility
- 1 Use ISDN exclusively
- 2 Use ISDN if available, else use any available facility

103 Word 1 Displays and assigns network characteristics for the trunk groups. You must set the AAR prefix digit.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):

- 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk. Enter this encode if administering for AUTOVON.

Field 6 Enter the authorization code assignment:

- 0 Authorization codes are not required when accessing this trunk group
- 1 Authorization codes are required when accessing this trunk group

Field 7 Enter the bridge-on assignment:

- 0 Bridging on to this trunk group is not allowed
- 1 Bridging on to this trunk group is allowed

Field 8 Enter the trunk reservation limit (0-15).

Field 9 Enter the AAR/ARS prefix digit (0-9).

Field 10 Enter the Data Protection assignment:

- 0 Data Protection disable
- 1 Data Protection enable

Field 11 Enter the desired Remote Access echo suppressor control:

- , 0 Dial tone
- 1 Precursor tone/dial tone
- 2 Abbreviated dial tone

Field 12 Enter the desired AAR conditional routing assignment:

- 0 Not a satellite facility
- 1 Is a satellite facility

Field 13 Enter the second TCM assignment:

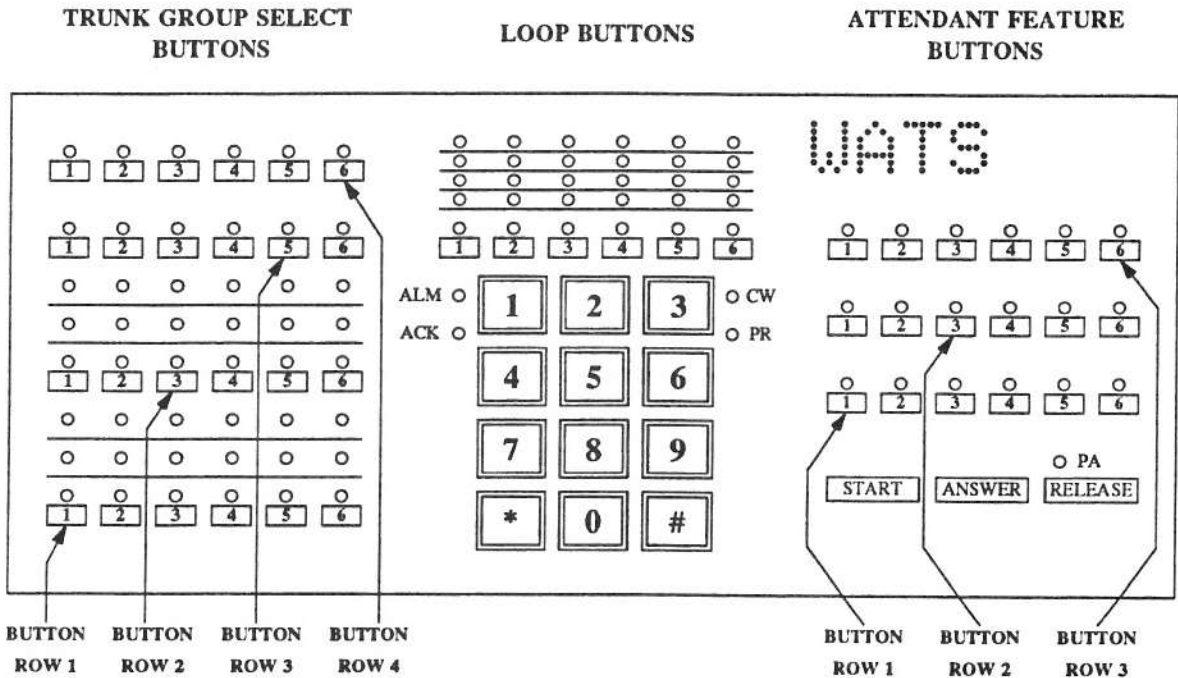
- 0 Second TCM is not used
- 1 Second TCM is used

Field 14 Enter the desired digit collection scheme:

- 0 Overlap outpulsing
- 1 Collect all digits before outpulsing

203 Word 1 Administers the Precedence Calling buttons to the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

- Field 1 Enter the row number where you want the buttons (1-3).
- Fields 2-7 Enter the button types in the desired location:
- 28 Trunk ID
 - 43 Manual Preemption
 - 44 Display Call Precedence Level
 - 45 Display Called Number
 - 46 Flash
 - 47 Set Precedence



204 Word 1 Administers the Precedence Calling identification and ICI for trunk groups to attendant console ICI field. You must assign the trunk group or call type, the message number, and the character encodes.

- Field 1 Enter the call type:
- 2300 Flash Override
 - 2301 Flash
 - 2302 Immediate
 - 2303 Priority
 - 2304 Routine
- Field 2 Enter an unused message number (4-63, whatever is available).

Fields 3-6 Enter the desired characters or encodes:

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

275 Word 3 Administers the dial 1 for toll, home NPA, and the local system number. This administration must be coordinated with the AUTOVON dialing plan if AUTOVON access is involved.

Field 1 Enter the dial 1 for toll:
 0 Not required
 1 Required for NPA calls
 2 Required for all toll calls

Field 2 Enter the home NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).

Field 8 Enter the local system number (1-999).

NOTE

It is recommended that the node number be equal to the RNX of the system.

275 Word 4 Administers the default recent disconnect interval, the incoming preemption level, the outgoing voice terminal preemption level, the outgoing attendant preemption level, and the AUTOVON interface system number.

Field 6 Enter the default recent disconnect interval (1-511).

Field 7 Enter the maximum preemption level:
 - Precedence Calling not allowed
 0 Flash override
 1 Flash
 2 Immediate
 3 Priority
 4 Routine

- Field 8 Enter the outgoing terminal:
- Precedence Calling not allowed
 - 0 Flash override
 - 1 Flash
 - 2 Immediate
 - 3 Priority
 - 4 Routine
- Field 9 Enter the outgoing attendant:
- Precedence Calling not allowed
 - 0 Flash override
 - 1 Flash
 - 2 Immediate
 - 3 Priority
 - 4 Routine
- Field 10 Enter the AUTOVON interface system number (1-40).

276 Word 1 Administers the Precedence Calling feature to the system.

- Field 4 Enter the Precedence Calling assignment:
- 0 Disable
 - 1 Enable

305 Word 1 Administers the Precedence Calling destination node for a trunk group and specifies the maximum precedence level of each Precedence Calling trunk group.

- Field 1 Enter the Precedence Calling destination node:
- 0 AUTOVON system
 - 1-40 System node (administered in Procedure 275 Word 3 on destination system)
- Field 2 Enter the outgoing trunk group number (18-999).
- Field 3 Enter the maximum precedence level:
- Non-precedence (routine only)
 - 0 Flash override
 - 1 Flash
 - 2 Immediate
 - 3 Priority
 - 4 Routine

305 Word 2 Displays and assigns Precedence Calling destination node numbering including home office code/NNX. A thousand's digit selects 1000 numbers within the office code to which Precedence Calling calls can route, or a dash (-) allows call routing to all 10000 numbers. The number in Fields 2 and 3 (NNXD) homes on the PBX number in Field 1. In Field 4, use 0-9 for home PBX and a 5-digit dialing plan; if not applicable, enter a dash (-).

- Field 1 Enter the Precedence Calling destination node:
- 0 Precedence Calling system
 - 1-40 PBX node

- Field 2 Enter the Precedence Calling NNX (220-999).
- Field 3 Enter the thousand's digit (-, 0-9).
- Field 4 Enter the first digit (0-9 Home system and/or 5-digit plan).

350 Word 2 Administers the Precedence Calling dial access codes.

- Field 1 Enter the feature encode:
61 AAR call
82 AUTOVON - Precedence Calling
83 AUTOVON - Attendant Assistance
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

356 Word 1 Administers a dialed digit to each precedence level.

- Field 1 Enter the flash override assignment:
0-9 Dialed digit
11 or *
12 or #
- Field 2 Enter the flash assignment:
0-9 Dialed digit
11 or *
12 or #
- Field 3 Enter the immediate assignment:
0-9 Dialed digit
11 or *
12 or #
- Field 4 Enter the priority assignment:
0-9 Dialed digit
11 or *
12 or #
- Field 5 Enter the routine assignment:
0-9 Dialed digit
11 or *
12 or #

PRIORITY CALLING

The Priority Calling feature allows a user to use distinctive 3-burst ringing to call an idle single-appearance terminal or an idle appearance of a multiappearance terminal.

NOTE

There is no correlation between the term "Priority" as used in this feature and "Priority Precedence" as used in the Precedence Calling feature.

Priority Calling also allows the user to signal a busy single-appearance terminal. When signaled, the party at the busy single-appearance terminal receives a 3-burst tone. The 3-burst tone is three 0.1-second, 400-hertz beeps. The user can answer the priority call immediately by using the Hold feature or by finishing the call and going on-hook.

Assignment of the Call Waiting feature enables the Priority Calling feature within the system. Assignment of the Priority Calling feature is on a per-terminal class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	054 Word 2	010 Word 1
054 Word 2	350 Word 2	054 Word 2
275 Word 1		275 Word 1
350 Word 2		350 Word 2

Procedure Usage

010 Word 1 Administers Priority Calling to an extension class of service.

Field 1 Enter the class of service (1-30, 32-63).

Field 8 Enter the Priority Calling assignment:

0 Disable

1 Enable

- 054 Word 2** Administers the Priority Calling button to an assigned multiappearance voice terminal.
- Field 1 Enter the module number (0-30).
 - Field 2 Enter the cabinet number (0-7).
 - Field 3 Enter the port carrier number (0-3).
 - Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
 - Field 5 Enter the circuit number (0-7).
 - Field 6 Enter the device type:
 - 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
 - Field 7 Enter the member (button) number (1-62).
 - Field 8 Enter a "2" to specify the button type as "Priority Calling."
- 275 Word 1** Administers Call Waiting to the system class of service. Changes to this field also affects the availability of the Attendant Call Waiting feature.
- Field 5 Enter the Call Waiting assignment:
 - 0 Disable
 - 1 Enable
- 350 Word 2** Administers the Priority Calling dial access code used on a single-appearance voice terminal.
- Field 1 Enter a "7" for the Priority Calling feature.
 - Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
 - Field 3 Enter the second digit of the dial access code (0-9).
 - Field 4 Enter the third digit of the dial access code (0-9).
 - Field 5 Enter the fourth digit of the dial access code (0-9).

PRIVACY — ATTENDANT LOCKOUT

The Privacy — Attendant Lockout feature prevents the attendant from reentering (bridging onto) a 2-party connection held on the console, unless recalled by a voice terminal user.

Assignment of the Privacy — Attendant Lockout feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Procedure Usage

- 200 Word 1** Administers the Privacy — Attendant Lockout feature.
- | | |
|---------|---|
| Field 6 | Enter the lockout feature assignment:
0 Disable
1 Enable |
| Field 7 | Enter the privacy feature assignment. When privacy is enabled, you must also enable lockout (Field 6).
0 Disable
1 Enable |

PRIVACY — MANUAL EXCLUSION

The Privacy — Manual Exclusion feature prevents other terminal users with an image of the same appearance from bridging onto an active call on that appearance. Activating manual exclusion does not interrupt the call in progress.

Assignment of the Privacy — Manual Exclusion feature is on a per-terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

054 Word 1 Administers the exclusion button to an assigned multiappearance voice terminal.

Field 1	Enter the module number (0-30).
Field 2	Enter the cabinet number (0-7).
Field 3	Enter the port carrier number (0-3).
Field 4	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 5	Enter the circuit number (0-7).
Field 6	Enter the device type: 0 Basic set 1 Feature module 2 Coverage module 3 Display module 4 ADFTC
Field 7	Enter the member (button) number (1-62).
Field 8	Enter the extension number (-, 000-99999).
Field 9	Enter an "8" to specify button type as "Manual Exclusion."

QUEUING

When all the accessible trunk groups for a particular call are busy, the system automatically places the call in queue. A queue is a space in memory where information about these calls is stored. During periods of high call volume, queuing improves caller efficiency by reducing or eliminating repeat dialing attempts. It can also improve trunk utilization by maintaining high trunk group occupancy, allowing fewer trunks to carry the same call volume.

Queuing can be assigned to intertandem tie trunks, access tie trunks, central office trunks, foreign exchange trunks, and Wide Area Telecommunications Service trunks. Each trunk group has its own queue that is either ringback or off-hook. With ringback queuing, the caller goes on-hook (hangs up) and waits for a ringback call from the system when an idle trunk becomes available. If a main or satellite location has ringback queuing, the caller must dial his/her extension number to receive the ringback call. With off-hook queuing, the calling party waits off-hook for the next available trunk. As an option, music or a recorded announcement can be provided while the calling party waits off-hook.

Assignment of the Queuing feature is on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Trunk Administration

Related Administration

The following administration is not required for this feature, but is recommended to enhance operation:

Music-on-Hold

Procedure Sequence

ADD	CHANGE	REMOVE
330 Word 1	330 Word 1	330 Word 2
330 Word 2	330 Word 2	330 Word 1
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

330 Word 1 Administers the system and trunk group queuing parameters, including priority and nonpriority queue lengths, time-in-queue-limits for ringback and off-hook queues, threshold and raised FRL values for AAR and ARS calls, and ringback queue restrictions.

- Field 1 Enter the queuing encode:
0 Queuing not active
1 Queuing active
- Field 2 Enter the number of queue records active (0-999).
- Field 3 Enter the threshold FRL (1-7).
- Field 4 Enter the raised FRL (1-7).
- Field 5 Enter the terminal queue type:
0 Off-Hook Queuing non-priority for terminal
1 Off-Hook Queuing priority for terminal
2 Ringback Queuing for terminal
- Field 7 Enter the pattern queuing preference level.
0, 1 Pattern queuing is inactive
2-16 Number of preferences to search

330 Word 2 Administers the system and trunk group queuing parameters, including priority and nonpriority queue lengths, time-in-queue-limits for ringback and off-hook queues, threshold and raised FRL values for AAR and ARS calls, and ringback queue restrictions.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the queuing activation:
0 Not active
1 Active
- Field 3 Enter the non-priority queue length (0-63).
- Field 4 Enter the priority queue length (0-63).
- Field 5 Enter the non-priority off-hook queuing:
- No limit
1-79 Wait time in 0.1-minute increments
- Field 6 Enter the priority off-hook queuing:
- No limit
1-79 Wait time in 0.1-minute increments
- Field 7 Enter the ringback queuing:
- No limit
1-60 Wait time in one-minute increments

- Field 8 Enter the ringback queuing restriction:
 - 0 RBQ not restricted
 - 1 RBQ restricted
 - 2 Change RBQ to OHQ

- Field 10 Enter the incoming trunk queue data:
 - See Special Error Code 81
 - 0 OHQ nonpriority
 - 1 OHQ priority
 - 2 RBQ 2 digits in dial code of terminals
 - 3 RBQ 3 digits in dial code of terminals
 - 4 RBQ 4 digits in dial code of terminals
 - 5 RBQ 5 digits in dial code of terminals
 - 6 No queue

350 Word 2 Administers the dial access code used on a single-appearance voice terminal.

- Field 1 Enter a "9" for the Queuing - cancel feature.
- Field 2 Enter the first digit of the dial access code:
 - 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

RADIO PAGING ACCESS

The Radio Paging Access feature allows users to page a person over a radio receiver. The paged party must be carrying a radio receiver that is set to the radio paging system. The paged party can answer the page by using a voice terminal and dialing an answer-back channel. Remote Access trunk users can also use this feature.

Assignment of the Radio Paging Access feature is on a per-system basis. This feature will be administered after you have completed the Prerequisite Administration and, if desired, the Related Administration.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Trunk Administration

You must assign at least two circuits; one for the paging access and one for the answer-back.

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restriction — Miscellaneous Trunk Restrictions

Attendant Direct Trunk Group Selection

RECALL SIGNALING

The Recall Signaling feature allows a single-appearance voice terminal user who is busy on a 2-party call to place the second party on hold and obtain recall dial tone. The voice terminal user can then call another party or activate a feature.

NOTE

This feature does not apply to multiappearance voice terminals that have a fixed recall button. Multiappearance voice terminal users can use the Conference, Hold, or Transfer features to achieve the same results.

The Recall Signaling feature is provided on a per-system basis.

Procedure Usage

The Recall Signaling feature is provided automatically and requires no administration.

RECORDED TELEPHONE DICTATION ACCESS

The Recorded Telephone Dictation Access feature permits voice terminal users within the system and at remote locations to access customer-provided dictation equipment. The following functions are provided:

- Start function (voice or dial activated)
- Stop function (voice or dial activated)
- Playback (dial activated)
- Corrections (dial activated).

Easy access to dictation equipment enhances and simplifies the customer's dictation services. Thus, the feature reduces secretarial requirements and facilitates word processing.

Assignment of the Recorded Telephone Dictation Access feature is on a per-trunk group basis. Terminal access to a Recorded Telephone Dictation trunk is assigned on a per-extension class-of-service basis (Restriction — Miscellaneous Trunk Restrictions). This feature will be administered after you have done the Prerequisite Administration and, if desired, the Related Administration.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Restriction — Miscellaneous Trunk Restrictions

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RECORDED TELEPHONE DICTATION ACCESS

REMOTE ACCESS

The Remote Access feature allows external touch-tone dialing users to access the System 85 R2V4 through the public network, and then use many features and services of the system as though they were System 85 station users.

Remote Access service can be provided using local central office (CO), foreign exchange (FX), or WATS (800 Service) facilities. For System 85, special access facilities such as MEGACOM service can also be used.

Assignment of the Remote Access feature is on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Class of Service — Extensions (See Chapter 2, "System Administration")
- Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

- Authorization Codes
- Restriction — Miscellaneous Trunk Restrictions

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	103 Word 1	103 Word 1
275 Word 2	285 Word 1	275 Word 2
285 Word 1	286 Word 1	285 Word 1
286 Word 1	350 Word 2	286 Word 1
350 Word 2		350 Word 2

Procedure Usage

103 Word 1 Administers the network features associated with an assigned trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):

- 0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk
- 1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk

Field 6 Enter the authorization code assignment:

- 0 Authorization Codes are not required when accessing this trunk group
- 1 Authorization Codes are required when accessing this trunk group

Field 7 Enter the bridge-on assignment:

- 0 Bridging on to this trunk group is not allowed
- 1 Bridging on to this trunk group is allowed

Field 8 Enter the trunk reservation limit (0-15).

Field 9 Enter the AAR/ARS prefix digit (0-9).

Field 10 Enter the Data Protection assignment:

- 0 Data Protection disable
- 1 Data Protection enable

Field 11 Enter the desired Remote Access echo suppressor control:

- , 0 Dial tone
- 1 Precursor tone/dial tone
- 2 Abbreviated dial tone

Field 12 Enter the desired AAR conditional routing assignment:

- 0 Not a satellite facility
- 1 Is a satellite facility

Field 13 Enter the second TCM assignment:

- 0 Second TCM is not used
- 1 Second TCM is used

- Field 14 Enter the desired digit collection scheme:
 0 Overlap outpulsing
 1 Collect all digits before outpulsing
- 263 Word 1** Administers alarm checks for the Speech Processing Adjunct (SPA).
- Field 1 Enter the alarm type:
 0 Major alarm on the common control
 1 Minor alarm on the common control
- Field 2 Enter the unit type:
 63 SPA considered external equipment
 64 SPA considered external processor
- Field 3 Enter the unit number (1-32).
- 275 Word 2** Administers the shared use of Remote Access trunks.
- Field 10 Enter the assignment for shared use of trunks by Remote
 Access and LDNs:
 - Feature not available
 0 Disable
 1 Enable
- 285 Word 1** Specifies the type of Remote Access security for the system.
- Field 1 Enter the Remote Access code requirements:
 0 No barrier code required (AAR/ARS not required on
 remote access)
 1 Barrier code required (AAR/ARS required on remote
 access)
 2 AAR/ARS authorization code required
 3 Speaker verification required
- 286 Word 1** Administers where calls via Remote Access will route to after timeout
- Field 16 Enter the remote access routing after timeout:
 0 Intercept after timeout
 1 Remote access to local attendant after timeout
 2 Remote access to CAS attendant after timeout

350 Word 2 Administers the dial access code allowing an attendant to change the barrier code.

- Field 1 Enter the appropriate encode:
26 Remote Access - change barrier code
101 Speaker verification request
102 Speaker verification fail
103 Unadministered authorization code entered
104 No authorization code entered.
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

RESTRICTION — ATTENDANT CONTROL OF VOICE TERMINALS

The Restriction — Attendant Control of Voice Terminals feature allows an attendant to activate or cancel restrictions for specific extension numbers or groups of extension numbers. The system returns Intercept Treatment when a call restricted by this feature is attempted.

Assignment of the Attendant Control of Voice Terminals feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Attendant Console Administration

Intercept Treatment

Procedure Sequence

ADD	CHANGE	REMOVE
000 Word 2	075 Word 1	075 Word 1
204 Word 1	000 Word 2	000 Word 2
350 Word 2	204 Word 1	204 Word 1
	350 Word 2	350 Word 2

Procedure Usage

000 Word 2	Administers a controlled restriction group number to an extension number.
Field 1	Enter the extension number (-, 000-99999).
Field 5	Enter the attendant control of voice terminal group:
0	Extension is not part of a controlled restriction group
1-63	Extension belongs to this controlled restriction group

075 Word 1 Searches and displays extension numbers and voice terminal equipment locations assigned to attendant controlled restriction groups (assigned in Procedure 000 Word 2). The results are displayed in Fields 3-8.

Field 1 Enter a "3" for the attendant controlled restriction groups.

Field 2 Enter the controlled restriction group (-, 1-63).

204 Word 1 Administers the desired alphanumeric display for restricted calls.

Field 1 Enter "2293" as the Attendant Control of Voice Terminals call type.

Field 2 Enter an unused message number (4-63, whatever is available).

Fields 3-6 Enter the desired character encodes.

0 = 0	A = 11	K = 21	U = 31
1 = 1	B = 12	L = 22	V = 32
2 = 2	C = 13	M = 23	W = 33
3 = 3	D = 14	N = 24	X = 34
4 = 4	E = 15	O = 25	Y = 35
5 = 5	F = 16	P = 26	Z = 36
6 = 6	G = 17	Q = 27	- = 37
7 = 7	H = 18	R = 28	blank = 10
8 = 8	I = 19	S = 29	
9 = 9	J = 20	T = 30	

Field 7 Leave blank.

350 Word 2 Administers the feature dial access codes.

Field 1 Enter the feature encode:
27 Single extension control
28 Group of extensions control

Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

RESTRICTION — CODE RESTRICTION

The Restriction — Code Restriction feature allows restriction of calls by selected extension numbers to areas defined by specific area codes and/or office codes. The feature designates the 3-digit area codes, 3-digit office codes, and 6-digit combinations of area codes and office codes that a restricted voice terminal user is allowed to access. The system returns intercept tone whenever the caller dials a code that is not allowed to the caller.

Each of the 63 extension classes of service is assigned a code restriction level of 1, 2, 3, or 0. Likewise, each selected code is assigned a level of 1, 2, 3, or 0. The level "1" is the most restricted, and the level "0" is the least restricted. For example, a voice terminal user with an extension number assigned as level 2 can access any code with a restriction level of 1 or 2. An extension number assigned as level 0 can access any of the specified codes.

The following table shows the code restriction levels that are allowed.

