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Switch Administration for

AUDIX® Voice Messaging

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Comments

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Acknowledgment

This document was prepared by the AT&T Product Documentation Development Department, Denver, CO 80234-2703.

Contents

LIST OF FIGURES

LIST OF TABLES

About This Document

This document describes the steps required to administer a switch to make AUDIX Voice Messaging System service available. Only procedures for AT&T PBX switches are covered in this document.

NOTE

Administration for 1A ESS and 5ESS switches, DMS-100, SL-100, or other non-AT&T PBXs is typically performed by the local operating company, PBX vendor, or customer. See *AUDIX Installation* (585-305-105) or the appropriate Integration Package document listed under *Related Resources* in this chapter for further information.

INTENDED AUDIENCES

This document is intended for AUDIX system administrators and for local and remote AT&T services support personnel.

PREREQUISITE SKILLS AND KNOWLEDGE

Users of this document should have a working knowledge of switch administration procedures and the appropriate administration tools as listed in the following table. If you need further assistance, see the appropriate switch documentation.

Switch	Administration Tool
DEFINITY Generic 1	System Management Terminal (previously known as Manager I)
DEFINITY Generic 2	Manager II, Manager III, Manager IV
DEFINITY Generic 3	DEFINITY Communications System Generic 3 Management Terminal (previously known as the System Access Terminal and is compatible with all earlier switches)
System 75 or 75 XE	DEFINITY Communications System Generic 3 Management Terminal Centralized System Management

(Continued)

Switch	Administration Tool
System 85	Maintenance and Administration Panel (MAAP) System Management Terminal (SMT) Centralized System Management (CSM)
System 85 (R2V4)	Visual Maintenance and Administration Panel (VMAAP)
DIMENSION PBX	Maintenance and Administration Panel (MAAP) Centralized System Management (CSM)

HOW THIS DOCUMENT IS ORGANIZED

This document is organized as follows:

- Chapter 1, *Generic 3i, Generic 3s, or Generic 3r*, describes the procedures required to administer a DEFINITY Communications System Generic 3i, DEFINITY Communications System Generic 3s, or DEFINITY Communications System Generic 3r to work with the AUDIX system.
- Chapter 2, *Generic 1, System 75, or System 75 XE*, describes the procedures required to administer a DEFINITY Communications System Generic 1, System 75, or System 75 XE to work with the AUDIX system.
- Chapter 3, *Generic 2 or System 85*, describes the procedures required to administer a System 85 or DEFINITY Communications System Generic 2 to work with the AUDIX system.
- Chapter 4, *DIMENSION PBX*, describes the procedures required to administer a DIMENSION PBX to work with the AUDIX system.
- Chapter 5, *AUDIX Standalone System*, describes the requirements needed to administer a switch to work with an AUDIX Standalone System.
- *Abbreviations* provides a list of abbreviations and acronyms.
- *Glossary* provides a glossary of important terms.
- An index also is included in this document.

HOW TO USE THIS DOCUMENT

To use this document, locate the chapter containing the information on administering the switch to which the AUDIX system is connected. Required administration is covered first. Afterwards, page through the chapter or use the Table of Contents to locate additional features which may need to be administered on your particular AUDIX system.

CONVENTIONS USED IN THIS DOCUMENT

The following typographic conventions are used in this document:

- Terminal keys that you press are shown in curved-edge boxes. For example, an instruction to press the return, carriage return, or equivalent key is shown in this book as:

  Press RETURN.

- Information displayed on your terminal screen—including screen displays, field names, prompts, and error messages—is shown in constant-width type. Information you enter from your keyboard is shown in constant-width bold type. For example:

  At the `login?` prompt, enter **`513`**

- Variables that the system supplies are shown in italic type. For example, an error message displayed on the screen with one of your specific filenames is shown as:

  `Your file` *<filename>* `is formatted incorrectly`.

- Optional steps or steps dependent on software loads are shown in **bold**. For example:

  For R2V2, enter **`3`** in Field 8.

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The following trademarked products are mentioned in this document:

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- 5ESS® Switch is a registered trademark of AT&T.
- AUDIX® System is a registered trademark of AT&T.
- DATAPHONE® is a registered trademark/service mark of AT&T.
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RELATED RESOURCES

Because this document supports more than one release of AUDIX software, refer to the *AUDIX Documentation Guide* (585-300-010) for a more detailed list showing which documents to order for a specific release (R1V5 through R1V8) of AUDIX software. Useful documents include:

- *GBCS Products Security Handbook* (555-025-600) — For more information on AUDIX system security, including switch administration.
- *AUDIX Administration* (585-305-501) — For information on administering the AUDIX system.
- *AUDIX Feature Descriptions* (585-305-203) — For a detailed description of all AUDIX features.
- *AUDIX Integration Package for the DMS-100 Switch* (585-304-204) — For administration, reference, installation, and maintenance information on the DMS-100 switch integration.
- *AUDIX Integration Package for the SL-1 Switch* (585-304-203) — For administration, reference, installation, and maintenance information on the SL-1 switch integration.
- *AUDIX Installation* (585-305-105) — For installation procedures and initial AUDIX administration.
- *AUDIX Maintenance for Tier I* (585-305-106) — For maintenance procedures for on-site technicians.
- *AUDIX Networking* (585-300-903) — For administering and testing an AUDIX network.
- *AUDIX Planning and Implementation* (585-300-901) — For the steps required to plan and implement an AUDIX system, including gathering information needed to administer the switch.
- *AUDIX Upgrade Instructions* (585-302-108) — For information when upgrading your AUDIX system to the latest software release.
- *AUDIX Release 1 Version 8 Forms Reference* (585-305-209) — For information on using the R1V8 AUDIX system forms. See the appropriate forms reference manual if your system is running a different version of AUDIX software.
- *AUDIX System Description* (585-305-201) — For information on configuration, switch connectivity, hardware, power, environment, and other pre-installation considerations.

HOW TO MAKE COMMENTS ABOUT THIS DOCUMENT

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Product Documentation Development Department
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11900 North Pecos Street
Denver, Colorado 80234

1. Generic 3i, Generic 3s, or Generic 3r

This chapter describes how to administer an AUDIX system on a Generic 3i, Generic 3s, or Generic 3r. For information about what equipment is required on a Generic 3 switch to work with an AUDIX system, refer to the *AUDIX System Description* (585-305-201).

A Generic 3i, Generic 3s, or Generic 3r is administered with a DEFINITY Communications System Generic 3 Management Terminal, Centralized System Management (CSM), or System Management Terminal (previously known as Manager I). See the *Business Communications Systems Publications Catalog* (555-000-010) for a list of the appropriate switch documentation if you need further assistance on how to use these administration tools.

NOTE

AUDIX system translations and the switch translations [described in *DEFINITY Communications System Generic 3r Implementation* (555-230-651)] must be coordinated to ensure proper operation. To help coordinate assignments and aid in troubleshooting, the Interface Link number associated with each logical link should match AUDIX system port numbers on all AUDIX forms.

General administration is performed first on the host and, if a network is present, the remote switch. If an AUDIX Network is used, DCS administration is performed next. Finally, general administration is performed on each remote switch. After general administration is complete, optional features can be administered on these switches.

Whether or not an AUDIX Network is used, general host-switch administration is always performed first. (A host switch is the switch whose voice ports are directly connected to the AUDIX system.) If an AUDIX Network is used, networking translations are then performed on the host switch and finally the remote switch is administered. There are two possible AUDIX Network configurations:

- An AUDIX system in a DCS configuration via BX.25 Data Channels — An AUDIX system connected to a switch can support other switches (remote) in a DCS network. One AUDIX system can be used to support up to 20 switches in a DCS network. A remote switch does not have a direct data link connection to the AUDIX system; it passes its data through the host switch via a channel over the DCS BX.25 data link. The AUDIX system on the host switch has separately administered channels to each of the supported remote switches. These are connected to remote switches through hop channels provided by the host switch. The host switch then provides the voice port and AUDIX system connections. All AUDIX features can be activated from a host or remote switch.

  The remote AUDIX hunt group can be a coverage point in a call coverage path at a remote switch not connected directly to the AUDIX system. The remote switch must be in the DCS network.

- An AUDIX system in a DCS configuration via ISDN-PRI D-channel — (Also known as ISDN-PRI D-channel DCS AUDIX feature.) This feature still uses BX.25 connectivity between the AUDIX system and host switch. The ISDN-PRI connectivity is used between the host switch and remote switches in the DCS network. The feature requires the same hardware as the DCS Over ISDN-PRI D-channel feature.

  AUDIX system messages are transported to the remote switch via administered non-call-associated temporary signaling connections (NCA-TSCs) between nodes supporting the ISDN-PRI D-channel

DCS AUDIX feature. An administered NCA-TSC is a NCA-TSC that is established between two administered NCA-TSC endpoints on two different PBXs and will be up or enabled for a period of time depending on administered translations. The connection may be administered on an *as-needed* or *permanent* basis.

These same configurations are available on the remote switch. Each of these configurations is described in this section. For additional information on administering the switch for AUDIX Networking, see *AUDIX Networking* (585-300-903). For detailed examples of DCS and AUDIX networking for Generic 3r in the following configurations, see *DEFINITY Communications System Generic 3r Implementation* (555-230-651):

- Traditional DCS network example
- D-channel DCS network example (private network only)
- D-channel DCS network example (public network access/egress)
- Integrated DCS network example (private network only)
- Integrated DCS network example (public network access)

GENERAL ADMINISTRATION (HOST SWITCH)

This section contains step-by-step procedures to administer an AUDIX system on a Generic 3i, Generic 3s, or Generic 3r host. Whether or not an AUDIX Network is used, general host-switch administration is the same and always performed first.

Assign the Adjunct Names (Generic 3r)

For Generic 3r, you can have multiple AUDIX systems (adjuncts). You will identify the names given to each of the eight possible adjuncts used with the AUDIX system. Select names that logically describe the function of the adjunct (such as `audix1` and `audix2`).

1. Enter **`change adjunct-names`**
2. Assign names to the AUDIX system adjuncts in the `AUDIX Name` fields.

NOTE

This same name must be entered in the `AUDIX Name` field on the following forms:

- `add hunt-group`
- `change communication-interface processor-channels`
- `add station`
- `change signaling-group`
- `add term-ext group`
- `add vector-directory-number`

Assign the Data Link

The data link is the connection from the AUDIX system cabinet to the switch that enables nonvoice (data) messages to pass between the AUDIX system and the switch.

Generic 3i and Generic 3s

The AUDIX system is connected to a Generic 3i or Generic 3s through the TN765 PI circuit pack. This board has one Electronic Industries Association (EIA) port which allows direct access to one of its four data links. In this configuration, the data link is cabled through an Isolating Data Interface (IDI). An IDI configuration (switch port to AUDIX port) allows the AUDIX system to be up to 400 feet away from the switch. A typical IDI configuration is shown in Figure 1-1.

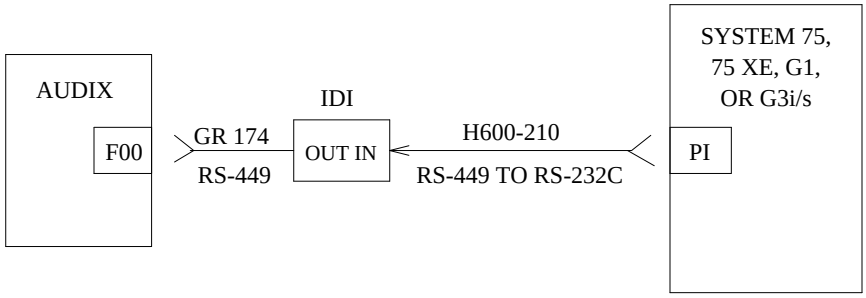


Figure 1-1. Typical Generic 3i/Generic 3s IDI Data Link Configuration

To extend the distance of the AUDIX system from the switch to up to 5,000 feet, a Generic 3i or a Generic 3s may use a Modular Processor Data Module (MPDM) or a pair of Data Service Units (DSUs) between the EIA port and the AUDIX port. The DSUs must operate in synchronous mode and provide clocking. Typical DSU and MPDM configurations are shown in Figures 1-2 and 1-3 respectively.

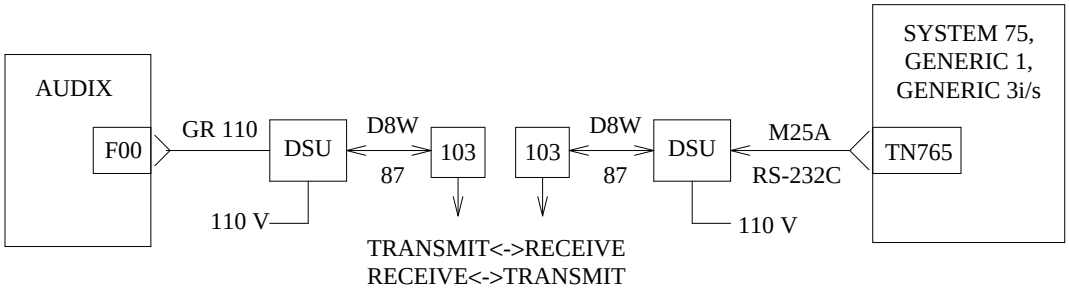


Figure 1-2. Typical Generic 3i/Generic 3s DSU Data Link Configuration

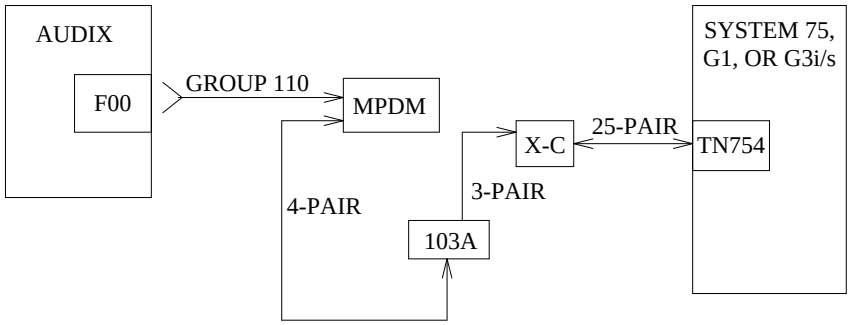


Figure 1-3. Typical Generic 3i/Generic 3s MPDM Data Link Configuration

Depending on your configuration, you should start administering the data link at either Step 1 or Step 2. Refer to the following table to see at which step you should start.

Data Link Connection		
Data Link	**Data Device**	**Start With...**
PI with EIA port	IDI	Step 2
PI without EIA port	MPDM	Step 1

1. Enter **`add data-module [spare extension]`** to assign an MPDM.
   a. Set `Type` to **`pdm`**
   b. Set `Port` to the equipment location of the data module on the TN754.
   c. Set `Connected to:` to **`dte`**
   d. Set `Remote Loop-Around Test?` to **`n`**
   e. Press ENTER.

2. Enter **add data-module [spare extension]** to assign a data interface.
   a. Set Type to **proc-interface**
   b. Set Physical Channel to **01**, **02**, **03**, or **04**; or to **05**, **06**, **07**, or **08** if the link is on the second TN765.

      A data link using an IDI to the TN765 must use **01** here.
   c. Press ENTER.
3. Enter **change communication-interface links** to assign the link.

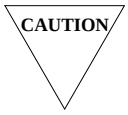
   For the physical channel of Step 2:
   a. Set Enable to **n**
   b. Set Est Conn to **y**
   c. In the Destination field:
      - Set the MPDM extension if a MPDM is used.
      - Enter **eia** if an IDI is used.
   d. Set DTE/DCE to **DTE**
   e. Set Identification to **audix**
   f. Press ENTER.

   If an IDI was used and **eia** was entered in Destination, additional fields are displayed. Perform the following:
   a. Set Connected to to **DCE**
   b. Set Clocking to **Internal** or to **External** if using a DSU configuration.
   c. Press ENTER.
4. Enter **change communication-interface processor-channels**

   On page 4 of the form for Proc Chan 59 (59 is a convention, but any free processor channel can be used; the processor channel number must match the switch port field on the AUDIX system : translation : switch connection form).
   a. Set Appl to **audix**
   b. Set Interface Link to the physical channel of Step 2.
   c. Set Interface Channel to the node number of the switch (1–20). This number is a convention, but it must match the logical channel field on the AUDIX system : translation : switch connection form.
   d. Set Priority to **h**
   e. Set Remote Proc Chan to match the associated audix port field on the AUDIX system : translation : switch connection form.
   f. Set Machine ID to match the number in the AUDIX field on the AUDIX system : translation : switch connection form (this is the AUDIX system machine number, typically **1**).

g. Press ENTER.

5. Enter **`change communication-interface links`** to reset the interface.



Perform this step during off-hours only. This step causes an interface reset which affects all other links (DCS and CMS).

For the link of Step 3:

a. Set `Enable` to **`y`**

b. Press ENTER.

If an IDI was used and **eia** was entered in Destination, additional fields are displayed. Perform the following:

a. Set Connected to to **DCE**

b. Set Clocking to **Internal**

c. Press ENTER.

6. This step verifies that the switch-to-AUDIX system link is operational. But before it can be operational, you must assign the link at the AUDIX system. Return to this step after completing the switch administration and after the technician has installed and administered the AUDIX system using the procedures in *AUDIX Installation* (585-305-105).

   If the AUDIX link is not up in 5 minutes, use the appropriate Generic 3i or Generic 3s maintenance manual and the following steps to diagnose the AUDIX system link. Substitute the brackets below with the physical channel of Step 2:

   a. Make sure the time and date have been set correctly. If not, enter **set time** to correct them.

   b. Enter **status data-module [PDM extension]** to verify that the Processor Interface (TN765) is connected to the MPDM. You should see a state of in-service or active. If an IDI is used, this state will not appear.

   c. Enter **status link [ ]** to verify that the AUDIX system link has been established. Under LOCAL/REMOTE PROCESSOR CHANNELS, **59/x** should appear (where **x** is the **[Remote Proc Channel number]**).

      If the Link status is disconnected:

      1. Enter **test link [ ]**
      2. Enter **1 r 1** at the end of the command line.

      If this test fails, follow the procedures in the appropriate switch maintenance manual.

      If this test passes and the link status does not appear, call the appropriate remote maintenance service center that supports this system.

   If the Link status is connected but the **59/X** does not appear under LOCAL/REMOTE PROCESSOR CHANNELS, verify that the AUDIX switch logical channel and port translation are administered correctly (see Step 4).

Generic 3r

The data link connects the AUDIX system cabinet to the Generic 3r Packet Gateway (PGATE) board (TN577). The TN577 is an X.25 protocol interface between the switch and the AUDIX system. The X.25 data module is a port on the PGATE board which acts as a protocol converter and packet handler. It provides RS-449 (electrical) and RS-232 (physical) connectivity at the physical layer.

The PGATE board has four Electronic Industries Association (EIA) ports allowing direct access to its data links. These data links are cabled through an Isolating Data Interface (IDI). An IDI configuration (switch port to AUDIX port) allows the AUDIX system to be up to 400 feet away from the switch. A typical IDI configuration, including cable numbers, is shown in Figure 1-4.

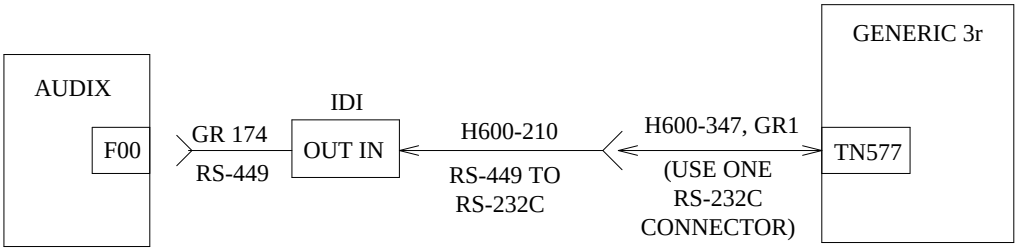


Figure 1-4. Typical Generic 3r IDI Data Link Configuration

To extend the distance of the AUDIX system from the switch to up to 5,000 feet, a Generic 3r may use:

- A pair of Data Service Units (DSUs) (such as modems) between the PGATE port and the AUDIX ports. These DSUs must operate in synchronous mode and provide clocking. A typical DSU configuration is shown in Figure 1-5.

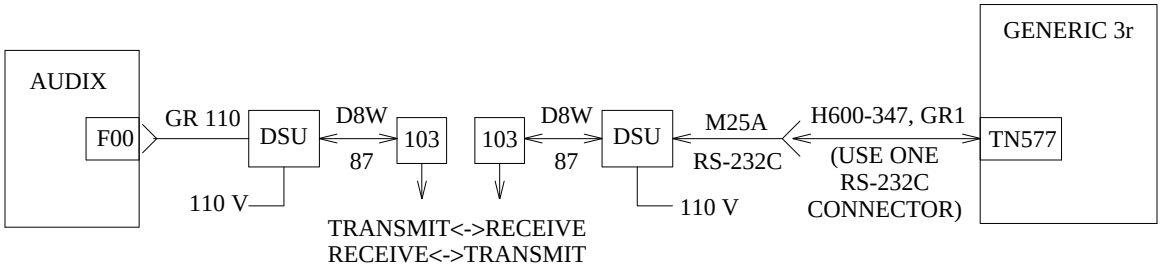


Figure 1-5. Typical Generic 3r DSU Data Link Configuration

- A pair of Modular Processor Data Modules (MPDMs) cross-connected through the switch. Each MPDM is administered as a data module and connected via an administered connection. A typical MPDM configuration is shown in Figure 1-6.

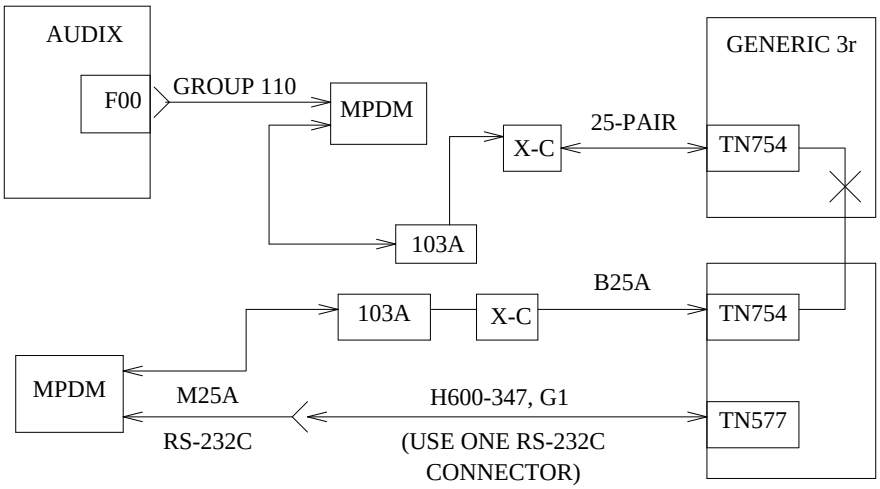


Figure 1-6. Typical Generic 3r MPDM Data Link Configuration

Because these configurations are similarly administered, their administration differences are noted within each step.

1. Enter **add pgate [board location]** to assign the PGATE board.
   a. Set Board Location to the five-character cabinet, carrier, slot location of the PGATE board.
   b. Set Name to **audix**
   c. Set External Cable Type to **rs232**
   d. Press ENTER.
2. Enter **add data-module [spare extension]** to assign the X.25.

   For an MPDM configuration, this same action is used twice:

   - First to assign the MPDM to the PGATE board. This extension number is also entered in Steps 3 and 4.
   - Second to assign an MPDM to the AUDIX port. This extension number is also entered in Step 3.
     a. Set Type to **x.25**
     b. Set Port to the seven-alphanumeric port location of the port on the PGATE board that connects to the AUDIX.
     c. Set Name to a name that associates the AUDIX system with the data module.
     d. Set DTE/DTC to **dte**
     e. Set Baud Rate to **9600**
     f. Press ENTER.
3. For MPDM configurations, enter **add administered connection** to associate the two MPDMs with each other.
   a. Set Originator to **xxx** where *xxx* is the extension assigned in Step 2 above to the PGATE board.
   b. Set Destination to **yyy** where *yyy* is the extension assigned in Step 2 above to the AUDIX port.
   c. Set Retry Interval to **1**
   d. Set Auto Restoration to **n**
   e. Set Priority to **1**
4. Enter **change communication-interface links** to reset the interface. Choose an unused link (1–16) and administer the following (this link number will be entered in Step 4b):
   a. Set Enabled to **y**
   b. Set X.25 Extension to the extension of the X.25 data module assigned in Step 2. For MPDM configurations, this is the extension assigned to the AUDIX port in Step 2. (This determines which piece of equipment is physically connected to the AUDIX system.)
   c. Set Destination Number to **external**
   d. Set Identification to **audix**

e. Press ENTER.

5. Enter **change communication-interface processor-channels** to assign the processor channel. Choose an unused processor channel (1–128) and administer the following:

   a. Set Application to **audix**

   b. Set Interface Link to the **[link number]** chosen in Step 3.

   c. Set Interface Channel to match the logical channel field on the AUDIX system : translation : switch connection form.

   d. Set Local Port to match the switch port field on the AUDIX system : translation : switch connection form (this is the port on which this PBX expects the connection to be established).

   e. Set Remote Port to match the associated audix port field on the AUDIX system : translation : switch connection form (this is the port on which the far end expects the connection to be established).

   f. Set Adjunct Name to match the AUDIX Name field on the change adjunct-name form.

   g. Set Machine ID to match the number in the AUDIX field on the AUDIX system : translation : switch connection form (this is the AUDIX system machine number, adjunct 1 through 8).

   h. Press ENTER.

6. This step verifies that the switch-to-AUDIX system link is operational. But before it can be operational, you must assign the link at the AUDIX system. Return to this step after completing the switch administration and after the technician has installed and administered the AUDIX system using the procedures in *AUDIX Installation* (585-305-105).

   If the AUDIX system link is not up in 5 minutes, use the Generic 3r maintenance manual and the following steps to diagnose the AUDIX system link. Substitute the brackets below with the interface link assigned in Step 3:

   a. Make sure the time and date have been set correctly. If not, enter **set time** to correct them.

   b. Enter **status link [ ]** to verify that the AUDIX system link has been established. Under PROCESSOR HOP CHANNELS, **+Pxxx** should appear where **xxx** is the *[Proc Channel]* from Step 4 (59 is a convention, but any free processor channel can be used).

      If the Link status is disconnected:

      1. Enter **test link [ ]**
      2. Enter **1 r 1** at the end of the command line.

      If this test fails, follow the procedures in the switch maintenance manual.

