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DMS-100 Family

DMS VoiceMail

System Administration Tools

SPM 02 Standard 02.02 March 1994

northern telecom

DMS-100 Family

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System Administration Tools

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Contents

About this document vii
How this manual is organized vii
What precautionary messages mean vii
Typographic conventions viii
References ix

Chapter 1: Overview 1-1

Chapter 2: Using the TOOLS menu 2-1
The Logon screen 2-1
The TOOLS menu 2-3

Chapter 3: Move user 3-1

Chapter 4: Modify hardware 4-1
The Hardware Administration menu 4-1
Node configuration 4-3
Modify node 4-5
T1 link configuration 4-7
Modifying T1 channels 4-9
Modifying the T1 link setup 4-10
Data port configuration 4-13
Modify data port 4-16
- Terminal data ports 4-16
- Printer data ports 4-17
- SMDI data port 4-19
- Modem data port 4-20

Printing node or data port information 4-22

Chapter 5: Set silence compression 5-1

Chapter 6: Control volume 6-1

Chapter 7: Update MWI 7-1

Chapter 8: Block access to DMS VoiceMail 8-1

Chapter 9: Find Users **9-1**
Using wildcard characters 9-1
Selecting the User Type 9-2
Finding local voice users 9-3
Viewing a list of local voice users 9-5
The List of Local Voice Users screen 9-6
Viewing and modifying local voice users 9-10
Additional fields in the View/Modify Local Voice User screen 9-18
Finding directory entry users 9-21
Viewing a list of directory entry users 9-23
The List of Directory Entry Users screen 9-23
Printing a list of directory entry users 9-24
Viewing and modifying directory entry users 9-25
Deleting users 9-30
Deleting local voice users 9-30
Deleting directory entry users 9-31
Recording personal verifications using the [Voice] softkey 9-33

Chapter 10: Audit all volumes **10-1**

Chapter 11: Rebalance directory **11-1**

Chapter 12: Convert COS **12-1**

Chapter 13: On-Line system maintenance **13-1**
Process 13-1
Online System Event and Error Report (SEER) Log 13-2
Login 13-3
Logout 13-3

Chapter 14: Synchronize Disks **14-1**
Disk configurations 14-1
Commands 14-2
enable src mem 14-2
enable -1 ss dd mem 14-3
disable id 14-3
find id 14-3
info node 14-3
init 14-4
node 14-5

Chapter 15: Configure MATs **15-1**

List of figures

Figure 2-1 The DMS VoiceMail Logon screen 2-2
Figure 2-2 The TOOLS menu 2-3
Figure 2-3 Feature-dependent tools 2-4
Figure 3-1 Move user screen 3-1
Figure 4-1 Hardware Administration menu 4-2
Figure 4-2 Node Configuration screen 4-3

Figure 4-3 Modify Node screen 4-5
Figure 4-4 T1 Link Configuration screen 4-7
Figure 4-5 Modify T1 Channel screen 4-9
Figure 4-6 Modify T1 Link Setup screen 4-11
Figure 4-7 Data Port Configuration screen 4-15
Figure 4-8 Modify Data Port screen (Terminal) 4-16
Figure 4-9 Modify Data Port screen (Printer) 4-18
Figure 4-10 Modify Data Port screen (SMDI) 4-19
Figure 4-11 Modify Data Port screen (modem) 4-20
Figure 4-12 The Hardware Administration menu 4-22
Figure 5-1 Silence compression screen 5-1
Figure 6-1 Control volume utility screen 6-1
Figure 7-1 SET MWI Utility screen 7-1
Figure 8-1 Block access tool screen 8-2
Figure 9-1 User Type selection screen 9-2
Figure 9-2 The Find Local Voice Users screen 9-3
Figure 9-3 The List of Local Voice Users screen (General) 9-7
Figure 9-4 The List of Local Voice Users screen (MWI) 9-8
Figure 9-5 Print Users output 9-9
Figure 9-6 The View/Modify Local Voice User screen 9-11
Figure 9-7 The Find Directory Entry Users screen 9-22
Figure 9-8 The List of Directory Entry Users screen 9-24
Figure 9-9 Print directory entry users output 9-25
Figure 9-10 View/Modify Directory Entry User screen 9-26
Figure 9-11 The Delete Local Voice User screen 9-31
Figure 9-12 The Delete Directory Entry User screen 9-32
Figure 9-13 Personal Verification recording softkeys 9-33
Figure 11-1 Sample run (prompts and responses) for the Rebalance tool 11-1
Figure 12-1 Convert COS screen display 12-2
Figure 13-1 On-line System Maintenance Menu 13-3
Figure 13-2 CobraVT CLI window 13-4
Figure 14-1 SPM configuration on MSP 1 and MSP 2 14-1
Figure 14-2 SPM configuration on nodes 3 to 10 14-2
Figure 15-1 The Multiple Administration Terminal (MAT) Configuration screen 15-2