Voice Terminal	Area Code or Area Code and Office Code			
	1	2	3	0
1	x			
2	x	x		
3	x	x	x	
0	x	x	x	x

Assignment of the Code Restriction feature is on a per-line class of service and per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
302 Word 1	010 Word 3	302 Word 1
301 Word 1	301 Word 1	301 Word 1
301 Word 2	301 Word 2	301 Word 2
301 Word 3	301 Word 3	301 Word 3
301 Word 4	301 Word 4	301 Word 4
010 Word 3	302 Word 1	010 Word 3

Procedure Usage

010 Word 3 Administers a Code Restriction level to an extension class of service.

- Field 1 Enter the class of service (1-30, 32-63).
- Field 12 Enter the code restriction level:
- 0 Least restrictive
 - 1 Most restrictive
 - 2 More restrictive
 - 3 Restrictive

301 Word 1 Administers the Code Restriction trunk group, type, dial 1 for toll calls, and the trunk group home NPA.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter code restriction group assignment:
- 1 Primary code restriction group
 - 2 Secondary code restriction group
- Field 3 Enter the "Dial 1" specifications for toll calls:
- 0 "1" is not dialed for toll calls
 - 1 "1" must be dialed for toll calls requiring as NPA code
 - 2 "1" must be dialed for all toll calls
- Field 4 Enter the home NPA (200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).

301 Word 2 Administers the CO digit absorption treatment by a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the digit (2-9).
- Field 3 Enter the treatment of digit:
- 0 Digit in Field 2 not absorbed
 - 1 Digit in Field 2 absorbed repeatedly
 - 2 Digit in Field 2 absorbed once
 - 3 Digit in Field 2 absorbed only if it is the first digit dialed
 - 4 Digit in Field 2 absorbed only if it is the second digit dialed
 - 5 Digit in Field 2 absorbed only if it is the first or second digit dialed

- 301 Word 3** Administers a Code Restriction level to an office or area code.
- Field 1 Enter the code (100-999).
- Field 2 Enter the code type:
1 Office code
2 NPA code
- Field 3 Enter the code restriction level:
0 Code accessible to class of service with code restriction 0
1 Code accessible to class of service with code restriction 0-3
2 Code accessible to class of service with code restriction of 0, 2, or 3
3 Code accessible to class of service with code restriction of 0 or 3
- 301 Word 4** Administers whether office codes are toll or non-toll.
- Field 1 Enter the office code (200-999).
- Field 2 Enter the toll specifications:
0 Indicates a non-toll office code in Field 1
1 Indicates a toll office code in Field 1
- 302 Word 1** Administers the allowed area code/office code pairs and their code restriction levels to a trunk group.
- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the code restriction level:
0 Trunk group associated with allowed code (Fields 3 & 4) can be accessed by line extensions with a code restriction level of 0
1 Trunk group associated with allowed code can be accessed by line extensions with a code restriction level of 0, 1, 2, or 3
2 Trunk group associated with allowed code can be accessed by line extensions with a code restriction level of 0, 2, or 3
3 Trunk group associated with allowed code can be accessed by line extensions with a code restriction level of 0 or 3 only
- Field 3 Enter the NPA code (-, 200-219, 300-319, 400-419, 500-519, 600-619, 700-719, 800-819, 900-919).
- Field 4 Enter the office code (-, 200-999).

101-4

RESTRICTION — CODE RESTRICTION

RESTRICTION — MISCELLANEOUS TRUNK RESTRICTIONS

The Restriction — Miscellaneous Trunk Restrictions feature restricts preselected (by class-of-service) extensions from the use of certain trunk groups (e.g., Wide Area Telecommunications Service [WATS]). A voice terminal user who is restricted from and tries to access the trunk group receives intercept treatment.

Assignment of the Miscellaneous Trunk Restrictions feature is on a per-extension class-of-service and per-trunk group basis.

Procedure Sequence

ADD	CHANGE	REMOVE
102 Word 1	175 Word 1	175 Word 1
010 Word 3	102 Word 1	010 Word 3
	010 Word 3	102 Word 1

Procedure Usage

010 Word 3	Administers the miscellaneous trunk restriction groups to an extension class of service.
Field 1	Enter the class of service (1-30, 32-63).
Fields 2-9	Enter the miscellaneous trunk restriction groups assignment: 0 This COS is not denied access to trunk groups in this restriction group 1 This COS is denied access to trunk groups in this restriction group
Field 10	Enter the miscellaneous trunk restrictions "group" assignment: 0 Restrictions are determined by the values of Fields 2-9 1 This COS is denied access to all trunk restriction groups assigned in Procedure 102 Word 1

- 102 Word 1** Administers which trunk group dial access codes are part of a miscellaneous trunk restriction group.
- Field 1 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 2 Enter the second digit of the dial access code (0-9).
- Field 3 Enter the third digit of the dial access code (0-9).
- Field 4 Enter the fourth digit of the dial access code (0-9).
- Fields 5-12 Enter the groups to be restricted from dialing the access code in Fields 1-4:
- 0 Not restricted from dialing the access code in Fields 1-4
 - 1 Restricted from dialing the access code in Fields 1-4
- 175 Word 1** Displays the trunk group dial access codes in a miscellaneous trunk restriction group. The results are displayed in Fields 2-17.
- Field 1 Enter the miscellaneous trunk restriction group (1-8).

RESTRICTION — TOLL RESTRICTION

The Restriction — Toll Restriction feature restricts callers at specified extension numbers from placing toll calls except with attendant assistance. This feature includes two types of restrictions:

- **Battery Reversal** — The central office sends a battery reversal signal to the System 85 when the caller dials a toll call. The System 85 then examines the calling line's class of service. If the line is toll restricted, the System 85 immediately releases the connection to the central office, and the caller hears intercept tone.
- **0/1 Toll Restriction** — This form of toll restriction is totally controlled within System 85. Toll restricted lines connect to intercept tone if the first or second digit dialed following the trunk access code is a 0 or 1, and the first three digits are not in the free (allowed) call list.

The free call list provides up to ten customer selected 3-digit codes (Numbering Plan Area [NPA], Home Numbering Plan Area [HNPA], and/or special service codes). This allows access by toll restricted lines to selected area codes and/or service codes such as 411 or 911. If the code is on the free call list, the call is allowed. If not, the call is denied.

Assignment of the Toll Restriction feature is on a per-extension class-of-service and/or per incoming dial repeating tie trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Trunk Administration

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1	300 Word 1	010 Word 3
300 Word 1		300 Word 1
101 Word 1		101 Word 1

Procedure Usage

- 010 Word 3** Administers the Toll Restrictions to an extension class of service.
- Field 1 Enter the class of service (1-30, 32-63).
- Field 21 Enter the toll restriction assignments:
- 0 Not restricted
- 1 Restricted
-
- 101 Word 1** Administers battery reversal to an assigned trunk group.
- Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.
- Field 3 Enter a "1" for the battery reversal assignment.
-
- 300 Word 1** Administers the free call list (a list of up to ten unrestricted codes) for the system.
- Field 1 Enter the code number (1-10).
- Field 2 Enter the nonrestricted office or area code (100-999).

RESTRICTION — VOICE TERMINAL RESTRICTIONS

The Voice Terminal Restrictions feature provides six fixed restrictions on voice terminal extensions. These restrictions control call receiving and originating permission at the affected voice terminal. These restrictions are applied through extension class of service (COS) assignment.

Inward Restriction

Inward restrictions prevent voice terminal users at specified extension numbers from receiving non-Distributed Communications System (DCS) private network, public network, and attendant-extended calls. These calls will be intercepted. These voice terminal users can receive calls from within the DCS network.

Manual Terminating Line Restriction

Manual Terminating Line Restriction prevents voice terminal users at specified extension numbers from receiving calls other than direct or extended calls from a local attendant (or an attendant within the DCS network). All other calls route to the appropriate intercept. These voice terminal users can originate calls and activate features.

Origination Restriction

Origination Restriction prevents voice terminal users on specified extension numbers from originating calls. If voice terminal users attempt to make calls, their extension number is taken out of service after 10 seconds and returned to service when the user hangs up.

Outward Restriction

Outward Restriction prevents callers on specified extension numbers from directly accessing outgoing trunks to the public network. Calls can be made to other local voice terminal users (or voice terminal users within the DCS network), to a local attendant (or an attendant in the DCS network [using an LDN]), to a local attendant (using a dial access code), and to tie trunks. An attendant can assist in completing calls to outside numbers using the Straightforward Outward Completion or the Through Dialing feature.

Terminal-to-Terminal Only Calling Restriction

Terminal-to-terminal only calling restriction restricts all calls from specified extension numbers except those made to local extension numbers (or extension numbers within the DCS network). All other calls are intercepted.

Termination Restriction

Termination Restriction prevents voice terminal users on specified extension numbers from receiving calls but not from originating calls.

Assignment of the Voice Terminal Restriction feature is on a per-line class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

010 Word 3 Administers the type of Voice Terminal Restriction to an extension class of service.

Field 1	Enter the class of service (1-30, 32-63).
Field 15	Enter the terminal-to-terminal only calling restriction assignment: 0 Not restricted 1 Restricted
Field 16	Enter the inward restriction assignment: 0 Not restricted 1 Restricted
Field 17	Enter the manual terminating line restriction assignment: 0 Not restricted 1 Restricted
Field 18	Enter the origination restriction assignment: 0 Not restricted 1 Restricted
Field 19	Enter the outward restriction assignment: 0 Not restricted 1 Restricted
Field 20	Enter the termination restriction assignment: 0 Not restricted 1 Restricted

RINGING — ABBREVIATED AND DELAYED

The Ringing — Abbreviated and Delayed feature provides voice terminal users with manual transfer or delayed automatic transfer of ringing. The ringing can be directed to any subset of the voice terminals sharing an appearance with the primary terminal(s).

Assignment of the Abbreviated and Delayed Ringing feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Bridged Call

Procedure Sequence

ADD	CHANGE	REMOVE
052 Word 1	052 Word 1	052 Word 1
052 Word 2	052 Word 2	052 Word 2
054 Word 1	054 Word 1	054 Word 1
061 Word 1	061 Word 1	

Procedure Usage

052 Word 1 Administers the type of ringing to an image (bridged appearance) of an assigned multiappearance voice terminal or straight line set. Assign *abbreviated ringing* to the image on the primary terminal and *delayed ringing* to the image on the secondary voice terminal. Field 9 specifies the line appearance and Field 11 specifies the ringing type.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).

- Field 6 Enter the device type:
 0 Basic set
 1 Feature module
 2 Coverage module
 3 Display module
 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter the extension number (000-99999).
- Field 9 Enter the line appearance number (1-12).
- Field 11 Enter the ringing type:
 0 No ringing
 1 Ringing
 2 Delayed ringing
 3 Abbreviated ringing

A ringing type must be specified for each assignment, including each image of a line appearance. Assign abbreviated ringing to the primary terminal and delayed ringing to the secondary terminal.

052 Word 2 Administers either automatic transfer or manual transfer of ringing to both of the assigned multiappearance voice terminals.

- Field 1 Enter the extension number (000-99999).
- Field 2 Enter the line appearance number (1-12).
- Field 3 Enter the abbreviated/delayed ringing type:
 1 Manual
 2 Automatic

054 Word 1 Administers the ABRV RING button to a primary multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
 0 Basic set
 1 Feature module
 2 Coverage module
 3 Display module
 4 ADFTC

- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter the extension number (-, 000-99999).
- Field 9 Enter a "13" to specify the button type as "Ringing —
Abbreviated and Delayed."

061 Word 1 Specifies the number of ringing cycles used with automatic transfer of ringing.

- Field 2 Enter the Abbreviated/Delayed ringing cycles:
- | | |
|---|-----------|
| 0 | 2 cycles |
| 1 | 4 cycles |
| 2 | 8 cycles |
| 3 | 16 cycles |

RINGING CUTOFF

The Ringing Cutoff feature turns off ringing at a particular extension without affecting the status lamp functions. This feature is useful during a conference, meeting, recording session, or any time that ringing might result in an unacceptable interruption.

Assignment of the Ringing Cutoff feature is on a per-extension basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Bridged Call

Procedure Usage

054 Word 1 Administers the Ringing Cutoff button to an assigned multiappearance voice terminal.

- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |
| Field 6 | Enter the device type:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC |
| Field 7 | Enter the member (button) number (1-62). |
| Field 8 | Enter the extension number (-, 000-99999). |
| Field 9 | Enter an "11" to specify button type as "Ringing Cutoff." |

RINGING — DISTINCTIVE

The Ringing — Distinctive feature lets voice terminal users distinguish between various types of incoming calls. The three distinctive patterns of ringing indicate the types of incoming calls.

The patterns of ringing are:

- One-burst ringing — Terminal-to-terminal calls and remote-access calls
- Two-burst ringing — Attendant calls or incoming trunk calls (calls from outside the system)
- Three-burst ringing — Priority calls, including Automatic Callback, Priority Calling, Queuing Callback, or calls to attendants that are answered by designated voice terminals assigned preselected call routing.

The following table shows the timing characteristics of the three types of ringing cycles for the System 85 R2V4. As shown, the duration of a complete cycle is 5.2 seconds, and the intracycle timing is different for each type.

TYPE	INTRACYCLE TIMING	TOTAL TIME
1-Burst	Ringling for 1.2 seconds, silence for 4.0 seconds	5.2 seconds
2-Burst	Ringling for 0.4 seconds, silence for 0.2 seconds, ringling for 0.6 seconds, silence for 4.0 seconds	5.2 seconds
3-Burst	Ringling for 0.2 seconds, silence for 0.1 seconds, ringling for 0.2 seconds, silence for 0.1 seconds, ringling for 0.6 seconds, silence for 4.0 seconds	5.2 seconds

Procedure Usage

Distinctive Ringing is provided with all systems and requires no administration.

RINGING TRANSFER

The Ringing Transfer feature allows a multiappearance voice terminal user to transfer all ringing for a given extension number to other voice terminal(s). When Ringing Transfer is active for an extension, a call terminating to an appearance of that extension rings a predefined subset of the other terminals sharing the same appearance.

Assignment of the Ringing Transfer feature is on a per-extension basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Bridged Call

Procedure Sequence

ADD	CHANGE	REMOVE
052 Word 2	052 Word 2	052 Word 2
054 Word 1	054 Word 1	054 Word 1

Procedure Usage

052 Word 2 Administers the Ringing Transfer characteristics, including the extension, the line appearance, and the ringing transfer type to an assigned multiappearance voice terminal.

Field 1 Enter the extension (000-99999).

Field 2 Enter the appearance number (1-12).

Field 4 Enter the Ringing Transfer type:

0 No Ringing Transfer

1 Ringing when active

2 No ringing when active

054 Word 1 Administers the RINGING TRANSFER button to an assigned multiappearance voice terminal.

- Field 1 Enter the module number (0-30).
- Field 2 Enter the cabinet number (0-7).
- Field 3 Enter the port carrier number (0-3).
- Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 5 Enter the circuit number (0-7).
- Field 6 Enter the device type:
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter the extension number to transfer the ringing to (000-99999).
- Field 9 Enter a "12" to specify button type as "Ringing Transfer."

ROUTE ADVANCE

The Route Advance feature automatically reroutes outgoing calls over alternate trunk groups when the initially-accessed trunk group is busy.

The Route Advance feature offers efficient use of available trunk groups. To provide minimum traffic interference, the first-choice trunk group could be 1-way outgoing trunks. Subsequent trunk groups might be 2-way. The alternate trunk groups are used primarily for incoming traffic. This allows spill over from the first-choice trunk group. The last (fifth-choice) trunk group could be assigned for Remote Access. These remote access trunks, being the last-choice trunk, should then remain virtually unblocked for Remote Access. The trunk access code determines the first-choice trunk group. Assignment of the Route Advance feature is on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Trunk Administration

Queuing

Procedure Sequence

ADD	CHANGE	REMOVE
100 Word 4 330 Word 2	100 Word 4 330 Word 2	100 Word 4 330 Word 2

Procedure Usage

- 100 Word 4** Administers the Route Advance trunk groups.
- Field 1 Enter the trunk group number (18-999).
 - Fields 2-5 Enter the "route-to" trunk group numbers (-, 18-999).
- 330 Word 2** Allows trunk groups that are set up for Queuing to be used in a Route Advance pattern.
- Field 1 Enter the trunk group number (18-999).
 - Field 9 Enter the assignment to allow queuing on Route Advance trunk groups:
 - 0 Disable
 - 1 Enable

SERIAL CALLS

The Serial Calls feature allows an attendant to connect a caller from the public network to two or more voice terminals in succession.

Assignment of the Serial Calls feature is on a per-system basis. Recall buttons are assigned on a per-voice terminal basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Voice Terminal and Data Module Administration

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
054 Word 1 200 Word 1	054 Word 1	054 Word 1 200 Word 1

Procedure Usage

054 Word 1 Administers the recall button to an assigned multiappearance voice terminal without a fixed recall button.

Field 1 Enter the module number (0-30).

Field 2 Enter the cabinet number (0-7).

Field 3 Enter the port carrier number (0-3).

Field 4 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).

Field 5 Enter the circuit number (0-7).

Field 6 Enter the device type:
0 Basic set
1 Feature module
2 Coverage module
3 Display module
4 ADFTC

Field 7 Enter the member (button) number (1-62).

Field 8 Enter the extension number (-, 000-99999).

Field 9 Enter a "27" for the recall button.

200 Word 1 Administers two-party hold for the attendant console(s).

Field 9 Enter the two-party hold assignment:
0 Disable
1 Enable

STRAIGHTFORWARD OUTWARD COMPLETION

The Straightforward Outward Completion feature allows an attendant to complete an outgoing trunk call for a voice terminal user. This feature is used to extend calls under the following circumstances:

- For voice terminals that are outward restricted
- For voice terminals with insufficient Facilities Restriction Levels (FRLs) for the trunks required
- For trunks under attendant control.

By completing outgoing calls, the attendant can screen calls and control their destinations.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Attendant Console Administration

TENANT SERVICES

The Tenant Services feature allows a large System 85 R2V4 to appear to users of the system as many small, independent systems. This capability allows a single large System 85 to be shared among a wide assortment of user groups (referred to as "tenants"). A System 85 configured as a "partitioned system" can appropriately serve the telecommunications needs of several situations:

- Major airports
- Industrial parks
- Large medical centers
- Large office complexes.

The Tenant Services feature is assigned on a per-attendant partition and on a per-extension partition basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

- Dialing Plan and Dialing Plan — Features (See Chapter 2, "System Administration")
- Attendant Console Administration
- Voice Terminal and Data Module Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation.

- Authorization Codes
- Automatic Route Selection (ARS)
- Interpartition Access

Procedure Sequence

ADD	CHANGE	REMOVE
276 Word 1	000 Word 4	320 Word 2
000 Word 4	210 Word 2	320 Word 3
210 Word 2	270 Word 1	314 Word 1
270 Word 1	270 Word 2	270 Word 5
270 Word 2	270 Word 3	270 Word 4
270 Word 3	270 Word 4	270 Word 3
270 Word 4	270 Word 5	270 Word 2
270 Word 5	314 Word 1	270 Word 1
314 Word 1	320 Word 2	210 Word 2
320 Word 2	320 Word 3	000 Word 4
320 Word 3	350 Word 2	350 Word 2
350 Word 2		276 Word 1

Procedure Usage

- 000 Word 4** Administers an extension or a range of extensions to an extension partition. Unless explicitly translated, extensions are assigned to extension partition 0 by default.
- Field 1 Enter the first extension number (000-99999).
- Field 2 Enter the last extension number (000-99999).
- Field 3 Enter the extension partition (0-999).
- 210 Word 2** Administers an attendant console position to an attendant partition. Also, assigns an attendant position as the partition's controlling attendant console.
- Field 1 Enter the console number (1-40).
- Field 2 Enter the attendant partition (0-40).
- Field 3 Enter the encode to establish controlling console:
0 Not the controlling console
1 The controlling console
- Field 4 Enter the LDN (-, 000-99999).
- 270 Word 1** Associates an attendant partition with one or more extension partitions and associates one or more extension partitions with a partition group.
- Field 1 Enter the extension partition (0-999).
- Field 2 Enter the attendant partition (-, 0-40).
- Field 3 Enter the partition group (-, 1-500).

270 Word 2 Administers the characteristics of an attendant partition including the attendant overflow parameters and associated controlled restriction groups.

- Field 1 Enter the attendant partition (0-40).
- Field 2 Enter the attendant overflow partition:
- No overflow destination
0-40 Overflow destination
- Field 3 Enter the attendant overflow type:
- No overflow
1 Position busy or headset removed
2 Position busy, headset removed or all switch loops busy
- Field 4 Enter the attendant controlled restriction group:
- No controlled restriction group
1-63 Controlled restriction group

270 Word 3 Administers the default extension for preselected call routing to an attendant partition. This procedure also displays the attendant partition's common night extension.

- Field 1 Enter the attendant partition (0-40).
- Field 2 Enter the default extension (-, 000-99999).

270 Word 4 Administers a Listed Directory Number (LDN) to an attendant partition.

- Field 1 Enter the LDN (-, 000-99999).
- Field 2 Enter the attendant partition (0-40).

270 Word 5 Administers the trunk groups to extension partitions and attendant partitions. Included is the trunk group, the extension partition, outgoing trunk usage, and incoming trunk assignments to attendant partitions. Dedicated trunks are used by just one partition. Shared trunks are used by more than one partition.

- Field 1 Enter the trunk group number (-, 18-999).
- Field 2 Enter the extension partition (-, 000-999).
- Field 4 Enter the outgoing trunk usage:
- Incoming trunk only
0 Outgoing or 2-way shared
1 Outgoing or 2-way dedicated
- Field 5 Enter the incoming trunk assignments to an attendant partition (0-40).

- 276 Word 1** Administers the Tenant Services feature to the feature group class of service.
- Field 6 Enter the Tenant Services assignment:
- 0 Disable
 - 1 Enable
- 314 Word 1** Administers the ARS routing assignments. This associates the routing designators from the 3 and 6-digit ARS routing tables to specific ARS patterns.
- Field 1 Enter the ARS routing designator (1-64).
- Field 2 Enter the ARS call category (0-63).
- Field 3 Enter the Pattern Number (1-64).
- 320 Word 2** Administers ARS call categories to extension partitions.
- Field 1 Enter the call category (-, 0-63).
- Field 3 Enter the extension partition (-, 0-999).
- 320 Word 3** Administers ARS call categories to attendant partitions.
- Field 1 Enter the call category (-, 0-63).
- Field 3 Enter the attendant partition (-, 0-40).
- 350 Word 2** Administers the access codes for the Tenant Services feature.
- Field 1 Enter the feature encode:
- 97 Unattended Console Service (for a partition) - activate
 - 98 Unattended Console Service (for a partition) - deactivate
- Field 2 Enter the first digit of the dial access code:
- 0-9
 - 11 or *
 - 12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

TERMINAL BUSY INDICATIONS

The Terminal Busy Indications feature provides a visual indication of the on-hook/off-hook status of a voice terminal to a multiappearance voice terminal. A secondary answering position uses this information when servicing calls for a busy primary position.

When the signaling voice terminal is on-hook, the Terminal Busy Indication lamp on the signaled voice terminal is dark. When the signaling voice terminal goes off-hook, the green status lamp on the signaled voice terminal lights.