      If this test passes and the link status does not appear, call the appropriate remote maintenance service center that supports this system.

   If the Link status is connected but the **59/X** does not appear under LOCAL/REMOTE PROCESSOR CHANNELS, verify that the AUDIX switch logical channel and port translation are administered correctly (see Step 4).

Assign the Voice Ports

The following steps assign each AUDIX system voice port. Complete up to 16 (small AUDIX system) or up to 32 (large AUDIX system) 2500-type Voice Terminal forms. The associated extension numbers will then be administered in a hunt group as hunt group members.

Enter **add station [extension]** to assign an AUDIX system voice port. The extension number must be the same length as the intended AUDIX system subscriber extension numbers. Extension numbers cannot start with 0.

1. Create a unique class of restriction (COR) for the AUDIX voice ports using the **change cor [number]** form. The COR should be in the 21 to 39 range and should *not* be used by any other extension, special-usage ports, or trunk group.
   a. If your AUDIX system uses the AUDIX Enhanced Call Transfer feature, go to Step 2.
   b. If your system *cannot* use Enhanced Call Transfer, place an **n** in the appropriate fields of the COR form to restrict access to outgoing trunks. For greatest security, the COR should restrict the AUDIX voice ports from accessing the COR(s) associated with all 2-way or outgoing Central Office, FX, WATS, or (except for DCS networks) Tie Line Trunk Groups. However, this could prevent certain AUDIX features (such as Outcalling and AMIS analog networking) from working. Check which AUDIX features are to be implemented at your site and consult the *GBCS Products Security Handbook* (555-025-600).
2. Create a unique class of service (COS) for the AUDIX voice ports using the **change cos** form. The COS should *not* be used by any other extensions.
   a. Set the `Data Privacy` field to **y**.
   b. Set everything else to **n**.
3. Enter **add station [extension]** to assign an AUDIX system voice port. The extension number must be the same length as the intended AUDIX subscriber extension numbers. Extension numbers cannot start with 0.
   a. Set `Type` to **2500**
   b. Set `Port` to the appropriate analog port equipment location.
   c. Set `Name` to **AUDIX Port** *xx* where *xx* is the AUDIX system port number for each voice port (01 up to 32).
   d. Set `Lock Messages` to **n**
   e. Set `COR` to *yy* where *yy* is the unique COR you created in Step 1.
   f. Set `COS` to *zz* where *zz* is the unique COS you created in Step 2.
   g. Set `Tests?` to **n**
   h. Set `LWC Reception?` to **none**
   i. Set `LWC Activation?` to **n**
   j. Set `Redirection Notification?` to **n**
   k. Set `Switchhook Flash?` to **y**
   l. Set `Coverage Msg Retrieval?` to **n**

m. Set `Data Restriction?` to **n**

n. Set `Call Waiting Indication?`, `Att. Call Waiting Indication?`, and `Distinctive Audible Alert?` to **n**

o. Set `Adjunct Supervision?` to **y**

NOTE

For an AUDIX Standalone system (an AUDIX adjunct with no data link), you *must* set `Adjunct Supervision?` to **n**

p. On Page 1, leave the `Message Waiting Indicator`, `AUDIX Name`, and `Messaging Server Name` fields blank.

q. On Page 2, leave the `Abbreviated Dialing` and `Hot Line Destination` fields blank.

r. Set all other feature options to **n**

s. Press ENTER.

t. Repeat Step 3 to assign AUDIX Port 02, AUDIX Port 03, etc. *or* use the `duplicate station` command to add the other AUDIX system voice ports.

Assign the Hunt Group

Identify each AUDIX system voice port as a member of one (or more for Generic 3r) call distribution groups (hunt groups). This group (split) is a set of analog ports on the switch that connects subscribers and users to the AUDIX system by distributing new calls to idle ports. Generic 3i, Generic 3s, or Generic 3r use Uniform Call Distribution (UCD) for call distribution. See the appropriate switch documentation for more information about call distribution groups.

Enter **`add hunt-group next`** to administer a new hunt group.

On page 1 of the form:

1. Set `Group Extension` to the extension reserved for calling the AUDIX system.
2. Set `Group Type` to **ucd**
3. Set `Group Name` to **audix**
4. Set `ACD?` to **n**

NOTE

For AUDIX UCD hunt groups on Generic 3 systems, we recommend you do *not* set the ACD field on the form to **y** (yes). This field simply allows the Call Management System (CMS) to measure the usage of the AUDIX hunt group (for example, how long calls remain in queue). Unless you specifically need this information, setting the ACD flag to yes fills the CMS with records because the AUDIX system has such high usage.

5. For ACD splits, enter the destination (extension, attendant) where calls to the ACD split will go when in the Night Service mode in the `Night Service Destination` field.
6. Set `Queue?` to **`y`**
7. Set `COR` to **`1`** (used here as a convention)
8. If AUDIX system traffic measurements are to be made by the ACD Call Management System (CMS), set `Measured` to **`internal`** if the data is to be sent to the Basic Call Management System (internal to the switch) for subsequent measurement reports and **`external`** to send the data to the Call Management System Adjunct. Enter **`both`** to send the data to both systems for measurement reports. Enter **`none`** (default) if hunt group measurements are not required.
9. Set `Queue Length` to the number of ports assigned as hunt group members. For example, if this hunt group has ten members, then enter **`10`** in this field.

The other fields are optional.

On page 2 of the form (page 1 for Generic 3i and Generic 3s):

1. Set `Message Center` to **`audix`**

   NOTE

   Generic 3i and Generic 3s can support only one AUDIX system. Therefore, only one hunt group can have `Message Center` set to **`audix`**. Direct all incoming AUDIX system calls to that hunt group extension or hunt group number.

2. *For Generic 3r,* set `Primary` to **`y`** to assign this hunt group as the primary hunt group (a **`n`** assigns it as a secondary hunt group).

   Generic 3r can have multiple hunt groups associated with a single AUDIX system (in addition to supporting multiple AUDIX systems). This allows partitioning of the voice ports into different hunt groups. Having different hunt groups allows different coverage paths to be redirected to different voice ports. Thus, voice ports can be reserved for particular users or groups of users (that is, those who use the particular coverage paths).

   NOTE

   The following features do not follow coverage paths, but, instead, place a call directly to the AUDIX system. These calls go to the *Primary* AUDIX hunt group (which is marked when the AUDIX hunt groups are administered):

   — Transfer into AUDIX with the feature access code or with the goto-audix button.

   — Return call when a user is in message display mode and the user is displaying the message that says ‘‘Call AUDIX’’. Here, a user presses the call-disp button.

   Refer to *Generic 1 and Generic 3—Feature Description* (555-230-201) for more information about multiple AUDIX systems.

3. *For Generic 3r,* set `AUDIX Name` to the name of the AUDIX system for this hunt group. This is the same name as one of those defined on the `user-defined adjunct-names` form.
4. Enter the first recorded announcement extension in the `First Announcement` field and the delay associated with this announcement in the `First Announcement Delay` field. A users hears this announcement after being in a call waiting queue after this delay.

5. Enter the second recorded announcement extension in the `Second Announcement` field and the delay associated with this announcement in the `Second Announcement Delay` field. A users hears this announcement after being in a call waiting queue after this additional delay.
6. Set `Second Announcement Recurring?` to **y** if you want the second message repeated each time a user remains in a call waiting queue in increments of the value set in the `Second Announcement Delay` field. Setting this field to **n** does not repeat the second message.

On page 3 of the form:

1. Enter the previously administered AUDIX voice port extensions (assigned using 2500 Station forms) in the `GROUP MEMBER ASSIGNMENTS Ext.` fields. Assign up to 32 AUDIX voice ports as members for a large AUDIX system or 16 for a small AUDIX system.

Assign the Coverage Paths

In this section you will assign coverage paths for the AUDIX system subscribers.

Enter **add coverage-path next** to administer a new path.

1. Set `Number of Rings` to (**n – 1**), where *n* is the number of rings desired before calls redirect to coverage. For example, if three rings are desired, enter **2** in this field.
2. Set `Point 1` to the AUDIX system hunt group number (example: **h1**).

   NOTE

   It is recommended that AUDIX be the last point in a coverage path. If `Point 1` is already used, set `Point 2` to the AUDIX system hunt group number. If `Point 1` and `Point 2` are already used, set `Point 3` to the AUDIX system hunt group number.

3. Press ENTER.

Repeat this step for each coverage path.

Add the Subscribers

Enter **`add station [extension]`** to add a new voice terminal.

1. Set `COS` to a COS that has Call Forwarding—All Calls.
2. Set `Coverage Path` to the new coverage path number.
3. Set `LWC Reception` to **`audix`**

   If subscribers with digital sets want their Leave Word Calling (LWC) messages to go to their sets, enter:

   - *For Generic 3i or Generic 3s:* **`msa-spe`**
   - *For Generic 3r:* **`spe`**
4. Set `LWC Activation?` to **`y`**
5. Set `Redirect Notification?` to **`y`**
6. Set `Message Waiting Indication?` to **`y`** to enable the Audible Message Waiting feature (optional).
7. *For Generic 3r,* set `AUDIX Name` to the name of this AUDIX entered in the `AUDIX Name` field on the **`change adjunct-names`** form.
8. Under `BUTTON ASSIGNMENTS`, enter the following button assignments when needed to interact with AUDIX system features:
   - **`call-fwd`**
   - **`goto-cover`**
   - **`lwc-store`**
   - **`send-calls`**
9. Press ENTER.

Repeat these steps for each subscriber's voice terminal.

DCS ADMINISTRATION

The AUDIX system can serve more than one switch when the switches are part of a Distributed Communications System (DCS) network. The switch that hosts the AUDIX system connects it to the other switches in the network. The AUDIX system uses the switch's existing DCS trunks for both data and voice communication. This section outlines the procedures for administering the Generic 3i, Generic 3s, or Generic 3r for the AUDIX system in a DCS environment.

Generic 3i or Generic 3s can recognize only one AUDIX system. Processor channel 59 is a convention but any free processor channel can be used.

NOTE

The procedures in this section assume that the voice trunks between the switch nodes are already translated. See the appropriate switch documentation for these procedures.

Traditional DCS Administration

Figure 1-7, *AUDIX System Data Link to a DCS Switch*, shows that DCS switch data connections involve a remote switch, a host switch, and an AUDIX system. Some coordination is required here when assigning port and channel numbers as described after this figure.

The GBCS Design Center can assist you when designing a multi-node AUDIX DCS system.

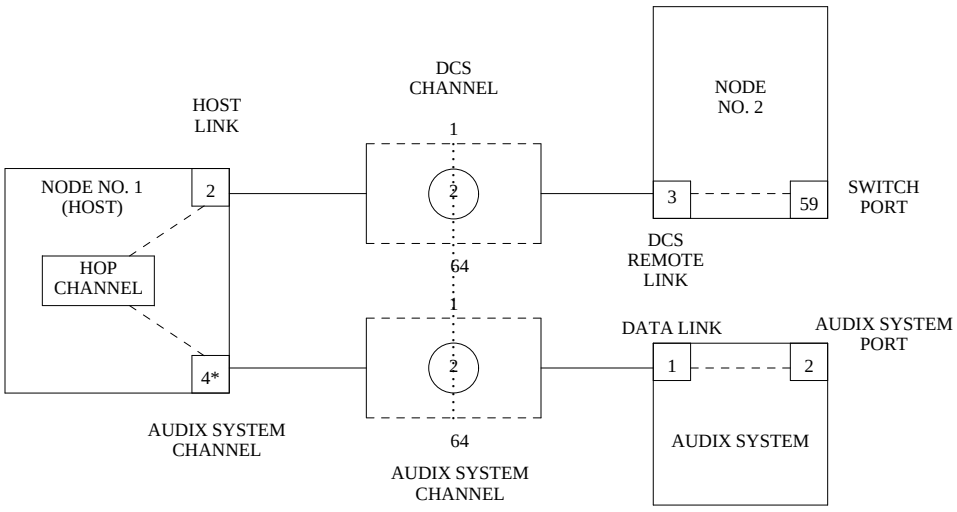


Figure 1-7. AUDIX System Data Link to a DCS Switch

Before starting, gather the following information:

- Which switch port will be used at the distant switch? (Processor channel 59 is a convention but any free channel can be used.)

  Switch Port: _____ (59 is used in Figure 1-7, *AUDIX System Data Link to a DCS Switch*)

- Which DCS link and channel will be used between the distant and host switches?

  DCS Remote Link: _____ (3 is used in Figure 1-7)
  DCS Host Link: _____ (2 is used in Figure 1-7)
  DCS Channel: _____ (2 is used in Figure 1-7)

- Which AUDIX system port/channel will be used between the host switch and the AUDIX system? In other words, choose an unused processor channel (1–64 on Generic 3i/s, or 1–128 on Generic 3r). Using the local PBX ID as the channel number is a good convention.

  Use the switch (or node) number as the AUDIX system port and as the AUDIX system channel.

  AUDIX System Port: _____ (2 is used in Figure 1-7)
  AUDIX System Channel: _____ (2 is used in Figure 1-7)

Assign the Hop Channel/Gateway

At the host switch, use the following steps to establish a hop (a software data path) from the remote switch through the host switch to the AUDIX system. *For Generic 3r,* begin with Step 3.

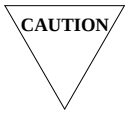
1. *For Generic 3i and Generic 3s,* enter **`busyout link X`** to busy out the link where *X* is the link number.

   CAUTION

   This step disables DCS transparency. It is recommended that you perform these steps after normal business hours.

2. *For Generic 3i and Generic 3s,* enter **`change communication-interface links`**
   a. Set `Enable?` to **`n`**
   b. Press ENTER.
3. Enter **`change communication-interfaces hop-channel`**
   a. *For Generic 3i and Generic 3s,* set `Priority` to **`h`**
   b. Set `Link` to the **`[AUDIX System Link]`**
   c. Set `Channel` to the **`[AUDIX System Channel]`** (This assignment must agree between the switch and AUDIX.)
   d. Set `Link` to the **`[DCS Host Link]`** This is the number of the DCS link connecting the host to the remote node.
   e. Set `Channel` to the **`[DCS Channel]`** (A value equal to that switch's DCS remote node number.)
   f. Press ENTER.

4. *For Generic 3i and Generic 3s,* enter **`change communication-interface links`**



These steps will restart all links on this interface. It is recommended that you perform them after normal business hours.

   a. Set `Enable?` to **`y`**

   b. Press ENTER.

5. Enter **`display dialplan`**

   a. Verify that the Uniform Dial Plan is enabled.

   b. *For Generic 3i and Generic 3s,* verify that any RNXs associated with the host and remote switches that require DCS have a node number (page 2).

   c. *For Generic 3r,* verify that the `Local PBX ID` is assigned (page 1).

Assign the Adjunct Names at the Remote Switch (Generic 3r)

For Generic 3r, you can have multiple AUDIX systems (adjuncts). The names given to each of the eight possible adjuncts used with the AUDIX system were assigned on the host switch. Perform these steps at each remote switch:

1. Enter **`change adjunct-names`**
2. Assign those names (assigned at the host switch) to the AUDIX system adjuncts in the `AUDIX Name` fields.

NOTE

This same name must be entered in the `AUDIX Name` field on the following forms:

- `add hunt-group`
- `change communication-interface processor-channels`
- `add station`
- `change signaling-group`
- `add term-ext group`
- `add vector-directory-number`

Assign the Processor Channel at the Remote Switch

Go to the remote switch and use the following steps to assign an AUDIX system switch port (see Figure 1-7, *AUDIX System Data Link to a DCS Switch*, NODE No. 2). Assign this switch port to a spare channel on the DCS link connected to the AUDIX system host (NODE No. 1).

Perform these steps at each remote switch. *For Generic 3r,* do only Step 3.

1. *For Generic 3i and Generic 3s,* enter **`busyout link X`** to busy out the link where *X* is the link number.

   CAUTION

   This step disables DCS transparency. It is recommended that you perform these steps after normal business hours.

2. *For Generic 3i and Generic 3s,* enter **`change communication-interface links`**
   a. Set `Enable?` to **`n`**
   b. Press ENTER.
3. Enter **`change communications-interface processor-channels`**

   On page 4 of the form, do the following for `Proc Chan` **`xxx`** (59 is a convention, but any free processor channel can be used):
   a. Set `application` to **`audix`**
   b. Set the `Interface Link` field to the **`[DCS Remote Link]`**
   c. Set the `Interface Channel` field to the **`[DCS Channel]`** (a value equal to that switch's DCS remote node number).
   d. *For Generic 3i and Generic 3s:*
      — Set `Priority` to **`h`**
      — Set `Remote Processor Channel` to the **`[AUDIX System Port]`**
   e. *For Generic 3r:*
      — Set `Local Port` to match the `switch port` field on the AUDIX `system : translation : switch connection` form.
      — Set `Remote Port` to match the `Interface Channel` chosen above.
      — Set `Adjunct Name` to match the `AUDIX Name` field on the `change adjunct-name` form.
   f. Set `Machine–ID` to match the number shown in the `AUDIX` field on the AUDIX `system : translation : switch connection` form.
   g. Press ENTER.

4. *For Generic 3i and Generic 3s,* enter **`change communication-interface links`**

CAUTION

These steps will restart all links on this interface. It is recommended that you perform them after normal business hours.

a. Set `Enable?` to **`y`**

b. Press ENTER.

DCS Via ISDN-PRI D-Channel Administration

This section contains step-by-step procedures to administer an AUDIX system on a Generic 3i, Generic 3s, or Generic 3r in a DCS via ISDN-PRI D-channel configuration (also known as DCS+). All general administration must be completed before starting these steps. Network design examples for Traditional DCS networks, D-channel DCS networks (private network only), D-channel DCS networks (public network access/egress), Integrated DCS networks (private network only), and Integrated DCS networks (public network access) are provided in Chapter 3 of *DEFINITY Communications System Generic 3r Implementation* (555-230-651). The GBCS Design Center can assist you when designing a multi-node AUDIX DCS+ system.

Figure 1-8, *AUDIX System Data Link to a DCS+ Switch,* shows that DCS switch data connections involve a remote switch, a host switch, and an AUDIX system. Some coordination is required when assigning port and channel numbers as described in the *Traditional DCS Administration* section.

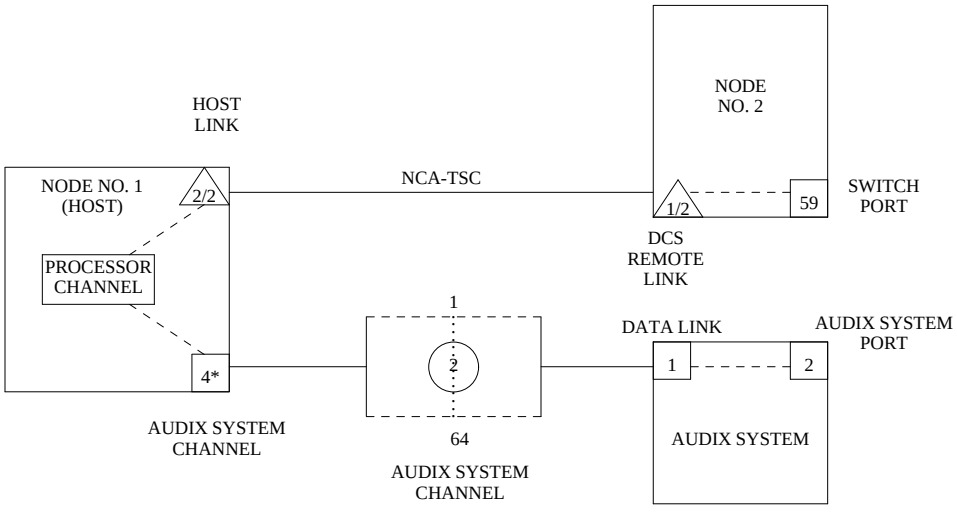


Figure 1-8. AUDIX System Data Link to a DCS+ Switch

Host Switch Administration

At the host switch, first define how the AUDIX system is connected to the host, then how the host switch is connected to the remote switch, and finally how the remote switch accesses the AUDIX system on this host switch.

1. Enter **`change communication-interface processor-channels`**

   This form assigns the processor channels that function as the gateway. Here, processor channel 57 with an `Interface Link` of **`1`** and a `Interface Chan` of **`2`** is used as an example.

   For `Proc. Chan 57`:

   a. Set `Application` to **`gateway`**

   b. Set `Interface Link` to **`1`** (the `[AUDIX System]` link)

   c. Set `Interface Chan` to **`2`** (the `[AUDIX System]` channel)

   d. *For Generic 3i and Generic 3s:*

   — Set `Priority` to **`h`**

   — Set `Remote Processor Channel` to the processor channel number (1 – 64) of the remote switch that connects to the local processor channel.

   e. *For Generic 3r:*

   — Set `Local Port` to match the `switch port` field on the AUDIX `system : translation : switch connection` form.

   — Set `Remote Port` to **`2`** (as an example).

   — Leave the `Adjunct Name` field blank.

   f. Leave the `Machine-ID` field blank.

   g. Press ENTER.

2. Enter **`change signaling-group [x]`** where *x* is the signaling group associated with the DCS non-call associated temporary signaling connection (NCA-TSC) on the remote switch. (It is assumed that DCS is already administered on this signaling channel.)

   This form assigns the call-associated (CA) and non-call associated (NCA) temporary signaling connections (TSCs) for ISDN-DCS trunk groups.

   On page 1 of the form:

   a. Increment the `Max number of NCA TSC` field entry by 1 (for example, if this entry is 2, change it to 3)

   For page 2, the TSC Index 2 (gateway) uses a local extension of `4901` and a destination extension of `5901` as an example. (You can use any free extension that conforms to the uniform dialing plan for this switch.)

   On page 2 of the form for `TSC Index` **`[x]`** (where *x* is a free index):

   a. Set `Local Ext.` to **`4901`**

   b. Set `Enabled` to **`y`**

   c. Set `Established` to **`permanent`**

d. Set `Dest. Ext.` to **`5901`**

e. Set `Far-end PBX-ID` to **`-`**

f. Set `Appl.` to **`gateway`**

g. Press ENTER.

3. Enter **`change isdn tsc-gateway`**

   This form maps a signaling group/TSC-index pair (defined in Step 2 above) to the processor channel used by the AUDIX system (defined in Step 1 above).

   a. Set `Sig. Group` to **`[DCS signaling group] 2`**

   b. Set `Adm'd NCA TSC Index` to **`[x]`** (where *x* is the NCA TSC Index used in Step 2 above)

   c. Set `Processor Channel` to **`57`** (that is, the processor channel used in Step 1 above)

   d. Set `Application` to **`audix`**

   e. Press ENTER.

Remote Switch Administration

This form assigns the call-associated (CA) and non-call associated (NCA) temporary signaling connections (TSCs) for ISDN-DCS trunk groups on the remote switch. Here, TSC Index 2 (dcs) uses a local extension of `5901` and a destination extension of `4901` (that is, the same convention used as the host switch).

1. Enter **`change signaling-group`**

   For `TSC Index 2`:

   a. Set `Local Ext.` to **`5901`**

   b. Set `Enabled` to **`y`**

   c. Set `Established` to **`permanent`**

   d. Set `Dest. Ext.` to **`4901`**

   e. Set `Appl.` to **`audix`**

   f. *For Generic 3r*, set `Adj. Name` to the name administered in Step 2 of the *Assign the Adjunct Names at the Remote Switch (Generic 3r)* section.

   g. Set `Mach. ID` to **`1`**

   h. Press ENTER.

GENERAL ADMINISTRATION (REMOTE SWITCH)

This section contains step-by-step procedures to administer an AUDIX system on a Generic 3i, Generic 3s, or Generic 3r remote switch. (It is assumed that DCS connectivity is already administered.)

- If your switch does *not* use DCS, this section does not apply.
- If your switch uses DCS, then perform the following administration.

Assign the Hunt Group/ACD

At the remote switch, assign the remote AUDIX system (rem-audix) hunt group with the host switch AUDIX system extension number. No host switch administration is required.

Enter **`add hunt-group next`** to assign a new hunt group.

On page 1, enter:

1. Set `Group Extension` to the AUDIX system extension number for the remote switch. Verify that this extension is in the Uniform Dialing Plan of the switch.
2. Set `Group Type` to **`ucd`**
3. Set `Group Name` to **`AUDIX`**
4. Set `Message Center` to **`rem-audix`** (this field appears on page 2 for Generic 3r)
5. Set `ACD?` to **`n`**
6. Set `Queue?` to **`n`**
7. Set `AUDIX Extension` to the extension number assigned to the AUDIX system hunt group at the host switch (this field appears on page 2 for Generic 3r).
8. Press ENTER.

Other fields are optional.

On page 2 (Generic 3r):

1. Set `Message Center` to **`rem-audix`** (this field appears on page 2 for Generic 3r)
2. Set `AUDIX Extension` to the extension number assigned to the AUDIX system hunt group at the host switch.
3. Set `AUDIX Name` to the name of the AUDIX system for this hunt group. This is the same name as one of those defined on the `user-defined adjunct-names` form.

NOTE

Before the subscribers can log in to the AUDIX system, the AUDIX System Administrator must administer the AUDIX system. (The AUDIX system will not answer unless the `switch number` field on the AUDIX `subscriber : local` form is filled in by the AUDIX system administrator.)

Add the Subscribers

Subscriber administration is the same on the remote switch as on the host switch. Perform the following steps for each voice terminal. Refer to the *Add the Subscribers* heading in the *General Administration (Host Switch)* section for details.

1. Use `add coverage path next` to administer a new path.
2. Use `add station [extension]` to add a new voice terminal.
3. Use `change cos [subscriber cos number]` to activate Call Forwarding—All Calls, if necessary.

OPTIONAL FEATURES ADMINISTRATION

This section describes how to assign the Automated Attendant, Call Transfer, Switch Recorded Announcement, and Switch Multiple Coverage Paths on the Generic 3i, Generic 3s, or Generic 3r.

Automated Attendant Administration

Automated Attendant is an AUDIX system feature that provides the caller with a menu of options. The caller then can request a department or extension by pressing a touch-tone key.

You can either assign a station on the switch for each main attendant or assign a new hunt group that forwards calls to the AUDIX hunt group.

Assigning a Phantom Station

Assign a phantom station on Generic 3 for each main attendant. Generic 3 requires a physical port for a phantom station, but a switch alarm is not generated when a physical voice terminal is absent (Administration Without Hardware feature). The following procedure assigns a phantom station for a main attendant.