List of tables

Table 4-1 Recommended data port uses 4-13

List of procedures

Procedure 2-1 Logging on 2-2
Procedure 2-2 Navigating the TOOLS menu 2-4
Procedure 3-1 Moving users from one volume to another 3-2
Procedure 4-1 Navigating the Hardware Administration menu 4-2
Procedure 4-2 Modifying node configurations 4-4
Procedure 4-3 Modifying nodes 4-6
Procedure 4-4 Modifying T1 Link configurations 4-8
Procedure 4-5 Nominating/disqualifying a T1 link as a clock reference candidate 4-12
Procedure 4-6 Modifying data ports 4-15

Procedure 4-7 Modifying the printer data port 4-18
Procedure 4-8 Modifying the SMDI data port 4-20
Procedure 4-9 Viewing the modem data port 4-21
Procedure 4-10 Printing node and data port information 4-22
Procedure 5-1 Activating/deactivating silence compression 5-1
Procedure 6-1 Changing the volume level 6-1
Procedure 7-1 Restoring message waiting indicators 7-2
Procedure 8-1 Blocking access to DMS VoiceMail voice services 8-2
Procedure 9-1 Accessing the Find Local Voice Users screen 9-3
Procedure 9-2 Viewing a list of local voice users 9-6
Procedure 9-3 Printing a list of local voice users 9-8
Procedure 9-4 Viewing/modifying parameters for local voice users 9-20
Procedure 9-5 Accessing the Find Directory Entry Users screen 9-21
Procedure 9-6 Viewing a list of directory entry users 9-23
Procedure 9-7 Printing a list of directory entry users 9-24
Procedure 9-8 Viewing/Modifying parameters for directory entry users 9-28
Procedure 9-9 Deleting a local voice user 9-30
Procedure 9-10 Deleting directory entry users 9-32
Procedure 9-11 Recording, playing, and deleting personal verifications for existing users 9-33
Procedure 10-1 Auditing all volumes 10-1
Procedure 11-1 Rebalancing the directory 11-2
Procedure 11-2 Stopping the rebalancing process 11-3
Procedure 12-1 Assigning a COS to users with a personal COS 12-3
Procedure 15-1 Adding an MAT 15-2
Procedure 15-2 Deleting an MAT 15-3

About this document

This guide details the use of various tools and utilities used either by the system administrator or by customer support people.

How this guide is organized

Overview - Chapter 1 (“Overview”) lists the tools and utilities which are available to system administrators and customer support people.

How to access the tools - Chapter 2 (“Using the Tools Menu”) describes the procedure for logging on to the system and accessing the TOOLS menu.

Tools documentation - Chapters 3 to 15 describe the tools available through the TOOLS menu.

What precautionary messages mean

Danger, warning, and caution messages in this document indicate potential risks. These messages and their meanings are listed in the following chart.

Message	Significance
DANGER	Possibility of personal injury
WARNING	Possibility of equipment damage
CAUTION	Possibility of service interruption or degradation

Examples of the precautionary messages follow.