Assignment of the Terminal Busy Indication feature is on a per-voice terminal basis. Basic voice terminal assignments must be done before adding this feature.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Usage

055 Word 1 Administers the Terminal Busy Indications feature to a signaling terminal (Fields 1-5) and a signaled terminal (Fields 6-12). Both terminals must be assigned as multiappearance voice terminals, however, the signaling terminal can be an analog voice terminal administered as a Straight Line Set (SLS). The Terminal Busy Indication button is assigned to a button with a lamp on the signaled terminal.

- | | |
|---------|---|
| Field 1 | Enter the module number (0-30). |
| Field 2 | Enter the cabinet number (0-7). |
| Field 3 | Enter the port carrier number (0-3). |
| Field 4 | Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21). |
| Field 5 | Enter the circuit number (0-7). |

- Field 6 Enter the device type (of signaled terminal):
- 0 Basic set
 - 1 Feature module
 - 2 Coverage module
 - 3 Display module
 - 4 ADFTC
- Field 7 Enter the member (button) number (1-62).
- Field 8 Enter the module number (0-30).
- Field 9 Enter the cabinet number (0-7).
- Field 10 Enter the port carrier number (0-3).
- Field 11 Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
- Field 12 Enter the circuit number (0-7).

THROUGH DIALING

The Through Dialing feature allows an attendant to select the outgoing trunk group for an outgoing call. The calling party then dials the seven or ten digits required to complete the call. This allows the attendant to retain control of trunk use while reducing attendant call-processing time.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Attendant Console Administration

TIMED RECALL ON OUTGOING CALLS

The Timed Recall on Outgoing Calls feature provides control over the use of outgoing trunks when there is an excessive number of lengthy calls. Timed Recall automatically transfers control of the outgoing calls from selected voice terminals to an attendant after a predetermined time interval of 1-31 minutes. This feature applies to voice terminals with a specific class of service which is set in the Class of Service section in Chapter 2, "System Administration". The system sends a warning tone to the calling party 30 seconds before the transfer occurs. The warning tone is a 440-hertz tone with a duration of 1 second.

When a call is transferred to an attendant, it is identified by the Attendant Display feature. At this time, the attendant assumes control of the call. The attendant may talk with the calling and/or called party to decide whether the call should continue or not.

Assignment of the Timed Recall on Outgoing Calls feature is on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Trunk Administration

Attendant Console Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Display

Procedure Sequence

ADD

010 Word 1
101 Word 1

CHANGE

101 Word 1

REMOVE

010 Word 1
101 Word 1

Procedure Usage

010 Word 1 Administers Timed Recall Exempt to an extension class of service.

Field 1 Enter the class of service (1-30, 32-63).

Field 16 Enter the Timed Recall Exempt assignment:

0 Disable (timed recall active)

1 Enable (timed recall inactive)

101 Word 1 Administers Timed Recall to an assigned trunk group.

Field 1 Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255.

Field 10 Enter the amount of time that elapses before a Timed Recall occurs on this trunk group (0-31 in minutes).

Field 11 Enter the desired threshold (0-7). Timed Recall will not occur until the number idle trunks in a trunk group reaches the level entered into this field.

TIMED REMINDER

The Timed Reminder feature automatically alerts the attendant after 30 seconds for the following types of calls:

- Calls on a switched loop waiting for the called party to answer
- Calls on a switched loop waiting to be connected to a busy extension number
- Incoming calls placed on hold on the console.

The attendant can reenter the call and decide whether to terminate the call or permit the waiting to continue. By reentering the call, the attendant lets the calling party know that the call has not been forgotten. The Timed Reminder feature enables the attendant to keep track of every call and provides callers with good service.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Attendant Console Administration

TOUCH-TONE CALLING SENDERIZED OPERATION

The Touch-Tone Calling Senderized Operation feature reduces the time necessary to set up calls to distant locations equipped to receive touch-tone calling signals. The collected digits are sent to the distant office via touch-tone service signaling. If a distant location is not equipped to receive touch-tone calling signals, the system generates and sends dial pulses.

The Touch-Tone Calling Senderized Operation feature is assigned on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Touch-Tone Senders (See Chapter 2, "System Administration")

Procedure Usage

- 101 Word 1** Administers outgoing touch-tone signaling to an assigned trunk group.
- | | |
|---------|--|
| Field 1 | Enter the trunk group number (18-999). DCS trunk groups are limited to 18-255. |
| Field 7 | Enter the touch-tone out assignment:
0 Touch-tone signals are not used for outgoing trunks
1 Touch-tone signals are used for outgoing trunks |

TOUCH-TONE DIALING

The Touch-Tone Dialing feature provides quick and easy dialing on a touch-tone dialing pad. This dialing method is standard on voice terminals and attendant consoles for a System 85 R2V4. Moreover, Touch-Tone Dialing is required for the use of certain features. For example, a touch-tone dialing pad is required to dial access codes beginning with the special character "*" or "#." Also, Remote Access requires that a dialing register be retained for additional dialing after a line or trunk seizure.

Buttons 0-9 are the equivalent of the same numbers on a rotary dial. The two extra buttons, * and #, support special functions such as forming parts of access codes. These characters are not available with rotary dialing. When a touch-tone dialing button is pressed, a distinctive tone is generated for each button.

If a distant system is unable to accept touch-tone calling signals, the system has the ability to generate dial pulses by using Touch-Tone Dialing to Dial Pulse Conversion.

Assignment of the Touch-Tone Dialing feature is on a per-trunk group and on a per-terminal class-of-service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Touch-Tone Receivers (See Chapter 2, "System Administration")

Voice Terminal and Data Module Administration

Procedure Usage

- 010 Word 1** Administers the touch-tone dialing to an extension of service.
- | | |
|----------|---|
| Field 1 | Enter the class of service (1-30, 32-63). |
| Field 15 | Enter the touch-tone dialing assignment: |
| 0 | Disable (rotary dialing only) |
| 1 | Enable (touch-tone and rotary dialing) |

TRANSFER

The Transfer feature allows voice terminal users to transfer calls to other terminals or trunks without attendant assistance.

Assignment of the Transfer feature is on a line class-of-service basis for single-appearance voice terminals. Multiappearance voice terminals are always provided with the feature.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Voice Terminal and Data Module Administration

Procedure Sequence

ADD	CHANGE	REMOVE
010 Word 1 275 Word 4	010 Word 1	010 Word 1 275 Word 4

Procedure Usage

010 Word 1 Administers the Transfer feature to an extension class of service. This field also controls the Conference - Three Party feature for single-appearance voice terminals.

Field 1 Enter the desired class of service (1-30, 32-63).

Field 14 Enter the Conference Three Party/Transfer assignment:
 0 Disable
 1 Enable

275 Word 4 Administers trunk-to-trunk transfer to the system class of service.

Field 3 Enter the trunk-to-trunk transfer assignment:
 0 Disable
 1 Enable

TRUNK GROUP BUSY/WARNING INDICATORS TO ATTENDANT

The Trunk Group Busy/Warning Indicators to Attendant feature provides the attendant with a visual warning, indicating when the number of available trunks in a group diminishes to a preset level. A visual indication is also provided when every trunk in a group is busy.

The Trunk Group Busy and the Trunk Group Warning Indicators are useful when the Attendant Control of Trunk Group Access feature is provided. The warning indicators show the attendant when control of access to trunk groups may be necessary. The busy indicators show the attendant when a trunk in a busy group becomes available for a waiting voice terminal.

Assignment of the Trunk Group Busy/Warning Indicators to Attendant feature is on a per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

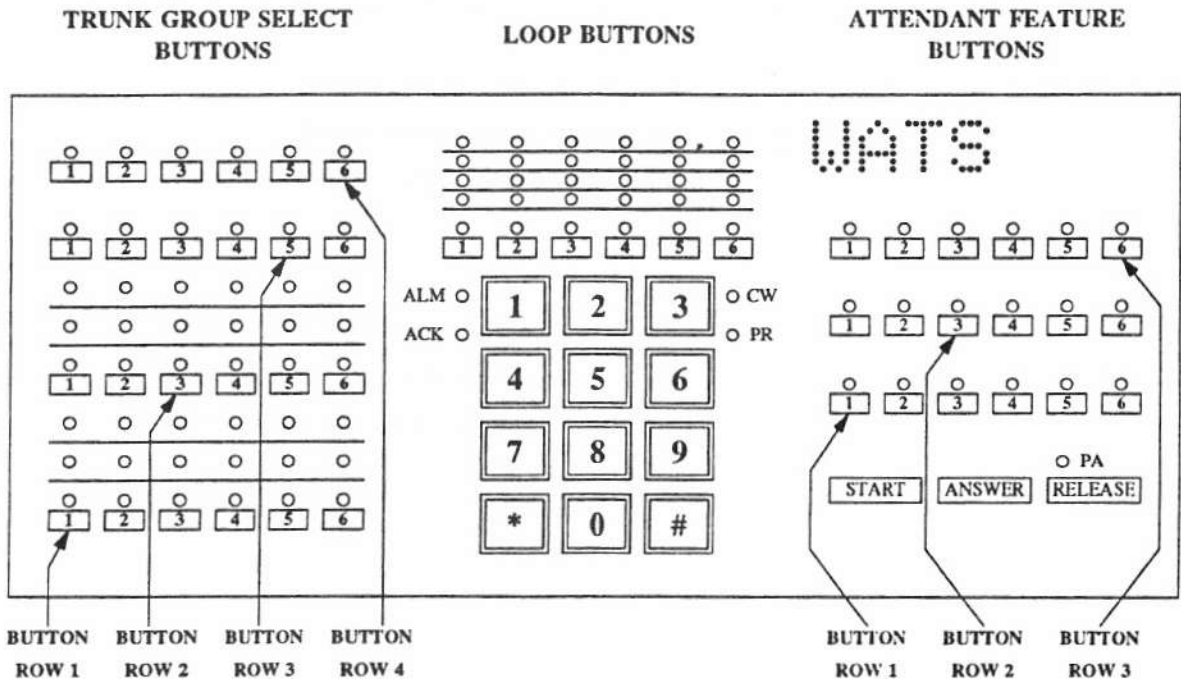
Attendant Direct Trunk Group Selection

Procedure Usage

202 Word 1 Administers the Direct Trunk Group Selection buttons to the attendant console(s). The buttons used for this feature are on the left half of the console. The rows are numbered from bottom-to-top (1-4) and the buttons are numbered from left-to-right (1-6).

Field 1	Enter the desired row number (1-4).
Field 2	Enter the desired button number (1-6).
Field 3	Enter the first digit of the dial access code: 0-9 11 or * 12 or #
Field 4	Enter the second digit of the dial access code (0-9).
Field 5	Enter the third digit of the dial access code (0-9).
Field 6	Enter the fourth digit of the dial access code (0-9).

- Field 7 Enter the desired trunk group busy/warning status:
 - 0 Busy for this trunk group only
 - 1 Busy for this trunk group and route advance trunk groups
 - 2 Busy/warning for this trunk group only
 - 3 Busy/warning for this trunk group and route advance trunk groups
- Field 8 Enter the warning lamp level (1-7). When the number of idle trunks is less than or equal to the number in this field, the applicable warning lamp will light.
- Field 9 Enter the remote flag indicator (0, 1). A "1" in this field when there is nothing in Fields 10-12 means that the trunk group (DAC in Fields 3-6) homes on this system but may be controlled or selected by a remote system. Having a "1" in this field when there is a DAC in Fields 10-12 means that the trunk group is remote to this system, but may be controlled or selected by this system. In this case, the local DAC (Fields 3-6) will access the tie trunk to the remote system.
- Field 10 Enter the first digit of the remote dial access code:
 - DAC not used
 - 0-9
 - 11 or *
 - 12 or #
- Field 11 Enter the second digit of the remote dial access code (-, 0-9).
- Field 12 Enter the third digit of the remote dial access code (-, 0-9).



TRUNK VERIFICATION — ATTENDANT

The Trunk Verification — Attendant feature gives an attendant the ability to test the operation of individual trunks. The attendant can identify defective trunks and report their condition for servicing. This results in better overall communications.

Assignment of the Trunk Verification by Attendant feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Attendant Console Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Direct Trunk Group Selection

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	203 Word 1	103 Word 1
200 Word 1		200 Word 1
203 Word 1		203 Word 1

Procedure Usage

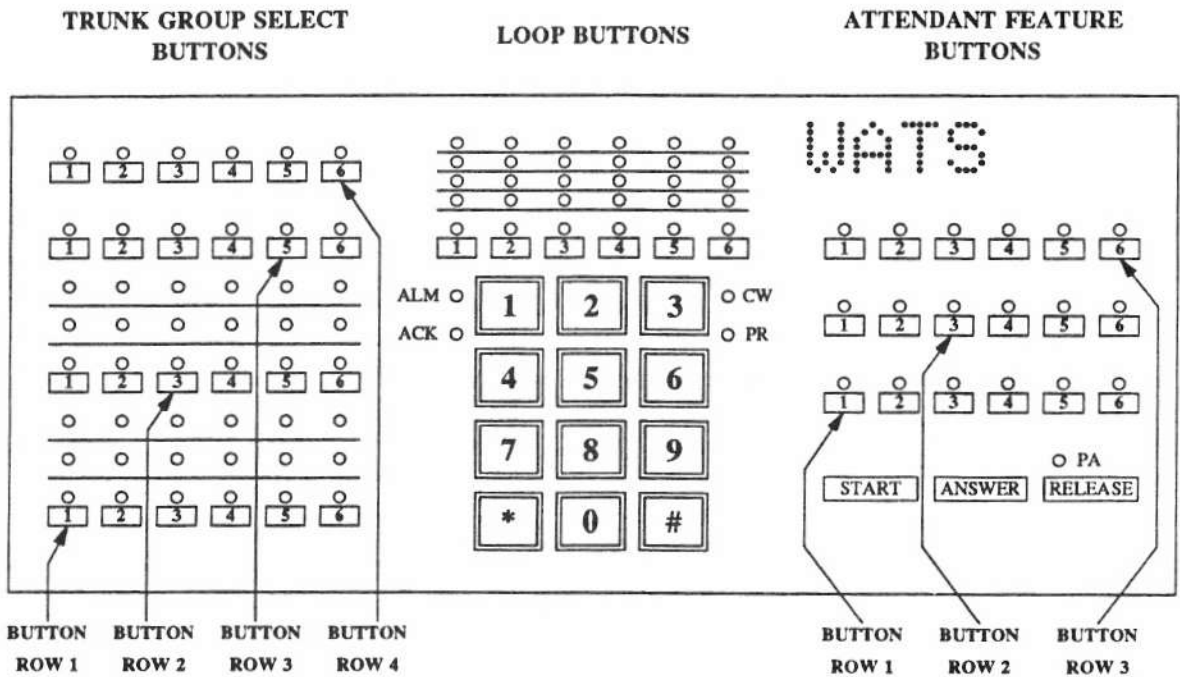
103 Word 1	Administers the bridge-on capability to an assigned trunk group.
Field 1	Enter the trunk group number (18-999).
Field 7	Enter the bridge-on assignment:
0	Bridging on to this trunk group is not allowed
1	Bridging on to this trunk group is allowed

200 Word 1 Administers the Trunk Verification — Attendant feature.

Field 8 Enter the trunk test assignment:
 0 Disable
 1 Enable

203 Word 1 Administers the VERFY button to the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).

Field 1 Enter the row number where you want the buttons (1-3).
 Fields 2-7 Enter a "7" for the VERFY button type.



TRUNK VERIFICATION — VOICE TERMINAL

The Trunk Verification — Voice Terminal feature gives the user of a designated voice terminal the ability to test the operation of individual trunks. The user can identify and remove defective trunks from service. The defective trunk can be repaired and returned to service quickly. As a result, better communications service is provided.

Assignment of the Trunk Verification — Voice Terminal feature is on a system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	285 Word 1	103 Word 1
285 Word 1	350 Word 2	285 Word 1
350 Word 2		350 Word 2

Procedure Usage

- 103 Word 1** Administers the bridge-on capability to an assigned trunk group.
- Field 1 Enter the trunk group number (18-999).
 - Field 7 Enter the bridge-on assignment:
 - 0 Bridging on to this trunk group is not allowed
 - 1 Bridging on to this trunk group is allowed
- 285 Word 1** Administers a designated internal extension and/or a remote maintenance terminal for trunk verification.
- Field 8 Enter the extension used for trunk verification (000-99999).
 - Field 9 Enter the remote maintenance extension used for trunk verification (000-99999).

350 Word 2 Administers the trunk test and maintenance busy dial access codes.

- Field 1 Enter the feature encode:
42 Maintenance busy a trunk
43 Maintenance release a trunk
44 Trunk test from a terminal
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

TRUNK-TO-TRUNK CONNECTIONS

The Trunk-to-Trunk Connection feature allows an attendant to connect an incoming or outgoing trunk call to an outgoing trunk. The attendant console holds outgoing trunk-to-outgoing trunk connections in order to monitor the connection and release the trunk when the call is finished.

Assignment of the Trunk-to-Trunk Connection feature is on a per-system class-of-service basis.

Procedure Sequence

ADD	CHANGE	REMOVE
110 Word 1	110 Word 1	111 Word 1
111 Word 1	111 Word 1	110 Word 1
275 Word 1		275 Word 1
275 Word 4		275 Word 4

Procedure Usage

110 Word 1 Administers a trunk dial access code to a restricted dial code entry. This entry is used in Procedure 111 Word 1.

- Field 1 Enter the type of trunk restriction desired:
0 Tandem tie
1 Trunk-to-trunk
- Field 2 Enter the restricted dial code entry number (1-16).
- Field 3 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 4 Enter the second digit of the dial access code (0-9).
- Field 5 Enter the third digit of the dial access code (0-9).
- Field 6 Enter the fourth digit of the dial access code (0-9).

111 Word 1 Administers a trunk group to a restricted dial code entry. When assigned, the trunk dial access code you assigned in Procedure 110 Word 1 cannot be used to make a trunk call to the trunk group in Field 2 of this procedure.

Field 1 Enter the type of trunk restriction desired:

- 0 Tandem tie
- 1 Trunk-to-trunk

Field 2 Enter the trunk group number (18-999). This trunk group cannot be accessed by a caller using the trunk group dial access code specified in Procedure 110 Word 1.

Field 3 Enter the restricted dial code entry number (1-16). This entry number must match the entry number in Procedure 110 Word 1.

275 Word 1 Administers trunk-to-trunk calling to the system class of service.

Field 16 Enter the trunk-to-trunk calling assignment:

- 0 Disable
- 1 Enable

275 Word 4 Administers trunk-to-trunk transfer to the system class of service.

Field 3 Enter the trunk-to-trunk transfer assignment:

- 0 Disable
- 1 Enable

UNATTENDED CONSOLE SERVICE

The Unattended Console Service consists of three features which can function together or separately. The three Unattended Console Service features are:

- Unattended Console Service — Alternate Console Position
- Unattended Console Service — Call Answer From Any Voice Terminal
- Unattended Console Service — Preselected Call Routing.

These features are designed to work together to provide flexibility and enhance attendant services under a wide variety of circumstances. While designed to work together, each of the Unattended Console Service features can function separately and independently from the other's.

The way in which these features work together to supplement each others' coverage is shown in Figure 124-1.

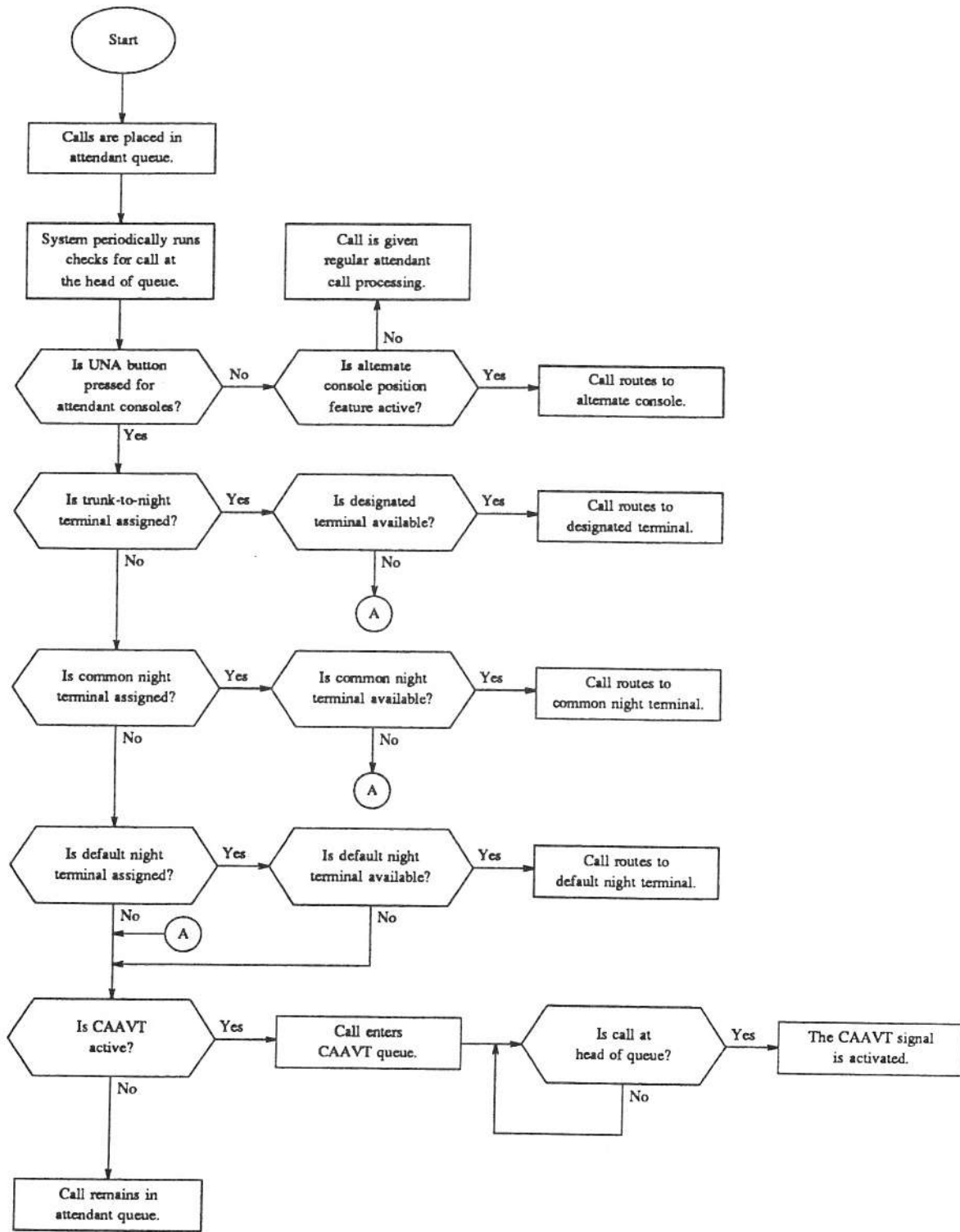


Figure 124-1. Interrelation of Unattended Console Service Features

Unattended Console Service — Alternate Console Position

When active, the Alternate Console Position version of this feature directs calls for one attendant console to an alternate console. The alternate console must be identical to and have the same features as the primary console.

This feature is useful at night or during periods when consoles have been removed from service. Also, providing attendant services at another location during certain periods (e.g., a security office) provides convenience and efficiency of operation. The alternate console position provides all the attendant capabilities of the primary attendant console.

The Alternate Console Position feature is a hardware implemented feature and requires no administrative procedures.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Attendant Console Administration

Unattended Console Service — Call Answer From Any Voice Terminal

The Call Answer From Any Voice Terminal (CAAVT) version of the Unattended Console Service feature group allows any unrestricted voice terminal user to answer calls made to the attendant when the attendant is not on duty and a specific voice terminal has not been designated to answer the calls.