1. Complete a station form for the phantom station. In the `Port` field, enter a 1-character **`x`** to indicate that there is not a physical voice terminal associated with the port assignment. For further information, refer to *DEFINITY Communications System Generic 3i Implementation* (555-230-650) for Generic 3i and Generic 3s or *DEFINITY Communications System Generic 3r Implementation* (555-230-651).
2. Assign the phantom extension (from Step 1) as the incoming destination for the incoming call trunk groups that will be served by the automated attendant. If you are not using the automated attendant as an incoming destination for a trunk group, go to the next step.
3. From the attendant console (or administrative voice terminal), activate Call Forwarding All Calls for the automated attendant extension. Make the destination the AUDIX hunt group extension.
4. Run the Switch Names Audit from the AUDIX system if the system is administered in DP Mode.

Assigning a Hunt Group

Assign a new hunt group for the automated attendant if there is not a physical port available on the switch for a station. The hunt group forwards calls to the AUDIX hunt group. Use the following procedure to assign a hunt group for the automated attendant.

1. Enter **`add hunt group`** *number* to assign a new hunt group.
    a. Set `Group Name` to a name that contains the group extension. The group name can be the group extension, or the group extension can be embedded in the group name.
    b. Set `Group Extension` to the automated attendant extension on the worksheet.

c. Set `Group Type` to **ucd**

d. Leave `Coverage Path` blank for best operation, because all calls are forwarded to the AUDIX hunt group extension.

e. Set the other fields according to the customer requirements.

f. Set `Queue?` to **n**

Do not assign any members to this hunt group.

g. Press Enter.

2. Assign the automated attendant group extension (from Step 1) as the incoming destination for the incoming call trunk groups that will be served by the automated attendant. If you are not using the automated attendant as an incoming destination for a trunk group, go to the next step. Make sure `Auth Code?` is set to **n**

3. From the attendant console (or administrative voice terminal), activate Call Forwarding All Calls for the automated attendant extension. Make the destination the AUDIX hunt group extension.

Night Service to Automated Attendant

You can set up night service to an automated attendant from an incoming trunk or from a Listed Directory Number (LDN).

From an Incoming Trunk

The following procedure sets up night service to an automated attendant from an incoming trunk.

1. Assign the night automated attendant extension or hunt group number to the `Night Service` field on the trunk group form. The night automated attendant will receive all incoming calls when night service is activated.

2. Activate Call Forwarding All Calls for the night automated attendant extension or hunt group number. Make the destination the AUDIX hunt group extension.

While the console is in day service mode, calls will route as usual according to the incoming destination on the trunk group form. When the console is placed in night service mode, calls will route according to the night automated attendant destination identified in the `Night Service` field.

From a Listed Directory Number (LDN)

The following procedure sets up night service to an automated attendant from an LDN.

1. Assign an extension or extensions on the `listed directory numbers` form. Make sure that these extensions do not exist elsewhere in the switch.

2. For each extension assigned in Step 1, assign a name that includes the night automated attendant extension or hunt group number as part of the name.

3. Assign the AUDIX hunt group extension in the `Night Destination` field.

When the attendant console(s) is in day service mode, the LDN acts as usual. When the attendant console(s) is placed in night service mode, calls are sent to the AUDIX hunt group extension and are answered by the automated attendant that corresponds to the number in the LDN name field.

Automated Attendant Substitute Strategies

A substitute for an automated attendant is needed so that calls do not go unanswered when the AUDIX system is busy or unavailable. Each AUDIX system installation will have to be tailored individually. Consult the appropriate switch documents for details and interactions with other features.

Either a phantom station or a hunt group can be assigned at the automated attendant. If a phantom station is assigned, set up a call vector (Call Vector feature) to send calls somewhere else, such as the operator or Recorded Announcement, if the AUDIX system is unavailable.

If a hunt group is assigned and the AUDIX system is unavailable, use the attendant console to change the destination of call forwarding from the AUDIX system to a *live* attendant (for example, forward calls to LDN). When the AUDIX system becomes available, reactivate forwarding to the AUDIX system extension. Another option is to change the incoming destination to go to a recorded announcement while the automated attendant is out of service (see *Switch Recorded Announcement*).

Switch Recorded Announcement

The following procedure is used to provide a recorded announcement at the switch for anyone that accesses the AUDIX system, either through a direct call or through call redirection. The announcement is heard when all the AUDIX voice ports are busy and calls start entering the AUDIX system queue.

NOTE

The services technician must install a TN750 Announcement circuit pack in a vacant slot or wire a customer-provided system to a vacant analog port for this feature to work.

1. Enter **`change announcements`**
   a. On a vacant line, set `Ext.` to the extension number. The number must agree with the dial plan.
   b. Set `Type`:
      - If a TN750 is used, set to **`integrated`**

        If you enter integrated, you must complete the `Protect` and `Rate` fields.
      - If customer-provided external equipment is used, set to **`analog`**

        If you enter analog, you must complete the `Queue Length` and the `Port` fields. The `Queue Length` field applies only if **`y`** is entered in the `Queue` field.
      - *For Generic 3r*, when a device is connected via a TN763, set to **`aux-trunk`**

c. Set COR from 0 to 63 (0 to 95 for Generic 3r).

d. Assign a Name. (You can use up to 15 characters to describe the announcement message.)

e. Set Queue to **y**

f. Set Protect or Queue Length:

- If a TN750 is used, set Protect (integrated) to **n**
- If customer-provided external equipment is used, set Queue Length (analog) from 1 to 150.

g. If you entered integrated, set Rate to specify the recording speed when recording announcements on the TN750 Integrated circuit pack. Valid entries are 16, 32, or 64.

h. If you entered analog, set Port to the equipment location.

i. Press Enter.

2. Enter **change hunt-group xx** (where *xx* is the AUDIX system hunt group number).

a. Set First Ann. Extension to the extension of the announcement system.

b. Set First Announcement Delay (sec) to **5**

c. Press ENTER.

3. Record the announcement:

- For a TN750, dial the announcement's extension number from the console or from a voice terminal with a console's COS.
- For a customer-provided external announcement system, make the recording using the instructions provided with the system.

Switch Multiple Coverage Paths

Multiple coverage paths provide greater flexibility for call-answer treatment. Generic 3i, Generic 3s, or Generic 3r can have up to four paths linked together.

On the Coverage Path form, specify a second path in the Next Path Number field. You can link the second path to other paths. These will be displayed in the Linkage field. For more details, see the appropriate Generic 3i, Generic 3s, or Generic 3r documentation.

Transfer Into AUDIX

This feature allows an attendant (or other party) to transfer a caller who has been sent to coverage (or otherwise redirected) back to the AUDIX system to record a message by dialing an access code.

1. Enter **`feature access codes`**
2. Enter a dial access code in the `Transfer Into AUDIX` field.

NOTE

If used in a DCS, assign the same Transfer Into AUDIX feature access code at each node.

3. *For Generic 3i and Generic 3s,* make sure the AUDIX system hunt group is assigned to the coverage path of any subscriber who intends to use this feature.
4. *For Generic 3r,* make sure that the `AUDIX Name` is assigned on the `add station` form (the same name of this AUDIX entered in the `AUDIX Name` field on the `change adjunct-names` form).

Transfer Out of AUDIX

The AUDIX system allows two types of call transfers out of the AUDIX system: basic and enhanced. Basic Call Transfer uses a switchhook flash method of call transfer and may be used on any switch. Enhanced Call Transfer uses the data link to allow calls to be transferred only to valid extensions on a fully integrated switch capable of supporting Enhanced Call Transfer.

Activating Basic Call Transfer leaves your system vulnerable to possible toll fraud. See the *GBCS Products Security Handbook* **(555-025-600) for more information on AUDIX security issues.**

AUDIX R1V7 and later software automatically disables the Call Transfer Out of AUDIX feature on new systems to provide maximum security for the prevention of toll fraud. Before you activate call transfers out of the AUDIX system, consider the following:

- If your switch supports *enhanced* call transfer and you administer the AUDIX system to use enhanced call transfer, you minimize your risk for toll fraud. All Generic 3 switches support Enhanced Call Transfer.
- Some AUDIX features require the Call Transfer Out of AUDIX feature in order to work; these include automated attendants administered to redirect calls out of the AUDIX system (the `e` option), the Return the Call option, and the Escape to Attendant feature.

To activate the Call Transfer Out of AUDIX feature:

1. Log in to the AUDIX system as described in the appropriate forms reference manual for your version of AUDIX software.
2. Enter **sy ap** on the AUDIX PATH line

AT&T personnel: DO NOT activate the Call Transfer Out of AUDIX feature for a customer under any circumstances. Customers must activate this feature themselves so they can see the warning message about possible toll fraud.

3. Set `call transfer out of AUDIX feature?` to **y**

   The `enhanced call transfer` field is automatically set to **y**. Because Generic 3 switches support Enhanced Call Transfer, leave this field set to **y** to provide maximum protection from toll fraud.

AT&T personnel: DO NOT set the `enhanced call transfer` field to n unless the AUDIX software specifically requires remote services intervention. On many AUDIX systems, customers must set this field themselves so they can see the warning message about possible toll fraud.

2. Generic 1, System 75, or System 75 XE

This chapter describes how to administer an AUDIX system on a Generic 1, System 75, or System 75 XE. See *AUDIX Networking* (585-300-903) for information on administering the switch for AUDIX Networking. For information about what equipment is required on a Generic 1, System 75, or System 75 XE to work with an AUDIX system, refer to the *AUDIX System Description* (585-305-201).

A Generic 1, System 75, or System 75 XE is administered with a DEFINITY Communications System Generic 3 Management Terminal, Centralized System Management (CSM), or System Management Terminal (previously known as Manager I). See the *Business Communications Systems Publications Catalog* (555-000-010) for a list of the appropriate switch documentation if you need further assistance on how to use these administration tools.

GENERAL ADMINISTRATION

This section contains step-by-step procedures to administer an AUDIX system on a Generic 1, System 75, or System 75 XE.

Assign the Voice Ports and the Hunt Group

In the following procedures, you will identify each AUDIX system voice port as a member of one or more call distribution groups (hunt groups). This group (split) is a set of analog port boards on the switch that connects subscribers and users to the AUDIX system by distributing new calls to idle ports. Generic 1, System 75, or System 75 XE use Uniform Call Distribution (UCD) for call distribution. See the appropriate switch documentation for more information about call distribution groups.

Use the following steps to first assign an extension number for each AUDIX system voice port and then create a hunt group.

1. Enter **`add station [extension]`** to assign an AUDIX system voice port. The extension number must be the same length as the intended AUDIX system subscriber extension numbers. Extension numbers cannot start with 0.
   a. Set `Type` to **`2500`**
   b. Set `Port` to the first analog port equipment location.
   c. Set `Name` to **`AUDIX Port 01`**
   d. Set `Lock Messages` to **`n`**
   e. Set `COR` to **`1`**
   f. Set `COS` to **`5`** (Make sure only **`Class of Service 5`** has `Data Privacy` set to **`y`** — all others are set to **`n`**)

g. Set `Data Restriction` to **n**

> **NOTE**
>
> `Data Restriction` prevents break-in attempts for the voice ports prior to System 75 R1V3, Issue 1.6. However, if the AUDIX system Automated Attendant feature and/or *T (Transfer) are used to access a hunt group of answering positions (Auto-answer and headsets in use), these answering positions may not receive zip tone to indicate the presence of a call. To guarantee zip tone, change the COS to one without data privacy only and set `Data Restriction?` to **n** on the station form.

h. Set `Call Waiting Indication?` to **n**

i. Set `Tests?` to **n**

j. Set `Switchhook Flash` to **y**

k. Set `LWC Reception` to **audix**

l. Leave `Message Waiting Indicator`, `Abbreviated Dialing`, and `Hot Line Destination` fields blank.

m. Set the other feature options to **n**

n. Press ENTER.

Repeat Step 1 to assign AUDIX system Port 02, AUDIX system Port 03, etc.

2. Enter **`add hunt-group next`** to administer a new hunt group (1–32).

On page 1 of the form:

a. Set `Group Extension` to the extension reserved for calling the AUDIX system.

b. Set `Group Type` to **ucd**

c. Set `Group Name` to **AUDIX**

d. Set `Message Center` to **audix**

> **NOTE**
>
> Generic 1, System 75, or System 75 XE can support only one AUDIX system. Therefore, only one hunt group can have `Message Center` = **audix**. Direct all incoming AUDIX system calls to that hunt group extension or the hunt group number.

e. Set `ACD?` to **n**

f. Set `Queue?` to **y**

g. Set `Queue Length` to the number of AUDIX system voice ports.

The other fields are optional.

On page 2 of the form:

Enter the extension numbers assigned in Step 1. Enter them in the same order they were assigned to the voice ports. The order must match the order on the AUDIX `system : translation : voice port` form and on the cross-connect field.

Assign the Data Link

The data link is the connection from the AUDIX system cabinet to the switch Processor Interface (PI) board or the Switch Communications Interface (SCI) interface boards that enables nonvoice (data) messages to pass between the AUDIX system and the switch.

The AUDIX system may be connected to a System 75, System 75 XE, or Generic 1 through the TN765 PI circuit pack. This board has one Electronic Industries Association (EIA) port which allows direct access to one of its four data links. In this configuration, the data link is cabled through an Isolating Data Interface (IDI). On certain cabinets, an EIA port may not be available. If not, the data link is made with a Modular Processor Data Module (MPDM).

Some System 75s may have an SCI (consisting of three interface cards: Interface–1, Interface–2, and Interface–3), instead of the PI board for a data link. This setup always connects the AUDIX system data port to the System 75 switch using an MPDM.

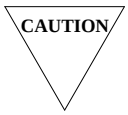
A data link with an MPDM requires an MPDM extension (Step 1) and a data interface extension (Step 2). A data link using an IDI requires only a data interface extension. (See the following chart.)

Data Link Connection		
Data Link	**Data Device**	**Start With...**
PI with EIA port	IDI	Step 2
PI without EIA port	MPDM	Step 1
SCI	MPDM	Step 1

IMPORTANT: At the switch administration terminal, start with Step 1 (MPDM) or Step 2 (IDI):

1. Enter **`add data-module [spare extension]`** to assign an MPDM.
   a. Set `Type` to **`pdm`**
   b. Set `Port` to the equipment location of the data module.
   c. Set `Connected to` to **`dte`**
   d. Set `Remote Loop-Around Test?` to **`n`**
   e. Press ENTER.
2. Enter **`add data-module [spare extension]`** to assign a data interface (IDI).
   a. Set `Type` to **`proc-intrfce`** (You may have to type **`interface`** on a System 75 with Interface–1, Interface–2, and Interface–3 packs.)
   b. Set `Physical Channel` to **`01`**, **`02`**, **`03`**, or **`04`** (A data link using an IDI to the TN765 must use **`01`**)
   c. Press ENTER.

   You must administer all four SCI link channels and all four Netcon channels.
3. Enter **`change communication-interface links`** to reset the interface.



Perform this step during off-hours only. This step causes an interface reset which affects all other links (such as DCS and CMS).

   For the physical channel of Step 2:
   a. Set `Enabled` to **`y`**
   b. Set `Establish Connection` to **`y`**
   c. In the `Destination Number` field:
      - Set the MPDM extension if a MPDM is used.
      - Type **`eia`** if an IDI is used.
   d. Set `DTE/DCE` to **`DTE`**
   e. Set `Identification` to **`audix`**
   f. Press ENTER.

   If an IDI was used and **`eia`** was entered in `Destination Number`, additional fields are displayed. Perform the following:
   a. Set `Connected to:` to **`DCE`**
   b. Set `Clocking:` to **`Internal`**
   c. Press ENTER.

4. Enter **`change communication-interface processor-channels`**

   On page 4 of the form for `Proc Chan 59` (processor channel 59 is a convention, but any free processor channel can be used):

   a. Set `Interface Link` to the physical channel of Step 2.

   b. Set `Interface Channel` to the node number of the switch (1–20).

   c. Set `Priority` to **`h`**

   d. Set `Remote Proc Chan` to the AUDIX system port number. (This number must equal the node number of the switch.)

   e. Set `Appl` to **`audix`**

   f. Press ENTER.

   g. Set `PBX ID` (or `Machine–ID`) to the number set in Steps b and d above.

5. This step verifies that the switch-to-AUDIX system link is operational. But before it can be operational, you must assign the link at the AUDIX system. Return to this step after completing the switch administration and after the technician has installed and administered the AUDIX system.

   If the AUDIX system link is not up in 5 minutes, use the appropriate Generic 1, System 75, or System 75 XE maintenance manual and the following steps to diagnose the AUDIX system link. **Substitute the brackets below with the physical channel of Step 2:**

   a. Make sure the time and date have been set correctly. If not, enter **`set time`** to correct them.

   b. Enter **`status data-module (PDM extension)`** to verify that the Interface–2 (TN738) can establish a connection through the Interface–3 (TN719) to the PDM/MPDM. [Or the Processor Interface (TN765) to the MPDM.]

   c. Enter **`status processor-channel 59`** The status of this channel should be *3*.

   d. Repeat the same command. The status will change to *4*.

   e. Again, enter the same command. The status should be back to *3*.

   f. Once more, enter **`status processor-channel XX`**

      The status should eventually change to *6*. If not, do the following:

      1. Enter the command a few more times until the status changes to *6*.
      2. If the status never reaches *6*, enter **`test link [ ]`**
      3. Type **`l r 1`** at the end of the command line.
         - If the test fails, follow the procedures in the switch maintenance manual.
         - If the test passes and the link status does not display on the screen, call the appropriate remote maintenance service center that supports this system.

   g. Enter **`status link [ ]`** to verify that the AUDIX system link has been established. Under `LOCAL/REMOTE PROCESSOR CHANNELS:`, **`59/1`** should display.

   h. Clear any AUDIX system alarms and call the AUDIX system extension to verify that the AUDIX system answers.

Assign Switch Features for AUDIX System Subscribers

In this section, you will assign the switch features for the AUDIX system subscribers.

1. Enter **`add coverage path next`** to administer a new path. The values displayed are default assignments that you can change on request.

   Under `COVERAGE POINTS`:

   a. Set `Point 1` to the AUDIX system hunt group number (example, **`h1`**).

   b. Set `Number of Rings` to (**`n - 1`**), where *n* is the number of rings desired before calls redirect to coverage. For example, if three rings are desired, enter **`2`** in this field.

   c. Press ENTER.

2. Enter **`add station [extension]`** to assign a new voice terminal extension.

   a. Set `COS` to a COS that has Call Forwarding—All Calls.

   b. Set `Coverage Path` to the new coverage path number.

   c. Set `LWC Reception` to **`audix`**

   d. Set `LWC Activation?` to **`y`**

   e. Set `Redirect Notification?` to **`y`**

   f. Set `Message Waiting Indication?` to **`y`**

   g. Under `BUTTON ASSIGNMENTS`, enter the following button assignments when needed to interact with AUDIX system features:

   - **`call-fwd`**
   - **`goto-cover`**
   - **`lwc-store`**
   - **`send-calls`**

   h. Press ENTER.

3. Repeat Step 2 for the next voice terminal.

DCS ADMINISTRATION

The AUDIX system can serve more than one switch when the switches are part of a network such as the Distributed Communications System (DCS). The switch that hosts the AUDIX system connects it to the other switches in the network. The AUDIX system uses the switch's existing DCS trunks for both data and voice communication. This section outlines the procedures for administering the System 75, System 75 XE, or Generic 1 for the AUDIX system in a DCS environment.

A System 75, System 75 XE, or Generic 1 can recognize only one AUDIX system. (Processor channel 59 is a convention, but any free processor channel can be used.)

NOTE

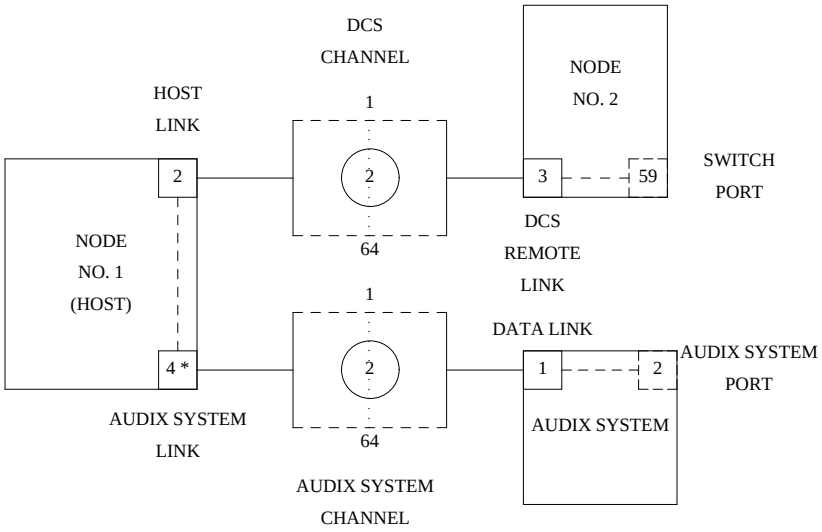
The procedures in this section assume that the voice channels are already translated between the switch nodes. See the appropriate switch documentation for these procedures.

Data Link Administration

Figure 2-1, *AUDIX System Data Link to a DCS Switch*, shows that DCS switch data connections involve a distant switch, a host switch, and an AUDIX system. Some coordination is required here when assigning port and channel numbers as described after this figure.

NOTE

The GBCS Design Center can assist you when designing a multi-node AUDIX DCS system.



* An IDI always uses link 1.

Figure 2-1. AUDIX System Data Link to a DCS Switch

Before starting, gather the following information:

- Which switch port will be used at the distant switch? (Processor channel 59 is a convention, but any free processor channel can be used.)

  SWITCH PORT_____(59 is used in Figure 2-1, *AUDIX System Data Link to a DCS Switch*,)

- Which DCS link and channel will be used between the distant and host switches? (SCI link 1–4.)

  DCS REMOTE LINK_____(3 is used in Figure 2-1)
  DCS HOST LINK_____(2 is used in Figure 2-1)
  DCS CHANNEL_____(2 is used in Figure 2-1)

- Which AUDIX system port/channel will be used between the host switch and the AUDIX system? In other words, the node number of the distant switch(es). [The Uniform Number Plan (PBX ID)]. The PBX ID must be assigned on the switch for the AUDIX system to answer.

  Use the switch (or node) number as the AUDIX system port and as the AUDIX system channel.

  AUDIX SYSTEM PORT_____(2 is used in Figure 2-1)
  AUDIX SYSTEM CHANNEL_____(2 is used in Figure 2-1)

Assign the Processor Channel at the Remote Switch

Go to the remote switch and use the following steps to assign an AUDIX system switch port (see Figure 2-1, *AUDIX System Data Link to a DCS Switch*, NODE No. 2). Assign this switch port to a spare channel on the DCS link connected to the AUDIX system host (NODE No. 1).

Perform these steps at each remote switch.

Enter **`change communications-interface processor-channels`**

On page 4 of the form, for processor channel 59 (processor channel 59 is a convention, but any free processor channel can be used):

1. Set the `Interface Link` field to the DCS REMOTE LINK.
2. Set the `Interface Channel` field to the DCS CHANNEL. (A value equal to that switch's DCS node number.)
3. Set `Priority` to **`h`**
4. Set `Remote Processor Channel` to the AUDIX SYSTEM PORT.
5. Set `application` to **`audix`**
6. Set `PBX ID` (or `Machine–ID`) to **`1`** (the AUDIX system machine number).

   NOTE

   This should be the same number as shown in the `AUDIX` field on the AUDIX `system : translation : switch connection` form.

7. Press ENTER.
8. Type **`reset interface`**

Assign the Hop Channel

At the host switch, use the following steps to establish a hop (a software data path) from the remote switch through the host switch to the AUDIX system.

Enter **`change communication-interfaces hop-channel`**

1. Set `Link` to the AUDIX SYSTEM LINK.
2. Set `Channel` to the AUDIX SYSTEM CHANNEL.
3. Set `Link` to the DCS HOST LINK. This is the number of the DCS link connecting the host to the remote node.
4. Set `Channel` to the DCS CHANNEL. (A value equal to that switch's DCS remote node number.)
5. Set `Priority` to **`h`**
6. Press ENTER.
7. Type **`reset interface`**

Do the following if your switch has the Uniform Dial Plan feature:

1. Enter **`dial plan`** to verify that the Uniform Dial Plan is enabled.
2. On page 2 of the form, verify that any RNXs associated with the host and remote switches that require DCS have a node number.

Assign the Hunt Group

At the remote switch, assign the remote AUDIX system (rem-audix) hunt group with the host switch AUDIX system extension number. No host switch administration is required.

Enter **`add hunt-group next`** to assign a new hunt group.

On page 1 of the form, enter:

1. Set `Group Extension: _____` to the AUDIX system extension number for the remote switch. Verify that this extension is in the Uniform Dialing Plan of the switch.
2. Set `Group Type` to **`ucd`**
3. Set `Group Name` to **`AUDIX`**
4. Set `Message Center` to **`rem-audix`**
5. Set `ACD?` to **`n`**
6. Set `Queue?` to **`n`**
7. Set `AUDIX Extension: _____` to the extension number assigned to the AUDIX system hunt group at the host switch.
8. Press ENTER.

Other fields are optional. Page 2 of the form is *not* needed.

NOTE

Before the subscribers can log in to the AUDIX system, the AUDIX System Administrator must administer the AUDIX system. (The AUDIX system will not answer unless the `switch number` field on the AUDIX `subscriber : local` form is filled in by the system administrator.)

Administer the Subscribers

System 75, and System 75 XE Release 1, Version 3 (1.4) use Go to Cover, Send All Calls, and/or Call Forwarding to direct calls to the AUDIX system. Any earlier releases must use Call Forwarding.

1. Enter **`add coverage path next`** to administer a new path.

   Under `COVERAGE POINTS`:

   a. Set `Point 1` to the AUDIX system hunt group number (for example: **`h1`**).

   b. Set `Number of Rings` to **`n - 1`**, where *n* equals the number of rings desired before calls redirect to coverage. For example, if three rings are desired, enter **`2`** in this field.

2. Enter **`add station [extension]`** to add a new voice terminal.

   a. Set `Coverage Path` to the number from Step 1.

   b. Set `LWC Reception` to **`audix`**

      If subscribers with digital sets want their Leave Word Calling (LWC) messages to go to their sets, do the following:

   c. Set `LWC Activation` to **`y`**

   d. Set `Redirect Notification` to **`y`**

   e. Set `Message Waiting Indication` to **`y`**

   f. Under `BUTTON ASSIGNMENTS`, enter the following button assignments when needed to interact with AUDIX system features:

      - **`call-fwd`**
      - **`goto-cover`**
      - **`lwc-store`**
      - **`send-calls`**

   g. Press ENTER.