The incoming attendant seeking calls activate a distinctive gong, bell, or chime. If necessary, the answering voice terminal user can transfer the call to another voice terminal.

Assignment of the CAAVT feature is on a system class of service basis.

Prerequisite Administration

Before administering this feature, make sure the following are administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)

Attendant Console Administration

Procedure Sequence

ADD	CHANGE	REMOVE
275 Word 2	275 Word 2	275 Word 2
350 Word 2	350 Word 2	350 Word 2

Procedure Usage

275 Word 2	Administers CAAVT to the system class of service and administers the gong, chime, or bell equipment location (SN229)
Field 2	Enter the CAAVT feature activation: - Feature not available 0 Disable 1 Enable
Field 3	Enter the module number (0-30).
Field 4	Enter the cabinet number (0-7).
Field 5	Enter the port carrier number (0-3).
Field 6	Enter the slot number in the port carrier (0-3, 5-8, 13-16, 18-21).
Field 7	Enter the circuit number (0-7).

350 Word 2 Administers the feature dial access code.

- Field 1 Enter the feature encode:
16 CAAVT code
47 CAAVT — Activate for CAS Backup
- Field 2 Enter the first digit of the dial access code:
0-9
11 or *
12 or #
- Field 3 Enter the second digit of the dial access code (0-9).
- Field 4 Enter the third digit of the dial access code (0-9).
- Field 5 Enter the fourth digit of the dial access code (0-9).

Unattended Console Service — Preselected Call Routing

The Preselected Call Routing version of the Unattended Console Services feature group redirects attendant seeking calls to designated extension numbers whenever the console is unattended. Distinctive 3-burst ringing is used at the designated voice terminal to alert the user to the nature of the incoming call. The attendant can designate and cancel the assignment of extension numbers.

Calls already in progress when this feature is activated or canceled are not disturbed.

Three types of terminal assignments are available:

- Common Voice Terminal — Directs all attendant seeking calls to a designated extension number.
- Default Voice Terminal — Receives calls when no common voice terminal has been assigned.
- Trunk-to-Terminal — Directs calls on a specified incoming trunk to a designated extension number.

The user benefits derived from this service are:

- Improved customer services by providing holiday, weekend, or night service
- Prevention of lost calls
- Flexibility in meeting customer needs.

Assignment of the Preselected Call Routing feature is on a per-system basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Dialing Plan and Dialing Plan — Features (See Chapter 2, “System Administration”)
 Trunk Administration
 Attendant Console Administration

Procedure Sequence

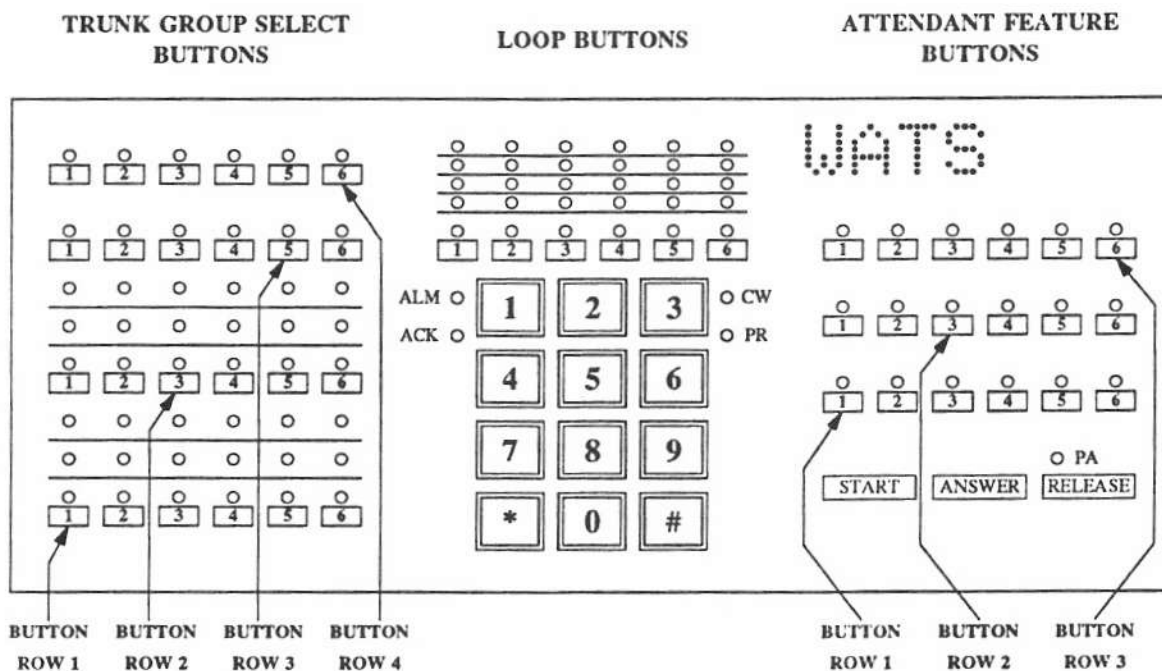
ADD	CHANGE	REMOVE
116 Word 1	203 Word 1	350 Word 2
150 Word 1	275 Word 2	275 Word 2
203 Word 1	270 Word 3	270 Word 3
275 Word 2	350 Word 2	203 Word 1
270 Word 3	116 Word 1	116 Word 1
350 Word 2	150 Word 1	150 Word 1

Procedure Usage

116 Word 1 Administers the default night terminal to an assigned digital trunk group.
 Field 7 Enter the extension for the desired night terminal (000-99999).

150 Word 1 Administers the default night terminal to an assigned analog trunk group.
 Field 7 Enter the extension for the desired night terminal (000-99999).

203 Word 1 Administers the UNA (NITE) button for the attendant console(s). The buttons for this feature are located on the right half of the console. The rows are numbered from bottom-to-top (1-3) and the buttons are numbered from left to right (1-6).
 Field 1 Enter the row number where you want the buttons (1-3).
 Fields 2-7 Enter a "2" in the desired location.



270 Word 3 Administers a default night extension to an attendant partition. This procedure also displays the common night extension number. Use this procedure only when Tenant Services is active.

Field 1 Enter an attendant partition (0-40).
 Field 2 Enter the default extension (000-99999).

275 Word 2 Administers the preselected call routing and the default night terminal extension. Use this procedure also to display the current common terminal extension (Field 9).

Field 1 Enter the preselected call routing assignment:

- Feature not available
- 0 Disable
- 1 Enable

Field 8 Enter the default extension (000-99999). Use Procedure 270 Word 3 to assign the default extension when Tenant Services is active.

350 Word 2 Administers the preselected call routing dial access codes.

Field 1 Enter the feature encode:

- 22 Clear all terminals
- 23 Assign common terminal
- 24 Override common terminal (not allowed with Tenant Services)
- 25 Assign terminal to trunk (not allowed with Tenant Services)
- 97 Activate Unattended Console Service
- 98 Deactivate Unattended Console Service

Field 2 Enter the first digit of the dial access code:

- 0-9
- 11 or *
- 12 or #

Field 3 Enter the second digit of the dial access code (0-9).

Field 4 Enter the third digit of the dial access code (0-9).

Field 5 Enter the fourth digit of the dial access code (0-9).

UNIFIED MESSAGING

The Unified Messaging feature is an integrated, cost-effective family of distinct messaging services working together to meet a customer's total organizational messaging requirements.

Unified Messaging allows prompt internal and external communications for voice and data. This feature is designed to break the barriers of efficient phone communications including busy signals, unanswered calls, repeated call backs, waiting on hold, and missed communications. These barriers are broken by having efficient alerting and notification of new messages that can be universally accessed from the messaging services.

Procedure Usage

No separate administration is needed for Unified Messaging. Unified Messaging relies upon the administration of AUDIX, Call Coverage, and Leave Word Calling at the system and the Messaging Server.

VISUALLY IMPAIRED ATTENDANT SERVICE

The Visually Impaired Attendant Service feature provides additional devices to enable visually impaired attendants to operate the attendant console. These devices include:

- A grooved faceplate guide
- A light-sensitive pen
- A tone generator.

Prerequisite Administration

To administer this feature, make sure the following is administered:

Attendant Console Administration

WIDE AREA TELECOMMUNICATIONS SERVICE ACCESS

The Wide Area Telecommunications Service (WATS) Access feature provides users with rapid, straightforward access into the WATS network. Outgoing call service to a predetermined geographical area or areas is provided on a reduced cost basis compared to corresponding toll service. A similar but separate service is provided for incoming calls by 800 Service Access. This feature (800 Service) has also been known as INWATS. Incoming 800 Service calls can be provided LDN Service (directed to an attendant), be directed to an ACD or go directly to a specific System 85 R2V4 extension, or be provided with the use of the Remote Access feature.

Calls using WATS Access can be originated by System 85 terminal users or Remote Access users provided restrictions are not applied, or they can be set up using attendant assistance.

Assignment of the WATS Access feature is on a per-system and per-trunk group basis.

Prerequisite Administration

Before administering this feature, make sure the following is administered:

Trunk Administration

Related Administration

The following administration is not required for this feature or task, but is recommended to enhance operation:

Attendant Direct Trunk Group Selection

This feature allows the WATS trunk group to be assigned to a button on the attendant console.

Attendant Display

This feature administers the attendant display to display the name associated with the WATS trunk groups.

Intercept Treatment

Restriction — Miscellaneous Trunk Restrictions

Route Advance

Procedure Sequence

ADD	CHANGE	REMOVE
103 Word 1	103 Word 1	103 Word 1
115 Word 1	115 Word 1	115 Word 1

Procedure Usage

103 Word 1 Administers the network characteristics to an assigned WATS trunk group.

Field 1 Enter the trunk group number (18-999).

Field 2 Enter the FRL (0-7) for the trunk group.

Fields 3-4 These fields control trunk usage for main and network tandem applications. Enter the desired arrangement based on the following table:

Trunk Usage	Field 3	Field 4
Main	0	0
Network to Main	1 or 2	0
Network to Tandem	1 or 2	1

Field 5 Enter the incoming trunk type assignment (this only applies to tie trunks and APLT trunks):

0 The trunk group is not an incoming tie trunk going to AAR or ARS, or the trunk group is not an APLT trunk

1 The trunk group is an incoming tie trunk going to AAR or ARS, or the trunk group is an APLT trunk

Field 6 Enter the authorization code assignment:

0 Authorization codes are not required when accessing this trunk group

1 Authorization codes are required when accessing this trunk group

Field 7 Enter the bridge-on assignment:

0 Bridging on to this trunk group is not allowed

1 Bridging on to this trunk group is allowed

Field 8 Enter the trunk reservation limit (0-15).

Field 9 Enter the AAR/ARS prefix digit (0-9).

Field 10 Enter the Data Protection assignment:

0 Data Protection disable

1 Data Protection enable

-
-
- Field 11 Enter the desired Remote Access echo suppressor control:
-, 0 Dial tone
1 Precursor tone/dial tone
2 Abbreviated dial tone
- Field 12 Enter the desired AAR conditional routing assignment:
0 Not a satellite facility
1 Is a satellite facility
- Field 13 Enter the second TCM assignment:
0 Second TCM is not used
1 Second TCM is used
- Field 14 Enter the desired digit collection scheme:
0 Overlap outpulsing
1 Collect all digits before outpulsing

115 Word 1 Administers the incoming termination point of a trunk group.

- Field 1 Enter the trunk group number (18-999).
- Field 2 Enter the termination point:
- Trunk group terminates in an ACD group
0 Trunk group terminates on SS
1 Trunk group terminates on CAS
- Field 3 Enter the ACD split assignment:
- Trunk group not terminated at ACD
1-60 ACD split number
- Field 4 Enter the ACD priority:
- Non-priority ACD split termination
1 Priority ACD split termination

A. CONFIGURATION LIMITS

The following tables provide a quick reference to the configuration limits of the System 85 R2V4 switch. These limits are based on allocated or available memory table space. Each application has a maximum limit, and the system has a limit that further constrains the sum of all applications.

Maximum Line Records:	32703
Sum of Line Applications:	62000
Difference:	29297 (More Applications than Line Records).

That is, while a specific application may have a limit of its own, say 10000 Multiappearance Station Sets, the system may not permit that limit to be reached. This is because the sum of related applications (Line Limits) must be less than the total of their combined maximums (in the described case, 29297 fewer total applications).

Line Limits (Note)	
Application	Limit
Analog Station Sets (2500, 7100 Series)	32000
Multiappearance Station Sets (7200H Series, 7300H Series, 7400D Series, 7500D Series)	10000
Voice Data Stations (7400D Series with data module or cartridge and 7500D Series with ADM-T)	8000
Display Stations (7400D or 7500D Series with display, 515 BCT, and 510D)	10000
Line Side Data Modules (DTDM, PDM, TDM, MDM, EIA Ports, etc.) Plus Total Multiappearance Sets	16000
Line Records	32703
Dedicated Switch Connections (voice and data)	1023

NOTE: The Line Records limit is the upper limit of all combinations of the other line applications. The sum of other limits exceeds this figure but the total administered in an installation cannot.

Station Feature Limits	
Application	Limit
Abbreviated Dialing:	
-Characters Per Button	20
-Characters Per Call	36
-Maximum Records in System List	9999
-Maximum Records in a Nonsystem List	95
-Number of Nonsystem Lists	52224
-Number of Group Lists	9999
-Maximum Records in All Lists	262144
Mnemonic (Keyboard) Dialing:	
-List Entries	1000
-Mnemonic Characters	10
-Characters in Number	20
Default (Terminal) Dialing:	
-Characters in Number	20
Button Table Words*	400000
Call Pickup Groups	999
Coverage Groups	4096
Effective Coverage Groups (Dual Paths Counted as 1)	3047
Display—Voice Terminal:	
-Display Names	32767
-Average Characters Per Name	22
-Maximum Characters Per Name	30
-Maximum Characters Per Message (buffer)	40
Intercom Records:	
-Auto/Manual	300
-Dial	280
Last Number Dialed:	6000
-Maximum Digits	30
Line Appearances and Images:	
-Appearances Per Extension	12
-Images Per Line Appearance	16
-Images Per Extension	192
-Images Per Terminal	30
Leave Word Calling Messages on the Switch	6000
Line Classes-of-Service	63
Message Waiting Lamps (Auto)	30000
Message Waiting Lamps (Auto) Per Extension	3

* See the next table for Button Table Word requirements.

Button Table Word Requirements	
Application	Requirement
2500, 7101A, 7102A, 7103A, and Encore Station Sets	None
Straight Line Sets	1 Word Each Unit
7203H, 7303S, 7401D, 7403D, and 7410D Station Sets	12 Words Each Unit
7205H, 7305S, 7405D, and 7434D Station Sets	36 Words Each Unit
7404D Station Sets	8 Words Each Unit
7406D and 7406D With Display Station Sets	32 Words Each Unit
CallMaster Station Set	36 Words Each Unit
510D Terminal	36 Words Each Unit
515 BCT	12 Words Each Unit
C201A, C401A, and C401B Call Coverage Modules	20 Words Each Unit
Display Modules	8 Words Each Unit
Data Modules (PDM, TDM, DTDM, MDM, VDT, EIA Port)	2 Words Each Unit
Dual Port Data Modules and ADFTC	4 Words Each Unit
One Button Transfer	1 Word Each Unit
F201A and F401A Function Key Modules	24 Words Each Unit
Manual Message Waiting Button	1 Word Each Unit
Stations Signaled by Station Busy	2 Words Each Unit
Stations Signaled by Manual Signaling	1 Word Each Unit

System Parameters Limits	
Application	Limit
ACD (EUCD):	
-Agents	1024
-Service Observers (Active)	64
-Splits	60
-Recorded Announcements	60
Answer-Back Channels:	
-Call Park and Loudspeaker Paging*	9
-Code Calling Access	6
Attendant Features:	
-Conference Bridges	13
-Console Positions	40
-Switched Loops Per Console	6
-Switched Loops	240
-Remote Console Positions (ORPI)	40
-Consoles (100s Groups)	100
-Originating Registers (ORs)	40
-Voice Terminal Restriction Groups	63
Call Forwarding—Follow Me:	
-Off-Net Forwarding Relationships	3200
Call Vectoring:	
-Number of Vectors	128
-Steps per Vector	15
-Recorded Announcements	84
Calling Number Display Units	20
DCIUs:	
-DCIU Links	8
-APs per DCIU	7
-AUDIX Adjuncts per DCIU	8
-DCS Links per DCIU	8
-Logical Channels per Link	64
Maximum Digits in Dial Access Code	4
Dial Access Codes (Feature and Trunk)	1104
Dial Pulse and Touch-Tone ORs	246
Total ORs	300
* The Call Park and Loudspeaker Paging Access features share the same nine answer-back channels.	

System Parameters Limits (Contd)	
Application	Limit
DS1:	
-DS1 Circuit Packs Per Switch	511
-Line Side DS1 Circuit Packs per DS1 Carrier	12
-Trunk Side DS1 Circuit Packs per DS1 Carrier	12
-73-Series Port Circuits Per DS1 Port Carrier	16
FADS:	
-CAS Display Units	1
Listed Directory Numbers (DID)	999
Loudspeaker Paging Zones	18
Network Modules	31
Remote Modules	30
Network Cabinets Per Module	4
Port Carriers Per Module	12
PCC (Processor Communications Circuit) Circuit Packs	3*
Port Circuit Packs:	
-Per Port Carrier	16
Recorded Announcements (Non ACD/EUCD)	15
System Status Indicator Lamps	168
Tenant Services:	
-Extension Partitions	1000
-Extension Partition Groups	500
-Attendant Partitions	41
CDR:	
-Number of Data Item Encodes	128
-Maximum Record Length	24
-Maximum LSUs	8
Malicious Call Trace:	
-Maximum Simultaneous Traces	15

* Only *one* PCC port can be used and this port can only be used as a CDR port.

Trunk Limits (per Switch)	
Application	Limit
ACD/DDC/UCD/EUCD:	
-Groups/Splits	60
-Members Per Group	1024
-Assignable Agents	1024
ANI Boards	2
Contact Interface Boards	34
Preselected Call Routing Groups	982
Preselected Call Routing Trunks Per Trunk Group	99
Personal Central Office Lines (Trunks)	150
AIOD Queues	6
Trunks, Physical (Including Host Access and Modem Pooling)	6000
Trunk Records, Assignable (Outgoing Trunk Queues, Physical Trunks, and Trunk Intercom Records)	10500
Trunk Records (Total)	11046
Trunk Groups:	
-Modem Pooling Trunk Groups	982
-Host Computer Access Trunk Groups	982
-Total (Including Host Access and Modem Pooling)	999*
-Trunk Group Dial Access Codes	999
-Trunks Per Trunk Group (Modem Pooling)	99
-Trunks Per Trunk Group (Host Computer Access)	99
-Trunks Per Trunk Group (Others)	255
RLTs (Release Link Trunks):	
-Inward	110
-Outward	16
-Groups at Main (CAS Branch)	40
Remote Access Trunks	6000
Restriction Levels (Code Restriction)	4
Route Advance, Trunk Groups Per Pattern	5
* The first 17 trunk groups are dedicated to internal service facilities. The amount of trunk groups available for customer use is 982.	

Network Parameter Limits	
Application	Limit
AAR:	
-Patterns	640
-Trunk Groups Per Pattern	16
-Conditional Routing Call Categories	3
-Maximum Valid RNXs	780
-Maximum Number of Routes	10240
ARS:	
-Patterns	64
-Time Dependent Plans	3
-Trunk Groups Per Pattern	16
-Call Categories for Tenant Services	64
-Foreign NPAs (6-Digit Translation)	160
-Patterns Per 6-Digit Translation	10
-Maximum Number of Routes	1024
Unauthorized Call Control/10- to 7-Digit Conversion:	
-3-Digit NPAs	No Limit
-6-Digit NPA-NXX Combinations	500
-7-Digit NPA-NXX-X Combinations	2048
-8-Digit NPA-NXX-XX Combinations	2048
-9-Digit NPA-NXX-XXX Combinations	2048
-10-Digit NPA-NXX-XXXX Combinations	2048
Authorization Codes	90000
Facilities Restriction Levels	8
DCS:	
-Maximum Nodes	63
-Maximum ES Nodes	63
-Maximum Nodes with Attendants Centralized at One Node	40
-Maximum Nodes per AUTOVON Interface	40
Maximum Extension Numbers Per Network (5 Digit Dialing)	100000
Maximum NPA-NXX Designators	99

Network Parameter Limits (Contd)	
Application	Limit
ISDN:	
-Codesets	8
-Codepoints Per Codeset	1024
-Maximum ISDN Call Records	6000
-Maximum Calls on D-channel	23
-Maximum PRI D-channels	512

B. IMAGES, APPEARANCES, AND EXTENSIONS

Preface

The following tutorial is intended to clarify the relationship between images, appearances, and extensions. Confusion has resulted from using the term "bridged appearance," because it leads the user to believe that all the terminals *sharing* an appearance are physically bridged together. This is not true (only one terminal can bridge on to an existing call of a particular appearance). Therefore, the term "shared appearance" (access point for two or more "images") is used to better describe the functionality of appearances for this application. The term "image" was introduced to distinguish between a particular "bridged appearance" ("now shared appearance") and a point(s) of access to that appearance. It is hoped that, rather than compounding the confusion, this new terminology will simplify a somewhat difficult topic.

Shared Appearances

Definition of Shared Appearance

- **Shared Appearance** — An appearance that allows multiple voice terminals to access it (for example, an executive and his or her secretary may share an appearance, each with an image of that particular appearance). On a multiappearance voice terminal, the point of access (or "image") to a shared appearance is called an appearance button. A shared appearance is an integral part of the Bridged Call feature, which allows any two points of access to the same appearance to participate in a call at the same time.

Terminals With Shared Appearances

It is true, and should be remembered, that one "point of access" to every appearance is located on the home voice terminal. It should also be understood, however, that these points of access (on the home terminal) are in no way preferred over (or superior to) the points of access on the other terminals. From the perspective of the System 85 R2V4 software, these points of access share in a "peer" relationship. Each point of access (or "image") is *an equal* in its ability to place and answer calls.

Images and System 85 R2V4

Definitions

- **Extension** — A unique 3-, 4-, or 5-digit number by which calls are routed through a private network. This number is primarily associated with a single terminal (the destination of a routed call).
- **Appearance** — A point of access to an extension. (Appearances are also known as “occurrences.”) The System 85 R2V4 software allows as many as 12 appearances of an extension. However, a more common limit is ten appearances per extension. This limit is often imposed by the voice terminals themselves. Generally, multiappearance voice terminals have a maximum of ten appearance buttons. (Normally, three appearances of an extension are assigned to a home voice terminal.)

NOTE: The software limit of 12 appearances can be reached using a 7205H or 7405D (equipped with the appropriate coverage module), or a 7434D.

- **Image** — A point of access to an appearance. System 85 R2V4 software allows as few as one, and as many as 16, images of each appearance. An appearance with *only one image* is known as an *unshared* appearance. An appearance with *from 2 to 16 images* is known as a *shared* appearance.

Shared appearances are basic to the Bridged Call feature. When an appearance is shared, one other person who shares the appearance where an active call resides can “bridge onto” the call.

NOTE: An extension with *one or more shared appearances* is known as a *shared extension*.

NOTE: The System 85 R2V4 software allows for as many as 192 images of an extension (i.e., 12 appearances × 16 images per appearance).