3. Use **`change cos [subscriber cos number]`** to activate Call Forwarding—All Calls, if necessary.

4. Repeat Steps 2 and 3 for the next voice terminal.

OPTIONAL FEATURES ADMINISTRATION

This section describes how to assign the Automated Attendant, Call Transfer, Switch Recorded Announcement, and Switch Multiple Coverage Paths on the Generic 1, System 75, or System 75 XE.

Automated Attendant Administration

Automated Attendant is an AUDIX system feature that provides the caller with a menu of options. The caller then can request a department or extension by pressing a touch-tone key.

You can either assign a station on the switch for each main attendant or assign a new hunt group that forwards calls to the AUDIX hunt group.

Assigning a Station

You can assign a station on the switch for each main attendant. The station requires a physical port on the switch. A physical voice terminal is not required; but, if a voice terminal is not attached to the port, a minor switch alarm will be generated. Use the following procedure to assign a station for a main attendant.

1. Assign a station for the type of port that is available. Refer to the appropriate switch documentation for information on assigning a station.
2. Assign the station extension (from Step 1) as the incoming destination for the incoming call trunk groups that will be served by the automated attendant. If you are not using the automated attendant as an incoming destination for a trunk group, go to the next step. Make sure `Auth Code?` is set to **`n`**
3. From the attendant console (or administrative voice terminal), activate Call Forwarding All Calls for the automated attendant extension. Make the destination the AUDIX hunt group extension.
4. Run the Switch Names Audit from the AUDIX system if the system is administered in DP Mode.

Assigning a Hunt Group

Assign a new hunt group for the automated attendant if there is not a physical port available on the switch for a station. The hunt group forwards calls to the AUDIX hunt group. Use the following procedure to assign a hunt group for the automated attendant.

1. Enter **`add hunt group`** *number* to assign a new hunt group.
    a. Set `Group Name` to a name that contains the group extension. The group name can be the group extension, or the group extension can be embedded in the group name.
    b. Set `Group Extension` to the automated attendant extension on the worksheet.
    c. Set `Group Type` to **`ucd`**
    d. Leave `Coverage Path` blank for best operation, because all calls are forwarded to the AUDIX hunt group extension.

e. Set the other fields according to the customer requirements.

f. Set `Queue?` to **n**

Do not assign any members to this hunt group.

g. Press Enter.

2. Assign the automated attendant group extension (from Step 1) as the incoming destination for the incoming call trunk groups that will be served by the automated attendant. If you are not using the automated attendant as an incoming destination for a trunk group, go to the next step. Make sure `Auth Code?` is set to **n**

3. From the attendant console (or administrative voice terminal), activate Call Forwarding All Calls for the automated attendant extension. Make the destination the AUDIX hunt group extension.

Night Service to Automated Attendant

You can set up night service to an automated attendant from an incoming trunk or from a Listed Directory Number (LDN).

From Incoming Trunk

Use the following procedure to set up night service to an automated attendant from an incoming trunk.

1. Assign the night automated attendant extension or hunt group number to the `Night Service` field on the trunk group form. The night automated attendant will receive all incoming calls when night service is activated.

2. Activate Call Forwarding All Calls for the night automated attendant extension or hunt group number. Make the destination the AUDIX hunt group extension.

While the console is in day service mode, calls will route as usual according to the incoming destination on the trunk group form. When the console is placed in night service mode, calls will route according to the night automated attendant destination identified in the `Night Service` field.

From Listed Directory Number (LDN)

Use the following procedure to set up night service to an automated attendant from an LDN.

1. Assign an extension or extensions on the `listed directory numbers` form. Make sure that these extensions do not exist elsewhere in the switch.

2. For each extension assigned in Step 1, assign a name that includes the night automated attendant extension or hunt group number as part of the name.

3. Assign the AUDIX hunt group extension in the `Night Destination` field.

When the attendant console(s) is in day service mode, the LDN acts as usual. When the attendant console(s) is placed in night service mode, calls are sent to the AUDIX hunt group extension and are answered by the automated attendant that corresponds to the number in the LDN name field.

Automated Attendant Substitute Strategies

A substitute for an automated attendant is needed so that calls do not go unanswered when the AUDIX system is busy or unavailable. Each AUDIX system installation will have to be tailored individually. Consult the appropriate switch documents for details and interactions with other features.

For System 75, System 75 XE, or Generic 1, either a station or a hunt group was assigned to access the automated attendant. If a station was assigned, no substitute is available.

If a hunt group was assigned and the AUDIX system is unavailable, use the attendant console to change the destination of Call Forwarding from the AUDIX system to a *live* attendant (for example, forward calls to LDN). When the AUDIX system becomes available, reactivate forwarding to the AUDIX system extension. Another option is to change the incoming destination to go to a recorded announcement while the automated attendant is out of service (see *Switch Recorded Announcement*).

Transfer Into AUDIX

This feature allows an attendant (or other party) to transfer a caller who has been sent to coverage (or otherwise redirected) back to the AUDIX system to record a message.

The host switch must be a System 75 or Generic 1 R1V3 (1.4 or later) to use this feature.

If used in a DCS, assign the same Transfer Into AUDIX feature access code at each node.

1. Enter **`feature access codes`**
2. Assign a dial access code to the `Transfer Into AUDIX` field.
3. Make sure the AUDIX system hunt group is assigned to the coverage path of any subscriber who intends to use this feature.

Call Transfer Out of AUDIX

The AUDIX system allows two types of call transfers out of the AUDIX system: basic and enhanced. Basic Call Transfer uses a switchhook flash method of call transfer and may be used on any switch. Enhanced Call Transfer uses the data link to allow calls to be transferred only to valid extensions on a fully integrated switch capable of supporting Enhanced Call Transfer.

Activating Basic Call Transfer leaves your system vulnerable to possible toll fraud. See *GBCS Products Security Handbook* **(555-025-600) for more information on AUDIX security issues.**

AUDIX R1V7 and later software automatically disables the Call Transfer Out of AUDIX feature on new systems to provide maximum security for the prevention of toll fraud.

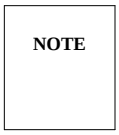
Before you activate call transfers out of the AUDIX system, consider the following:

- If your switch supports *enhanced* call transfer and you administer the AUDIX system to use enhanced call transfer, you minimize your risk for toll fraud. Switches that support Enhanced Call Transfer include:
  - — AT&T DEFINITY Generic 1, Generic 2, or Generic 3
  - — AT&T System 75 XE or System 75 R1V3 Issue 1.4 (or later)
  - — AT&T System 85 R2V4 (or later)
- If your switch does *not* support enhanced call transfer, you may wish to re-evaluate your need to use the Call Transfer Out of AUDIX feature against the possibility of incurring toll fraud.

  Some AUDIX features that require the Call Transfer Out of AUDIX feature include automated attendants administered to redirect calls out of the AUDIX system (the `e` option), the Return the Call option, and the Escape to Attendant feature.

To activate the Call Transfer Out of AUDIX feature:

1. Log in to the AUDIX system as described in the appropriate forms reference manual for your version of AUDIX software.
2. Enter **`sy tr s`** on the AUDIX `PATH` line.
   a. If the switch type is `dciu-sci`, enhanced call transfer will probably work on your system. Go to Step 3.

   If you have a DIMENSION 2000 PBX or an early System 75, System 75 XE, or System 85 switch, you need to activate *basic* call transfer in order to obtain call-transfer capability (see Step 5).

   b. If the switch type is `smsi, bri-api, sl1, stand-alone`, or some other type of non-AT&T switch, you will need to activate *basic* call transfer as described in Step 5.

   AT&T personnel: DO NOT activate the Call Transfer Out of AUDIX feature for a customer under any circumstances. Customers must activate this feature themselves so they can see the warning message about possible toll fraud.

3. Enter **`sy ap`** on the AUDIX `PATH` line.
4. Set `call transfer out of AUDIX feature?` to **`y`**
   a. The `enhanced call transfer` field is automatically set to **`y`**

   If your switch supports enhanced call transfers, leave this field set to **`y`** to provide maximum protection from toll fraud.

   b. If your switch does *not* support enhanced call transfers, go to Step 5.

5. Set `enhanced call transfer?` to **n**

AT&T personnel: DO NOT set the `enhanced call transfer` field to `n` unless the AUDIX software specifically requires remote services intervention. On many AUDIX systems, customers must set this field themselves so they can see the warning message about possible toll fraud.

A warning message about possible toll fraud will appear. This message is intended to remind customers that they are at risk whenever enhanced call transfer is not used; however, basic call transfer (switchhook flash) is the only way to allow Call Transfers Out of AUDIX on switches that do not support the Enhanced Call Transfer feature.

Switch Recorded Announcement

The following procedure is used to provide a recorded announcement at the switch for anyone who accesses the AUDIX system, either through a direct call or through call redirection. The announcement is heard when all the AUDIX system voice ports are busy and calls start entering the AUDIX system queue.

NOTE

The services technician must install a TN750 Announcement circuit pack in a vacant slot or wire a customer-provided system to a vacant analog port for this feature to work.

1. At the administration terminal, enter **`change announcements`**
   a. On a vacant line (1 to 64), set `Ext.` to the extension number. The number must agree with the dial plan.
   b. Set `Type` to:
      - **`integrated`** (if a TN750 is used)
      - **`analog`** (if external equipment is used)

      If you enter analog, you must complete the `Queue Length` and `Port` fields. The `Queue Length` field applies only if **`y`** is entered in the `Queue` field.
   c. Set `COR` from 0 to 63.
   d. Set `Name`. (You can use up to 15 characters to describe the announcement message.)
   e. Set `Queue` to **`y`**
   f. For `Protect` or `Queue Length`:
      - If a TN750 is used, set `Protect` (integrated) to **`n`**
      - If customer-provided external equipment is used, set `Queue Length` (analog) from 1 to 150.
   g. If you entered integrated, set `Rate` to specify the recording speed when recording announcements on the TN750 Integrated circuit pack. Valid entries are 16, 32, or 64.
   h. If you entered analog, set `Port` to the equipment location.

i. Press Enter.

2. Enter **change hunt-group 59**

   a. Set First Ann. Extension to the extension of the announcement system.

   b. Set First Announcement Delay (sec) to **5**

   c. Press ENTER.

3. Record the announcement:

   - For a TN750, dial the announcement's extension number from the console (or from a voice terminal with a console COS).
   - For a customer-provided external announcement system, make the recording using the instructions provided with the system.

Switch Multiple Coverage Paths

Multiple coverage paths provide greater flexibility for call-answer treatment. Generic 1, System 75, or System 75 XE can have up to four paths linked together.

On the Coverage Path form, specify a second path in the Next Path Number field. You can link the second path to other paths. These will be displayed in the Linkage field. For more details, see the appropriate System 75, System 75 XE, or Generic 1 documentation.

3. Generic 2 or System 85

This chapter describes how to administer an AUDIX system on a Generic 2 or System 85. See *AUDIX Networking* (585-300-903) for information on administering the switch for AUDIX Networking. For information about what equipment is required on the Generic 2 or System 85 to work with the AUDIX system, refer to the *AUDIX System Description* (585-305-201).

The following sections are presented in Maintenance and Administration Panel (MAAP) format. Manager II, in its simplest form, emulates the operations of the MAAP. DEFINITY Manager III and Manager IV are covered in their own documentation sets. Refer to the appropriate manual for more information on administering systems using Manager III or Manager IV:

- *DEFINITY Manager III Operations* (585-222-701)
- *DEFINITY Manager IV Facilities Management Operations* (585-223-702)
- *DEFINITY Manager IV Terminal Change Management Operations* (585-223-701)
- *DEFINITY Manager IV System Administration* (585-223-700)

GENERAL ADMINISTRATION

This section contains step-by-step procedures to administer an AUDIX system on a Generic 2 or System 85. You will assign voice ports and the AUDIX system ACD split, assign a data link, and then assign switch features for AUDIX system subscribers.

Assign Voice Ports and the AUDIX System ACD Split

This section provides information about Call Vectoring as well as the procedures to assign a new class of service (COS) to the extension numbers, assign the extension numbers to each voice port, and assign the Automatic Call Distribution (ACD) split.

In the following procedures, you will identify each AUDIX system voice port as a member of one or more call distribution groups (hunt groups). This group (split) is a set of analog port boards on the switch that connects subscribers and users to the AUDIX system by distributing new calls to idle ports. System 85 R2V3 and R2V4 and Generic 2 use ACD for call distribution. System 85 R2V2 uses Enhanced Uniform Call Distribution (EUCD). See the appropriate switch documentation for more information about call distribution groups.

Information About Call Vectoring

A Generic 2 or System 85 R2V4 may be set up with either a regular ACD split or with ACD Call Vectoring. Call Vectoring uses a vector (switch program) that allows the customer to customize the behavior of specific incoming calls. For example, a vector can be programmed to provide automatic AUDIX system night coverage for calls that would otherwise redirect to an unstaffed Message Center split.

If your switch uses Call Vectoring, do *not* enter an AUDIX system ACD extension for the queue directory number (QDN) in Procedure 026, Word 2. Instead, assign the AUDIX system a Vector Directory Number (VDN). This is the number subscribers dial to access the AUDIX system directly. Tie the VDN to a vector using Procedure 031, Word 1; the vector processes and directs calls to the AUDIX system ACD split. The split itself does not have an externally accessible number.

If you implement ACD Call Vectoring on a working switch, you must erase and reenter many AUDIX system switch assignments. Consult the appropriate Generic 2 or System 85 switch administration manual for details.

Table 3-1, *Voice Port and ACD Split Procedure Overview*, summarizes the procedures that are detailed in the following text.

Assign a New COS to Extension Numbers

Assign a COS (1–63) to every extension assigned to the AUDIX system. A COS specifies the features a voice terminal user is allowed to access and the calling restrictions that apply to the voice terminal.

010 Word 1 Administer the features assigned to a station line COS.

Field	Manager II Field Name	Enter
1	Class of Service	**[COS]**
14	Conference 3-Party/Transfer	**1**
15	Touch-tone Dialing	**1**
20	ACD/EUCD Member	**1**

Press CHANGE and EXECUTE.

010 Word 3 Administer the restrictions that are applicable to a COS.

Field	Manager II Field Name	Enter
18	Origination	**0**
23	FRL	*****

* Verify that this field equals Procedure 275, Word 3, Field 10.

Press CHANGE and EXECUTE.

Table 3-1. Voice Port and ACD Split Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	*COS*	
		14	Conference 3-Party/Transfer	**1**	
		15	Touch-tone Dialing	**1**	
		20	ACD Member	**1**	Change
2	010 Word 3	18	Origination	**0**	
		23	FRL	Verify = 275 Word 3, Fd 10	Change
3	000 Word 1	1	Extension or VDN	*ext #*	
		2–6	Module, Cabinet, Carrier, Slot, Circuit	*equip loc*	
		7	Class of Service	*COS*	
		8	Port Type	**1**	Add
4	000 Word 2	1	Extension	*ext #*	
		9*	LWC Destination	*machine #*	Add
		10‡	LWC Destination	*machine #*	Add
5	100 Word 1	1	Trunk Group	*trk grp #*	
		5§	Trunk Type	**6**	
		6**	Trunk Type	**6**	Add
		8§	Personal CO Line Appearance	**0**	Add
		11**	Personal CO Line Appearance	**0**	Add
6	026 Word 1	1	ACD Split	*split #*	
		2	Split Size	*# of AUDIX system ports*	
		4	Queuing Trunk Group	*trk grp #*	
		8	Inflow Level	**0**	
		9	Hunt Type	**0**	
		9†	Split Type	**2**	
		10	Split Type	**2**	
		11	Machine Number	*machine #*	Add
7	001 Word 1	1	Primary Extension	*ext #*	
		2	Associated Extension	*AUDIX system ext #*	Add
8	026 Word 2	1	ACD Split	*split #*	
		2*	Supervisory Extension	**0**	
		2‡	Supervisory Extension	*ext #*	
		3*	Queue Directory Number	*ext #*	
		3‡	Queue Directory Number	*AUDIX system ext #*	Add
		4*	Priority Extension	*ext # for mbr 0*	Add
9	026 Word 3‡	1	ACD Split	*split #*	
		2	Member	**0**	Next Data
		3	Member Extension	*ext # for split mbr 0*	Add

* R2V2

† R2V3

‡ R2V3 or later

§ R2V2 and R2V3

** R2V4 or later

Assign Extension Numbers to Each Voice Port

000 Word 1 Assign an extension number to each voice port using the COS from Procedure 010, Word 1, Field 1.

Field	Manager II Field Name	Enter
1	Extension or VDN	**[extension]**
2–6	Module, Cabinet, Carrier, Slot, Circuit	*****
7	Class of Service	**[COS]†**
8	Port Type	**1**

* Enter the equipment location of the switch line circuit wired to the AUDIX system voice port 1.

† Enter the new COS from Procedure 010, Word 1, Field 1.

Press ADD and EXECUTE.

Repeat Procedure 000, Word 1 for the other voice port extension numbers.

000 Word 2 Administer the hunt-to extensions and controlled restriction groups associated with an extension.

For R2V2:

Field	Manager II Field Name	Enter
1	Extension	**[extension]***
9	LWC Destination	**[AUDIX system machine #]†**

For R2V3 or later:

Field	Manager II Field Name	Enter
1	Extension	**[extension]***
10	LWC Destination	**[AUDIX system machine #]†**

* Enter the extension number assigned to the AUDIX system voice port number 1.

† This is usually 1.

Press ADD and EXECUTE.

Repeat Procedure 000 Word 2 for the other voice port extension numbers.

Assign an ACD Split

100 Word 1 Assign the `Trunk Group` and the `Trunk Type` to trunk groups.

For R2V2 and R2V3:

Field	Manager II Field Name	Enter
1	Trunk Group	**[trunk group #]**
5	Trunk Type	**6**
11	Personal CO Line Appearance	**0**

For R2V4 and later:

Field	Manager II Field Name	Enter
1	Trunk Group	**[trunk group #]**
6	Trunk Type	**6**
8	Personal CO Line Appearance	**0**

Press ADD and EXECUTE.

026 Word 1 Administer the split characteristics for the ACD feature.

Field	Manager II Field Name	Enter
1	ACD Split	**[split #]**
2	Split Size	*****
4	Queuing Trunk Group	**[queue trunk group #]**
8	Inflow Level	**0†**
9	Hunt Type	**0‡**
10	Split Type	**2**
11	Machine Number	**[AUDIX system machine #]**

* Enter the number of AUDIX system ports (each TN501B has two ports). You can only enter this number in multiples of 16.

† If Call Vectoring is used, put a dash in this field.

‡ For R2V3, enter **2**

Press ADD and EXECUTE.

001 Word 1 Administer the extensions associated with existing extensions. These associated extensions often are used as Listed Directory Numbers (LDNs) that provide access to ACD splits. Do *not* assign an extension that was assigned already in Procedure 000, Word 1.

Make sure the AUDIX system associated extension is a Direct Inward Dialing (DID) type so outside users can reach the AUDIX system.

Administer this procedure before going to Procedure 026, Word 2.

Field	Manager II Field Name	Enter
1	Primary Extension	**[extension]***
2	Associated Extension	**[extension]†**

* Enter the extension number assigned to the AUDIX system split member 0 (the AUDIX system voice port number 1).

† Enter the number dialed by the AUDIX system subscribers to access the AUDIX system.

Press ADD and EXECUTE.

If your switch has been previously assigned, error code 12 may display when the associated extension number is assigned already as an extension number. Remove this extension as a primary extension number by doing the following:

1. Go to Procedure 000, Word 1.
   a. Set Field 1 (`Extension or VDN`) to the primary extension number.
   b. Press DISPLAY, EXECUTE, REMOVE, and EXECUTE.
2. Go to Procedure 003, Word 1.
   a. Set Field 1 (`Extension`) to the **`[primary extension #]`**.
   b. Press DISPLAY and EXECUTE.
   c. Set Field 2 (`Days Remaining in Recent Disconnect`) to **`0`**
3. Press CHANGE and EXECUTE.

026 Word 2 Administer the ACD split supervisor, QDN, and priority extension. *Follow the correct procedure for your switch version.*

For R2V2:

Field	Manager II Field Name	Enter
1	ACD Split	**[AUDIX system split #]**
2	Member Number	**0**
3	Supervisor Extension	**[AUDIX system voice port]**
4	Associated Extension	*****

* Enter the AUDIX system extension when adding member 0. For other members, this field is left dashed.

Press ADD and EXECUTE.

Continue to the section titled, *Assign a Data Link.*

For R2V3:

Field	Manager II Field Name	Enter
1	ACD Split	**[AUDIX system split #]**
2	Associated Extension	*****
3	Queue Directory Number	**[AUDIX system extension]**

* Enter the extension number assigned to the AUDIX system split member 0 (the AUDIX system voice port number 1).

Press ADD and EXECUTE.

For R2V4 or later:

Field	Manager II Field Name	Enter
1	ACD Split	**[AUDIX system split #]**
2	Supervisory Extension	*****
3	Queue Directory Number	**[AUDIX system extension]†**
5	Multiple Call Handling	**-**
6	Auto Available	**-**

* Enter the extension number assigned to the AUDIX system split member 0 (the AUDIX system voice port number 1).

† If you use Call Vectoring to process calls to the AUDIX system ACD, leave this field dashed.

Press ADD and EXECUTE.

After administering this procedure, do the following:

1. If the switch has a CMS, busy it out (Procedure 028 Word 2).
2. Assign a vector (Procedure 030 Word 3).

026 Word 3 For R2V3 or later, administer the ACD split member characteristics.

Field	Manager II Field Name	Enter
1	ACD Split	**[AUDIX system split #]**
2	Member	**1**
3	Member Extension	**[extension number of split member 1]**

Press ADD and EXECUTE after each entry.

Repeat Fields 2 and 3 to add the other members of the AUDIX system split.

NOTE

Error code 88 is displayed when the member extension number is not assigned to the AUDIX system machine number in Procedure 000 Word 2, Field 9. Assign a machine number first.

Assign a Data Link

The data link is the connection from the AUDIX system cabinet to the switch Data Communications Interface Unit (DCIU) that enables nonvoice (data) messages to pass between the AUDIX system and the switch. A Generic 2 or System 85 switch requires one link on a DCIU to be administered for the AUDIX system.

This section describes how to busy out the DCIU, assign the link, administer the switch maintenance port, release-busy the DCIU, test the DCIU links, and check the system clocks.

Verify DCIU and Record Switch Number

275 Word 1 Administer the system COS for the DCIU.

Field	Manager II Field Name	Enter
15	Tandem Tie Trunk	**1**
16	Trunk-Trunk Calling	**1**
17	DCIU	**1**

Press CHANGE and EXECUTE.

275 Word 3 Use this procedure to record the local switch number and check the `Caller Response Interval` and the `Coverage Point Don't-Answer Interval`.

Field	Manager II Field Name	Action
3	Caller Response Interval	*
4	Coverage Point DA Interval	†
8	Local Switch Number	**Record this number (if dashed, record 1)**
10	Call Control FRL	**Record this number.**

* Verify that this is set to the correct number of 2 s intervals. This determines the delay in transfer to the next coverage point. This delay, which causes a period of silence between the final ring at the subscriber's voice terminal and the first ring at the first coverage point, should not be so long as to cause the calling party to feel that the call has been dropped.

† Verify that this is set to the correct number of ringing cycles. Local requirements determine the number of ringing cycles before the call continues to the next coverage point. This number applies to ringing at the coverage points, not at the subscriber's voice terminal. The number of ringing cycles before coverage is determined on an individual group basis in Procedure 011, Word 1, Field 6.

Press CHANGE and EXECUTE.

Table 3-2. Data Link Procedure Overview *(Page 1 of 2)*

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	275 Word 1	15	Tandem Tie Trunk	**1**	
		16	Trunk-Trunk Calling	**1**	
		17	DCIU	**1**	Change
2	275 Word 3	3	Caller Response Interval	verify 2-sec intervals	
		4	Coverage Point DA Interval	verify ringing cycles	
		8	Local Switch Number	record #	
		10	Call control FRL	record #	Change
3	258 Word 2*	1	Copy Tables	**1**	Change
4	256 Word 1	1	Link	*link #*	Display
		2	Assigned	**1**	
		3	Baud	**6**	
		4	Local DTE/DCE	**0**	
		5	Dial-Up	**0**	
		6	Protocol	**1**	
		7	Destination Machine Type	**3**	
		8	Destination Machine Number	*machine #*	Change
5	256 Word 2	1	Link	*link #*	
		2	Retransmission Timer	**1**	
		3	Idle Timer	**10**	
		4	Maximum Retransmissions	**2**	
		5	Maximum Unacknowledged Frames	**7**	Change
6	256 Word 3†	1	Link	*link #*	
		2	Activity Timer	**180**	
		3	Acknowledge Timer	**20**	
		4	Interrupt Timer	**180**	
		5	Reset Timer	**8**	
		6	Restart Timer	8	
		10	Maximum Unacknowledged Packets	**4**	Change
7	257 Word 5†	1	Port Number	*local port #*	
		2	Application Type	**13**	
		3	Instance Number	*machine #*	Add
8	257 Word 2	1	Local Port	*local port #*	
		2	Remote Port	*remote port #*	Change

* R2V2 or R2V3

† R2V4 or later

(Continued)

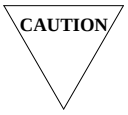
TABLE 3-2. Data Link Procedure Overview *(Page 2 of 2)*

Step	Procedure	Field	Manager II Field Name	Enter	Press
9	257 Word 1	1	Chan A — Link (switch)	**0**	
		2	Chan A — Logical Channel (local port)	*local port #*	
		3	Chan B — Link (switch)	*link #*	
		4	Chan B — Logical channel (local port)	*channel #*	
		5	Priority	**1**	
		6	Alternate Routing Flag	**0**	
		7	Table Indicator	**0**	Add
10	258 Word 1	1	Reboot DCIU	**1**	
		2	Configuration	verify = 1	Change
11	258 Word 2	1	Copy Tables	**1**	Change
12	350 Word 2	1	Feature	**58**	Add
13	261 Word 1†	1	Local Adjunct Class	**2**	
		2	Local Adjunct Number	*machine #*	
		3	Local Adjunct Type	**3**	
		5	N-digit Format	**1**	
		6	Message Scrolling	**1**	
		7	Network Adjunct Number	*ntwk adj #*	Add
14	261 Word 2†	1	Network Adjunct Class	**2**	
		2	Network Adjunct Number	*ntwk adj #*	
		3	Adjunct Extension	*AUDIX system ext*	Add

† R2V4 or later

Assign a Link

258 Word 2 **For R2V2 and R2V3,** refresh the DCIU scratch-pad translation tables.



This procedure could erase all the translations if used on a R2V4 or Generic 2 switch.