Description of Images and Appearances

Figure B-1 is a diagram showing the structure of a fictitious extension. This extension, number "6234," has three appearances, and all three appearances have at least one image. Appearances 6234-1 and 6234-3 are shared appearances; while appearance 6234-2 is unshared.

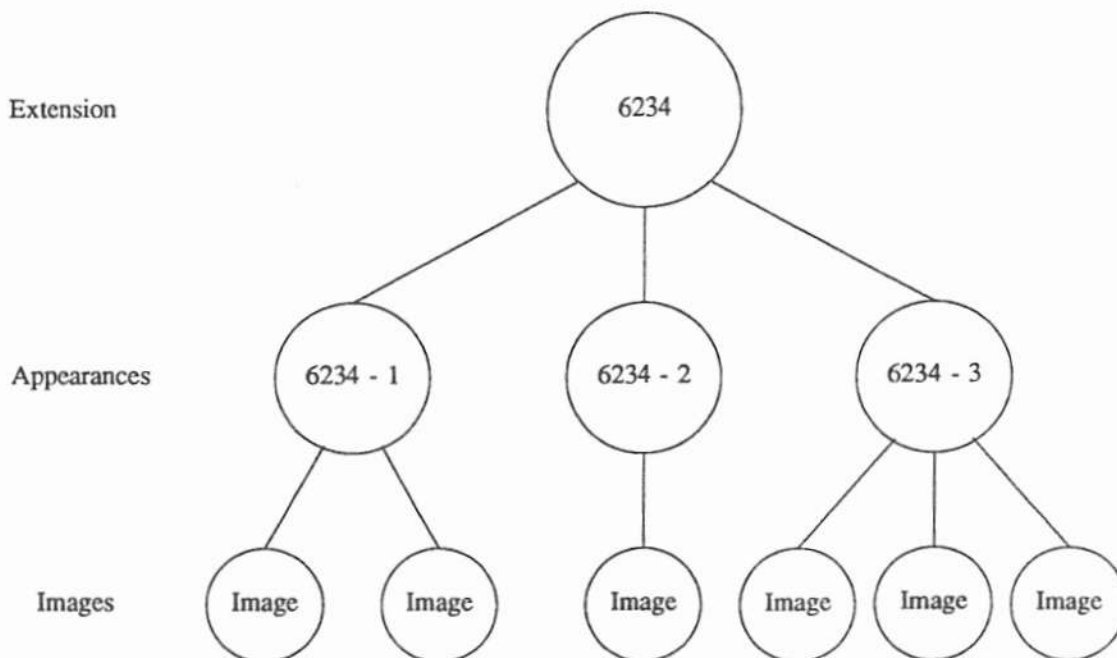


Figure B-1. Relationship of Images, Appearances, and Extensions

Notice the connections within the diagram. Each appearance's images are *independent* of the other appearances' images. For example, an image of Appearance 6234-3 *can only access* Appearance 6234-3, not 6234-1 or 6234-2. Likewise, when a call terminates to Appearance 6234-3, visual alerting (and ringing, if assigned) will only occur for the three images of *that* appearance. When a call does terminate to the third appearance of Extension 6234, the call can be answered from any of the three assigned voice terminals.

Figure B-2 is a simplified drawing containing eight voice terminals labeled A through H. The voice terminals labeled A through E represent multiappearance voice terminals, and F through H represent single-appearance terminals. Since the appearances on terminals F, G, and H are shared appearances, these terminals are known (and administered) as *straight line sets*.

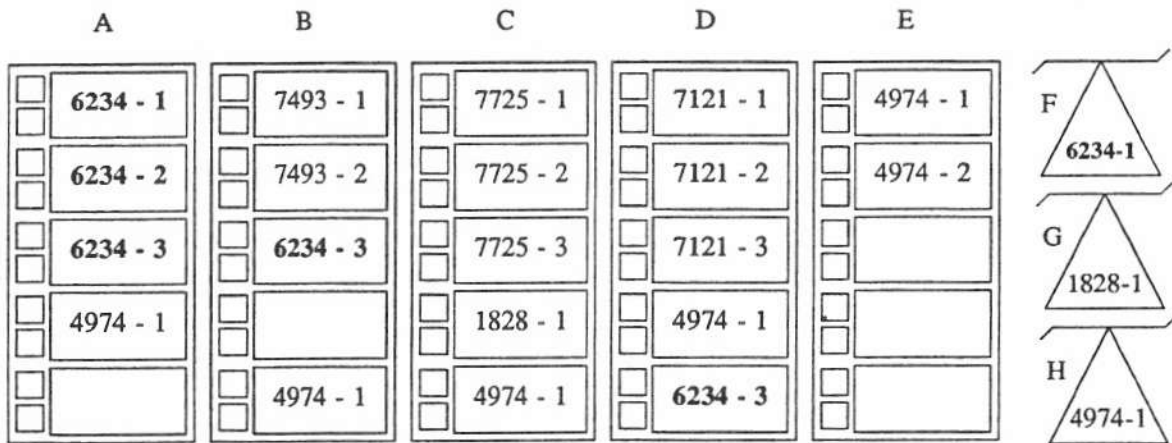


Figure B-2. Shared Extensions

Notice that Extension 6234, previously shown in Figure B-1, is also shown (in bold print) within this figure. For Extension 6234, voice terminal A would be referred to as the home terminal. An image of every appearance is located on this terminal. The two images of the first appearance are located on terminals A and F. The one image of the second appearance is located on terminal A. The three images of the third appearance are located on terminals A, B, and D.

NOTE: The image configurations shown in Figure B-2 are *administrable*, but not necessarily *functionally desirable*. This figure is only meant to show some of the possibilities. It is left to the reader to devise functional image configurations to suit specific needs.

Another extension that is worth some discussion is extension 1828. Although less apparent than for the previous extension, the home terminal for this extension is terminal G. The two images of appearance 1828-1 are located on voice terminals G and C. Single-appearance voice terminal G must be administered as a straight line set in order to share the appearance with terminal C.

This arrangement is typical of an executive/secretary arrangement where the secretary performs most of the calling duties. Terminal G would be located on the executive's desk, and the secretary would handle terminal C. Terminal C is home to extension 7725 with three appearances. Using three appearances, the secretary can effectively handle most of the calling responsibilities. However, extension 1828 serves as a direct line to the executive. When this extension is unanswered, or when ringing is transferred to the secretary, the secretary can also answer these calls using the image on terminal C.

Visual Alerting

When a call terminates to an appearance of an extension, the green status lamp flashes for every image of that appearance on a multiappearance voice terminal.

Administration

Home Terminal Administration

- **Home Terminal** — If “home terminal” is assigned to an image of one appearance on a voice terminal, the home terminal designation is applied to the image of every appearance of that terminal’s extension number. (An image can be designated as “home terminal” in Procedure 052 Word 1 Field 12.)

Send All Calls Group Administration

- **Send All Calls Group** — When “Send All Calls Group” is assigned to one image of an extension on a voice terminal, this assignment is applied to every image of the same extension on the same voice terminal. (“Send All Calls Group” is assigned to an extension’s images residing on a specific voice terminal in Procedure 052 Word 1 Field 14.)

Administrable Characteristics of Appearances

- **Terminating/Originating or Originating Only** — When one of these attributes is assigned to an image of an appearance, every image of the appearance takes on the same attribute. (The attribute is assigned in Procedure 052 Word 1 Field 13.)
- **A/D Ringing Encode** — A ringing encode is assigned for the Abbreviated and Delayed Ringing feature. When manual, automatic, or manual and automatic ringing transfer is assigned to an image of an appearance, the type of transfer chosen is applied to every image of the appearance. (The type of transfer is assigned in Procedure 052 Word 2 Field 3.)

Administrable Characteristics of Images

- **Ring Type** — A type of ringing for the Abbreviated and Delayed Ringing feature (i.e., no ringing, ringing, delayed ringing, or abbreviated ringing) is independently specified for each image of an appearance. (The ringing type is assigned in Procedure 052 Word 1 Field 11.)
- **Ring Transfer Encode** — A ringing characteristic for the Ringing Transfer feature (i.e., no ringing transfer, ring when active, or no ring when active) is independently specified for each image of an appearance. (The ringing transfer encode is assigned in Procedure 052 Word 2 Field 4.)

Images and The Bridged Call Feature

The software of the Bridged Call feature allows *any two images* of the same appearance to participate in a call at the same time. But, as previously mentioned, the images of the separate appearances are independent.

Within the context of the Bridged Call feature, the following conditions still hold true: Any image of a particular appearance can place and/or answer a call on the appearance. Once the call (either terminating or originating) is established, another image of the same appearance can bridge onto

the call. (An image of a different appearance cannot bridge onto the call.) Also, a third image cannot enter the call at the same time. When this is attempted, the switch returns reorder tone to the user of the third image.

C. ACRONYMS AND ABBREVIATIONS

The following are the specialized acronyms and abbreviations and their associated terms. Explanations of these terms are provided within the text or in the glossary.

- **AAR**: Automatic Alternate Routing
- **ACA**: Automatic Circuit Assurance
- **ACD**: Automatic Call Distribution
- **ACTGA**: Attendant Control of Trunk Group Access
- **ADU**: Asynchronous Data Unit, *or* Automatic Dialing Unit
- **AIOD**: Automatic Identification of Outward Dialing
- **AMA**: Automatic Message Accounting
- **ANI**: Automatic Number Identification
- **AP**: Applications Processor
- **APLT**: Advanced Private Line Termination
- **ARS**: Automatic Route Selection
- **ASCII**: American Standard Code for Information Interchange
- **ATMS**: Automatic Transmission Measurement System
- **AUDIX**: Audio Information Exchange
- **AUTOVON**: Automatic Voice Network
- **AVD**: Alternate Voice Data
- **BCT**: Business Communications Terminal
- **BLF**: Busy Lamp Field
- **BOS**: Bit-Oriented Signaling
- **bps**: Bits Per Second
- **BTC**: Better Transmission Checking
- **CAAVT**: Call Answer From Any Voice Terminal
- **CAS**: Centralized Attendant Service
- **CCITT**: International Telephone and Telegraph Consultation Committee
- **CCS**: Hundred Call Seconds
- **CCSA**: Common Control Switching Arrangement
- **CDM**: Channel Division Multiplexer

- **CDR**: Call Detail Recording
- **CDRR**: Call Detail Recording and Reporting
- **CDRU**: Call Detail Recording Utility
- **CMDR**: Centralized Message Detail Recording
- **CM**: Call Management
- **CMS**: Call Management System
- **COS**: Class-of-service
- **CPE**: Customer Premises Equipment, *or* Customer Provided Equipment
- **CRT**: Cathode Ray Tube
- **CSM**: Centralized System Management
- **CSMDR**: Centralized Station Message Detail Recording
- **CU**: Control Unit
- **DAC**: Dial Access Code
- **dB**: Decibels
- **DCA**: Data Communications Access
- **DCE**: Data Communications Equipment
- **DCIU**: Data Communications Interface Unit
- **DGP**: Digital Communications Protocol
- **DCS**: Distributed Communications Service
- **DDC**: Direct Department Calling
- **DDCMP**: Digital Data Communications Message Protocol
- **DDD**: Direct Distance Dialing
- **DID**: Direct Inward Dialing
- **DMA**: Direct Memory Access
- **DMI**: Digital Multiplexed Interface
- **DNHR**: Dynamic Nonhierarchical Routing
- **DNIS**: Dialed Number Identification Service
- **DOD**: Direct Outward Dialing
- **DSC**: Dedicated Switch Connections
- **DSI**: Digital Service - 1
- **DTDM**: Digital Terminal Data Module
- **DTGS**: Direct Trunk Group Selection
- **DTE**: Data Terminal Equipment

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- **DTMF**: Dual Tone Multi-Frequency
 - **DTS**: Disk/Tape System
 - **DXS**: Direct Extension Selection
 - **EBCDIC**: Extended Binary Coded Decimal Interchange Code
 - **EDC**: Electronic Document Communications
 - **EFC**: Electronic Flip Chart
 - **EIA**: Electronics Industry Association
 - **ELL**: Equipment Line Location
 - **EPSCS**: Enhanced Private Switched Communications Service
 - **ES**: Enhanced Services
 - **ESS**: Electronic Switching System
 - **ETA**: Extended Trunk Access
 - **ETN**: Electronic Tandem Network
 - **EUCD**: Enhanced Uniform Call Distribution
 - **FADS**: Force Administration Data System
 - **FEAC**: Forced Entry of Account Codes
 - **FP**: Feature Package
 - **FRL**: Facilities Restriction Level
 - **FX**: Foreign Exchange
 - **GPP**: General Purpose Port
 - **GT**: General Trade
 - **GTA**: General Terminal Administration
 - **HCA**: Host Computer Access
 - **HNPA**: Home Numbering Plan Area
 - **HSAM**: Host Security Access Manager
 - **IACC**: Integrated Adjunct Call Control
 - **IBM**: International Business Machines
 - **ICI**: Incoming Call Identification
 - **IDDD**: International Direct Distance Dialing
 - **IDT**: Integrated Display Terminal (7407D)
 - **IE**: Information Element
 - **INWATS**: Incoming WATS Line
 - **IPA**: Interpartition Access

- **ISDN**: Integrated Services Digital Network
- **ISN**: Information Systems Network
- **ISO**: International Standards Organization
- **IXC**: Interexchange Carrier Access
- **I/O**: Input/Output
- **Kbps**: Kilobits per second
- **LADS**: Local Area Data Set
- **LAN**: Local Area Network
- **LATA**: Local Access and Transport Area
- **LDN**: Listed Directory Number
- **LND**: Last Number Dialed
- **LSU**: Local Storage Unit
- **LWC**: Leave Word Calling
- **LXD**: Last Extension Dialed
- **MAAP**: Maintenance and Administration Panel
- **MADU**: Multiple Asynchronous Data Unit
- **Mbps**: Megabits per second
- **MCS**: Message Center Service
- **MCT**: Malicious Call Trace
- **MDM**: Modular Data Module
- **MET**: Multibutton Electronic Telephone (DIMENSION System Voice Terminal)
- **MFT**: Multifunction Telephone (Multiappearance Voice Terminal)
- **MFAT**: Multifunction Analog Telephone (73-Series)
- **MFDT**: Multifunction Digital Telephone (74-Series, 510D, 515 BCT)
- **MFET**: Multifunction Electronic Telephone (72-Series)
- **MIA**: Most Idle Agent
- **MIS**: Management Information System
- **MMWR**: Manual Message Waiting Receive
- **MMWS**: Manual Message Waiting Send
- **MOS**: Message-Oriented Signaling
- **MPDM**: Modular Processor Data Module
- **MTDM**: Modular Trunk Data Module
- **Mux**: Multiplex

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- **NCOSS**: Network Control Operations Support System
 - **NFAS**: Non-facility Associated Signaling
 - **NPA**: Numbering Plan Area
 - **NSF**: Network-Specific Facilities
 - **OUTWATS**: Outgoing WATS Line
 - **PBX**: Private Branch Exchange
 - **PC**: Personal Computer
 - **PDM**: Processor Data Module
 - **PRI**: Primary Rate Interface
 - **QDN**: Queue Directory Number
 - **RAM**: Random Access Memory
 - **RCG**: Remote Carrier Group
 - **RF**: Radio Frequency
 - **RLT**: Release Link Trunk
 - **RMATS**: Remote Maintenance, Administration, and Traffic System
 - **ROM**: Read-Only-Memory
 - **RS**: Recommended Standard
 - **SCI**: Switch Communication Interface
 - **SCS**: System Clock Synchronizer
 - **SDN**: Software Defined Network
 - **SLS**: Straight Line Set
 - **SMDR**: Station Message Detail Recording
 - **SMT**: System Management Terminal
 - **TCM**: Terminal Change Management *or* Traveling Class Mark
 - **TDM**: Trunk Data Module
 - **TMS**: Time Multiplexed Switch
 - **TRACS**: Translations Recovery Additions Conversions System
 - **TRL**: Trunk Reservation Limit
 - **TTL**: Terminating Test Line
 - **TVA**: Trunk Verification by Attendant
 - **TVVT**: Trunk Verification by Voice Terminal
 - **UCD**: Uniform Call Distribution
 - **VDN**: Vector Directory Number

- **VDS:** Voice Data Station
- **VFCDR:** Variable Format Call Detail Recording
- **VMAAP:** Visual Maintenance and Administration Panel
- **WATS:** Wide Area Telecommunications Service

GLOSSARY

AAR

See **Automatic Alternate Routing**.

Abandoned Call

A call during which the calling party "hangs up" ("abandons" the call) before the call can be connected to the called party. Often, calls are abandoned when the calling party is waiting in queue for an appropriate answering position to become available.

ACD Attendant

A member of an ACD split (usually referred to as an "agent").

Access Code

A 1-, 2-, 3-, or 4-digit dial code used to activate or cancel a feature. The star (*) and pound (#) are sometimes used as the first digit of these codes.

Account Code

A dialed code (used with the CDR feature) that allows a call to be charged to a specific department's (or project's) account.

ACD Call

A call directed toward an ACD split using an associated extension number (or a published number). Since these calls enter the split's queue, ACD calls differ from calls to an agent's individual extension number which do not enter the queue.

ACD Console

The CallMaster voice terminal. This digital multiappearance voice terminal is primarily designed for ACD agents. The special attributes of this terminal for ACD agents include: built-in alphanumeric display, two direct Starset-headset connectors, horizontal button layout, a fixed MUTE button, and a moderate price. (This voice terminal can also serve as a cost-reduced attendant console for the System 75.)

AT&T Communications Interface (ACI)

The name given to ISDN—PRI on the 4 ESS* switching system. The 4 ESS is a Class 4 switch used for toll switching.

Action Control Point (ACP)

A switch in the AT&T Switched Network (usually a 4 ESS) that recognizes an Software Defined Network (SDN) call and queries the Network Control Point (NCP) for routing instructions. The NCP, usually a remote 3B20 containing the customer's SDN data base, returns specific routing instructions to the ACP.

Active on a Loop

An attendant is answering an incoming call or originating a call by pressing one of six appearance buttons.

Administer

To add, remove, or change software programs or stored data that provide services or features.

Administrable Recall Button

A feature button that can be assigned as a Recall button to those multiappearance voice terminals that do not have fixed Recall button.

Advanced 800 Service

The second generation of the AT&T 800 Service. This collection of enhanced 800 Service offerings provides additional capabilities, flexibility, and control to 800 Service customers. Some of the Advanced 800 Service offerings include: Single Number Service, Area Code Routing, Time Manager, Day Manager, Call Allocator, Call Prompter, Command Routing, and Courtesy Response.

Agent

A member of an ACD split.

Agent Hold

See **Multiple Call Handling**.

* Trademark of AT&T.

Agent Queue

A ordered sequence of agents who are available for and are waiting to receive an ACD call.

Automatic Identification of Outward Dialing (AIOD)

The AIOD feature identifies, translates, and transmits the calling party's extension number and trunk dial access code to the serving switch (i.e., CO, CCSA, or EPSCS switching office). In turn, the serving switch augments, compiles, and records this call-detail information and periodically provides the information to the customer.

Alerting

Audible (ringing) and/or visible signals indicating incoming calls.

American Standards Code for Information Interchange (ASCII)

An 8-bit binary code adopted by the American Standards Association to achieve compatibility between data services. Only seven of the eight bits are used for character identification. The eighth bit is left available for use as a parity bit.

Analog

Continuous in form. Analog signals contrast with digital signals which are discontinuous, or discrete, in form.

Analog Voice Terminals

An analog voice terminal (telephone) receives acoustic voice signals and sends analog electrical signals along the line. These voice terminals are served by a single wire pair (tip and ring). The analog voice terminals include: Models 2500, 7101A, 7102A, and 7103A.

Answer-Back Channel

A group of dedicated circuits which a paged party can use to answer a page.

Automatic Number Identification (ANI)

See AIOD.

Answer Supervision

A signal sent by System 85 to the serving Central Office (CO) indicating that an incoming call has been answered. Upon receiving this signal, the originating CO (generally) begins tracking toll charges for the call (if charges apply).

Appearance

A point of access to an extension (also known as an occurrence). Using a multiappearance voice terminal, an extension can be manually accessed by pressing a button labeled with the extension number. Indicator (status) lamps next to the button light when a terminal user goes off hook, receives a call, or puts a call on hold.

Applications Processor (AP)

An adjunct minicomputer to a System 85.

Area Code

See **Numbering Plan Area**.

ARS

See **Automatic Route Selection**.

ASCII

See **American Standards Code for Information Interchange**.

Associated Extension Number

An extension number that is assigned to and correlated with another extension number in Procedure 001 Word 1.

Calls to an ACD (previously, EUCD, UCD, or DDC) split are routed to the split's queue with an "associated extension number." The system then distributes the calls to an available agent from the queue. Since these calls enter the split's queue, they are considered ACD (or EUCD/UCD/DDC) calls.

Asynchronous Data Transmission

Transmission in which time intervals between transmitted characters may be of unequal length. Transmission is controlled by start and stop elements at the beginning and end of each character. For comparison see *Synchronous Data Transmission*.

Attendant

The operator of an attendant console.

Attendant Console

An electronic switchboard, with pushbutton control, used by the attendant to manage calls.

Attendant Diversion to Recorded Announcement

A function of the Intercept Treatment feature. Using this function, a System 85 attendant can divert *all* attendant-seeking calls to a recorded announcement by dialing an access code.

Attendant-Extended Call

A call (usually from the public network) that routes to an attendant, and is in turn relayed ("extended") by the attendant to an appropriate destination (e.g., a voice terminal or an ACD split).

Attendant Overflow

A function of the Tenant Services feature. Attendant overflow allows calls directed to an attendant partition to overflow and terminate to that partition's overflow partition. This function operates during periods of heavy calling to attendants, or when attendant partitions are lightly staffed.

Attendant Queue

The ordered sequence of calls waiting to be answered by an available attendant from within the group of attendants. (Using a R2V4 switch, there can be as many as 40 attendants in the group.)

ATMS

See **Automatic Transmission Measurement System**.

Audible Alerting

See **Ringback Tone**.

Audit Trail

A record of Automatic Circuit Assurance referrals. This system-generated record includes the date, time of day, trunk-group access code, and trunk number. The record indicates whether the referral was for a long call or a series of short calls. Also, the record indicates whether the trunk was tested after a referral or not. The audit trail record can be retrieved using the Facilities Management feature.

Attendant-Completing Trunk

A member of an attendant-completing trunk group.

Attendant-Completing Trunk Groups

Incoming (or 2-way) trunk groups that terminate calls to preassigned answering positions within the switch. Since the answering positions are preassigned, digits are not passed to the local switch. These preassigned answering positions include: the attendant queue (by default), an ACD queue (Procedure 115 Word 1), or a VDN (Procedure 031 Word 2). (The term "attendant-completing" usually refers to CO, 800 Service, or FX trunk groups.)

Authorization Code

A dialed code that can override the FRL of the facility being used to place an outgoing call. Authorization Codes can also be used (in preference to the Barrier Code) to protect against unauthorized entry to System 85 on Remote Access trunks.

Automatic Alternate Routing (AAR)

A feature that provides least-cost routing for private network calls by selecting, in descending order of desirability, the best route available.

Automatic Calling Units (ACU)

An automatic dialing device that permits a machine to place calls over the communications system.

Automatic Dialing

A method of using abbreviated dialing to place a call. With automatic dialing, the calling party accesses a stored number with a single button press.