For R2V2 and R2V3: *Any previous changes to the tables that were not saved in Procedure 258, Word 1 will be erased.*

Field	Manager II Field Name	Enter
1	Copy Tables	**1**

Press ADD and EXECUTE after each entry.

256 Word 1 Administer the characteristics to a DCIU link.

a. Set Field 1 (`Link`) to the **`[AUDIX system link #]`**

b. Press DISPLAY and EXECUTE.

At this point, Field 2 should equal 0.

Field	Manager II Field Name	Enter
2	Link Assigned	**1**
3	Baud Rate	**6**
4	Local DTE/DCE	**0**
5	Dial Up	**0**
6	Protocol	**1**
7	Destination Machine Type	**3**
8	Destination Machine Number	**[AUDIX system machine #]**

Press CHANGE and EXECUTE.

256 Word 2 Administer the DCIU link BX.25 level two timers and counters.

Field	Manager II Field Name	Enter
1	Link	**[AUDIX system link #]**
2	Retransmission Timer	**1**
3	Idle Timer	**10**
4	Maximum Retransmissions	**2**
5	Maximum Unacknowledged Frames	**7**

Press CHANGE and EXECUTE.

256 Word 3 Administer the DCIU link BX.25 level 3 timers and counters.

Field	Manager II Field Name	Enter
1	Link	**[AUDIX system link #]**
2	Activity Timer	**180**
3	Acknowledgement Timer	**20**
4	Interrupt Timer	**180**
5	Reset Timer	**8**
6	Restart Timer	**8**
10	Maximum Unacknowledged Packets	**4**

Press CHANGE and EXECUTE.

257 Word 5 **For R2V4 or later,** administer port reservations for DCIU translations.

Field	Manager II Field Name	Enter
1	Port Number	*
2	Application Type	**13**
3	Instance Number	**[AUDIX system machine #]**

* Enter the AUDIX system local port number (same as assigned in Word 2).

Press CHANGE and EXECUTE.

257 Word 2 Administer DCIU ports for the network channels.

For R2V2 and R2V3:

Field	Manager II Field Name	Enter
1	Local Port	**[59–62]**
2	Remote Port	*

For R2V4:

Field	Manager II Field Name	Enter
1	Local Port	**[1–62]**
2	Remote Port	*

* Enter the port number that matches the remote port at the distant switch.

Press CHANGE and EXECUTE.

Verify the following switch maintenance ports:

1. Set Field 1 (Local Port) to **6**
2. Press DISPLAY and EXECUTE.
3. Verify that Field 2 (Remote Port) equals 20.
4. Set Field 2 (Remote Port) to **20**
5. Press DISPLAY and EXECUTE.
6. Verify that Field 2 (Remote Port) equals 6.

   If these ports are unassigned, assign them as indicated. If they are assigned for some other purpose, call the appropriate remote maintenance service center that supports this system to have the ports reassigned.

257 Word 1 Administer the components, priority, and alternate routing status of DCIU network channels.

Field	Manager II Field Name	Enter
1	Channel A — Link (switch)	**0**
2	Channel A — Logical Channel (local port)	*****
3	Channel B — Link (switch)	**[AUDIX system link #]**
4	Channel B — Logical Channel (local port)	**†**
5	Priority	**1**
6	Alternate Routing Flag	**0**
7	Table Indicator	**0**

* Enter the AUDIX system local port number (same as Word 2).

† Enter the channel number that matches the local switch number.

Press ADD and EXECUTE.

Verify the switch maintenance channel by doing the following:

1. Field 1 [Component A — Link (switch)] equals 0
2. Press NEXT-DATA until Field 2 equals 6.

   Field 3 [Component B — Link (switch)] should equal 0 and Field 4 [Component B — Logical Channel (local port)] should equal 0

258 Word 1 Copy the scratch-pad translation tables (temporary tables) to the DCIU machine-used tables. This is used after all DCIU translation changes have been made.

Field	Manager II Field Name	Enter
1	Reboot DCIU	**1**
2	Configuration	*****

* Verify that this field equals **1**. (This verifies the old translations in the scratch-pad tables are protected.)

Press CHANGE and EXECUTE.

NOTE

The switch software will alarm a DCIU link that is translated but not in service. When the AUDIX system end of the link comes up during the AUDIX system testing, return to this procedure and reboot the DCIU.

258 Word 2 Copy the hardware table to the scratch-pad table so they are equal. This procedure also opens the scratch-pad table.

Field	Manager II Field Name	Enter
1	Copy Tables	**1**

Press CHANGE and EXECUTE.

Administer ES and Call Transfer Into AUDIX for R2V4 or Later

This step is for R2V4 or later switches. If the switch has an older release of software, go to the following section, *Save New Translations*.

350 Word 2 **For R2V4 or later,** administer the dial access codes (DACs).

Field	Manager II Field Name	Enter
1	Feature	**58**

Press ADD and EXECUTE.

261 Word 1 **For R2V4 or later,** administer the external adjunct message format.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	**2**
2	Local Adjunct Number	*AUDIX system machine #*
3	Local Adjunct Type	**3**
4	Version Number	**—**
5	N-Digit Format	**—**
6	Message Scrolling	**—**
7	Network Adjunct Number	**1–99**

Press ADD and EXECUTE.

261 Word 2 **For R2V4 or later,** administer the external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	**2**
2	Network Adjunct Number	*[network adjunct #]****
3	Adjunct Extension	*[AUDIX system extension or VDN]*

* This is the same as Word 1, Field 7.

Press ADD and EXECUTE.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Test DCIU Links

The following procedure is used to test DCIU links from the switch side. This should be performed by local switch maintenance personnel. The appropriate Generic 2 or System 85 maintenance manual describes the equipment and procedures required.

Two types of tests are possible on a per link basis:

1. An internal, automatic loop-around test of the DCIU circuit packs.
2. An external, manual loop-around test providing a more thorough test of the circuit packs.

Internal Loop Test

After entering Procedure 650, press NEXT TEST twice [Field 1 (Test) equals 3].

a. Enter the link number in Field 6 (Data Link).
b. Press BUSY OUT.
c. Wait for Error Code 80.
d. Press BUSY OUT again [Field 8 (Alarm Status) equals 1].
e. Press EXECUTE (wait lamp is inactive for this test).
f. Press STOP after 8000 bits are sent.

External Loop Test

Set the data module for a loopback test:

- If a Data Service Unit (DSU) is used, press the LL button.
- If a Local Area Data Set (LADS) is used, set the loopback switch to LOCAL.
- If an Isolating Data Interface (IDI) is used, install a RS–449 loop-back connector in the data link.

While still on Test 3 of Procedure 650:

a. Enter **1** in Field 7.
b. Press EXECUTE.
c. Press STOP after 8000 bits are sent.
d. Press RLS BUSY OUT.

If either of these tests fail, refer to the switch maintenance manual for procedures to correct the fault.

Check System Clocks

Periodic time-synchronous messages are sent from the switch to the AUDIX system to ensure that both system clocks match. Use the following procedure to make sure the switch clock is set correctly.

284 Press DISPLAY and EXECUTE.

If the time, day, etc., is not accurate, consult local maintenance personnel to have it reset. (The year is required.)

652 Test 3 Verify that the hardware and software clocks are the same.

CAUTION

Do not reset the clock without consulting maintenance personnel. Altering the clock could have adverse affects on traffic studies.

Assign Switch Features for AUDIX System Subscribers

In this section you will assign the AUDIX system subscribers. Table 3-3, *Switch Features Procedure Overview*, summarizes the procedures that are detailed in the following text.

Table 3-3. Switch Features Procedure Overview *(Page 1 of 2)*

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	*COS*	
		4	Busy and Don't Answer	**1**	
		5	Follow Me	**1**	
		14	Conference 3-Party/Transfer	**1**	
		15	Touch-tone Dialing	**1**	Add
2	010 Word 2	1	Class of Service	*COS*	
		2	Originating	**1**	
		3	Terminating	**1**	Add
3	011 Word 1	1	Call coverage Group	*split #*	
		2	Extension Active	*0 or nonzero #*	
		7	Coverage Point Indicator	**1**	
		8,9, or 10*	Coverage Point	*AUDIX system split*	Add
		8 or 9†	Coverage Point	*AUDIX system split*	Add
4	000 Word 1	1	Extension or VDN	*ext #*	
		2–6	Module, Cabinet, Carrier, Slot, Circuit	*equip loc*	
		7	Class of Service	*COS*	Add

* R2V2

† R2V3 or later

(Continued)

TABLE 3-3. Switch Features Procedure Overview *(Page 2 of 2)*

Step	Procedure	Field	Manager II Field Name	Enter	Press
5	000 Word 2	1	Extension	*ext #*	
		6	Coverage Group	*coverage grp #*	
		8*	LWC Destination	**3**	
		9*	AUDIX	*machine #*	Add
		9†	LWC Destination	**3**	
		10†	AUDIX	*machine #*	Add
6	063 Word 1	1	Extension	*ext #*	
		2–6	Module, Cabinet, Carrier, Slot, Circuit	*equip loc*	
		7	Device type	*device type*	
		8	Member (button)	*member*	Add
7	012 Word 1	1	Extension, VDN, or Trunk Group	*split #*	
		2	Type	**1**	
		3	Display Start	*display start*	
		4	Outgoing Trunk Display	**—**	
		5	Copy Mode	**0**	
		6	Ext., VDN, or T.G. to Copy or Share	**—**	Add
				Execute	
				Display	
				Execute	
8	012 Word 2	1	Segment	**1**	
		2	Character 1	**21**	
		3	Character 2	**82**	
		4	Character 3	**31**	
		5	Character 4	**43**	
		6	Character 5	**92**	Add

* R2V2

† R2V3 or later

Assign a New COS and New Call Coverage Group

010 Word 1 Administer the features assigned to a station line class of service (COS).

Field	Manager II Field Name	Enter
1	Class of Service	**[COS]**
4	Busy and Don’t Answer	**1**
5	Follow Me	**1**
14	Conference 3-Party/Transfer	**1**
15	Touch-tone Dialing	**1**

Press CHANGE and EXECUTE.

010 Word 2 Administer the `LWC–Origination` and `LWC–Termination` to a COS.

Field	Manager II Field Name	Enter
1	Class of Service	**[COS]***
2	Originating	**1**
3	Terminating	**1**

* This is the same COS as in Word 1.

Press CHANGE and EXECUTE.

011 Word 1 Administer the criteria, principle don't answer interval, and coverage points of a call coverage group.

Field	Manager II Field Name	Enter
1	Call coverage Group	**[group split #]***
2	Extension Active	*0 or nonzero #*†
7	Coverage Point Indicator	**1**‡
7	ACD/EUCD Split Indicator	**1**‡
8,9, or 10	Coverage Point;[AUDIX system split]§	

* If using Call Vectoring, enter the Call Coverage Group Number.

† If you enter **0**, a second appearance of a number to answer on multiappearance voice terminals will appear when the first appearance is active.

If you enter a nonzero number in this field, this field will send subsequent calls to coverage when the first appearance is active. A nonzero value will speed up testing.

‡ This shows that the last point is an ACD split rather than an extension. If Call Vectoring is used, assign a Vector Directory Number (VDN) as the final coverage point.

§ To simplify testing, make AUDIX system split the first and only point in the coverage path.

Press ADD and EXECUTE.

Add the Subscribers

Assign an extension number, the new COS, and the new coverage group to the voice terminals.

000 Word 1 Assign an extension number to each voice port using the COS from Procedure 010.

Field	Manager II Field Name	Enter
1	Extension or VDN	**[extension #]***
2–6	Module, Cabinet, Carrier, Slot, Circuit	**[equipment location]**
7	Class of Service	**[COS]**

* This must be the same length as the extension numbers assigned to the AUDIX voice ports.

Press ADD and EXECUTE.

Repeat Procedure 000, Word 1 for the next voice terminal.

000 Word 2 Administer hunt-to extensions and controlled restriction groups associated with an extension.

For R2V2:

Field	Manager II Field Name	Enter
1	Extension	**[extension]**
6	Coverage Group	**[coverage group #]**
8	LWC Destination	**3***
9	AUDIX	**[AUDIX machine #]**

For R2V3 and later:

Field	Manager II Field Name	Enter
1	Extension	**[extension]**
6	Coverage Group	**[coverage group #]**
9	LWC Destination	**3**
10	AUDIX	**[AUDIX machine #]**

* In older releases of software (System 85 R2V2 1.4, R2V3 1.2), if AUDIX is assigned as the destination for Leave Word Calling (LWC) on a digital voice terminal with a display module, the MESSAGE RETRIEVAL button will not correctly display LWC status. It is recommended that this switch be the destination switch. If the switch is the destination for LWC messages, enter **1**

Press ADD and EXECUTE.

Repeat Procedure 000, Word 2 for the next extension number.

Assign AMW

063 Word 1 Assign the Automatic Message Waiting (AMW) feature to a straight line set.

Field	Manager II Field Name	Enter
1	Extension	**[extension]**
2–6	Module, Cabinet, Carrier, Slot, Circuit	**[equipment location]**
7	Device Type	**[device type]***
8	Member (button)	**[member]***

* For more information about these fields, see the appropriate Generic 2 or System 85 Administration manual.

Press ADD and EXECUTE.

Repeat for the next voice terminal.

NOTE

For R2V4 or later systems, for sets that don't have message waiting lights, you will need to assign audible Message Waiting Indication (MWI) (stutter dial tone). See the appropriate Generic 2 or System 85 administration manual for the procedures.

Assign an Alphanumeric Display

Use the following procedures to produce ‘‘AUDIX’’ on a caller’s alphanumeric display rather than the AUDIX system extension number that is actually dialed.

012 Word 1 Administer an extension, Vector Directory Number (VDN), or trunk group for ‘‘name display’’ related features.

Field	Manager II Field Name	Enter
1	Extension, VDN, or Trunk Group	**[split #]***
2	Type	**1**
3	Display Start	**[display start]†**
4	Outgoing Trunk Display	**—**
5	Copy Mode	**0**
6	Extension, VDN, or Trunk Group to Copy or Share	**—**

* Enter the extension number assigned to split member 0 (AUDIX system voice port number 1).

† Enter the number of the starting position of the first character display (1–30).

Press ADD EXECUTE DISPLAY and EXECUTE.

012 Word 2 Administer ‘‘AUDIX’’ in the database.

Field	Manager II Field Name	Enter
1	Segment	**1**
2	Character 1	**21**
3	Character 2	**82**
4	Character 3	**31**
5	Character 4	**43**
6	Character 5	**92**

Press ADD and EXECUTE.

DCS ADMINISTRATION

The AUDIX system can serve more than one switch when the switches are part of a network such as the Distributed Communications System (DCS). The switch that hosts the AUDIX system connects it to the other switches in the network. The AUDIX system uses the switch's existing DCS trunks for both data and voice communication. This section describes the procedures for administering a Generic 2 or System 85 for an AUDIX system in a DCS environment.

NOTE

The procedures in this section assume that the voice channels are already translated between the switch nodes. See the appropriate switch documentation for these procedures.

Data Link Administration

Figure 3-1, *AUDIX System Data Link to a DCS Switch*, shows that DCS switch data connections involve a distant switch, a host switch, and an AUDIX system. Some coordination is required here when assigning port and channel numbers as described after this figure.

NOTE

The GBCS Design Center can assist you when designing a multi-node AUDIX DCS system.

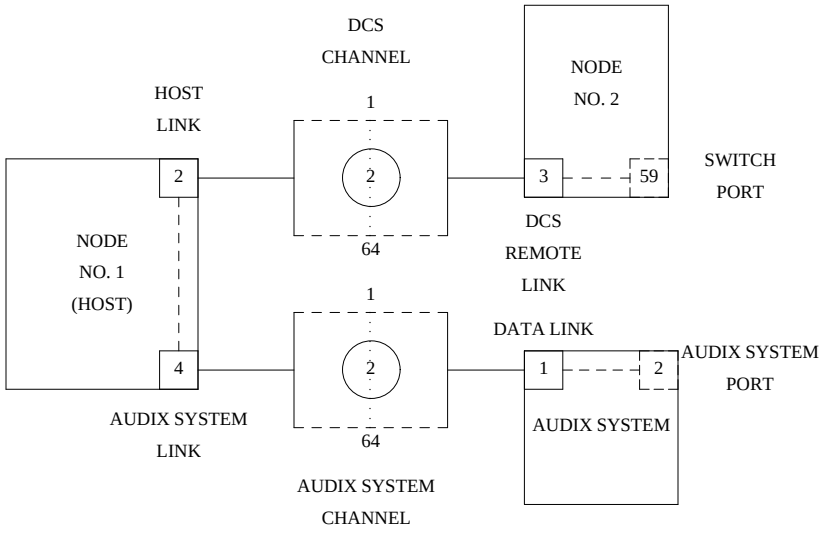


Figure 3-1. AUDIX System Data Link to a DCS Switch

Before starting, consider the following:

- Which port will be used at the distant switch?

  — System 85 R2V2 and R2V3 use 59, 60, 61, or 62.

  — Generic 2 or System 85 R2V4 can use any available port that is reserved.

  SWITCH PORT_____(59 is used in Figure 3-1, *AUDIX System Data Link to a DCS Switch*)

- Which DCS link and channel will be used between the distant and host switches?

  DCS REMOTE LINK_____(3 is used in Figure 3-1)
  DCS HOST LINK_____(2 is used in Figure 3-1)
  DCS CHANNEL_____(2 is used in Figure 3-1)

- Which port will be used between the host switch and the AUDIX system? Find it by displaying Procedure 275, Word 3, Field 8.

  Use this number as the switch number, as the AUDIX system port, and as the AUDIX system channel.

  AUDIX SYSTEM PORT_____(2 is used in Figure 3-1)
  AUDIX SYSTEM CHANNEL_____(2 is used in Figure 3-1)

If an installation has one or more centralized AUDIX system adjuncts in a DCS network (adjuncts which serve more than one switch in the network), use Procedure 261 Word 1 and Word 2. This procedure gives the switch the necessary intelligence to pass Enhanced Services (ES) messages to the correct AUDIX system adjunct over a DCS network. With an end-to-end ES connection, AUDIX system information can piggy-back on the DCS channel with other data (hop channels are *not* needed on the host for an AUDIX system in a DCS network that uses ES signaling).

Assign a DCS Remote Node

Use the following steps to assign an AUDIX system switch port at the remote node. This switch processor port is assigned to a spare channel on the DCS link connected to the AUDIX system host.

Table 3-4. DCS Remote Node Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	258 Word 2*	1	Copy Tables	**1**	Change
2	257 Word 5†	1 2 3	Port Number Application Type Instance Number	*switch port* **13** *AUDIX system number*	 Change
3	257 Word 2	1 2	Local Port Remote Port	*switch port* *AUDIX system port*	 Change
4	257 Word 1	1 2 3 4 5 6	Component A — Link (switch) Component A — Logical Channel (local port) Component B — Link (switch) Component B — Logical Channel (local port) Priority Alternate Routing Flag	**0** *switch port* *DCS remote link* *DCS channel* **1** **0**	 Add
5	257 Word 6†	1 2 3	Enhanced Services Port Network Adjunct Class Network Adjunct Number	*ES port #* **3** *DCS node #*	 Add
6	258 Word 1	1	Reboot DCIU	**1**	Change

* R2V2 or R2V3

† R2V4 or later

258 Word 2 Refresh the DCIU scratch-pad translation tables. (For R2V2 and R2V3 only.)

CAUTION

This procedure could erase all the translations if used on a R2V4 or Generic 2 switch.

For R2V2 and R2V3: *Any previous changes to the tables that were not saved in Procedure 258, Word 1 will be erased.*

For R2V2 and R2V3:

Field	Manager II Field Name	Enter
1	Copy Tables	**1**

Press ADD and EXECUTE after each entry.

257 Word 5 **For R2V4 or later,** assign the port application.

Field	Manager II Field Name	Enter
1	Port Number	**[switch port]**
2	Application Type	**13**
3	Instance Number	**[AUDIX system #]**

Press CHANGE and EXECUTE.

257 Word 2 Assign the local/remote port pairing.

For R2V2 and R2V3:

Field	Manager II Field Name	Enter
1	Local Port	**59–62**
2	Remote Port	**[AUDIX system port]**

For R2V4:

Field	Manager II Field Name	Enter
1	Local Port	**1–64**
2	Remote Port	**[AUDIX system port]**

Press CHANGE and EXECUTE.

257 Word 1 Assign the AUDIX system switch port to the DCS link and channel.

Field	Manager II Field Name	Enter
1	Component A — Link (switch)	**0**
2	Component A — Logical Channel (local port)	**[switch port]**
3	Component B — Link (switch)	**[DCS node link]**
4	Component A — Logical Channel (local port)	**[DCS channel]**
5	Priority	**1**
6	Alternate Routing Flag	**0**

Press ADD and EXECUTE.

257 Word 6 **For R2V4 or later,** assign the `Enhanced Services, Network Adjunct Class`, and `Network Adjunct Number`.

Field	Manager II Field Name	Enter
1	Enhanced Services Port	**[port #]**
2	Network Adjunct Class	**3**
3	Network Adjunct Number	**[DCS node number of remote switch]**

Press ADD and EXECUTE.

258 Word 1 **For R2V4 or later,** update the DCIU's on-line translations.

Field	Manager II Field Name	Enter
1	Reboot DCIU	**1**

Press CHANGE and EXECUTE.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Assign a Hunt Group at the Remote Switch

Do the procedures in this section at the remote switch.

When all tie trunks to the host are busy, calls can be routed to the host over alternate facilities. Calls to an AUDIX system subscriber that must route to the AUDIX system for coverage must use a tie trunk or the subscriber data will be lost. Make sure these calls stay queued on tie trunks.

NOTE

A System 85 R2V2 remote switch does *not* require administration for the AUDIX system voice port access. Users will dial the AUDIX system extension assigned at the host switch. System 85 R2V2 must use Call Forwarding to direct calls to the AUDIX system.

Do the following procedures for System 85 R2V3 or later switches. Use a regular ACD group with only a single member.

Table 3-5. Voice Port Access Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	010 Word 1	1	Class of Service	*COS*	
		5	Follow Me	**1**	
		20	ACD Member	**1**	Change
2	000 Word 1	1	Extension or VDN	*member 0 ext*	
		7	Class of Service	*COS*	Add
3	100 Word 1	1	Trunk Group	*Q trk grp*	
		6	Trunk Type	**6**	Add
4	026 Word 1	1	ACD Split	*DCS AUDIX system split*	
		2	Split Size	**1**	
		4	Queuing Trunk Group	*Q trk grp*	
		8	Inflow Level	**0** or **1**	
		9	Hunt Type	**0** or **1**	
		10	Split Type	**0**	Add
5	001 Word 1	1	Primary Extension	*member 0 ext*	
		2	Associated Extension	*DCS AUDIX system ext*	Add
6	026 Word 2	1	ACD Split	*DCS AUDIX system split*	
		2	Supervisor Extension	*member 0 ext*	
		3	Queue Directory Number	*DCS AUDIX system ext*	Add
7	026 Word 3	1	ACD Split	*DCS AUDIX system split*	
		2	Member	**0**	
		3	Member Extension	*member 0 ext*	Add

010 Word 1 Set up a COS for the ACD members.

Field	Manager II Field Name	Enter
1	Class of Service	**[COS]**
5	Follow Me	**1**
20	ACD Member	**1**

Press CHANGE and EXECUTE.

000 Word 1 Assign an extension number for ACD member 0.

Field	Manager II Field Name	Enter
1	Extension or VDN	**[member 0 ext]**
7	Class of Service	**[COS]***

* Enter the **[COS]** assigned in Procedure 010, Word 1.

Press ADD and EXECUTE.

100 Word 1 Assign a queue trunk group for the ACD.

Field	Manager II Field Name	Enter
1	Trunk Group	**[queuing trunk group #]**
6	Trunk Type	**6**

Press ADD and EXECUTE.

026 Word 1 Assign the ACD.

Field	Manager II Field Name	Enter
1	ACD Split	**[DCS AUDIX system split]***
2	Split Size	**1**
4	Queuing Trunk Group	**[queuing trunk group #]**
8	Inflow Level	**0 or 1**
9	Hunt Type	**0 or 1†**
10	Split Type	**0**

* If you have a Call Management System (CMS), use the last available split that is not measured.

† A circular hunt, 0 is preferred.

Press ADD and EXECUTE.

Administer Procedure 001 Word 1 before going to Procedure 026, Word 2.

001 Word 1 Assign extensions associated with existing extensions to provide access to the ACD split.

Field	Manager II Field Name	Enter
1	Primary Extension	**[member 0 extension]**
2	Associated Extension	**[DCS AUDIX system extension]**

Press ADD and EXECUTE.

Error code 12 is displayed if the extension number is already assigned as an extension number. Do *not* remove this extension if it is a working station. If it is not a working station, remove it according to the procedures in *DEFINITY Communications System Generic 2 Administration of Features and Hardware* (555-104-507) or the appropriate System 85 documentation.

026 Word 2 Administer the ACD split supervisor.

Field	Manager II Field Name	Enter
1	ACD Split	**[DCS AUDIX system split]**
2	Supervisor Extension	**[member 0 extension]**
3	Queue Directory Number	**[DCS AUDIX system extension]**

Press ADD and EXECUTE.

026 Word 3 Administer ACD split member characteristics.

Field	Manager II Field Name	Enter
1	ACD Split	**[DCS AUDIX system split]**
2	Member	**0**
3	Member Extension	**[member 0 extension]**

Press ADD and EXECUTE.

Go to the attendant console (if you're on the customer premises) and Call Forward the supervisor extension to the AUDIX system QDN at the remote location.

Assign a Hop Channel

At the host switch, use the following steps to assign a node's AUDIX system data channel to hop through the host to the AUDIX system.

258 Word 2 Refresh the DCIU scratch-pad translation tables.

Field	Manager II Field Name	Enter
1	Copy Tables	**1**

Press CHANGE and EXECUTE.