Automatic Incoming Trunk

A member of an automatic incoming trunk group.

Automatic Incoming (Automatic-In) Trunk Groups

Incoming (or 2-way) trunk groups that terminate calls to preassigned answering positions within the switch. Since the answering positions are preassigned, digits are not passed to the local switch. These preassigned answering positions include: the attendant queue (by default), an ACD queue (Procedure 115 Word 1), or a VDN (Procedure 031 Word 2). (The term "automatic-in" usually refers to the various kinds of tie trunks.)

Automatic Route Selection (ARS)

A feature that provides least-cost routing for public network calls by selecting, in descending order of desirability, the best route available.

Automatic Transmission Measurement System (ATMS)

A System Management feature that automatically measures the transmission characteristics of private and public network trunk facilities.

Backup Answering Position

The second or third termination point in a coverage path.

Backup Terminal

A voice terminal used with Centralized Attendant Service (CAS) to answer calls at a branch location when the attendant at the main location is not available.

Band Width

The range of frequencies assigned to a channel or system; the difference expressed in hertz between the highest and lowest frequencies of a band.

Barrier Code

The security code that allows a remote user to access the services of the System 85 and prevents unauthorized access to the system.

BCT

See **Business Communications Terminals**.

Bearer Capability Class

A term used with ISDN that identifies the type of carrier service required for a caller. This is part of the class-of-service for the calling party and identifies the bearer capability required.

Binary Synchronous Communications (BSC or Bisync)

A data communications protocol, developed by IBM, that interfaces the AP to an IBM host computer. This protocol is used with the Terminal Emulation feature.

Bisync

See **Binary Synchronous Communications**.

Bit (Binary Digit)

Smallest unit of information in binary notation (having two possible states or values, zero or one).

Bits Per Second (bps)

The number of units of information in binary notation that are transmitted or received per second.

Bit-Oriented Signaling (BOS)

A form of call control signaling that transmits information in the form of single digital bits, most commonly A & B bit signaling.

Blocking

The inability to connect the calling party with the called party. Blocking occurs when either (1) all suitable trunk paths are busy or (2) a path between a given inlet and a suitable outlet of the switching system is unavailable.

Branch Locations

Telecommunication systems served by attendants at a centralized location.

Bridged Appearance

An appearance on a voice terminal matching an appearance on another voice terminal. For every appearance on a "home" terminal, there can be a bridged appearance on as many as 15 other voice terminals. (The concept of is similar to the concept of "images.")

Bridging

The connection of one circuit in parallel with another without interrupting the continuity of the first.

BSC

See **Binary Synchronous Communications**.

Business Communications Terminals (BCT)

A family of terminals that provide the user with the ability to enter data and message information via a keyboard. The terminals are the 500 BCT, 513 BCT, and 515 BCT.

Call Appearance

A point of access to an extension (also known as an occurrence). Using a multiappearance voice terminal, an extension can be manually accessed by pressing a button on the voice terminal labeled with an extension number. Indicator (status) lamps next to the button light when a terminal user places calls, receives calls, or puts a call on hold.

Call-by-Call Service Selection

An attribute of the ISDN—PRI feature. Call-by-Call Service Selection makes ISDN trunk facilities more efficient than traditional trunk facilities. By specifying a calling service in each ISDN—PRI call's SETUP message, Call-by-Call Service Selection allows different network services to be applied to the same trunks on a per-call basis. Therefore, ISDN—PRI trunk groups reduce the need to provide separate trunk groups for services such as Wide Area Telecommunications Service (WATS), Direct Inward Dialing (DID), and Direct Outward Dialing (DOD). All of these services can be provided over the same set of trunks.

The ISDN—PRI feature also allows the same digital trunk facilities to handle various types of calls. The SETUP message contains information to specify the type of call including voice calls and various types of data calls. This ISDN—PRI capability, provided on the Dynamic Trunk Type (Trunk Type 120), is provided by System 85 R2V4 using the Generalized Routing function of the

AAR and ARS features.

Call Detail Recording Utility (CDRU)

A series of software programs that run on a 3B2 or the WGS6386 to process the CDR records generated by the switch.

Call Forwarding—Off Net

A function of the Call Forwarding—Follow Me feature. Using this function, a user can forward all calls to a telephone in the nontoll public network.

Call Forwarding Override

A function of the Call Forwarding—Follow Me feature. With Call Forwarding—Follow Me active, most calls directed to the forwarding terminal forward to a specified destination terminal. Call forwarding override allows the user of the forwarded-to terminal to complete calls to the forwarding terminal.

Call Hold

The name of the access code that allows a single-appearance voice terminal user to access the hard hold function of the Hold feature. See **Hold**.

Call Management System (CMS)

Software routines on an external processor that assist in the management of ACD activity. The CMS system generates reports on ACD activity, provides real-time displays of current agent activity, and provides the customer with the ability to partially administer the ACD feature for the switch.

Call-Progress Tone

One of a set of tones (e.g., ringback tone, busy tone, or reorder tone) that a calling party can receive from a switch. Call-progress tones indicate the specific status of a call or the facilities used by the call.

Call Reference Value

A number between 0 and 32767, used to identify a specific ISDN call in progress. The call reference value is used to associate ISDN D-channel messages with the related ISDN call.

Caller Response Interval

The administrable period of time for internal callers to respond to a call that has been redirected to coverage. During this system-wide interval (from 0 to 10 seconds) that begins with coverage tone, an internal caller could hang up, activate Leave Word Calling, or wait for the covering user to answer.

Carrier Ready Tone

See **Ready Tone**.

CCS (Hundred Call Seconds)

The unit with which telephone call traffic is measured. The equivalent of one call lasting for 100 seconds.

CDRU

See **Call Detail Recording Utility**.

Cell

A 4-bit (1/2 byte) portion of a CDR record. Each CDR record contains 60-96 cells.

Central Office

A place where public telephone switching equipment is housed.

Central Office Trunk

A telecommunications channel on the public network between the central office and the PBX.

Central Processor

The part of a computer system that contains the main storage, arithmetic logic unit, and special registers.

Channel

A communications path over which voice or data is transmitted.

Channel Negotiation

A capability of ISDN connections that allows the called (terminating) switch to request, on a call-by-call basis, a different channel than the channel selected by the calling switch. The benefit of channel negotiation is that the only other alternative, if the originally selected channel is not acceptable for some reason, is to deny the call.

Chime Sidetone

See **Chimeback Tones**.

Chime Signals

Tone bursts sent over the loudspeaker system to page persons with the Code Calling Access feature. These 892-hertz tone bursts are combined in a coded manner to signal a specific person out of a larger group of persons.

Chimeback Tones

Tones (resembling chime signals) sent to the paging party's voice terminal by the System 85 switch. These tones are used to confirm that chime signals are being sent over the loudspeaker system.

Class of Service (COS)

A numeric code that specifies a group of features and calling privileges that together determine the calling privileges of a group of extension numbers.

Cluster

A group (2 or more) of individual nodes connected by DCIU links and tie trunks into a DCS network.

CMS

See **Call Management System**.

Codepoint

A term used in ISDN terminology to identify a point within a "codeset" that defines an Information Element (IE). See also **Codeset** and **Information Element**.

Codeset

One of eight possible standard groupings, consisting of 133 ISDN IEs (Information Elements), used in the ISDN messaging structure. Codeset 0 contains the IEs defined by the CCITT. Codesets 1 through 5 are reserved for future standards expansion. Codeset 6 is for IEs specific to the local serving network (switch), and codeset 7 is for user-specific (user-to-user) IEs. See also **Information Element**.

Collision

See **Glare**.

Command Path

See **Path Name**.

Common-Channel Interoffice Signaling

A system of supervising the routing, setting up, and disconnecting of voice and data calls within a telecommunications network. CCIS is the primary method of signaling used within the AT&T Communications Network. AT&T CCIS consists of network of processors and high-speed data links residing in parallel to the actual switching and transmission facilities. Some of the benefits of CCIS signaling include: faster call-setups, smarter "look-ahead" routing capabilities, fewer blocked calls, lower-cost routing.

Common-Control Switching Arrangement

A private telecommunication network using dedicated trunks and a shared switching center for interconnecting company locations.

Confirmation Tone

Three short bursts of tone provided by the System 85 switch to confirm that a feature has been accepted or canceled.

Control Vectors

Another term for "Call Vectoring" that is used by some other ACD vendors. Call Vectoring (or the similar concept, Control Vectors) provides an enhanced method of defining calling-party interfaces for incoming calls (usually incoming ACD calls). Throughout this manual, the term "Call Vectoring" is used rather than "Control Vectors."

Controlling Terminal

For Abbreviated Dialing, the voice terminal within a group that is used to program and change group-list items for the group.

For ACD, the terminal within an assigned ACD (previously, EUCD/UCD/DDC) group that is used to activate or deactivate functions for the group.

Conversion Resource

The combination of a Trunk Data Module (TDM) and a modem that converts Digital Communications Protocol (DCP) data signals from digital format to analog format suitable for transmission over analog trunk facilities. The reverse conversion (analog to digital) is also provided. This term is used primarily with the Modem Pooling feature.

Coverage Call

A call that is redirected from the called extension (the principal) to another extension.

Coverage Group

The combination of a principal, the principal's coverage path(s), and the associated criteria. A dual-path coverage group contains two paths and criteria.

Coverage Module

An optional attachment to the 7205H or the 7405D voice terminal. Coverage modules provide 20 additional appearance buttons for these voice terminals, and are usually used by covering users. The C201A coverage module attaches to the 7205H, and the C401A or C401B module attaches to the 7405D or the 7434D.

Coverage Path

An ordered sequence of up to three answering positions (points) to which coverage calls are redirected.

Coverage Point

An extension designated as an alternate answering position in a coverage path.

Coverage Tone

A call-progress tone, also known as "Coverage Redirect Feedback," that indicates to a calling party that the coverage process is being started for the call.

Covering User

A person authorized to answer redirected calls at a coverage point.

Criteria

Used with the Call Coverage feature, the conditions under which a call to a principal is redirected to coverage.

Customer-Provided Equipment (CPE)

Customer-owned equipment that is not provided as part of the system but is to be connected to it.

Cut-Through Connection

An attribute of outgoing calls that are not automatically routed (e.g., using AAR or ARS). Cut-through connections are established between local and distant switches whereby the local switch sets up a talking connection to the distant switch and then relinquishes control of the call to the distant switch. At this time, the distant switch may return dial tone for subsequent dialing and call routing.

D (Data) Channel

The designation for either of two types of communications links:

DCP Usage

A communications link (as opposed to signaling link) in the DCP setup.

ISDN Usage

The signaling link (as opposed to a communications link) for an ISDN span.

DC (Digit Collect) Signal Ignore

An attribute of the AAR and ARS subnetwork trunking functions. The DC Signal Ignore fields are Field 11 of Procedure 309 Word 1 and Field 8 of Procedure 321 Word 1. When the DC Signal Ignore field is assigned to an AAR/ARS preference, the System 85 only sends digits to the serving switch for outgoing (or tandem) calls after the assigned pause times out. The System 85

does not send digits in response to a wink-start, delay-dial, or precise dial tone signal.

This field might be assigned to an AAR/ARS preference to compensate for excess noise on the trunk group. As an example, the trunk type of many AAR preferences allows for "universal" outgoing signaling. These trunk groups can respond to either wink signals, delay-dial signals, or precise dial tone. (In this way, the switch administrator need not be overly concerned about the precise trunk type at the distant end of the preference.) However, excess noise over one of these trunks can be misinterpreted as digit-collect signal which would result in the System 85 sending digits before the receiving switch is ready to receive them.

D-Channel Backup

A technique used with ISDN Non-Facility Associated Signaling (NFAS) on Primary Rate Interface (PRI) spans to provide a second (redundant) D-channel for a D-channel group. With D-channel backup, two signaling channels (D-1 and D-2) are assigned to a D-channel group. One D-channel is active (usually D-1) and the other is in a standby mode (active at level 2 only [of the ISO Model]). When the active D channel is taken out of service for any reason, the standby channel automatically takes over signaling for the assigned B-channels.

D-Channel Group

A term used with ISDN Non-Facility Associated Signaling (NFAS), to identify the B-channels and D-channels that are associated in a common channel signaling arrangement.

Data Channel

The means of transmission and the intervening equipment involved in the transfer of information in a given direction.

Data Communications Access

The feature that provides access to on-premises host computers for data end points with an analog interface (modem). These end points include analog voice terminals and attendant consoles.

Data Communications Equipment (DCE)

The equipment that provides the functions required to establish, maintain, and terminate a connection, the signal conversion, and coding required for communication between Data Terminal Equipment (DTE) and data circuit. Any equipment that connects to a data terminal device using an EIA RS-232C interface.

Data Communications Interface Unit (DCIU)

A circuitry configuration that provides interprocessor communication between switch processors or between a switch processor and another processor.

The DCIU is used between switches in a DCS cluster, between a switch and an Applications Processor, or between a switch and an AUDIX system.

Data Link

The configuration of physical facilities enabling end terminals to communicate directly with each other.

Data Path

The complete connection (end-to-end) used for a data communications link (see also Virtual Circuit). This term is used for the combination of all elements used in an interprocessor communication in the DCS feature.

Data Module

A device that interfaces customer-provided data equipment to the System 85 equipment.

Data Port

A point of access to a computer that uses trunks or lines for sending or receiving data.

Data Protection

The feature that prevents intrusions by bridge-on features (e.g., Call Waiting, Override, and Busy Verification of Lines) into data transmissions. The bridge-on features, if allowed, would disrupt a data transmission by inserting a warning tone into the connection. Two forms of Data Protection are available: temporary and permanent. Temporary data protection is activated with an access code and permanent data protection is assigned to an extension class of service.

Data Rate

The transmission of data measured in bits per second.

Data Service Unit (DSU)

A device designed specifically to transmit digital data on transmission facilities.

Data Set

A term sometimes used for *modem*. A device that converts data communications between a digital (i.e., RS232C) format and an analog format. These terms (data set and modem) are used interchangeably in this manual.

Data Supportable Tie Trunk (DSTT)

A tie trunk that can support data rates greater than 300 bps.

Data Terminal

An input/output device [with a keyboard and a cathode ray tube (CRT)] that has either switched or direct access to a host computer (or to an AP). The AT&T data terminals include: The AT&T Personal Terminal 510D, and Models 513, and 515 Business Communications Terminal (BCT).

Data Terminal Equipment (DTE)

- 1) The equipment comprising the data source, data destination, or both. A data endpoint such as a data terminal or line printer.
- 2) The configuration of leads and control devices (and logic) specified by a protocol that complements the *Data Communications Equipment (DCE) for the same protocol*.

Data Tone

See **Ready Tone**.

DCIU

See **Data Communications Interface Unit**.

DCIU Link

A hardware communications link (data link) that connects two DCIUs.

DCIU Network Channel

The association between two link/logical channel pairs such that a DCIU message received on one link/logical channel pair is transmitted on the other pair. There are two types of network channels, fixed or Permanent Virtual Circuit (PVC) and alternate routing.

DCIU Port

A gateway to or from an application (DCS is an example of an application). Ports are the endpoints of a virtual circuit and look like an input/output device to the application.

DCS

See **Distributed Communications System**.

DCS Cluster

Two or more switches interconnected by DCIUs.

DCS Node

A switch within a DCS cluster.

Default FRL

An FRL that is automatically assigned upon administering an extension, trunk group, or preference.

Default Voice Terminal

A preassigned voice terminal to which calls can be routed when the attendant console is unattended.

Delay Dial Signaling

A trunk signaling protocol that provides a waiting period for the far end of a trunk connection to respond before the near end outputs digits.

De-multiplexer

A device or circuit used to separate two or more signals that were previously combined on a single carrier medium. The de-multiplexer must be associated with a compatible multiplexer.

Designated Voice Terminal

The forwarded-to voice terminal (i.e., the specific voice terminal to which calls, for a certain extension, are forwarded).

Dial Access Restriction

A method of preventing voice terminal users, data terminal users, and attendants from directly accessing a trunk group by dialing the trunk-group access code. Dial access restriction also prevents an attendant from accessing a restricted trunk group with a Direct Trunk Group Selection (DTGS) button. This restriction (assigned to a trunk group in Procedure 100 Word 1), *does not* prevent verification of trunks in the trunk group by an attendant or the designated voice terminal user.

Dial Pulse Addressing

A means of signaling consisting of regular momentary interruptions of a current path at the sending end. The number of these interruptions corresponds to the value of a digit or character. This method of address signaling is usually associated with rotary dial terminals. However, this method of signaling can also be used between switches.

Dial Repeating Tie Trunk

A telecommunications channel between two systems. The number dialed is "repeated" (or dialed-in) at the distant end.

Digit-Oriented Routing

A method of routing calls into the System 85 switch. Using digit-oriented routing, dialed digits are passed through the serving switch (usually, the serving CO) and to the local System 85 in a similar manner to DID calls.

Digital Access Cross-Connect System (DACS)

A large electronic "cross-connect field" where telecommunications channels are permanently connected using software translations. AT&T Communications maintains a DACS network in parallel to the AT&T Switched Network that primarily contains 4 ESS switches. To limit the trunk load on each 4 ESS, private lines through the AT&T Communications network are usually routed through a set of DACS offices to reach their destinations.

Specific trunks in a DACS office can also interface the AT&T Switched Network using translated connections to the adjacent 4 ESS. As an economical alternative when this interface is used, the DACs can also concentrate the incoming direct-access trunks to consume fewer switched trunk facilities at the 4 ESS.

Digital

Discrete, or discontinuous, in form. Digital signals contrast with analog signals which are continuous in form. Digital signals are usually binary.

Digital Communications Protocol (DCP)

A protocol used to transmit both digitized voice and data over the same communications link. [A System 85 data link made up of two information channels and one signaling channel.]

Digital Data

Data represented in discrete, discontinuous form, usually binary. This is in contrast to continuous analog data usually sine wave form.

Digital Service-1 (DS1)

A high-speed, high-volume digital trunking facility.

Digital Terminal Data Module (DTDM)

A data module designed as a plug-in module for a digital voice terminal.

Digital Trunk

A circuit in a telecommunications channel designed to handle digital data.

Digital Voice Terminal

A voice terminal (telephone) that converts acoustic voice signals (analog signals) into digital electrical signals to be sent along the line. These voice terminals are served by two pairs of wire. The digital voice terminals include: Models 7401D, 7403D, 7404D, 7405D, 7406D, 7407D, 7410D, 7434D, 7505D, 7506D, 7507D, 510D, 515 BCT, and CallMaster.

Direct Access

A method of connecting to public telecommunications facilities whereby a customer (terminal or PBX) is provided with direct physical connections to a long-distance carrier that employ fixed *translated* connections through the local exchange carrier (LEC).

Direct Attendant Call

A call that is *initiated* by an attendant. Direct attendant calls differ from *attendant-extended calls* that are initiated elsewhere (usually from the public network), and extended by an attendant to an appropriate destination.

Direct Distance Dialing (DDD)

Long distance calls completed without operator assistance.

Direct Extension Selection

An option on an attendant console which allows an attendant direct access to an idle voice terminal (inside the system) by pressing a hundreds button and a tens and units button.

Disconnect Supervision

A signal sent by the serving switch to the local System 85 indicating that an "answered call" was hung up at the distant end. Depending on the type of serving switch, a delay of from 2 to 25 seconds can precede this signal.

Display Voice Terminal

A voice terminal with display capabilities. The display voice terminals include: 7404D (with Z300B messaging cartridge and EIA terminal), 7405D (with D401A display module), 7406D With Display, 7407D, 7506D, 7507D, 510D, 515 BCT, and CallMaster.

Distant

Pertaining to, or within, the physical limits of another network node [from the perspective of the local (or serving) switch].

Distributed Communications Service (DCS)

A network of switches appearing to the user as a single switch.

Don't Answer Interval

The specified number of times that unanswered voice terminals can ring (number of alerting cycles) before a call is redirected to coverage or forwarded.

Drop Button

A fixed feature button on the AT&T multiappearance voice terminals. When a multiappearance voice terminal user is the controller of a 3-Party Conference, the user can press the DROP button to disconnect the third party in the conference. Also, when a multiappearance voice terminal user is active on a 2-party call, the user can press the DROP button to disconnect the other party and to receive new dial tone on the *same* appearance.

Using the DROP button to disconnect a 2-party call and receive new dial tone is faster than using the DISCONNECT button. Using the DISCONNECT button returns dial tone on the appearance specified by the Multiappearance Preselection and Preference feature.

Duplicated Switch

A switching system that contains backup processing equipment. A "high-reliability" switch contains backup common control processors. A "critical-reliability" switch contains backup common control processors, module processors, and Time Multiplexed Switches (TMSs).

DXS Button

One of a set of 100 buttons, arranged as 2 groups of 50 buttons, engraved with a number (from 00 to 99) on the type 34 console. When DXS is assigned, an attendant can select an extension (e.g., 1356) by pressing the appropriate hundreds group selection button (for this example, the one assigned as "13") and then pressing the appropriate DXS button (for this example, "56"). When Extended DXS is assigned, however, the attendant can select an extension by pressing two DXS buttons in sequence (for this example, "13," followed by "56"). When Extended DXS is assigned, the hundreds group selection buttons do not function.

Dynamic Nonhierarchical Routing (DNHR)

The primary algorithm used to route calls through the AT&T Switched Network. Each 4 ESS in the network has a direct route to most of the other 4 ESS switches in the network. Meanwhile, each 4 ESS can also have up to 13 indirect routes with *just one* intervening node. Under this algorithm, the direct route is usually the first preference, and the indirect routes are arranged in order of desirability. At the time that a preference is actually selected for a call, each preference is queried on a "look-ahead" basis by the CCIS network. After the CCIS network reserves an available path from the originating 4 ESS, through the intervening 4 ESS (if needed), to the destination 4 ESS, the CCIS network instructs the originating 4 ESS to route the call over this path.

E&M (Ear and Mouth) Supervision

A symmetric signaling scheme using dc voltage levels over "E" and "M" interface leads. The E and M leads are separate from the transmission path. The signals are used to indicate on-hook and off-hook states at each end of the connection path.

Egress

The opposite of access; the act of going out or emerging. For example, 800 Service and/or MEGACOM WATS 800 Service can be used to egress the public network for access to a System 85. Also, the Software Defined Network (SDN) Access feature allows a single call to use special access from a System 85 to the public network and then use special egress from the public network to another System 85.

Electronic Tandem Network (ETN)

A private telecommunications network configured with electronic tandem switches. It interconnects customer locations via dedicated intertandem tie trunks, access trunks, and bypass trunks.

Emulation

A technique using software programming that allows one computer or digital device to behave like a different device.

Enhanced Private Switched Communications Service (EPSCS)

A private network service that provides advanced voice and data communications services for companies with widespread operations.

Equipment Location

The location, or the corresponding numerical representation of the location, of a circuit within the switch. Equipment locations are represented by 7 alphanumeric characters (e.g., 01 2 3 12 05). The first and second characters identify a module. The third character identifies a cabinet within the module. The fourth character identifies a carrier within the cabinet. The fifth and sixth characters identify a slot within the carrier. The seventh and eighth characters identifies a circuit of the slot's circuit pack.

Extended Digital Subscriber Line (EDSL)

The name used for the ISDN—PRI feature (network interface) on the 5ESS switching system. The 5ESS is used for Central Offices (COs) and large Private Branch Exchange (PBX) applications.

Extension Number Steering

An attribute of the Main/Satellite feature. The Main/Satellite switches use the initial digit(s) of a dialed extension number to steer the call to the appropriate switch. The call is then routed to its final destination.

Facilities Restriction Level (FRL)

An assigned number that determines both the types of calls that can be made and the types of facilities (trunks) that can be used.

Feature

A specifically defined function or service provided by System 85.

Feature Key Module

See **Function Key Module**.

Feature Button

A labeled button on a terminal or console designating a specific feature.

Fiber Optics

A technology using light-guide materials and ultra-wide band electromagnetic wave forms for high-capacity carrier systems.

Flash

To momentarily press the switchhook on an analog voice terminal. Switchhook flashes can have a duration of from 0.2 seconds to 1.2 seconds. A shorter press would not be detected, while a longer press would cause the voice terminal to disconnect.

Flash Button

Another term for "recall button" that is used by some other switch vendors. After a recall button press (or flash button press) the switch returns recall dial tone to the voice terminal user. Throughout this manual, the term "recall button" is used in preference to "flash button."

Flexible Routing Selection (FRS)

Another term for Automatic Route Selection (ARS) that is used by some other switch vendors. ARS (or the similar concept, FRS) provides least-cost routing of public network calls. Throughout this manual, the term "ARS" is used in preference to "FRS."

Flow Control

See **ISDN Flow Control**.

Foreign Exchange (FX)

A central office other than the one located in the calling customer area.

Foreign Exchange Trunk

A telecommunications channel that connects a private telephone system to a central office other than its own central office.

Forwarded-To Voice Terminal

The designated voice terminal (i.e., the specific voice terminal to which calls, for a certain extension, are forwarded).

Frame

One of several segments of an analog or digital signal that has a repetitive characteristic. Corresponding elements of successive frames represent the same thing. The specific nature of a frame varies depending on the context in which the term is used.

- In a time-division system, a frame is a sequence of time slots, each containing a sample from one of the channels served by the system.
- In DS1 signaling, a frame is the digital representation of the 24 logical channels represented by 192 bits of data. An additional bit is included for framing making a frame 193 bits long.
- In D4 signaling, the framing format includes 12 frames.
- In extended super framing (Fe), the framing format includes 24 frames.
- In packet switched data communications, a frame incloses a "packet" by adding a header and a trailer element for additional control purposes (See the "Packet" and "Packet Switching" definitions for further details).

Full Duplex

A transmission system capable of carrying signals in both directions simultaneously.

Function Key Module

An optional attachment for the 7205H or the 7405D voice terminal. Function key modules provide 24 additional feature buttons for these voice terminals.

Gate

Another term for "split" that is used by some other ACD vendors. A split (or gate) is a group of agents (group members) organized to receive calls in an efficient and cost-effective manner. Throughout this manual, the term "split" is used in preference to "gate."

General Purpose Port (GPP)

An SN270 port used for either a digital voice terminal or a data module. The GPP uses the digital communications protocol and can be used as either a line or trunk appearance.

General Trade (GT)

Commercially available materials and equipment that are not restricted to a single manufacturer or to manufacture under license.

Ghost Call

A queued incoming call that is directed to an idle answering position even though the calling party has already abandoned the call. Abandon call search can be used with the ACD (previously, EUCD) feature to minimize the occurrence of ghost calls.

Glare

A fault condition in trunk seizure operations where both ends of a trunk attempt to seize the same connection at the same time.

Ground Start Supervision

A supervisory signal given at certain terminals and switches by connecting one side of the line or trunk to ground. Ground start signaling was introduced in trunk signaling to minimize glare.

Half Duplex

Transmission of signals in either direction but not both directions simultaneously.

Handshaking Logic

Logic circuits used to establish a data connection between two devices.

Hard Disk

A rigid magnetic platter used to store data.

Hard Hold

One of the two forms of hold provided by the Hold feature. Hard hold is more durable than soft hold, providing greater assurance of being able to return to the held call. Hard hold is available for multiappearance voice terminals (using the HOLD button) and for single-appearance voice terminals (using the Hold dial access code).

Hard Processor Swap

An attribute of a duplicated System 85. During a "hard swap," the switch abruptly shifts control from one processor to the other "healthier" processor. Since the current call-status information is not transferred to the new processor, hard processor swaps are usually noticed by users who are active on a call. (See also **Soft Processor Swap**.)

Hard-Wired

Permanently connected [as opposed to a temporary (switched) connection].

Head-End Hop Off

An ARS call-routing attribute of ETN main and tandem switches. Using head-end hop off, a main or a tandem quickly routes a public-network call over a public-network trunk facility instead of routing the call part of the way over private-network trunk facilities.

Head of Queue

The first item (e.g., a call or an agent) in a queue. The item at the head of queue is usually the next item to be processed.

Hertz

A unit of frequency equal to one cycle per second.

Hold

A feature provided for System 85 voice terminal users. The Hold feature allows the user to separate from an active call, while retaining the ability to return to the call. There are two forms of hold: hard hold and soft hold. Hard hold is more *durable* than soft hold, providing greater assurance of being able to return to the held call. Hard hold is available for multiappearance voice terminals (using the HOLD button) and for single-appearance voice terminals (using the Hold dial access code). Soft hold is only available for single-appearance voice terminals (using the switchhook or the Recall button).

Home Numbering Plan Area (HNPA)

The dialing plan area (area code in the public network) within which a private network switch is located.

Homing

The connection of a subtending switch to a tandem switch based on factors such as traffic loads, geographic proximity, and community of interest.

Hookswitch

See **Switchhook** or **Recall Button**.

Hop

Nondirect communication between two DCIUs, whereby the DCIU message passes through one or more intermediate DCIUs.

Host Computer

A computer connected to the network that processes data from various data-entry devices.

Hub

The central or controlling switch in a "STAR" networking configuration.

Hundred Call-Seconds (CCS)

The unit with which telephone call traffic is measured. One call that lasts for 100 seconds constitutes 1 CCS.

Hundreds Group Selection Button

One of 18 assignable buttons (arranged horizontally as three rows of six buttons) on the type 34 console. When DXS is assigned, an attendant can select an extension by pressing the appropriate hundreds group selection button and then pressing the appropriate DXS button. When Extended DXS is assigned, the hundreds group selection buttons don't function.

Hybrid Voice Terminal

Hybrid voice terminals (telephones) possess characteristics of both analog and digital voice terminals. Like analog voice terminals, hybrid voice terminals send analog electrical voice signals. However, like digital voice terminals, hybrid voice terminals are controlled by digital signals. These voice terminals are served by three pairs of wire. The hybrid voice terminals include Models 7203H, 7205H, 7303S, and 7305S.

I-Field

A channel used for communicating digital information for voice and data.

I-Use Lamp

An indicator lamp on a multiappearance voice terminal that indicates whether or not a particular appearance is in use.

ID/Password

A security measure that limits access to those with the correct ID and password.

Idle Loop

An idle appearance on the attendant console.

IE

See **Information Element**.

Image

A point of access to an appearance. There can be as many as 16 images of an appearance. An unshared appearance has only one image of the appearance. (The concept of an "image" is similar to the concept of a "bridged appearance.")

Immediate Start Signaling

A trunk signaling protocol in which the receiving switch (incoming end of a trunk seizure) has 0.07 seconds to respond to the incoming seizure.

IMT (Intermachine Trunk)

See **Intertandem Tie Trunk**.

Information Element (IE)

A logical block of data in an ISDN message (control and signaling). IEs provide specific information related to terminals, lamps, ringing, data rates, and other call related data. Information elements are specified as "codepoints" within the series of ISDN "codesets." See also Codepoint and Codeset.

INOS

See **Interactive Network Optimization System**.

Integrated Services Digital Network (ISDN)

A network "that provides end-to-end digital connectivity to support a wide range of services, including voice and nonvoice service to which users have access by a limited set of standard multipurpose user-network interfaces." CCITT

Intelligent Main

Usually, a main location in a Main/Satellite/Tributary configuration that accesses an Electronic Tandem Network (ETN) tandem switch and that also has the Automatic Alternate Routing (AAR) feature assigned. AAR is assigned to the intelligent main to give this switch local control over some of the AAR private-network routing decisions.

Intelligent Data Terminal

A data terminal containing a microprocessor to reduce the data transmitted and to expand the data received.

Interactive Network Optimization System (INOS)

A heuristic computer program that is maintained and operated by AT&T to help design cost-effective private/virtual-private networks.

Intercept Tone

An alternating high and low tone; indicates a dialing error or denial of the service requested.

Interface

A common boundary between two systems or pieces of equipment.

Interflow

The diversion of calls from an ACD split to another node of the network (also known as Overload Balancing).

Intertandem Tie Trunk

A private telecommunications channel (of Trunk Type 41 to 46) between two tandem switches in an ETN network. An intertandem tie trunk can be classified as either "high-usage," or "final."

High-usage trunk groups efficiently carry a large volume of call traffic. When an entire high-usage trunk group is busy, this trunk group can overflow to a final trunk group that carries a mixture of "first-route" and overflow traffic. Normally, final trunk groups do not overflow to alternate routes.

Intervening Switch

For Look-Ahead Interflow, a private- or public-network switch between the sending (or tandeming) and receiving switches of a Look-Ahead Interflow call. The intervening switch uses its usual routing software to continue the routing of these calls on an "ISDN Preferred" basis. However, when no ISDN facilities are available or permitted, the intervening switch continues to route the interflow call on a *non-look-ahead* basis.

Interworking

The term used with ISDN to refer to the processes by which ISDN and non-ISDN services interconnect and work together.

Intraflow

The diversion of calls from an ACD split to a destination within the local switch.

Intrusion Tone

A 440-hertz tone applied by System 85 during a call. Intrusion tones are used to alert the talking parties to the presence of an unexpected party in the connection. The features that are able to provide an intrusion tone include: Automatic Call Distribution (ACD), Busy Verification of Lines, Override, Trunk Verification—Attendant, and Trunk Verification—Voice Terminal.

ISDN Flow Control

A defensive mechanism designed to protect switch processors from overload due to an excessively high level of ISDN D-channel messaging activity. In the System 85 R2V4 time frame, Flow Control consists of monitoring and controlling the level of messaging activity at the interface (PRI) level.

Least Cost Routing (LCR)

Another term for "ARS" (Automatic Route Selection) that is used by some other switch vendors. ARS (or the similar concept, LCR) provides least-cost routing of public network calls. Throughout this manual, the term "ARS" is used in preference to "LCR."

Leave Word Calling Without an AP

Leave Word Calling messages can be stored on the switch, on an AUDIX system, or on an Applications Processor (AP). Leave Word Calling without an AP refers to message storage on the switch or on an AUDIX system. That is, the messages are not stored on an AP.

LEC

See Local Exchange Carrier.

Line Port

The actual hardware providing the access point to the system switching network for each circuit associated with an extension.

Link Access Procedure (LAP)

A group of standards (LAP, LAPB, LAPD, etc.) adopted by the CCITT for the link level protocols used with CCITT standards such as X.25 and ISDN. The CCITT LAP standards are generally modeled after the various ISO recommendations for High-level Data Link Control (HDLC).

Listed Directory Number (LDN)

The listed number in a public directory (phone book) for a private switching system that is usually answered by an attendant.

Local

Pertaining to, or within, the physical limits of the serving switch.

Local Area Data Set (LADS)

A modem, specifically the 48230 and 48234, manufactured by Codex Corporation. These data sets support synchronous data transmission at selectable rates of 2.4, 4.8, and 9.6 Kbps. They offer good noise immunity.

Local Area Network (LAN)

A networking arrangement specifically designed to support a limited geographical area. Generally, they are limited in range to a maximum of 6.2 miles and provide high-speed carrier service with low data error rates. Common configurations include: star (included circuit switched), ring, and bus.

Local Data Service Unit (LDSU)

A modem that supports synchronous data transmission at selectable rates of 2.4, 4.8, and 9.6 Kbps.

Local Exchange Carrier (LEC)

The telephone company that provides switching and transmission service for local calls and long-distance calls *within* the Local Access and Transport Area (LATA).

Local Storage Unit (LSU)

A device that collects and stores CDR records. Usually, an LSU temporarily stores records that are periodically requested by a central polling device.

Logical Channel (or Circuit)

A message slot on a digital communications link. One of the logically independent elements of a data stream that are multiplexed onto a single communications carrier. This term is used in connection with "packet switching" and to refer to a designated subelement of a DCIU link. In the DCIU application, a logical circuit on the "switch link" is called a "port."

Long-Holding Time

A measurement of call length on selected trunks; occurs automatically when the Automatic Circuit Assurance (ACA) feature is activated.

Look-Ahead Interflow

A System 85 R2V4 feature that is usually an ACD application of the Call Vectoring and the ISDN—PRI features. (Call Vectoring provides the decision-making capabilities, and ISDN—PRI provides the messaging capabilities between switches.) A sending switch usually uses Look-Ahead Interflow to divert ACD calls to a different switch in the ETN network after asking the receiving switch whether that switch can adequately handle each call.

If the receiving switch can handle the interflow call, the sending switch will send the call. If not, the sending switch either queries another switch or performs a predefined alternate action.

Loop

A voice circuit associated with an appearance button on the console, used by the attendant to process or originate calls.

Loop Start Supervision

An older, and in some ways antiquated, signaling protocol that is used by some older COs in rural areas. The newer ground start signaling protocol offers improved signaling capabilities (including disconnect supervision and glare resolution) over the loop start method. Loop start signaling relies on a supervisory signal initiated by a terminal or switch in response to completing the loop current path.

LSU

See **Local Storage Unit**.

Main Location

A centralized area where attendants answer calls routed from branch locations.

Main Split

The split to which a call controlled by vector processing is initially directed. Vector processing always queues calls to this split unless the split is not staffed.

Main/Satellite

A Main/Satellite complex is a private network configuration. This configuration can either stand alone or access an Electronic Tandem Network (ETN). The trunk facilities that access the public network and attendant positions are usually concentrated at the main.

Main/Tandem

Field 4 of Procedure 103. Assigning a "1" in this field gives certain capabilities to a trunk group. For example, the Main/Tandem field must be assigned to send an FRL TCM over an outgoing trunk group. The Main/Tandem field cannot be assigned to apply AAR subnetwork trunking to an outgoing trunk group. Also, the Network Trunk field must be assigned to each DCS trunk group where AAR routes the calls. Otherwise, transparency is lost for DCS calls.

Manual Dialing

Using the touch-tone dialing pad (or rotary dial) to place a call. The calling party dials each digit of the called number individually. Manual dialing contrasts with Automatic Dialing where a single button press outputs a set of stored digits.

Measured Agent

A member of an ACD split whose activity is measured by Call Management System (CMS).

Measured Split

A group of ACD agents whose activity is measured by Call Management System (CMS).

Message Center

A service that provides for answering of calls that would otherwise go unanswered, accepts and stores messages for later retrieval.

Message Center Agent

A person with membership in a Message Center split. Message Center agents take and retrieve messages for voice terminal users.

Message Oriented Signaling (MOS)

Call related signaling over a D (Data) channel that takes the form of a set of standard messages rather than bit signals. Used with ISDN.

MIA Distribution

See **Most Idle Agent Distribution**.

Modem Pooling

A feature that provides shared "conversion resources" (modems plus data modules) for cost-effective access to analog facilities by data terminals. When needed, a conversion resource is inserted into the path of a data call. This feature serves both outgoing and incoming calls.

Modular Trunk Data Module (MTDM)

A digital interface device that provides the interface for Digital Communications Protocol (DCP) connections to trunk facilities. It is used between off-premises private line trunk facilities and the System 85 switch, and for connections to DDD modems as the DCP member of a Modem Pooling conversion resource. The MTDM provides conversion between the RS-232C protocol and the DCP protocol (see also Trunk Data Module).

Most Idle Agent (MIA) Distribution

A call-distribution routine provided by the Automatic Call Distribution (ACD) feature that distributes an ACD call to the "most idle" agent. An available agent who has not been active on an ACD call for the longest time is considered the most idle agent.

Multiappearance Voice Terminal

A terminal equipped with several appearance buttons for the same extension number. This allows the user to handle more than one call, on the same extension number, at the same time. The multiappearance voice terminals include: Models 7203H, 7205H, 7303S, 7305S, 7401D, 7403D, 7404D, 7405D, 7406D, 7407D, 7410D, 7505B, 7506B, 7507B, 510D, 515 BCT, and CallMaster.

Multibutton Voice Terminal

A terminal equipped with multiple buttons to access and cancel features. These buttons can be either feature buttons or Abbreviated Dialing buttons (using access codes as the stored numbers). The multibutton voice terminals include: Models 7103A Fixed Feature, 7103A Programmable, 7203H, 7205H, 7303S, 7305S, 7401D, 7403D, 7404D, 7405D, 7406D, 7407D, 7410D, 7505B, 7506B, 7507B, 510D, 515 BCT, and CallMaster.

Multidigit Steering

A form of Extension Number Steering. This form of Main/Satellite steering uses two or more digits to route a call to the appropriate switch. The call is then routed to its final destination.

Multiple Call Handling

A function of the ACD feature that is primarily intended for Message Center agents. Multiple call handling, when assigned to a split, allows an ACD agent to place a call on hold (using the HOLD button) and remain available to receive ACD calls.

Multiplexer

A device for simultaneous transmission of two or more signals over a common transmission medium.

Multipoint Configuration

An arrangement used with ISDN that allows different terminals to be connected to the same B channel at the same time.

Network

Two or more interconnected switching systems.

Network Channel

See DCIU Network Channel.

Network Control Point (NCP)

The remote computer (usually a 3B20) that, in response to a routing query from an Action Control Point (ACP), returns routing instructions to the ACP for SDN calls. The NCP contains the customized data base for an SDN customer that specifies routing options and the correct point of egress from the AT&T Switched Network.

Network Specific Facilities (NSF) IE

An ISDN information element used to request features or service or to obtain information from the transit network. The NSF IE is part of the ISDN call setup message.

Network Trunk

Field 3 of Procedure 103. Assigning a "1" in this field gives certain capabilities to a trunk group. For example, the Network Trunk field must be assigned to apply ARS subnetwork trunking to an outgoing trunk group. The Network Trunk field must be assigned to each outgoing DCS trunk group. Otherwise, DCS calls will fail. Also, the Network Trunk field must be assigned to an incoming ETN trunk group so that, when necessary, the AAR feature can tandem calls.

Node

A switching or control point for a network. Nodes are either tandem (receive signals and pass them on) or terminal (originate or terminate a transmission path).

Nodal Main

A private switching system with direct or bypass access to one or more of the AT&T Communications services through a service node in the AT&T Switched Network [e.g., ACCUNET Service, MEGACOM WATS Service, MEGACOM WATS 800 Service, and Software Defined Network (SDN)]. Usually, in this manual, nodal mains are given more specific names according to the specific service accessed (e.g., ACCUNET main).

Nonanalog Voice Terminals

Hybrid and digital voice terminals.

Noncircuit Call

Refers to ISDN D-channel message traffic that is not call related. These messages carry maintenance and management type information between switches.

Numbering Plan Area (NPA)

A geographic division within which telephone numbers are assigned to a common public network area code. Another name for NPA is area code.

Observer

A person who is allowed to monitor the call-handling activity of ACD agents. The service observing and/or agent override functions provide this capability. Often, split supervisors observe an agent's performance for training purposes. During training, inexperienced agents can also benefit by observing experienced agents handle difficult calls. To maintain courteous and efficient handling of calls, observers (outside the split) can also be appointed to evaluate the ongoing performance of agents.

Occurrence

A point of access to an extension (also known as an appearance). Using a multiappearance voice terminal, an extension can be manually accessed by pressing a button on the voice terminal labeled with an extension number. Indicator (status) lamps next to the button light when a terminal user places calls, receives calls, or places a call on hold.

Octet

The international (CCITT) term for an 8-bit data element. Equivalent to the term "byte" more commonly used in the United States.

Off-Hook

A term signifying that the voice terminal handset has been lifted.

On-Hook

A term signifying that the voice terminal handset has been replaced on the switchhook (hung up).

Opcode (Operation Code)

In some CDR record formats, a 4-bit (1-cell) code placed in the left-most cell position of each word. Certain CDR peripherals use the opcode as an end-of-record identifier.

Originating (Only) Appearance

One of the two kinds of appearances assigned in Procedure 052, Word 1: terminating/originating and originating (only). An originating (only) appearance of (or, point of access to) an extension is reserved for placing calls.

Normally, calls placed to an extension are not allowed to terminate to an originating (only) appearance. For most of these calls (without some type of redirection active), the switch returns busy tone to the calling party when every terminating/originating appearance is busy. However, priority calls and override calls *can terminate* to originating (only) appearances. With Priority Calling, this operation is considered preferable to returning busy tone for an important call. With Override, this operation is considered preferable to an unnecessary entry into an active appearance.

Originating Register

A temporary software record that contains necessary information for System 85 call processing.

Overflow Partition

An attendant partition that is assigned in Procedure 270, Word 2 to receive excess incoming calls from another attendant partition. Any attendant partition (from 0 to 40) can be assigned as an overflow partition in a partitioned System 85.

Overload Balancing

The diversion of calls from an ACD split to another node of the network (also known as Interflow).

Packet

As used in data communications, a packet is a group of bits including a message element (data) and control information element (header) that is used in packet switching and transmitted as a discrete unit. Within each packet, the message elements and control information elements are arranged in a specified format. In many systems, the packet is further encapsulated with additional header and trailer elements to form what is called a "frame."

Packet Switching

A digital transmission technique that sends addressed packets over logical circuits or channels multiplexed onto a common carrier medium. Packet switching is designed to make more efficient use of high speed carriers by multiplexing or sharing these facilities between multiple users and applications. When properly implemented, packets or frames travel on the shared carrier, with each packet being separate and independent from the packet that precedes it or follows it.

A protocol is used that ensures proper sequencing of delivered packets at a common destination, and addressing is used in a header element to distinguish between multiple destinations on the common carrier. The international standard for packet switching is the CCITT X.25 protocol. The BX.25 protocol is the AT&T implementation of X.25. AT&T commonly uses the BX.25 protocol for internal communications between digital control elements of AT&T systems.

Paging Trunk

A telecommunications channel used for accessing an amplifier (loudspeaker paging).

Parallel Trunk Groups

Two or more trunk groups (each with a different trunk type) that interconnect the same two switches. In a parallel trunk-group arrangement, each trunk group is used for a different feature application or for a different call-routing strategy. A common example of parallel trunk groups might be DDD, WATS, and Personal CO Line trunk groups between a System 85 and the same CO. A less common example might be an intertandem tie-trunk group and a Main/Satellite trunk group connecting the same two System 85s in a private network.

Partition

To separate or divide a switch into discrete functional parts.

Party Test

An electrical test most often used by some older COs (Central Offices) to determine which party on a party line is placing a toll call. Since the CO's party test would look like "disconnect supervision" to the System 85, trunk groups can be assigned to ignore the party test. This is done by assigning a "party test" trunk type to a trunk group that accesses the Local Exchange Carrier (LEC). These trunk types include Trunk Types 18, 20, 23, 25, and 28.

Since the party-test signaling process consumes call-processing time on an outgoing call, these trunk types should only be used when the serving CO *requires* that they be used.

Passive Bus

A term used with ISDN to identify a B channel that is administered to allow a multipoint terminal configuration.

Permanent Seizure

In trunk signaling, a trunk state in which the distant switch seizes a trunk but does not respond to normal signaling (disconnect supervision) or is maintenance busied out.