Table 3-6. Hop Channel Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	258 Word 2	1	Copy Tables	**1**	Change
2	257 Word 1	1	Component A — Link (switch)	*DCS host link*	
		2	Component A — Logical Channel (local port)	*DCS channel*	
		3	Component B — Link (switch)	*AUDIX system link*	
		4	Component B — Logical Channel (local port)	*AUDIX system channel*	
		5	Priority	**1**	
		6	Alternate Routing Flag	**0**	Add
3	258 Word 1	1	Reboot DCIU	**1**	Change

257 Word 1 Assign the hop.

Field	Manager II Field Name	Enter
1	Component A — Link (switch)	**[DCS host link]**
2	Component A — Logical Channel (local port)	**[DCS channel]**
3	Component B — Link (switch)	**[AUDIX system link]**
4	Component B — Logical Channel (local port)	**[AUDIX system channel]**
5	Priority	**1**
6	Alternate Routing Flag	**0**

Press ADD and EXECUTE.

258 Word 1 Update the DCIU's on-line translations.

Field	Manager II Field Name	Enter
1	Reboot DCIU	**1**

Press CHANGE and EXECUTE.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Host Subscriber Administration

Assign those subscribers at this DCS node. System 85 R2V2 or later can use Call Coverage, Send All Calls, LWC, Enhanced Call Transfer, and Call Forwarding.

Table 3-7. Host Subscriber Administration Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	011 Word 1*	1	Call Coverage Group	*grp #*	
		2	Extension Activity	**1**	
		7	Coverage Point Indicator	**1**	
		8	Coverage Point	**1**	
		9	Coverage Point Ext/ACD Split/VDN	*DCS AUDIX system split*	Add
2	010 Word 1	23	Send All Calls	**1**	Change
3	000 Word 2	6*	Coverage Group	*coverage path*	
		9	LWC Destination	**3** or **1**	
		10	AUDIX	*machine #*	Add
4	054 Word 1	9	Button Type	**22**	Add
		9	Button Type	**19**	Add
5	063 Word 1	1	Extension	*ext #*	
		2–6	Module, Cabinet, Carrier, Slot, Circuit	*equip loc*	Add
6	063 Word 2	1	Extension	*ext #*	
		3	AUDIX	**1**	Display
7	261 Word 1†	1	Local Adjunct Class	**2**	
		2	Local Adjunct Number	**1**	
		3	Local Adjunct Type	**3**	
		7	Network Adjunct Number	*net adj #*	Add
8	261 Word 2†	1	Network Adjunct Class	**2**	
		2	Network Adjunct Number	*net adj #*	
		3	Adjunct Extension	*AUDIX system ext #*	Change
9	350 Word 2†	1	Feature	**58**	Add

* R2V2 or later

† R2V4

011 Word 1 **For System 85 R2V2 or later,** add a coverage group with the AUDIX system as the coverage point.

Field	Manager II Field Name	Enter
1	Call Coverage Group	**[group #]**
2	Extension Activity	**1***
7	Coverage Point Indicator	**1†**
8	Coverage Point	**1**
9	Coverage Point Ext/ACD Split/VDN	**[DCS AUDIX system split]**

* This prevent calls from ringing on the second or third appearance of the subscriber's extension number. During testing, calls will forward to the AUDIX system instead of ringing on another appearance.

† This shows that the last point is an ACD split rather than an extension.

Press ADD and EXECUTE.

010 Word 1 **For R2V2 or later,** enable Call Forwarding and Send All Calls.

Field	Manager II Field Name	Enter
1	Class of Service	**[COS]***

* Use a COS that has Call Forwarding enabled and Send All Calls enabled.

000 Word 2 Administer the CALL COVERAGE fields.

Field	Manager II Field Name	Enter
6	Coverage Group	**[coverage path]***
9	LWC Destination	**3 or 1†**
10	AUDIX	**[machine #]‡**

* R2V2 or later.

† Enter **3** for R2V2 Issue 1.5 or later, R2V3 Issue 1.3 or later, and R2V4 Issue 1.0 or later. Enter **1** for all earlier issues of software.

‡ Enter the same number from Procedure 256, Word 1, Field 8 (AUDIX).

NOTE

With early releases of software, Message Retrieval cannot be used to check LWC status (digital voice terminal display modules).

Press ADD and EXECUTE.

Repeat Word 2 for the next voice terminal.

054 Word 1 Assign buttons for LWC and Send All Calls.

Field	Manager II Field Name	Enter
9	Button Type	**22**

Press ADD and EXECUTE.

Field	Manager II Field Name	Enter
9	Button Type	**19**

Press ADD and EXECUTE.

063 Word 1 Assign Message Waiting.

Field	Manager II Field Name	Enter
1	Extension	**[extension #]**
2–6	Module, Cabinet, Carrier, Slot, Circuit	**[equipment location]**

Press ADD and EXECUTE.

063 Word 2 Display the extensions that are assigned AMW.

Field	Manager II Field Name	Enter
1	Extension	**[extension]**
3	AUDIX	**1**

Press DISPLAY and EXECUTE.

Repeat Procedure 063 for the next new extension.

261 Word 1 **For R2V4,** assign ES and Call Transfer Into AUDIX.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	**2**
2	Local Adjunct Number	**1**
3	Local Adjunct Type	**3**
7	Network Adjunct Number	**[1–99]**

Press ADD and EXECUTE.

261 Word 2 **For R2V4,** administer the external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	**2**
2	Network Adjunct Number	*****
3	Adjunct Extension	**[AUDIX system extension]**

* Enter the same number as in Procedure 261, Word 1.

Press CHANGE and EXECUTE.

350 Word 2 **For R2V4,** assign a dial access code to feature code 58.

Field	Manager II Field Name	Enter
1	Feature	**58**

Press ADD and EXECUTE.

Centralized Messaging

Centralized Messaging (R2V4 or later) allows users in a DCS to access the AUDIX system and Message Center Service (MCS) without requiring each node in the DCS to have an AUDIX system adjunct. The following configurations of Centralized Messaging with the AUDIX system are explained in this document:

- Two switch configuration with the AUDIX system
- Two switch configuration with the AUDIX system and 3B2 Message Server
- Three switch configuration with the AUDIX system and 3B2 Message Server

Two Switch Configuration with the AUDIX System

The following translations are used for a two node configuration with the AUDIX system. You may wish to refer to the diagram and sample translations on the following page as an example. Do the following translations at both switches:

258 Word 2 Refresh the DCIU scratch-pad translation tables.

IMPORTANT: Use this procedure before making any DCIU changes.

Field	Manager II Field Name	Enter
1	Copy Tables	**1**

Press CHANGE and EXECUTE.

257 Word 5 Assign the `Application Type` and `Instance Number` to a local ES port.

Field	Manager II Field Name	Enter
1	Port Number	**[local ES port number (1–64)]**
2	Application Type	**12 or 13***
3	Instance Number	**[1–64]**

* Enter **12** for Enhanced Services or **13** for AUDIX system.

Press ADD and EXECUTE.

Repeat as necessary.

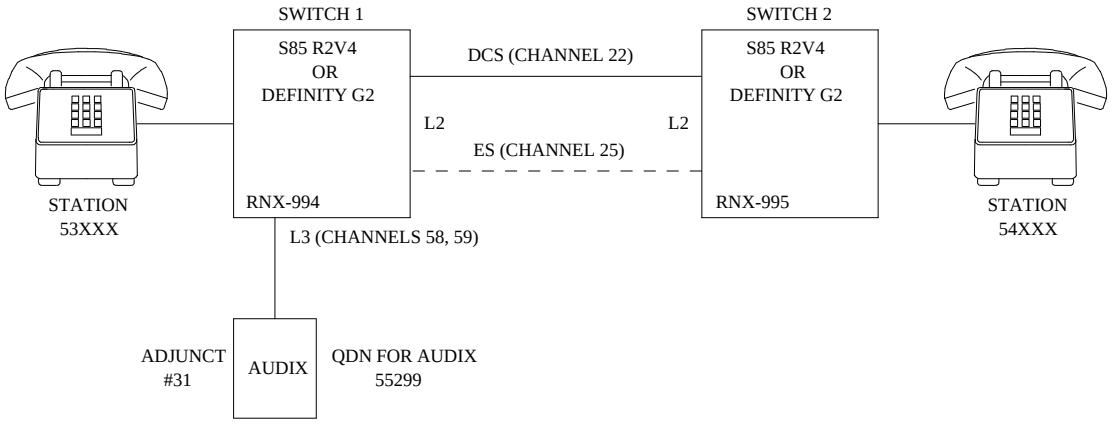


Figure 3-2. Two Switch Configuration with the AUDIX System

Table 3-8. Example Translations for a Two Switch Configuration with the AUDIX System

Step	Procedure	Field 1	Field 2	Field 3	Field 4	Field 5	Field 6	Field 7
1	258 Word 2	**1**						
2	257 Word 5	**25** **59** **58**	**12** **13** **13**	**1** **1** **2**				
3	257 Word 2	**25** **59** **58**	**25** **1** **2**					
4	257 Word 1	**0** **0** **0**	**25** **59** **58**	**2** **3** **3**	**25** **1** **2**	**1** **1** **1**	**0** **0** **0**	
5	257 Word 6 (switch 1) (switch 2)	 **25** **25**	 **3** **2**	 **2** **31**				
6	261 Word 1	**2**	**1**	**3**				**31**
7	261 Word 2	**2**	**31**	**55299**				
8	354 Word 2 (switch 1) (switch 2)	 **54** **53**	 **2** **2**	 **9** **9**	 **9** **9**	 **5** **4**		 **3** **1**
9	258 Word 1	**1**						

257 Word 2 Administer a local ES port with a remote ES port.

Field	Manager II Field Name	Enter
1	Local Port	**[1-64]**
2	Remote Port	*****

* Enter the port number that matches the remote switch number.

Press CHANGE and EXECUTE.

Repeat as necessary.

257 Word 1 Administer the network channels, priority level, and alternate routing flag (if any). The ES network channels are established here.

Field	Manager II Field Name	Enter
1	Component A — Link (switch)	**0**
2	Component A — Logical Channel (local port)	**[local ES port #]**
3	Component B — Link (switch)	**0 [link # to the remote switch]**
4	Component B — Logical Channel (local port)	**[channel # that matches the remote switch #]**
5	Priority	**1**
6	Alternate Routing Flag	**0**

Press ADD and EXECUTE.

Repeat for the other channels.

257 Word 6 Assign the `Network Adjunct Class` and `Network Adjunct Number` to an ES port.

NOTE

The translations for the remote switch will be different than the translations for the local switch in this procedure. See Table 3-8, *Example Translations for a Two Switch Configuration with the AUDIX System*.

Field	Manager II Field Name	Enter
1	Enhanced Services Port	**[1–64]**
2	Network Adjunct Class	**2 or 3***
3	Network Adjunct Number	**[1–99]**

* Enter **2** for AUDIX system or **3** for DCS.

Press ADD and EXECUTE.

261 Word 1 Administer the external adjunct message format.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	**2**
2	Local Adjunct Number	**[AUDIX system machine #]***
3	Local Adjunct Type	**3**
7	Network Adjunct Number	**[1–99]**

* This is usually **1**

Press ADD and EXECUTE.

261 Word 2 Assign a QDN or VDN with the AUDIX system.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	**2**
2	Network Adjunct Number	**[1–99]**
3	Adjunct Extension	**[QDN or VDN]**

Press CHANGE and EXECUTE.

354 Word 2 Administer dial access codes (DACs) to extensions, steering codes, and location codes (RNXs).

NOTE

The translations for the remote switch will be different than the translations for the local switch in this procedure. See Table 3-8, *Example Translations for a Two Switch Configuration with the AUDIX System*.

Field	Manager II Field Name	Enter
1	Extension or Steering Code	**[extension or steering code]**
2	Use	**2**
3	Digit 1	**[digit 1 of RNX or DAC]**
4	Digit 2	**[digit 2 of RNX or DAC]**
5	Digit 3	**[digit 3 of RNX or DAC]**
6	Digit 4	**[digit 4 of RNX or DAC]**
7	Nude Number	**[node #]**

Press ADD and EXECUTE.

258 Word 1 Copy the scratch-pad translation tables (temporary tables) to the DCIU machine-used tables.

Field	Manager II Field Name	Enter
1	Reboot DCIU	**1**

Press CHANGE and EXECUTE.

OPTIONAL FEATURES ADMINISTRATION

This section describes how to assign Automated Attendant, Call Transfer, Switch Recorded Announcement, and Switch Multiple Coverage Paths on Generic 2 or System 85.

NOTE

Those procedures summarized in this section are explained in detail earlier in this chapter.

Automated Attendant Administration

Automated Attendant is an AUDIX system feature that provides a caller with menu options. The caller can request a department or extension by pressing a touch-tone key. Use the following procedures to administer Automated Attendant at the switch.

The following administration is for customers with DID Service. If DID Service is not provided, consult the appropriate remote maintenance service center for an alternative arrangement.

1. Assign an Automated Attendant extension as a dummy extension.

   Enter a **[COS]** with Call Forwarding enabled.

2. Activate Call Forwarding—All Calls to the AUDIX system ACD/EUCD group number.

Night Service to Automated Attendant

You can set up night service to an automated attendant from an incoming trunk or from a Listed Directory Number (LDN).

From Incoming Trunk

Use the following procedure to set up night service to an automated attendant from an incoming trunk.

1. Assign the night automated attendant extension or hunt group number to the `Night Service` Field on the trunk group form. The night automated attendant will receive all incoming calls when night service is activated.
2. Activate Call Forwarding All Calls for the night automated attendant extension or hunt group number. Make the destination the *AUDIX hunt group extension*.

While the console is in day service mode, calls will route as usual according to the incoming destination on the trunk group form. When the console is placed in night service mode, calls will route according to the night automated attendant destination identified in the `Night Service` field.

From Listed Directory Number (LDN)

Use the following procedure to set up night service to an automated attendant from an LDN.

1. Assign an extension or extensions on the `listed directory numbers` form. Make sure that these extensions do not exist elsewhere in the switch.
2. For each extension assigned in Step 1, assign a name that includes the night automated attendant extension or hunt group number as part of the name.
3. Assign the AUDIX hunt group extension in the `Night Destination` field.

When the attendant console(s) is in day service mode, the LDN acts as usual. When the attendant console(s) is placed in night service mode, calls are sent to the AUDIX hunt group extension and are answered by the automated attendant that corresponds to the number in the LDN name field.

Automated Attendant Substitute Strategies

A substitute for Automated Attendant is needed so that calls do not go unanswered when the AUDIX system is busy. Each AUDIX system must be individually tailored. Check with your AT&T representative before using the following suggestions.

- Assign the Automated Attendant extension to a real voice terminal, one with a Send All Calls button.
- When the AUDIX system is in service, activate Send All Calls to direct attendant calls to the AUDIX system.
- If the AUDIX system should go out of service, an attendant should deactivate Send All Calls and answer the calls at the voice terminal. If desired, this voice terminal can forward calls to the console.

For R2V4 1.0, assign a new vector.

- If there are no staffed agents, route to ATTENDANT.
- Queue to main split XX at low priority (XX equals the AUDIX system ACD number).
- Stop
- Route to ATTENDANT.

For R2V4 1.1 or later, assign a new vector.

System 85 R2V4 1.1 must have Patch 988. Otherwise, use the steps shown for R2V4 1.0.

- If the number of staffed members is less than 1, route to 0, so that calls are directed to the AUDIX system.
- If the number of staffed members equals one, calls are directed to the attendant console.

For more details on vectoring, see the appropriate switch documentation.

Transfer Into AUDIX (R2V4 or Later)

You must have a System 85 R2V4 or Generic 2 to use this feature.

This feature allows an attendant (or other party) to transfer a caller who has been sent to coverage (or otherwise redirected) back to the AUDIX system to record a message.

Table 3-9. Transfer Into AUDIX Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	350 Word 2	1	Feature	**58**	
		2	Digit 1	*1st # of DAC*	
		3	Digit 2	*2nd # of DAC*	
		4	Digit 3	*3rd # of DAC*	
		5	Digit 4	*4th # of DAC*	Add
2	261 Word 1	1	Local Adjunct Class	**2**	
		2	Local Adjunct Number	**1**	
		3	Local Adjunct Type	**3**	
		7	Network Adjunct Number	*ntwk adj #*	Add
3	261 Word 2	1	Network Adjunct Class	**2**	
		2	Network Adjunct Number	*ntwk adj #*	
		3	Adjunct Extension	*main ext #*	Add
4	000 Word 2	9*	LWC Destination	**3**	
		10	AUDIX	*machine #*	Add

* Optional step

Call Transfer Into AUDIX Administration

If used in a DCS, assign the Transfer Into AUDIX feature access code the same at each node.

350 Word 2 Assign a DAC to feature code 58.

Field	Manager II Field Name	Enter
1	Feature	**58**
2	Digit 1	**[first # of DAC]**
3	Digit 2	**[second # of DAC]**
4	Digit 3	**[third # of DAC]**
5	Digit 4	**[fourth # of DAC]**

Press ADD and EXECUTE.

261 Word 1 Assign the AUDIX system machine to a network adjunct number.

Field	Manager II Field Name	Enter
1	Local Adjunct Class	**2**
2	Local Adjunct Number	**1**
3	Local Adjunct Type	**3**
7	Network Adjunct Number	**[1–99]**

Press ADD and EXECUTE.

261 Word 2 Assign an external network adjunct extension.

Field	Manager II Field Name	Enter
1	Network Adjunct Class	**2**
2	Network Adjunct Number	*****
3	Adjunct Extension	**[main extension #]**

* This is the same number assigned in Procedure 261, Word 1, Field 7.

Press ADD and EXECUTE.

000 Word 2 Assign each extension to activate the Transfer Into AUDIX feature in the extension's coverage path. Do the following procedure for each user extension with this feature.

Field	Manager II Field Name	Enter
9	LWC Destination	**3***
10	AUDIX	**[AUDIX system machine #]**

* This field is optional. Assign it if the users want LWC messages sent and stored in the AUDIX system instead of the switch.

Press ADD and EXECUTE.

Transfer Into AUDIX Test

1. Place a voice extension number in the subscriber's call coverage path—coverage point 1. Make the AUDIX system point 2.
2. Activate Send All Calls for the subscriber.
3. Call the subscriber.
4. At the covering voice terminal, answer the call and press TRANSFER.
5. Dial the Transfer Into AUDIX dial access code.
6. Press TRANSFER when ringing is heard and hang up.
7. The calling party is connected to the subscriber's mailbox.
8. Repeat this test from the subscriber's voice terminal:
   a. Deactivate Send All Calls.
   b. Call the subscriber's voice terminal from another set.
   c. Answer the call at the subscriber's voice terminal.
   d. Transfer the call using the Transfer Into AUDIX dial access code.

Transfer Out of AUDIX

The AUDIX system allows two types of call transfers out of the AUDIX system: basic and enhanced. Basic Call Transfer uses a switchhook flash method of call transfer and may be used on any switch. Enhanced Call Transfer uses the data link to allow calls to be transferred only to valid extensions on a fully integrated switch capable of supporting Enhanced Call Transfer.

Activating Basic Call Transfer leaves your system vulnerable to possible toll fraud. See *GBCS Products Security Handbook* **(555-025-600) for more information on AUDIX security issues.**

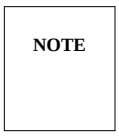
AUDIX R1V7 and later software automatically disables the Call Transfer Out of AUDIX feature on new systems to provide maximum security for the prevention of toll fraud. Before you activate call transfers out of the AUDIX system, consider the following:

- If your switch supports *enhanced* call transfer and you administer the AUDIX system to use enhanced call transfer, you minimize your risk for toll fraud. Switches that support Enhanced Call Transfer include:
  - — AT&T DEFINITY Generic 1, Generic 2, or Generic 3
  - — AT&T System 75 XE or System 75 R1V3 Issue 1.4 (or later)
  - — AT&T System 85 R2V4 (or later)
- If your switch does *not* support enhanced call transfer, you may wish to re-evaluate your need to use the Call Transfer Out of AUDIX feature against the possibility of incurring toll fraud.

Some AUDIX features that require the Call Transfer Out of AUDIX feature include automated attendants administered to redirect calls out of the AUDIX system (the `e` option), the Return the Call option, and the Escape to Attendant feature.

To activate the Call Transfer Out of AUDIX feature:

1. Log in to the AUDIX system as described in the appropriate forms reference manual for your version of AUDIX software.
2. Enter **`sy tr s`** on the AUDIX `PATH` line.
   a. If the switch type is `dciu-sci`, enhanced call transfer will probably work on your system. Go to Step 3.

   If you have a DIMENSION 2000 PBX or an early System 75, System 75 XE, or System 85 switch, you need to activate *basic* call transfer in order to obtain call-transfer capability (see Step 5).

   b. If the switch type is `smsi, bri-api, sl1, stand-alone`, or some other type of non-AT&T switch, you will need to activate *basic* call transfer as described in Step 5.

   AT&T personnel: DO NOT activate the Call Transfer Out of AUDIX feature for a customer under any circumstances. Customers must activate this feature themselves so they can see the warning message about possible toll fraud.

3. Enter **`sy ap`** on the AUDIX `PATH` line.
4. Set `call transfer out of AUDIX feature?` to **`y`**
   a. The `enhanced call transfer` field is automatically set to **`y`**

   If your switch supports enhanced call transfers, leave this field set to **`y`** to provide maximum protection from toll fraud.

   b. If your switch does *not* support enhanced call transfers, go to Step 5.
5. Set `enhanced call transfer?` to **`n`**

   AT&T personnel: DO NOT set the `enhanced call transfer` field to `n` unless the AUDIX software specifically requires remote services intervention. On many AUDIX systems, customers must set this field themselves so they can see the warning message about possible toll fraud.

   A warning message about possible toll fraud will appear. This message is intended to remind customers that they are at risk whenever enhanced call transfer is not used; however, basic call transfer (switchhook flash) is the only way to allow Call Transfers Out of AUDIX on switches that do not support the Enhanced Call Transfer feature.

Switch Recorded Announcement

Use the following procedures to provide a recorded announcement at the switch for anyone that accesses the AUDIX system, either through a direct call or call redirection. The announcement is heard when all AUDIX system voice ports are busy and calls start entering the AUDIX system queue.

Table 3-10. Switch Recorded Announcement Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	100 Word 1	1 2–5 6	Trunk Group Digit 1–4 Trunk Type	*equip loc* *dial access code* **90**	 Add
2	150 Word 1	1–5 6	Module, Cabinet, Carrier, Slot, Circuit Trunk Group	*announcement eq loc* *Q trk grp*	 Add
3	027 Word 1	1 2–6 7	ACD Split Module, Cabinet, Carrier, Slot, Circuit First Wait Time	*ACD Split* *announcement eq loc* *desired delay*	 Add

100 Word 1 Assign a 13A announcement system.

Field	Manager II Field Name	Enter
1	Trunk Group	**[equipment location]**
2–5	Digit 1–4	**[DAC]**
6	Trunk Type	**90**

Press ADD and EXECUTE.

150 Word 1 Assign an announcement system to the AUDIX system queue trunk group.

Field	Manager II Field Name	Enter
1–5	Module, Cabinet, Carrier, Slot, Circuit	**[announcement eq loc]**
6	Trunk Group	**[Q trunk group]**

Press ADD and EXECUTE.

027 Word 1 Assign an announcement system to the AUDIX system ACD group.

Field	Manager II Field Name	Enter
1	ACD Split	**[ACD split]**
2–6	Module, Cabinet, Carrier, Slot, Circuit	**[announcement eq loc]**
7	First Wait Time	*****

* Enter the delay desired before the announcement is heard (administered in 2 second intervals).

Press ADD and EXECUTE.

Switch Multiple Coverage Paths

Multiple coverage paths provide greater flexibility for call-answer treatment. A Generic 2 or System 85 can have two paths linked together (even-odd pair).

A dual coverage path requires an even-odd coverage group pair administered in Procedure 000 and Procedure 011. (The even group number serves as Path 1 and the odd as Path 2.) Assign the coverage user's extension to the even group number using Procedure 000. Use only paths above 2000 for dual coverage.

Table 3-11. Switch Multiple Coverage Path Procedure Overview

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	000 Word 2	1	Extension	*extension #*	
		6	Coverage Group	*group #*	Add
2	011 Word 1	1	Call Coverage Group	*group #*	
		2	Extension Active	*0,1,2, or 3*	
		3	Extension Busy	*0,1,2, or 3*	
		4	All Calls	*0,1,2, or 3*	
		5	Don't Answer	*0,1,2, or 3*	Add

The procedures below are needed in addition to those required to establish the initial coverage path. These procedures assume that the AUDIX system uses Path 1.

000 Word 2 Administer the `Extension Number` and `Coverage Group` fields.

Field	Manager II Field Name	Enter
1	Extension	*****
6	Coverage Group	**[group #]†**

* Enter the AUDIX system associated extension number (same as Procedure 001, Word 1, Field 2).

† Enter the assigned even group number (Path 1).

Press ADD and EXECUTE.

011 Word 1 Administer the `Coverage Group` and `Characteristics` fields.

Field	Manager II Field Name	Enter
1	Call Coverage Group	*
2	Extension Active	†
3	Extension Busy	†
4	All Calls	†
5	Don't Answer	†

* For Path 1, enter the even group number assigned in Procedure 000, Word 2, Field 1. For Path 2, enter the odd group number assigned in Procedure 000, Word 2, Field 1.

† Enter **0** for no coverage, **1** for coverage on internal calls, **2** for coverage on external calls, or **3** for coverage on either internal or external calls.

Press ADD and EXECUTE.

For example: Coverage (Send All Calls, Leave Word Calling, Busy/Don't Answer) directs internal calls along Path 1 to the AUDIX system and external calls along Path 2 to Message Center.

The following is an example of this administration.

Table 3-12. Example Translations for Switch Multiple Coverage Paths

Step	Procedure	Field	Manager II Field Name	Enter	Press
1	000 Word 2	1	Extension	**5325**	
		6	Coverage Group	**2000**	Add
2	011 Word 1	1	Call Coverage Group	**2000**	
		2	Extension Active	**1**	
		3	Extension Busy	**1**	
		4	All Calls	**0**	
		5	Don't Answer	**1**	
		7	Coverage Point Indicator	**1**	
		8	Coverage Point	**3**	
		9	Cov Pt Ext/ACD Split/VDN	*ACD Split* (AUDIX system)	Add
		1	Call Coverage Group	**2001**	
		2	Extension Active	**2**	
		3	Extension Busy	**2**	
		4	All Calls	**0**	
		5	Don't Answer	**2**	
		7	Coverage Point Indicator	**1**	
		8	Coverage Point	**2**	
		9	Cov Pt Ext/ACD Split/VDN	*ACD Split* (MCS)	Add

4. DIMENSION PBX

This chapter describes how to administer an AUDIX system on a DIMENSION PBX. See *AUDIX Networking* (585-300-903) for information on administering the switch for AUDIX Networking.

The AUDIX system can support DIMENSION 2000/600 PBX Issue 3L7 systems running software load 3.8 (with patches 931, 939, 940, 958, and 959).

For information about what equipment is required on the DIMENSION PBX to work with the AUDIX system, refer to the *AUDIX System Description* (585-305-201).

A DIMENSION PBX is administered with a Maintenance and Administration Panel (MAAP).

GENERAL ADMINISTRATION

This section contains the following step-by-step procedures to administer an AUDIX system on a DIMENSION PBX:

- Distributed Communications System (DCS)
- Voice-port extension numbers
- Call distribution (hunt) groups
- Data link
- AUDIX system subscribers

Verify DCS

276 Word 1 Display the system feature group combination. Only certain system management agents (for example, the remote maintenance service center that supports this system) can change the permissions in this procedure. Field 3 (DCS) must be active for the AUDIX system applications. If not, call the appropriate remote maintenance service center to have them activated.

Field 3 Verify that the DCS is active (displays a `1`).

Assign the Voice Ports and the Hunt Group

In the following procedures, you will identify each AUDIX system voice port as a member of one or more call distribution groups (hunt groups). This group (split) is a set of analog port boards on the switch that connects subscribers and users to the AUDIX system by distributing new calls to idle ports. The DIMENSION PBX uses Enhanced Uniform Call Distribution (EUCD) for call distribution. See the appropriate switch documentation for more information about call distribution groups.

This section provides the procedures for assigning extension numbers a new class of service (COS), assigning the extension numbers to each voice port, and assigning the EUCD split. The table on the following page is an overview of the procedures that are explained in detail in the following procedures.

Assign a New COS to the Extension Numbers

010 Word 1 Administer the features assigned to a station line COS.

Field 1	Enter the COS.
Field 14	Enter **1**
Field 15	Enter **1**

Press CHANGE and EXECUTE.

275 Word 4 Use this procedure to display the `Call Control FRL` field.

Field 8	Press DISPLAY and copy the translations in this field on the line below.

_____

010 Word 2 Change restrictions and assign a facility restriction level (FRL).

Field 1	Enter the new COS.
Field 18	Enter **0**
Field 23	Match the AUDIX system voice port FRL with the `Call Control FRL` assigned in Procedure 275 Word 4.

Press CHANGE and EXECUTE.

Table 4-1. Voice Port and Hunt Group Procedure Overview

Step	Procedure	Field	Enter	Press
1	010 Word 1	1 14 15	*COS* **1** **1**	 Change
2	275 Word 4	8	copy translations	Display
3	010 Word 2	1 18 23	*COS* **0** match FRL	 Change
4	000 Word 1	1 2–6 7	*ext #* *equip loc* *COS*	 Add
5	000 Word 2	1 8 9	*ext #* **3** *machine #*	 Add
6	275 Word 1	17	**1**	Change
7	275 Word 3	9 11 12	record node # *# of 2–sec intervals* *# of ringing cycles*	 Change
8	650 Test 2			Busy Out Busy Out
9	028 Word 2	1	**1**	Change
10	100 Word 1	1 5	*trk grp #* **6**	 Add
11	026 Word 1	1 2 4 9 10 11	*split #* *# of AUDIX system ports* *trk grp #* **0** **2** *AUDIX system machine #*	 Add
12	026 Word 2	1 2 3	*split #* **0** *ext #*	 Add
13	001 Word 1	1 2	*ext # at split mbr 0* *ext #*	 Add
14	028 Word 2	1	**0**	Change

Assign Extension Numbers to Each Voice Port

000 Word 1 Assign an extension number to each voice port using the COS from Procedure 010. Only the LC02 circuit pack is required for the AUDIX system voice ports.

Field 1	Enter the extension number you will assign to the AUDIX system voice port number 1.
Fields 2–6	Enter the equipment location of the switch line circuit wired to the AUDIX system voice port 1.
Field 7	Enter the new COS from Procedure 010.

Press ADD and EXECUTE.

Repeat 000 Word 1 for the other voice port extension numbers.

000 Word 2 Administer hunt-to extensions and controlled restriction groups associated with an extension.

Field 1	Enter the extension number assigned to the AUDIX system voice port number 1.
Field 8	Enter **3**
Field 9	Enter the AUDIX system machine number (usually **1**).

Press ADD and EXECUTE.

Repeat 000 Word 2 for the other voice port extension numbers.

Assign the EUCD Split

If a Call Management System (CMS) is active, busy out the Data Communications Interface Unit (DCIU) and the CMS before administering an EUCD split. This causes a service interrupt for any existing DCIU links (for example, a Message Center). To make this interrupt interval as short as possible, know ahead of time the field entries and button sequences required by each procedure.

275 Word 1 Administer the COS for the DCIU.

Field 17	Enter a **1** to equip the DCIU, if necessary.

Press CHANGE and EXECUTE.

275 Word 3 Administer the COS for the `Local Machine Number, Caller Response Interval`, and the `Coverage Don't-Answer Interval`.

Field 9	Record this number (if dashed, record 1). Switches with the AUDIX system will display only a node number (1–20).
Field 11	Select the number of 2 s intervals required (1–5). This is the number of 2 s intervals that determine the delay in transfer to the next coverage point. This delay, which causes a period of silence between the final ring at the subscriber's voice terminal and the first ring at the first coverage point, should not be so long as to cause the calling party to feel that the call has been dropped.

Field 12 Select the number of ringing cycles required (2–6). Local requirements determine the number of ringing cycles before the call continues to the next coverage point. This number applies to ringing at the coverage points, not at the subscriber's voice terminal. The number of ringing cycles before coverage is determined on an individual group basis in Procedure 011, Word 1, Field 6.

Press CHANGE and EXECUTE.

650 Press BUSY OUT to busy out the DCIU with Test 2.

Error 80 will display. This is a safety precaution to guard against accidentally busying out the DCIU.

Press BUSY OUT again.

028 Word 2 This procedure busies out the CMS in order to administer a new EUCD split.

Field 1 Enter a **1**

Press CHANGE and EXECUTE.

X 600 Word 1 Assign the `Trunk Group` and the `Trunk Type` to trunk groups.

Field 1 Enter the trunk group number.

Field 5 Enter **6**

Press ADD and EXECUTE.

026 Word 1 Assign characteristics to individual splits of the EUCD feature.

Field 1 Enter the split number (1–60).

Field 2 Enter the number of AUDIX system ports (each TN501B has two ports).

NOTE

The split size is calculated in multiples of 16. If you enter something other than a multiple of 16, the number will round up to the nearest multiple (for example, 30 rounds up to 32).

Field 4 Enter the new queue trunk group number.

Field 9 Enter **0**

Field 10 Enter **2** for the AUDIX system.

Field 11 Enter the AUDIX system machine number.

Press ADD and EXECUTE.

026 Word 2 Assign individual station sets to a split group for the EUCD feature.

Field 1	Enter the AUDIX system split number (1–60).
Field 2	Enter **0**
Field 3	Enter the extension number assigned to the AUDIX system voice port number 1.

Press ADD and EXECUTE.

Repeat Word 2, Fields 2 and 3 for split member 1 and so on.

At Field 2, press NEXT-DATA to increment to member 1.

Enter the next voice port extension number in Field 3 and press ADD and EXECUTE.

001 Word 1 Administer extensions associated with existing extensions. These associated extensions are often used as Listed Directory Numbers (LDNs) that provide access to Automatic Call Distribution (ACD) splits. An associated extension cannot be an extension that has been assigned already in Procedure 000 Word 1.

Field 1	Enter the extension number assigned to the AUDIX system split member 0 (AUDIX system voice port number 1).
Field 2	Enter the extension number. This will be the number dialed by the AUDIX system subscribers to access the AUDIX system.

Press ADD and EXECUTE.

Make sure Field 4 equals 1. If not, press REMOVE and add the data again. If Field 4 still does not equal 1, call the remote maintenance service center that supports this system to get this corrected.

028 Word 2 This procedure will release the CMS.

Field 1	Enter **0** at `CMS Busy Out`.

Press CHANGE and EXECUTE.

Assign the Data Link

The data link is the connection from the AUDIX system cabinet to the switch DCIU that enables nonvoice (data) messages to pass between the AUDIX system and the switch. A DIMENSION PBX requires one link on a DCIU to be administered for the AUDIX system.

This section describes how to busy out the DCIU, assign the link, administer the switch maintenance port, release-busy the DCIU, test the DCIU links, and check the system clocks.

Table 4-2. Data Link Procedure Overview

Step	Procedure	Field	Enter	Press
1	650			Busy Out Busy Out
2	256 Word 1	1 2 3 4	*# of the link* **1** **6** **0**	 Add
3	256 Word 5	1 3 4 5	*port* **11** **2** *AUDIX system machine #*	 Add
4	256 Word 2	1 2 3 4 5	**5** *AUDIX system local switch port* *AUDIX system link #* *channel #* **1**	 Add
5	256 Word 3	1 2	*AUDIX system local switch port* *remote #*	 Add
6	256 Word 5			Reset Add Exec Display Exec
7	256 Word 3	1	**6**	Display
8	256 Word 2	1 2	**5** **6**	 Display
9	256 Word 5	1	**6**	Display
10	650			Rls Bsy Out

Busy Out the DCIU

650 If the DCIU has not been busied out (for CMS), do so now before administering the AUDIX system DCIU link.

Press BUSY OUT to busy out the DCIU with Test 2.

Error 80 will display. This is a safety precaution to guard against accidentally busying out the DCIU.

Press BUSY OUT again.

Assign the Link

256 Word 1 Administer the `HDLC Link, Assigned, Baud Rate,` and `DTE/DCE` to a DCIU link.

Field 1 Enter the number of the link (1–4) where the AUDIX system D05 cable is connected. Consider the following:

- Links 1 and 3 must use the same speed.
- Links 2 and 4 must use the same speed.
- The AUDIX system must use 9600 bps.

Field 2 Enter **1** [High-Level Data Link Controller (HDLC) is assigned].

Field 3 Enter **6** (9600 bps).

Field 4 Enter **0** [DCIU HDLC link is functioning as a Data Terminal Equipment (DTE) link].

Press ADD and EXECUTE.

256 Word 5 Administer applications to the local switch ports of the DCIU.

Field 1 Enter the port (1–20).

Press DISPLAY and EXECUTE.

Field 3 Enter **11** (AUDIX).
Enter **9** for all unused logical channels.

Field 4 Enter **2**

Field 5 Enter the AUDIX system machine number (usually **1**).

Press ADD and EXECUTE.

Make sure the port has Field 3 equal to 9.

256 Word 2 Administer network channels and their priority status for the DCIU.

Field 1 Enter **5** (HDLC switch A).

Field 2 Enter the AUDIX system local switch port from Word 5, Field 1.

Field 3 Enter the AUDIX system link number (1–5).

Field 4 Enter the channel number that matches the local switch number (1–20).

Field 5 Enter **1** (high priority).

Press ADD and EXECUTE.

256 Word 3 Assign a remote switch port to a local switch port for the DCIU.

Field 1 Enter the AUDIX system local switch port.

Field 2 Enter the number that matches the local switch number.

Press ADD and EXECUTE.

256 Word 5 Press RESET ADD EXEC DISPLAY and EXEC to complete the DCIU administration.

Field 2 will now display the AUDIX system remote port assignment.

Administer the Switch Maintenance Port

The following steps for the switch maintenance port are optional.

256 Word 2 Administer network channels and their priority status for the DCIU.

Field 1 Enter **5**

Field 2 Enter **6**

Press DISPLAY and EXECUTE.

Consider the following:

- Field 3 should equal 5.
- Field 4 should equal 6.
- Field 5 should equal 0.

256 Word 3 Assign a remote switch port to a local switch port for the DCIU.

Field 1 Enter **6**

Press DISPLAY and EXECUTE.

Field 2 should equal 6.

256 Word 5 Administer applications to the local switch ports of the DCIU.

Field 1 Enter **6** (maintenance).

Press DISPLAY and EXECUTE.

Field 2 should equal 6 and Field 3 should equal 6.

Release-Busy the DCIU

650 Use Test 2 to release-busy the DCIU.

Press RLS BSY OUT.

NOTE

The switch software will alarm a DCIU link that is translated but not in service. When the AUDIX system end of the link comes up during the AUDIX system initialization, this switch alarm can be retired.

NOTE

RUN TAPE is required to save these new translations. If the system has a duplicated common control, the run-tape operation will update both tapes.

Test DCIU Links

The following procedure is used to test DCIU links from the switch side. This should be performed by local switch maintenance personnel. *DIMENSION 400E/600/600SN/2000 PBX Administration and Maintenance—Volume 1, Part 2, System Maintenance* (554-010-258) describes the equipment and procedures required.

Two types of tests are possible on a per link basis: (1) an internal, automatic loop-around test of the DCIU circuit packs, and (2) an external, manual loop-around test providing a more thorough test of the circuit packs.

Internal Loop Test

650 After entering Procedure 650, press NEXT TEST twice (Field 1 equals 3).

Enter the link number in Field 6.

Press BUSY OUT.

Wait for Error Code 80.

Press BUSY OUT again (Field 8 equals 1).

Press EXECUTE (wait lamp is inactive for this test).

Press STOP after 8000 bits are sent.

External Loop Test

Set the data module for a loopback test:

- If a Data Service Unit (DSU) is used, press the LL button.
- If a Local Area Data Set (LADS) is used, set the loopback switch to LOCAL.
- If an Isolating Data Interface (IDI) is used, install a loop-back connector in the data link.

650 While still on Test 3, enter **1** in Field 7.

Press EXECUTE.

Press STOP after 8000 bits are sent.

Press RLS BUSY OUT.

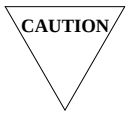
If either of these tests fail, refer to the switch maintenance manual for procedures to correct the fault.

Check System Clocks

Periodic time-synchronous messages are sent from the switch to the AUDIX system to ensure that both system clocks match. Use the following procedure to make sure the switch clock is set correctly. The switch must use an LC144B Clock circuit pack.

284 Press DISPLAY and EXECUTE.

If the time, day, etc., is not accurate, consult local maintenance personnel to have it reset. (The year is required.)



Do not reset the clock without consulting maintenance personnel. Altering the clock could have adverse affects on traffic studies.

Assign Switch Features for AUDIX System Subscribers

This section describes how to assign a COS and call coverage group, assign the voice terminals, and assign Message Waiting. The table on the following page is an overview of the procedures that are explained in detail in the following procedures.

Assign New COS and New Call Coverage Group

010 Word 1 Administer the features assigned to a station line COS.

Field 1	Enter the COS.
Fields 4 & 5	Enter **1** in one or both fields.
Field 14	Enter **1**

Press ADD and EXECUTE.

Table 4-3. Switch Features Procedure Overview

Step	Procedure	Field	Enter	Press
1	010 Word 1	1 4&5 14	*COS* **1** **1**	 Add
2	010 Word 3	1 3 4	*COS* **1** **1**	 Add
3	011 Word 1	1 5 6 7 8, 9, or 10	*split #* **3** **3** **1** *coverage path point*	 Add
4	000 Word 1	1 2–6 7	*ext #* *equip loc* *COS*	 Add
5	000 Word 2	1 6 8 9	*ext #* *coverage group #* **3** *AUDIX system machine #*	 Add
6	063 Word 1	1 2–4	*ext #* *equip loc*	 Add

010 Word 3 Administer features assigned to a COS.

Field 1 Enter the new COS (from Word 1).

Field 3 Enter **1**

Field 4 Enter **1**

Press ADD and EXECUTE.

011 Word 1 Administer the criteria, principle don't answer interval, and coverage points of a call coverage group.

Field 1 Enter the split number.

Field 5 Enter **3**

Field 6 Enter **3**

Field 7	Enter **1** to show that the last point is an EUCD split rather than an extension.
Fields 8–10	Enter the coverage path point (the line extension number or EUCD group number). To simplify testing, make AUDIX SYSTEM SPLIT the first and only point in the coverage path.

Press ADD and EXECUTE.

Assign Voice Terminals

Assign an extension number, the new COS, and the new coverage group to the voice terminals.

000 Word 1 Assign an extension number to each voice port using the COS from Procedure 010.

Field 1	Enter the extension number.
Fields 2–6	Enter the equipment location where the voice terminal is wired.
Field 7	Enter the new COS.

Press ADD and EXECUTE.

Repeat Procedure 000, Word 1 for the next voice terminal.

000 Word 2 Administer hunt-to extensions and controlled restriction groups associated with an extension.

Field 1	Enter one of the extension numbers.
Field 6	Enter the new coverage group number.
Field 8	Enter **3** for the AUDIX system as the Leave Word Calling (LWC) destination.
Field 9	Enter the AUDIX system machine number. (If you don't enter a number in this field, you can't call forward to the AUDIX system.)

Press ADD and EXECUTE.

Repeat Procedure 000, Word 2 for the next extension number.

Assign AMW

063 Word 1 Assign the Automatic Message Waiting (AMW) feature to a straight line set. The switch must have the LC03 and LC41 circuit packs.

Field 1	Enter one of the extension numbers.
Fields 2–4	Enter the corresponding equipment location.

Press ADD and EXECUTE.

Repeat for the next voice terminal.

DCS ADMINISTRATION

The AUDIX system can serve more than one switch when the switches are part of a network such as the DCS (Distributed Communications System). The switch that hosts the AUDIX system connects it to the other switches in the network. The AUDIX system uses the switch's existing DCS trunks for both data and voice communication. The AUDIX system requires pulse registers at each switch in the network. This section outlines the procedures for administering the DIMENSION PBX for the AUDIX system in a DCS environment.

Data Link Administration

Figure 4-1, *AUDIX System Data Link to a DCS Switch*, shows that DCS switch data connections involve a remote switch, a host switch, and an AUDIX system. Some coordination is required here when assigning port and channel numbers as described after this figure.

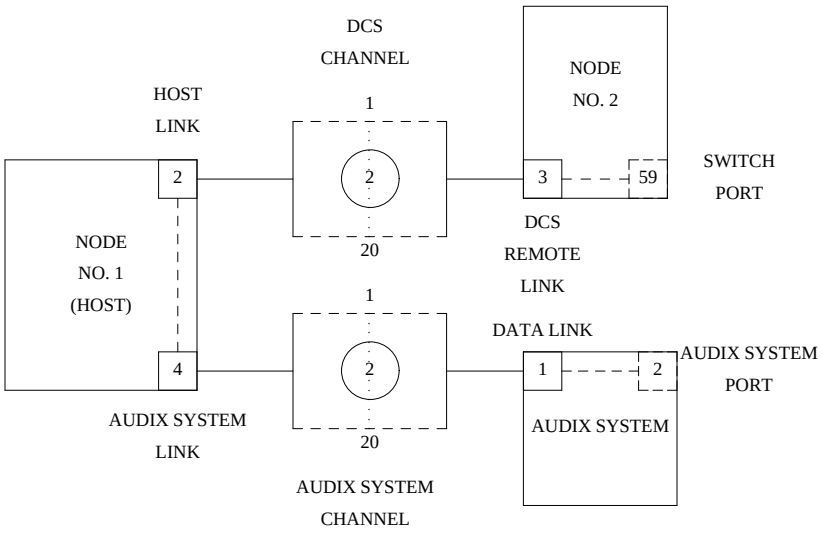


Figure 4-1. AUDIX System Data Link to a DCS Switch

Before starting, gather the following information:

- Which DCS link and channel will be used between the distant and host switches?

  DCS REMOTE LINK_____(3 is used in Figure 4-1, *AUDIX System Data Link to a DCS Switch*)
  DCS HOST LINK_____(2 is used in Figure 4-1)
  DCS CHANNEL_____(2 is used in Figure 4-1)

- Which port and channel will be used between the DIMENSION PBX and the AUDIX system? Find them by displaying Procedure 275, Word 3, Field 9. (Currently, switch number 19 cannot be used.)

  Use this number as the switch number, as the AUDIX system port, and as the AUDIX system channel.

  AUDIX SYSTEM PORT_____(2 is used in Figure 4-1)
  AUDIX SYSTEM CHANNEL_____(2 is used in Figure 4-1)

Verify DCS

276 Word 1 Display the system feature group combination. Only certain system management agents (for example, the remote maintenance service center that supports this system) can change the permissions in this procedure. Field 3 (DCS) must be active for the AUDIX system applications. If not, call the appropriate remote maintenance service center to have them activated.

Field 3 Verify that the DCS is active (displays a `1`).

Assign the DCS Remote Node

At the remote node, use the following steps to assign an AUDIX system switch port. This port is assigned to a spare channel on the DCS link connected to the AUDIX system host.

Table 4-4. DCS Remote Node Procedure Overview

Step	Procedure	Field	Enter	Press
1	275 Word 1	15 16 17	should equal 1 should equal 1 should equal 1	
2	650			Busy Out Next Data Busy Out Busy Out
3	256 Word 2	1 2 3 4 5	**5** *SWITCH PORT* *DCS REMOTE LINK* *DCS CHANNEL* **1**	 Add
4	256 Word 5	1 3 4 4	*SWITCH PORT* **11** **2** *AUDIX system machine #*	 Add
5	256 Word 3	1 2	*SWITCH PORT* AUDIX SYSTEM PORT	 Add
6	256 Word 5			Reset Add Execute Display Execute
7	650	 8	 **0** or **1**	Next Data Rls Busy Out Next Data

650 Busy out the DCIU.

Press NEXT DATA (Test = 2).

Press BUSY OUT. Wait for error code 80.

Press BUSY OUT again.

256 Word 2 Assign the AUDIX system switch port.

Field 1 Enter **5**

Field 2 Enter the SWITCH PORT.

Field 3 Enter the DCS REMOTE LINK.

Field 4 Enter the DCS CHANNEL.

Field 5 Enter **1**

Press ADD and EXECUTE.

256 Word 5 Assign the AUDIX system machine number to the port.

Field 1 Enter the SWITCH PORT.

Field 3 Enter **11**

Field 4 Enter **2**

Field 5 Enter the AUDIX system machine number.

Press ADD and EXECUTE.

256 Word 3 Assign the local/remote port pairing.

Field 1 Enter the SWITCH PORT.

Field 2 Enter the AUDIX SYSTEM PORT.

Press ADD and EXECUTE.

256 Word 5 Reset the data base.

Press RESET ADD EXECUTE DISPLAY and EXECUTE.

Field 2 should now display the switch number.

650 Release the DCIU.

Press NEXT DATA (Test = 2).

Press RLS BUSY OUT.

Press NEXT DATA (Test = 3).

Run internal and external loop tests on the data link.

Enter **0** or **1** in Field 8.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Assign the DCS Host Node

At the host switch, use the following steps to assign a node's AUDIX system switch port. This port is assigned to a spare channel on the DCS link connected to the AUDIX system host.

Table 4-5. DCS Host Node Procedure Overview

Step	Procedure	Field	Enter	Press
1	650			Next Data Busy Out Busy Out
2	256 Word 2	1 2 3 4 5	*DCS HOST LINK* *DCS CHANNEL* *AUDIX SYSTEM LINK* *AUDIX SYSTEM CHANNEL* **1**	 Add
3	650			Next Data Rls Busy Out

275 Word 1 Check the Switch Features.

Field 15 Should equal 1.

Field 16 Should equal 1.

Field 17 Should equal 1.

650 Busy out the DCIU.

Press NEXT DATA (Test = 2).

Press BUSY OUT. Wait for error code 80.

Press BUSY OUT again.

256 Word 2 Assign the AUDIX system switch port.

Field 1 Enter the DCS HOST LINK.

Field 2 Enter the DCS CHANNEL.

Field 3 Enter the AUDIX SYSTEM LINK.

Field 4 Enter the AUDIX SYSTEM CHANNEL.

Field 5 Enter **1**

Press ADD and EXECUTE.

650 Releases the DCIU.

Press NEXT DATA (Test = 2).

Press RLS BUSY OUT.

Save New Translations

Perform a Run Tape to save the new translations.

If the system has a duplicated common control, the Run Tape operation will update both tapes.

Voice Port Access

DIMENSION PBX systems do *not* require administration for access to the AUDIX system voice ports. Users will dial the AUDIX system extension assigned at the switch.

Subscriber Administration

Assign the subscribers at the DCS node. For every subscriber, verify that:

- The Message Waiting feature is assigned in Procedure 063.
- A COS that has Call Forwarding—All Calls is enabled in Procedure 010.

OPTIONAL FEATURES ADMINISTRATION

This section describes how to assign the Automated Attendant, Switch Recorded Announcement, and Switch Multiple Coverage Paths on the DIMENSION PBX.

Automated Attendant Administration

Automated Attendant is an AUDIX system feature that provides the caller with a menu of options. The caller then can request a department or extension by pressing a touch-tone key. Use the following procedures to administer Automated Attendant at the switch.

The following administration is for customers with Direct Inward Dialing (DID) Service. If DID Service is not provided, consult the remote maintenance service center that supports this system for an alternative arrangement.

1. Assign the Automated Attendant extension as a dummy extension. Use a COS with Call Forwarding enabled.
2. Activate Call Forwarding—All Calls to the AUDIX system EUCD group number.

Automated Attendant Substitute Strategies

A substitute for Automated Attendant is needed so that calls do not go unanswered when the AUDIX system is busy. Each AUDIX system must be tailored individually. Check with your AT&T representative before using the following suggestions.

Instead of assigning the automated attendant extension as a dummy extension, assign it to a real voice terminal, one with a Send All Calls button. When the AUDIX system is in service, Send All Calls should be active to direct attendant calls to the AUDIX system. If the AUDIX system should go out of service, a *live* attendant should deactivate Send All Calls and answer the calls at the voice terminal. The voice terminal could also forward calls to the console, if desired.

Switch Recorded Announcement

Use the following procedures to provide a recorded announcement at the switch for anyone that accesses the AUDIX system, either through a direct call or call redirection. The announcement is heard when all the AUDIX system voice ports are busy and calls start entering the AUDIX system queue.

When all AUDIX system ports are busy, calls forwarded to the EUCD split can receive an announcement rather than ringing or intercept tone.

Table 4-6. Switch Recorded Announcement Procedure Overview

Step	Procedure	Field	Enter	Press
1	100 Word 1	1–4 5	*equip loc* **90**	 Add
2	150 Word 1	1–5 6	*ANNOUNCEMENT EQ LOC* *Q TRK GRP*	 Add
3	027 Word 1	1 2–5 7	*AUDIX SYSTEM SPLIT* *ANNOUNCEMENT EQ LOC* *delay desired*	 Add

X 600 Word 1 Assign the `Equipment Location, Dial Access Code,` and `Trunk Type` to the trunk groups.