Permanent Virtual Circuit (PVC)

A fixed network channel assigned for communications between two DCIUs. A permanently dedicated (administered) circuit communicating between two DCIU ports.

Pickup Group

A group of individuals authorized to answer any call directed to a voice terminal extension number within the group.

Ping Ring

See Ring Ping.

Port

A point of access to the system or to a computer that uses trunks or lines for transmitting or receiving voice or data.

Precedence Ringback Tone

An attribute of the Precedence Calling feature. This ringback tone has the same component frequencies as standard ringback tone (440 + 480-hertz). However, the cycle of this ringback tone (approximately 1.65 seconds on and 0.35 seconds off) is considerably faster than the standard-ringback cycle.

Precedence Warning Tone

An attribute of the Precedence Calling feature. The System 85 switch applies this 440 + 620-hertz tone to a connection that is about to be preempted.

Precursor Tone

A special function tone used with the Remote Access feature on selected long distance trunks to perform echo suppressor control. The precursor tone is a high pitched (2220-hertz) tone that lasts for 0.4 seconds and precedes standard dial tone. It is used during the call-setup dialing sequence on certain Remote Access trunk connections where transmission distances are likely to exceed 1200 miles.

Prefix

Any digit dialed before the destination code. Prefixes are used to place a destination code in proper context, to indicate service options, or both.

Primary Covering User

The first answering position in a coverage path when a call is redirected to coverage.

Primary Rate Interface (PRI)

The switch interface to an ISDN, as specified by the CCITT. A 1.544 Mbps interface organized into 24 time slots of 64 Kbps each (23 bearer channels and 1 data channel). A specific adaptation of the DS1 signaling format.

Principal (User)

A person whose calls are redirected to a covering user.

Private Network

A network accessible exclusively by the customer for the handling of telecommunications needs.

Processor Data Module (PDM)

A device providing a DCE interface for connecting to data terminals, Application Processors, and host computers. It also provides a DCP interface for connection to the switch. It supports the downloading function of the Terminal Emulation feature between the AP and the 515 BCT. It provides protocol conversion between the RS-232C protocol and DCP.

Protocol

A set of conventions or rules mutually understood and accepted by the parties involved. Protocols are the rules governing format and timing of message exchanges to control data transfer and correction of errors.

Public Network

A network which is commonly accessible for local or long distance calling.

Queue

An ordered sequence of items (e.g., outgoing trunk calls, incoming ACD calls, or ACD agent positions) waiting to be processed.

Queue Directory Number (QDN)

The first associated extension number of an ACD split. A split's QDN is assigned in Procedure 026 Word 2. The QDN is also associated with the split supervisor's individual extension number in Procedure 001 Word 1.

Queue-Status Display

A function of the ACD and Call Vectoring features. When an ACD agent has a display terminal and the class-of-service assignment, information regarding the split's queue is provided to the agent on an automatic or on-demand basis. This information includes: the number of calls currently in the split's queue (ACD and Call Vectoring) and the amount of time the oldest queued call has waited (Call Vectoring).

Queuing

The process of placing calls in an ordered sequence. The Queuing feature orders outgoing calls that are waiting for an idle trunk. Whereas, the ACD feature places incoming calls in queue to wait for an idle agent.

Radio Paging Trunk

A telecommunications channel used to access paging transmitter equipment.

Random Access Memory (RAM)

A storage arrangement that permits information elements to be addressed directly, independent of the location of the information in storage. Also, commonly used as a misnomer for Read Write Memory that offers the same form of direct addressing.

Read Only Memory (ROM)

An electronic memory device that is permanently recorded during the manufacturing process. It provides protected memory storage with no provisions for erasing or writing over its contents.

Read Operation

The process of retrieving information from memory.

Ready Tone

A steady tone received when a data connection is ready for completion. Ready tone is also known as "carrier ready tone" or "data tone."

Recall Button

A standard button provided with many System 85 voice terminals. The functionality of the Recall button differs between single-appearance and multiappearance voice terminals. When the Recall button is provided on single-appearance terminals (i.e., 2500 and 7103A), the switch provides Recall Signaling (returns recall dial tone) when the Recall button is pressed during an active call. The Recall button on single-appearance terminals is also used with the Attendant Recall, Call Park, Conference—Attendant Six Party, Loudspeaker Paging Access, and Serial Calls features.

The Recall button has limited functionality on multiappearance terminals. This button is used with the Attendant Recall, Call Park Conference—Attendant Six Party, Loudspeaker Paging Access, and Serial Calls features. The Recall Signaling operation is not provided for multiappearance terminals. Instead, the Hold, Conference, and Transfer operations are performed using fixed

feature buttons provided with the voice terminal.

Recall Dial Tone

Confirmation tone followed by dial tone. The confirmation tone confirms acceptance of a requested feature and the dial tone allows subsequent dialing to proceed.

Redundant Switch

See **Duplicated Switch**.

Register

A short-term storage circuit having a capacity (usually) of one computer word.

Release Link Trunk (RLT)

A telecommunications channel used with Centralized Attendant Service to connect attendant-seeking calls from a branch location to the main location.

Remote Access Trunk

A telecommunications channel used by an authorized user to gain access to the system.

Remote Maintenance, Administration, and Traffic System (RMATS)

A centrally located system that can remotely provide maintenance, administration, and traffic (calls) measurement for the System 85 or other similar equipment.

Reorder Tone

Fast busy signal; indicates that the necessary facilities are busy. This tone also serves as the default form of Intercept Treatment for incoming calls from the public network.

Reverse Battery Supervision

A supervisory signal used by 1-way trunks that uses open and close signals from the originating end and reversals of battery and ground from the terminating end.

Ring Ping

An attribute of the Call Forwarding—Follow Me feature. Just before forwarding a call, System 85 applies ring ping, a quick burst of ringing (0.1 seconds), to remind the forwarding party that unconditional forwarding is in effect.

An attribute of the Send All Calls function of the Call Coverage feature. Just before unconditionally redirecting a call, System 85 can apply ring ping, a quick burst of ringing (0.1 seconds), to remind the principal that Send All Calls is in effect.

Ringback Queuing

The process by which a caller is placed in queue, hangs up, and is called back when an outgoing trunk becomes available.

Ringback Tone

Tone provided by the System 85 switch to confirm that the voice terminal on the other end of the line is ringing. The component frequencies of this tone are 440 and 480-hertz.

Ringling Cycle

Voice terminal ringing followed by the silence before the next ring. The duration of a ringing cycle is approximately 5.2 seconds (1.2 seconds of ringing and 4.0 seconds of silence). Before redirecting calls that are placed to an unanswered voice terminal, System 85 counts these ringing cycles as a way of timing the don't answer condition.

RNX

The location code for a private network switch, where R equals any digit 2 through 9 except the CDR account-code prefix, N equals any digit 2 through 9, and X equals any digit 0 through 9.

Route Advance

A telecommunications routine that routes outgoing calls over alternate facilities when the first choice trunk group is busy.

Routing Tables

Another term for "Call Vectoring" that is used by some other ACD vendors. Call Vectoring (or the similar concept, Routing Tables) provides an enhanced method of defining calling-party interfaces for incoming calls (usually incoming ACD calls). Throughout this manual, the term "Call Vectoring" is used in preference to "Routing Tables."

S-Channel Data Transmission

A channel used for communicating control signals between the System 85 and a data module.

Satellite

An orbiting telecommunications transceiver that provides long-distance transmission (usually using the microwave transmission medium).

Satellite Hop Count

The number of orbiting transceivers that have already been used in connecting a call to its destination. This information is sent with the call as a Traveling Class Mark (TCM).

Satellite Location

An unattended location in a Main/Satellite/Tributary complex that has the same listed directory number as the main switch and accesses the public and private network through the main.

Satellite Partition

An extension partition in a partitioned switch that also serves as a satellite location in a Main/Satellite configuration. This capability allows a partitioned System 85 to act as an endpoint in a tenant's private network.

SDN

See **Software Defined Network**.

Serial Data

Data bits that are transmitted or processed sequentially, one bit after the other.

Shared Extension

An extension with more than one image (bridged appearance) of an appearance. System 85 recognizes two functional types of shared extensions: shared extensions with *only one* appearance and shared extensions with *more than one* appearance. Straight line sets can participate in both types of shared extensions.

Short-Holding Time

A time limit set for internal calls when the Automatic Circuit Assurance feature is activated so that faulty lines can be detected.

Sidetone

The portion of a voice signal that is extracted from a telephone user's voice transmission and is returned to the receiver of the same telephone. Sidetone assures the telephone user that the telephone is working properly and helps the user adjust the volume of his/her speech.

Simplex

A data transmission system that allows data to travel in only one direction at a time.

Single-Appearance Voice Terminal

A voice terminal that can support only one appearance of its extension. The single-appearance voice terminals include: Models 2500, 7101A, 7102A, and 7103A.

SLS

See **Straight Line Set**.

Soft Hold

One of the two forms of hold. In that soft held calls can be lost in certain situations, soft hold is less durable than hard hold. Soft hold is only available on single-appearance voice terminals.

Soft Processor Swap

An attribute of a duplicated System 85. During a "soft swap," the switch gracefully shifts control from one processor to the other "healthier" processor. Since the current call-status information is transferred to the new processor, soft processor swaps are usually not noticed by users. (See also **Hard Processor Swap**.)

Software

A set of computer instructions that accomplish one or more tasks.

Software Defined Network

An AT&T Communications service that provides *virtual* private-network routing through the AT&T Switched Network. Using this service, an ETN tandem (or an intelligent ETN main) in a customer's private network delivers seven private-network digits (RNX + XXXX) to a serving 4 ESS over a direct- or bypass-access trunk group. In turn, the serving 4 ESS [under the control of an Network Control Point (NCP)] routes the call to a specific receiving 4 ESS. At this time, the receiving 4 ESS delivers (again with direct or bypass access) the seven digits to another private-network AAR switch where the rest of the routing proceeds.

Special Access

See **Direct or Switched Access**.

Special Dial Tone

See **Recall Dial Tone**.

Special Loop Start Trunk Types

The System 85 trunk types assigned as Type 316 to 350 in Procedure 100, Word 1. This set of System 85 DS1 trunk types is primarily intended for disaster preparedness. However, these trunk types can also be used by a System 85 to communicate with some older COs [equipped with D4 channel bank(s)] that do not use ground start signaling. Since the ground start signaling protocol offers enhanced capabilities over loop start, ground start is the signaling protocol of choice whenever this protocol is supported by the serving CO.

Split

A group of agents (group members) organized to receive calls in an efficient and cost-effective manner. This terminology is generally used in relation with the ACD feature.

Split Number

Sixty ACD splits can be assigned to the system. In Procedure 026, Word 1, the "split number" (a number between 1 and 60) is used to uniquely identify the individual splits. These same split numbers are used in Procedure 011, Word 1 to specify an ACD split that is used as the final point in a coverage path.

Split Supervisor

The first member of an ACD split. Usually an experienced agent who trains new agents, serves as a consultant to the split, and regulates the operation of the split.

Splitting

Separating a caller from an existing connection. Used for attendant call handling.

Stable Call

A call that has already been "set up" by call processing. Stable voice calls are in a steady talking condition. Stable data calls have finished the "hand-shaking" process.

Stage One Dialing

Stage One Dialing used with the ISN Interface feature when placing a call from the ISN to (or through) the System 85. This is done from an ISN terminal (Keyboard Dialing) by entering both the interface access code and the destination address on a single line.

Stage Two Dialing

Stage Two Dialing used with the ISN Interface feature when placing a call from the ISN to (or through) the System 85. Similar to one stage dialing (above) except that the interface access code and the destination code are each entered separately, on separate lines, in response to separate dial prompts (one from the ISN and the second from the System 85).

Station Identification (SID)/Automatic Number Identification (ANI)

An attribute of the ISDN feature that delivers a calling party's number to the called party for an ISDN call. A SID is the calling party's number provided by the calling party and contained in the Calling-Party Number IE of a SETUP message. Whereas, an ANI is the calling party's billing number either stored at the calling party's serving switch or stored within an Interexchange Carrier's network.

At service provisioning, an ISDN customer can choose whether to subscribe to SID/ANI. For those who do subscribe, there are two service alternatives.

1. SID/ANI provided to called party whenever available
2. SID/ANI provided to called party upon request.

Within each of the previous two categories, an ISDN customer also specifies which number (either SID or ANI) is preferred. This decision can be made in one of four ways.

1. First SID, then ANI (if SID not available)
2. First ANI, then SID (if ANI not available)
3. SID only
4. ANI only.

For the initial implementation of ISDN—PRI, the network does not specify which number the called party is receiving. This can produce ambiguity when the calling party has specified that *either* the SID or ANI number can be transmitted.

Station Message Detail Recording (SMDR)

A service that records detailed call information on incoming and outgoing calls, and associates these calls with account codes.

Statistical Multiplexing

A form of time-division multiplexing.

Status Information

Data that defines the current state of call processing within a switching system. In a duplicated switch, status information is transferred to the healthier processor during a soft processor swap. However, during a hard processor swap, status information is lost.

Status Lamp

An indicator lamp showing the status of an appearance by the state of the lamp (lighted, flashing, fluttering, or dark).

Stored Program Control

Software programs controlling system operation.

Straight Line Set (SLS)

A single-appearance voice terminal that *appears* to System 85 as a multiappearance voice terminal. Whenever single-appearance voice terminals are used as *signaling* terminals, the Terminal Busy Indication feature requires that these voice terminals are administered as straight line sets. Also, whenever single-appearance voice terminals are given bridging capabilities, the Bridged Call feature requires that these voice terminals are administered as straight line sets.

Subscriber

A voice terminal user who is authorized to access the AUDIX system to send and recover messages.

Subnetwork Trunking

Also referred to as Subnet Trunking. This is a technique used with intelligent switches that routes a call based on the destination rather than a fixed path. This process is usually dynamic in that call routing can be changed after the call has left its point of origin. Features that use this technique include AAR, ARS, and Extension Number Portability.

Subtending

A subtending switch is a lower-order switching system in the network hierarchy.

Switch

The System 85 switching system; usually used to refer to the System 85 as distinguished from the local adjuncts (e.g., APs and AUDIX adjuncts).

Switch Administrator

An executive responsible for specifying features and/or services available to users of the switch.

Switched Access

A method of connecting to public telecommunications facilities whereby a customer (terminal or PBX) is provided with indirect physical connections to a long-distance carrier that employ dynamically *switched* connections through the local exchange carrier (LEC).

Switched Loop Operation

An automatic system in which an incoming call is switched to an idle loop on an available attendant console.

Switchhook

The button(s) on a voice terminal that are located under the handset.

Synchronous Data Transmission

Transmission in which the data characters and bits are transmitted at a fixed rate with the transmitter and receiver synchronized (same clock). This method of transmission eliminates the need for start-stop elements and provides greater efficiency. For comparison see *Asynchronous Data Transmission*.

System Administrator

An executive responsible for specifying features and/or services available to system users.

System Status Indicator (SSI)

A lamp on an SSI panel that indicates the busy/idle condition of a Release Link Trunk. System Status Indicators can also monitor the queue warning status for ACD splits.

Tail-End Hop Off

An ARS call-routing attribute of ETN main and tandem switches. Using tail-end hop off, a main or a tandem routes a public-network call part of the way over private-network trunk facilities instead of initially routing the call over public-network trunk facilities.

As a tail-end hop off call begins, the ARS patterns at a main switch contain access tie trunks to the higher-level tandem switch, and ARS patterns at the tandem contain intertandem tie trunks to other tandems. At either the main or tandem, the 10-digit NPA-NXX-XXXX is outputted over the tie trunk. [Tandems also attach the TCM(s) to this 10-digit number.] The receiving tandem recognizes these digits as a *public-network* number. Then, based on its own ARS pattern, this tandem either routes the call to another tandem or allows the call to "hop-off" the private network to public-network facilities.

Two reasons the receiving tandem can elect to route the call to another tandem include:

- The new tandem is *closer* to the public-network destination.
- The new tandem is located in a time zone where lower long-distance rates are currently in effect.

Tandem Access Avoidance (TAA)

See **Tandem Routing Efficiency**.

Tandem Node

In a network, a node (switch) in the network that receives signals from one switch and passes these signals on to another switch. An intervening switch between the origin and destination switch in a network.

Tandem Tie Trunk Network (TTTN)

A private network where several customer switching systems are interconnected by dial repeating tie trunks.

Tandeming

The act or process of passing a signal through a network node.

Tandeming Switch

For Look-Ahead Interflow, a private-network switch (with Look-Ahead Interflow assigned) that first accepts and receives a Look-Ahead Interflow call from the sending switch. Then, based on the vector programming within in its receiving vector, this switch decides to interflow the same call on a look-ahead basis to another receiving switch.

Terminal Equipment Location (TEL)

The hardware coordinates for the physical location of circuits on the switch that support a specific terminal; most specifically a voice terminal. *Synonym:* Equipment Line Location (ELL).

TCM

See **Traveling Class Mark**.

Temporary Bridged Appearance

A function of the Call Coverage feature. This function allows a principal with a multiappearance terminal or a straight line set to bridge onto a coverage call by going off-hook on the appearance that was redirected to coverage. (A temporary bridged appearance is also known as a "simulated bridged appearance.")

Terminating/Originating Appearance

One of the two kinds of appearances assigned in Procedure 052, Word 1: terminating/originating and originating (only). When a terminating/originating appearance is idle, calls can either be received or placed using the appearance.

Tie Trunk

A telecommunications channel connecting two switching systems within the *private* network. This term is used in this manual for private network trunks only. Public network trunks are referred to by the public network function (i.e., CO trunks, FX trunks, toll trunks, etc).

Time-Division Multiplexing

A type of multiplexing that divides the transmission channel into successive time slots.

Time Multiplexed Switch (TMS)

A time-shared digital space switch that interconnects modules in a multimodule System 85.

Time Slot Interchanger (TSI)

A processor that operates under the control of the Module Processor. The TSI performs the switching, digital attenuation, and conferencing functions for the switching network. A maximum of 256 simultaneous port-to-port connections can be supported by the TSI.

Timed Reminder Tone

A 1950-hertz tone provided by System 85 as part of the Timed Reminder feature. This tone is provided to remind an attendant that a call has been waiting or held on the console for longer than 30 seconds.

Toll Table

An attribute of the ARS feature. A toll table is a software array (assigned in Procedure 309, Word 2) that identifies the local and toll office codes corresponding to the serving CO for a particular ARS preference. (By default, unidentified office codes are considered *toll* office codes.)

Tone Detector

An SN255 circuit (identified as Trunk Type 100) that detects call-progress tones for and provides signals to the System 85 during Modem Pooling calls and DS1 calls.

Traffic

The flow of voice and data communications through a switching system.

Transfer Rate of Information Bits (TRIB)

The number of intelligence (information not control and signaling) bits passing a given point in the data stream per second. If 64,000 bits per second are transmitted and 8,000 of those bits are control and signaling bits, the TRIB rate is 56,000 bps.

Transient Condition

A constituent part of call processing on System 85 that quickly passes into and out of existence (also referred to as a "transient state"). The following are examples of transient conditions: a line is ringing; a line is in a dialing state (dialing, hearing dial tone, etc.); the line is receiving Call Waiting, Attendant Call Waiting, or Priority Calling tones; a line is receiving busy, intercept, reorder, or ringback tone.

Translation Information

Tabular data that defines durable (but changeable) criteria for the switch. These criteria include feature options, trunk and line addresses, button assignments, extension numbers, dial access codes, and some feature activations within a switching system. In a duplicated switch, translation information is stored and updated in both switch processors.

Travelling Class Mark (TCM)

Information sent to a distant switch with the outpulsed digits. One type of TCM provides the facility restriction level (FRL) to a distant switch to determine if access to a particular route will be permitted. Another type sends the Satellite Hop Count to a distant switch.

TRE

See **Tandem Routing Efficiency**.

Tributary Location

An attended location in a Main/Satellite/Tributary complex that has an unique listed directory number and accesses the public and private network directly or through the main switch.

Trunk

A communications channel between two switching systems.

Trunk Data Module (TDM)

A digital interface device that provides the interface for Digital Communications Protocol (DCP) connections to trunk facilities. It is used between off-premises private line trunk facilities and the System 85 switch, and for connections to DDD modems as the DCP member of a Modem Pooling conversion resource. The TDM provides conversion between the RS-232C protocol and the DCP protocol.

Trunk Group

Telecommunications channels assigned as a group for certain functions.

Trunk Group-Oriented Routing

A method of routing calls into the System 85 switch. Using trunk group-oriented routing, a call is recognized by the serving switch (usually, the serving CO) as a call that is routed to the local System 85 over a specific trunk group. In turn, the local System 85 accepts the call from over the trunk group, and recognizes that the call completes to a specific destination (e.g., the attendant queue, an ACD split, or a VDN).

Trunk Port

The hardware providing an access point to the switch network for each circuit associated with a trunk.

UNIX® Operating System

A versatile time-sharing software operating system for data processing equipment.

Universal Attendant Code

The digits "0111" used for routing calls to an attendant serving a different ETN switch. An ETN tandem recognizes the digit string "RNX + 0111" as an attendant-seeking call destined for the ETN switch identified by the dialed RNX. To continue routing the call, the ETN tandem's AAR pattern can either select a private-network trunk group or, with proper subnetwork trunking assignments, overflow the attendant-seeking call to the public network.

Unmeasured Agent

A member of an ACD split whose activity is not measured by Call Management System (CMS).

Unmeasured Split

A group of ACD agents whose activity is not measured by Call Management System (CMS).

Unstable Condition

See **Transient Condition**.

Vector

An attribute of the Call Vectoring feature. A vector is comprised of a discrete set of predefined call-processing steps that specifies a way of treating certain incoming calls.

Vector Directory Number (VDN)

A "soft" extension number that is assigned an internal line number (but not assigned to an equipment location). A vector is assigned to a VDN (or group of VDNs) to specify the call-processing sequence according to the dialed number. Each VDN can be included as part of a published number for public access to a vector's call-processing sequence.

Virtual Circuit

The entire path between two end processors, which may consist of more than one communications link. In the DCIU application, the term "data path" is used instead of virtual circuit.

Voice Coupler

An electrical isolation device used for passing audio signals into a system.

Voice Terminal

A single-appearance or multiappearance telephone.

Warning Tone

A tone applied by System 85 to provide a caution to users of the switch. System 85 can return warning tone when a call would unexpectedly route over higher-cost toll facilities. The features where the switch is able to provide this type of warning tone include: Automatic Alternate Routing (AAR) and Automatic Route Selection (ARS). Another type of warning tone, also called "intrusion tone," is applied to caution talking parties to the presence of an unexpected party within the connection. The features where the switch is able to provide this type of warning tone include: Automatic Call Distribution (ACD), Busy Verification of Lines, Override, Trunk Verification—Attendant, and Trunk Verification—Voice Terminal.

WATS Trunk

A telecommunications channel used to place a WATS call.

Wide Area Telecommunications Service (WATS)

A service that allows users to place toll calls for a flat monthly charge. Specific charges are based on the size of the calling area (WATS band) and on the amount of expected usage.

Wink Start Signaling

A trunk-signaling protocol that uses a "wink" (on-hook to off-hook and return to on-hook) that lasts from 0.14 to 0.29 seconds to indicate that the receiving (far end) switch is ready to receive digits.

Work-Related Call

Calling activity by an ACD agent that serves to remove the agent from the agent queue. When outgoing calling is deemed to be work related, removal of the agent from the queue can be provided for outgoing calling.

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