Fields 1–4 Enter the equipment location of the announcement system.

ANNOUNCEMENT EQ LOC _____

Field 5 Enter **90** for EUCD first announcement trunk type.

Press ADD and EXECUTE.

X 650 Word 1 Assign `Equipment Location` and `Trunk–Features–Trunk Group` to a trunk.

Fields 1–5 Enter the ANNOUNCEMENT EQ LOC.

Field 6 Enter the Q TRK GRP.

Press ADD and EXECUTE.

027 Word 1 Administer an auxiliary trunk equipment location for a recorded announcement and the recorded announcement wait times for an EUCD split.

Field 1 Enter the AUDIX SYSTEM SPLIT.

Fields 2–5 Enter the ANNOUNCEMENT EQ LOC.

Field 7 Enter the delay desired before the announcement is heard (administered in 2 s intervals).

Press ADD and EXECUTE.

Switch Multiple Coverage Paths

Multiple coverage paths provide greater flexibility for call-answer treatment. DIMENSION PBX Systems can have two paths linked together (even-odd pair).

A dual coverage path requires an even-odd coverage group pair administered in Procedure 000 and Procedure 011. (The even group number serves as Path 1 and the odd as Path 2.) Assign the coverage user's extension to the even group number using Procedure 000.

Table 4-7. Switch Multiple Coverage Paths Procedure Overview

Step	Procedure	Field	Enter	Press
1	000 Word 2	1 6	*ext #* *even grp #*	Add
2	011 Word 1	1 2–5	*even grp #* *CALL COVERAGE GROUP CRITERIA*	Add

The procedures below are needed in addition to those required to establish the initial coverage path. These procedures assume that the AUDIX system uses Path 1.

000 Word 2 Administer the `Extension Number` and `Coverage Group` fields.

Field 1 Enter the AUDIX system associated extension number (same as Procedure 001, Word 1, Field 2).

Field 6 Enter the assigned even group number (Path 1).

Press ADD and EXECUTE.

011 Word 1 Administer the `Coverage Group` and `Characteristics` fields.

Field 1 For Path 1, enter the even group number assigned in Procedure 000, Word 2, Field 1. For Path 2, enter the odd group number assigned in Procedure 000, Word 2, Field 1.

Fields 2–5 For each of these fields:

- Enter **`0`** for no coverage.
- Enter **`1`** for coverage on internal calls.
- Enter **`2`** for coverage on external calls.
- Enter **`3`** for coverage on either internal or external calls.

Press ADD and EXECUTE.

For example: Coverage (Send All Calls, LWC, Busy/Don't Answer) directs internal calls along Path 1 to the AUDIX system and external calls along Path 2 to Message Center.

The following is an example of this administration.

Table 4-8. Example Translations for Switch Multiple Coverage Paths

Step	Procedure	Field	Enter	Press
1	000 Word 2	1	**5325**	
		6	**1000**	Add
2	011 Word 1	1	**1000**	
		3	**1**	
		4	**0**	
		5	**1**	
		10	*EUCD group #* (AUDIX system)	Add
		1	**1001**	
		3	**2**	
		4	**0**	
		5	**2**	
		8	*EUCD group #* (MCS)	Add

5. AUDIX Standalone System

This section describes the additional requirements needed to administer a switch to work with an AUDIX Standalone system. Consider the requirements in this section when performing those procedures.

NOTE

You must administer the switch *before* the technician can perform the maintenance tests.

For additional information on the AUDIX Standalone system, refer to the *AUDIX System Description* (585-305-201).

SWITCH REQUIREMENTS

Standalone is a feature that allows the AUDIX system to connect to any switch without using a data link. This feature allows the AUDIX system to work with a switch built by a different vendor or one that runs an incompatible load of software. Because an AUDIX Standalone has no data link, it does *not* automatically receive the following information:

- The calling or called extension
- The type of call (Call Answer, Automated Attendant, or Voice Mail)
- The origination of the call (internal to the switch or outside)

Voice Port Assignments

The analog ports at the switch require the following:

- Verify that the extension number you assign to each port matches the number assigned by the AUDIX system administrator on the AUDIX system `system : translation : machine : audix/amis/call delivery` form.
- Make each port capable of call origination with touch-tone dialing, call conference, and call transfer.

Hunt Group Assignments

The AUDIX system needs to know what type of call it is receiving so it can voice the correct prompts to the caller. Because AUDIX Standalone system has no data link, the AUDIX system finds out the type of incoming call by noting which call distribution group (hunt group) port the call comes in on. The different types of ports are:

a: Dedicated ports (optional); used for Automated Attendant. (One attendant is allowed per Standalone.)

c: Call Answer (recommended); used for leaving messages and for the AUDIX system subscriber sessions (for example, creating, sending, and listening to messages).

m: Message Notification (optional); for Message Waiting Indication (MWI) access codes. AUDIX R1V5 and later Standalone systems can assign up to five Message Notification *m-type* ports. The AUDIX system uses these ports to send a message-waiting access code to users who have new messages.

v: Voice Mail (optional); used when customers wish to have a separate greeting for AUDIX system subscribers. Callers receive one greeting via the Call Answer port while subscribers receive another via Voice Mail ports.

Assign the hunt groups as follows:

1. Find out the different types of ports the customer wants assigned and the number of ports each type will have. If they want more than one type of port, assign each of the types to a separate hunt group.
2. Create the *c-type* hunt group. Do the following:
   - Make the hunt group circular (in other words, the first extension hunts to the second, the second hunts to the third, etc., and the last hunts to the first). This makes more efficient use of the ports.
   - Reserve one of the extensions as the AUDIX system *Call Answer Extension*.
3. Repeat for *v-type* ports, if necessary. Reserve one of these extensions as the AUDIX system *Voice Mail Extension*. If the customer does not want *v-type* ports, the *Call Answer Extension* will be used for Call Answer and for Voice Mail (subscriber login).
4. Assign the *a-type* extensions, if necessary, to a circular hunt group [for example, a Uniform Call Distribution (UCD) group]. If the group requires a controlling extension, use the attendant extension as that extension. See Figure 5-1, *Sample Automated Attendant Setup on AUDIX Standalone System*.

NOTE

The *m-type* ports for Message Notification do *not* need to be administered as a hunt group since the AUDIX system only dials out on these ports. Administer these ports like regular telephone lines.

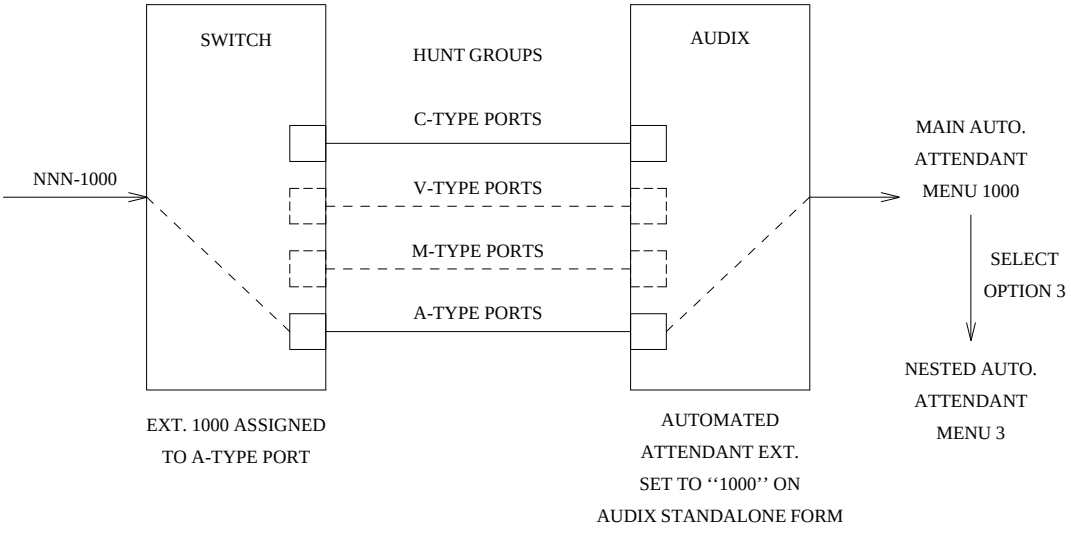


Figure 5-1. Sample Automated Attendant Setup on AUDIX Standalone System

AUDIX System Subscriber Assignments

Some type of call forwarding on no-answer is needed so that calls are redirected to the AUDIX system Call Answer extension.

NON-AT&T SWITCH REQUIREMENTS

Some general administration guidelines for AUDIX Standalone systems connected to non-AT&T vendors are listed below. Not all these features may be administrable on all switches; others not listed may also be required. Check with your AT&T representative for other specifications that may be required for a particular vendor’s switch.

- Administer every AUDIX system port on the switch as if it were an analog set with touch-tone and dial-out capability.
- Enable the call transfer capability for *T (Transfer) and *0 (Operator). The PBX must recognize a 600 milliseconds open-loop flash, deliver dial tone, accept touch-tone addressing within 5 seconds, and connect the call within 3 seconds (or the AUDIX system disconnects and the transfer fails).
- Make the disconnect timing as short as possible: 4 seconds (preferred) to 15 seconds (maximum). The PBX should idle the station loop and be ready to accept the next call within 2 seconds. Disconnect supervision is required for all AUDIX system voice ports.
- Assign all AUDIX system ports to a single hunt group. Normally, there will be two or three hunt groups (for example, one hunt group for each type of port). Try to have all ports in a hunt group active simultaneously.

- Set the extension length from 3 to 10 digits.
- Set interdigit time-out for dial tone and outpulsed digits to at least 10 seconds.
- Verify the following on the PBX:
  - — It registers Dual-Tone Multifrequency Signaling (DTMF) address signaling at the station-line interface
  - — The equipment will use DTMF signaling for station-to-AUDIX system calls
  - — The PBX disconnect signal to the station (AUDIX system) is at least 600 ms open loop
  - — During disconnect and idle state, current leakage over the loop must not exceed 2 mA
  - — Ringing must have a minimum energy burst of 600 ms minimum duration
  - — Ringing must *not* be single polarity

Abbreviations

ACD	Automatic Call Distribution
ACP	Advanced Communications Package
AMW	Automatic Message Waiting
AP	Applications Processor
AUCC	AUDIX Upgrade Control Center
bps	bits per second
CIC	Customer Information Center
CO	Central Office
COS	Class of Service
CPE	Customer Premises Equipment
CMS	Call Management System
CSM	Centralized System Management
DAC	Dial Access Code
DCE	Data Communications Equipment
DCIU	Data Communications Interface Unit
DCS	Distributed Communications System
DID	Direct Inward Dialing
DTE	Data Terminal Equipment
DTMF	Dual-Tone Multifrequency Signaling
DSU	Data Service Unit
EIA	Electronic Industries Association
ES	Enhanced Services
ESS	Electronic Switching System
EUCD	Enhanced Uniform Call Distribution
FSO	Field Service Organization
HDLC	High-Level Data Link Controller
IDI	Isolating Data Interface
INADS	Initialization and Administration System
IVMS	Integrated Voice Messaging System

ITAC	International Technical Assistance Center
LADS	Local Area Data Set
LDN	Listed Directory Number
LWC	Leave Word Calling
MAAP	Maintenance and Administration Panel
MCS	Message Center Service
MLHG	Multi-Line Hunt Group
MPDM	Modular Processor Data Module
ms	milliseconds
MSS	Message Service System
MWI	Message Waiting Indication
PBX	Private Branch Exchange
PI	Processor Interface
PIB	Processor Interface Board
QDN	Queue Directory Number
RNX	Private-Network Office Code
s	seconds
SAT	System Administration Terminal
SCI	Switch Communications Interface
SIM	System Implementation Manager
SMSI	Simplified Message Service Interface
SMT	System Management Terminal
TAC	Trunk Access Code
TRACS	Translation Recovery, Additions and Conversion System
TSC	Technical Service Center (also Temporary Signaling Connection)
UCD	Uniform Call Distribution
UDP	Uniform Dial Plan
VDN	Vector Directory Number
VMAAP	Visual Maintenance and Administration Panel

Glossary

adjunct — A processor that does one or more tasks for another processor and that is optional in the configuration of the other processor. For example, a 3B2 computer dedicated to logging and processing call-detail records received from a communications system is serving as an adjunct to the system.

administration — The process of accessing, establishing, or changing parameters associated with the services and features of a system.

administrator — A person who accesses, establishes, or changes the parameters associated with the services and features of a system.

analog — The representation of information by means of continuously variable physical quantities such as amplitude, frequency, phase, or resistance.

AUDIX (Audio Information Exchange) — A fully integrated voice-mail system that can be used with a variety of communications systems to provide call-history data, such as subscriber identification and reason for redirection. See also **AUDIX Standalone**, **Call Transfer into AUDIX**, and **voice-mail system**.

AUDIX host switch — With distributed communications system (DCS) centralized AUDIX, the one communications system that must have an AUDIX adjunct that can be used to serve AUDIX subscribers on that system and AUDIX subscribers on other systems in the DCS cluster.

AUDIX networking — See **networked AUDIX**.

AUDIX Standalone — An AUDIX system that has no data link and allows AUDIX service to be provided in association with any communications system but with less functionality than when AUDIX is integrated via a data link with a digital AT&T switch. See also **AUDIX**.

authorization code — A dialed code that can raise the facilities restriction level (FRL) or class of restriction (COR) of the trunk used to place an outgoing call. An authorization code can also be used, in preference to or in combination with a barrier code, to protect against unauthorized use of remote-access trunks. Also called *A-code*.

automated attendant service — An AUDIX feature that provides a personalized greeting and a menu of choices to incoming callers, prompting them to enter additional touch-tone digits to select one of the menu choices. Based on the digits received or the option assigned when no digits are received, the caller is either connected to the dialed or selected endpoint, or to a specific AUDIX mailbox or Message Center agent to leave a message.

Automatic Call Distribution (ACD) — A feature that directs calls to agents who have been administered in groups called *splits*. ACD uses the most-idle agent, direct, and circular (for System 85 and DEFINITY Communications System Generic 2 only) distribution methods. See also **Direct Department Calling**, **Enhanced Uniform Call Distribution**, and **Uniform Call Distribution**.

baud — In telecommunications applications, a unit of transmission speed equal to the number of signal events per second. See also **bit rate** and **bits per second**.

bit rate — The speed at which bits are transmitted, usually expressed in bits per second. Also called *data rate*. See also **baud** and **bits per second**.

bits per second (bps) — The number of binary units of information that are transmitted or received per second. See also **baud** and **bit rate**.

Call Answer by AUDIX — The use of AUDIX to answer redirected calls and record messages for a called principal.

call coverage — The process of answering telephone calls and taking messages. Also called *coverage.*

Call Management System (CMS) — An application, running on an adjunct processor, that collects information from an Automatic Call Distribution (ACD) unit. CMS enables customers to monitor and manage telemarketing centers by generating reports on the status of agents, splits, trunks, trunk groups, vectors, and vector directory numbers (VDNs), and enables customers to partially administer the ACD feature for a communications system.

call vectoring — A method that manages inbound calls, using routing tables to uniquely define treatments for each call type. The call type is based on the dialed number or trunk-group termination to a vector via vectoring directory numbers. The vectors are customer-programmable using commands that resemble a high-level programming language to specify what treatments the call should be given. Also called *vectoring*. See also **vectors** and **vector step**.

Central Office (CO) — The location of telephone switching equipment that provides local telephone service and access to toll facilities for long-distance calling. More than one CO can serve the same area.

Centralized System Management (CSM)

Obsolete. See **Manager IV**.

channel

A telecommunications transmission path for voice and/or data.

Class of Restriction (COR)

On a System 75 or DEFINITY Communications System Generic 1, a feature that allows definition of up to 64 classes of call-origination and call-termination restrictions for telephones, telephone groups, data modules, and trunk groups. See also **class of service**.

Class of Service (COS)

On a System 75, a number (0 through 15) that specifies a group of feature-access permissions of a group of telephones. COS specifies whether telephone users can activate certain features such as Automatic Callback and Call Forwarding — All Calls, Data Privacy, and Priority Calling. See also **class of restriction**.

On a System 85, a numeric code that specifies a group of feature-access permissions and calling-privilege restrictions that together determine the privileges of a group of extension numbers. As many as 63 COSs are provided by System 85. See also **class of restriction**.

coverage group

The combination of a principal, the principal's coverage paths, and the associated criteria.

coverage path

An ordered sequence of coverage points to which coverage calls are redirected. A dual-path coverage group contains separate paths and criteria for external and internal calls. A multiple-path coverage group contains separate paths for each criteria.

Customer Premises Equipment (CPE)

Equipment on the customer side of an interface between the customer and a facility, for which the customer has responsibility.

Data Service Unit (DSU)

A device designed to transmit digital data on transmission facilities. See also **network channel-terminating equipment**.

Data Terminal Equipment (DTE)

The equipment that makes up the endpoints in a connection over a data circuit. For example, in a connection between a data terminal and a host, the terminal, the host, and their associated modems or data modules make up the DTE. DTE usually consists of the following functional units: control logic, buffer store, and one or more input or output devices or computers. DTE can also contain error control, synchronization, and telephone-identification capabilities.

Data Communications Interface Unit (DCIU)

An interface between the System 85 main processor, AUDIX equipment, or, in a distributed communications system (DCS), other communications systems. The DCIU consists of four circuit packs in the common-control carrier (CCC). See also **switch communications interface** for the equivalent System 75 interface.

default — A value assigned automatically when a user chooses not to assign a value. The user has the option of accepting or changing the default.

Dial Access Code (DAC) — A dial code assigned to a feature for activation of the feature from the communications-system station set. See also **feature-access code** and **trunk-access code**.

digital — The representation of information in discrete elements such as off and on or 0 and 1.

Digital Communications Protocol (DCP) — An AT&T proprietary protocol used to transmit both digitized voice and digitized data over the same communications link. A DCP link is made up of two 64 Kbps information (I-) channels and one 8 Kbps signaling (S-) channel.

Direct Inward Dialing (DID) — A feature that allows an incoming call from the public network (not FX or WATS) to reach a specific telephone without attendant assistance. DID calls to DID-restricted telephone lines are routed to an attendant or recorded announcement, depending on the option selected.

Distributed Communications System (DCS) — A network configuration linking two or more communications systems in such a way that selected features appear to operate as if the network were one system.

DSU — See **Data Service Unit**.

DTE — See **data terminal equipment**.

Dual-Tone Multifrequency (DTMF) Signaling — Pushbutton signaling from telephones using the voice transmission path. The code for DTMF signaling provides 16 distinct signals, each composed of two voice-band frequencies.

duplex data link — Electronic equipment that permits automatic transmission of digital information between two points simultaneously in both directions. See also **simplex data link**.

Enhanced Uniform Call Distribution (EUCD) — An Automatic Call Distribution (ACD) feature that provides, in System85 R2V2, automatic connection of incoming calls to agents who have been administered in hunt groups called *splits*. Calls are distributed using a circular hunting algorithm, and features are included to increase agent efficiency. See also **Automatic Call Distribution**, **Direct Department Calling**, **split**, and **Uniform Call Distribution**.

extension number — A 1- to 5-digit number by which calls are routed through a communications system or, with a Uniform Dial Plan (UDP) or main-satellite dialing plan, through a private network. Extension numbers are primarily associated with telephones and data terminals but can also be used for functions associated with specific features. Use either extension or extension number. Neither term is preferred. However, extension should be used **only** as a synonym for extension number and should **not** be used to refer to the voice terminal itself or an appearance button of the extension number.

field — A category of information in a record or database. A field typically has two parts: field name, which identifies a predefined category of information — for example *supv* for supervisor — and field value, which contains specific information about that category — for example, *Smith J*.

High-level Data Link Control (HDLC) — A standard bit-oriented protocol, developed by the International Standards Organization (ISO), in which control information is always placed in the same position and specific bit patterns used for control differ from those used in representing data, so that errors are less likely to occur.

hunt group — A group of extensions that are assigned the Station Hunting feature so that a call to a busy extension will reroute to an idle extension in the group. See also **hunting**.

Leave Word Calling (LWC) — A feature that leaves two kinds of messages: *Please call me back*, and *Please call the calling party back.* The first message is from a calling telephone user to a called station user. The second message is used by a covering user to leave a message for the principal from the calling party. LWC messages are stored in the communications system, 3B2 Messaging Server database, or AUDIX adjunct. See also **message retrieval**.

Listed Directory Number (LDN) — The listed number in a public directory for a communications system. An incoming call to an LDN is usually answered by an attendant.

maintenance — The activities involved in keeping a telecommunications system in proper working condition: the detection and isolation of software and hardware faults, and automatic and manual recovery from these faults.

Manager IV — An operations-support software tool that provides system-management applications such as terminal change management (TCM), facilities management (FM), traffic management (TM), and cost management (CM). The hub for these applications is an integrated and centralized database containing communications-system translation information, user records, and equipment inventory data for System 85 and the DIMENSION Feature Package 8 (FP8). System 75 has its own fully integrated system-management capability, which CSM can access remotely. This is the new term for **Centralized System Management** (CSM).

Message Center — A feature that provides a call-answering and message-exchange point for a company.

Modular Processor Data Module (MPDM) — A processor data module (PDM) that can be configured to provide several kinds of interfaces (RS-232C, RS-449, and V.35) to customer-provided data terminal equipment (DTE). See also **processor data module**.

network — A series of points, nodes, or stations connected by communications channels.

networked AUDIX — The interconnection of two or more AUDIX adjuncts for the purpose of exchanging digitally encoded voice messages between AUDIX subscribers.

node — A switching or control point for a network. Nodes are either *tandem* — they receive signals and pass them on — or *terminal* — they originate or terminate a transmission path.

Outcalling — An AUDIX R1V3 feature whereby, if there are unaccessed messages in a user's mailbox at a predesignated time, AUDIX automatically calls a predesignated telephone number. Outcalling serves users who have no message-waiting lights or who will not always be at administered extensions. The user, upon answering, can choose to log in and receive the messages, cancel the outcall, or hang up. If the user does not answer, or does answer and hangs up before logging in, the outcall is repeated after an administerable time interval. See also **Audible MWI**, **Automatic Message Waiting**, **Message Waiting**, and **message-waiting indication**.

port — A data- or voice-transmission access point on a device that is used for communicating with other devices.

private branch exchange — See **PBX**.

private-network office code (RNX) — The first three digits of a 7-digit private-network number. RNX codes are numbered 220 through 999, excluding any codes that have a 0 or 1 as the first or second digit. See also **RNX**.

Processor Data Module (PDM) — A device that provides an RS-232C data circuit-terminating equipment (DCE) interface for connecting to data terminals, and host computers; and provides a Digital Communications Protocol (DCP) interface for connection to a communications system. See also **modular processor data module**.

Processor Interface (PI) circuit card — A circuit card that provides a BX.25 signaling link to adjuncts and/or to other distributed communications system (DCS) nodes for a System75 XE, System 75 R1V3, or DEFINITY Communications System Generic 1. See also **switch communications interface**.

Queue Directory Number (QDN)
In System 85 R2V4 and the DEFINITY Communications System, the extension number normally used to direct calls to an Automatic Call Distribution (ACD) split. QDNs are not used, however, when a system has call vectoring. See also **priority queue directory number**.

RNX
The location code for a private-network communications system, where R equals any digit 2 through 9 except the assigned call-detail recording (CDR) account-code prefix, N equals any digit 2 through 9, and X equals any digit 0 through 9. See also **private-network office code**.

simplex data link
Electronic equipment that permits automatic transmission of digital information in only one direction at a time. See also **duplex data link**.

split
In the context of Automatic Call Distribution (ACD), a group of agents organized to receive calls in an efficient and cost-effective manner. Also called *bay* or *gate*. See also **Enhanced Uniform Call Distribution**.

In the context of communications-system attendant service, a condition whereby a caller is temporarily separated from a connection with the attendant. See also **One-Way Attendant Automanual Splitting**.

Switch Communications Interface (SCI)
An interface between the System 75 switch processing element (SPE), AUDIX equipment, or other communications systems in a distributed communications system (DCS) configuration. The SCI provides for the System 75 the same functionality that the data-communications interface unit (DCIU) provides for the System85 and DIMENSION PBX. See also **data-communications interface unit** and **processor interface circuit card**.

translation
Specific information assigned to a terminal or to a communications system to customize it for the user. For example, the assignment of Automatic Callback to the third button on a telephone is a translation.

trunk
A dedicated telecommunications channel between two communications systems or central offices (COs). See also **facility**.

trunk group
Trunks that can be used interchangeably between two communications systems or central offices (COs). See also **final trunk group** and **first-choice trunk group**.

Uniform Call Distribution (UCD)
A Call Management System (CMS) feature that provides automatic connection of incoming calls to agents who have been administered in hunt groups called *splits*. See also **Automatic Call Distribution**, **Direct Department Calling**, and **Enhanced Uniform Call Distribution**.

Uniform Dial Plan (UDP)
A feature that allows a unique number assignment (4- or 5-digit) for each terminal in a multicommunications-system configuration such as a distributed communications system (DCS) or main-satellite-tributary configuration.

Uniform Numbering Plan (UNP) — A 4-, 5-, 6-, or 7-digit private-network numbering plan that provides a unique address for every station and/or terminal on the network.

vector command — A command used in call vectoring to specify the treatment that a call will receive. Commands include main or backup Automatic Call Distribution (ACD) split queuing with priority levels and inflow-threshold checking; delays with specified feedback such as ringback, music, silence, or announcements; collecting digits; routing to internal or external destinations; and unconditional and conditional branching. Conditional branching is based on call-handling conditions of the ACD splits, collected digits, or on time of day and day of the week. See also **vectors** and **vector step**.

Vector Directory Number (VDN) — An extension number that terminates to a vector. Calls to the VDN are processed by the vector to which the VDN points. When used with vectoring, the dialed number received by the communications system to provide dialed number identification service (DNIS) is the VDN assigned for that service.

vector-controlled split — A DEFINITY Communications System Generic 1 Automatic Call Distribution (ACD) split that is accessed from a vector step containing a vector command that results in queuing to the split while the call is still under vector-processing control.

vectors — Easily programmed routing tables for processing incoming calls that provide various responses to the caller before the call is answered or receives other treatment. See also **call vectoring**, **vector command**, and **vector step**.

voice mail — Messages that any subscriber to a voice-mail system can record in advance, distribute to other subscribers, receive, and store by using a telephone as an I/O device. See also **voice-mail system**.

Index