DANGER
Risk of electrocution
The inverter contains high voltage lines. Do not open the front panel of the inverter unless fuses F1, F2, and F3 have been removed first. Until these fuses are removed, the high voltage lines inside the inverter are active, and you risk being electrocuted.

WARNING
Damage to backplane connector pins
Use light thumb pressure to align the card with the connectors. Next, use the levers to seat the card into the connectors. Failure to align the card first may result in bending of the backplane connector pins.

CAUTION
Loss of service
Subscriber service will be lost if you accidentally remove a card from the active unit of the peripheral module (PM). Before continuing, confirm that you are removing the card from the inactive unit of the SPM.

Typographic conventions

The following conventions are used throughout this guide:

- ***Softkeys*** are displayed on the various administration menus and screens and indicate which keyboard function keys carry out specific DMS VoiceMail tasks. These are referred to in the document by using the label of the softkey (as displayed in the given menu), delimited by square brackets.

  Examples: [Exit], [OK to Delete], [Save]

- ***Keyboard keys*** (or hardkeys) are referred to by indicating the label of the key, delimited by angle brackets.

  Examples: <1>, <2>, <Return>

- ***Text input*** (the text you are required to enter) is presented in bold instead of using angle brackets.

  Examples: Enter **q** to quit.

- ***System prompts*** (or prompts displayed by the tool) are also presented in bold when referred to in a procedure.

  Example: **Do you want to continue?**

- ***Fields in screens*** - When the name of a field is referred to, it appears in italics and in a different typeface than the body of the document.

  Example: Enter a unique identifier in the *Mailbox Number* field.

- ***Values in fields*** - When the choices presented in a selectable data field are discussed, they are in quotes.

Examples: The default is “Enabled”.
Select “Custom” to create a set of restriction/permission codes unique to this thru-dialer.

- ***Spoken words*** **-** Suggested wordings for prompts (such as for voice menus or voice forms), or words which you may be required to speak into the telephone receiver, are in italics and between double quotation marks.

  Example: An appropriate prompt would be *“Please wait on the line, an attendant will be with you shortly”*.

References

In this guide, where reference is made to another part of the guide, or to another document, the following conventions are used:

- References to section headings and chapter titles are surrounded by double quotation marks.

  Examples: See the section “Modify data port” later in this chapter.
  See “T1 link configuration” in the “Modify hardware” chapter.

- References to other NTPs or documents are in italics.

  Example: See the *Translations Guide* (NTP 297-7001-310) for details.

Chapter 1: Overview

The TOOLS level provides access to some of the following system management utilities:

- ***Move user*** allows you to move users from one volume to another, one at a time.
- ***Modify hardware*** is used to modify the hardware database.
- ***Set silence compression*** compresses out or leaves in recorded silence.
- ***Control volume*** allows you to control volume on DMS VoiceMail voice sessions.
- ***Update MWI*** updates Message Waiting Indicators (MWIs) on telephone sets after the serving switch is rebooted.
- ***Block DMS VoiceMail*** allows you to specify whether or not access to DMS VoiceMail should be blocked in the case of a serious disk failure.
- ***Find Users*** allows you to search for users and then modify or delete those users.
- ***Audit all volumes*** allows you to free up data blocks on all volumes in the system.
- ***Rebalance directory*** rebalances the access structure for the system in order to speed up searches and updates to its entries.
- ***Convert COS*** assigns a COS to users who currently have a personal COS if their mailbox attributes exactly match those of a COS currently associated with the subscriber's customer group.
- ***On-Line system maintenance*** allows you to perform on-line system upgrades.
- ***Synchronize Disks*** provides you with a set of commands for maintaining the shadowed disks. (This is only available on certain hardware platforms, as described in the chapter "Synchronize Disks".)
- ***Other*** consists of other system/feature dependent options.

The following utilities are feature-dependent and will not be displayed if the necessary feature is not installed. (The available utilities are displayed when you select "Other" from the Tools menu.)

- ***Configure MATs*** allows you to configure the multiple administration terminals in your system.

Chapter 2: Using the TOOLS menu

This chapter discusses how to log on to and use the TOOLS menu.

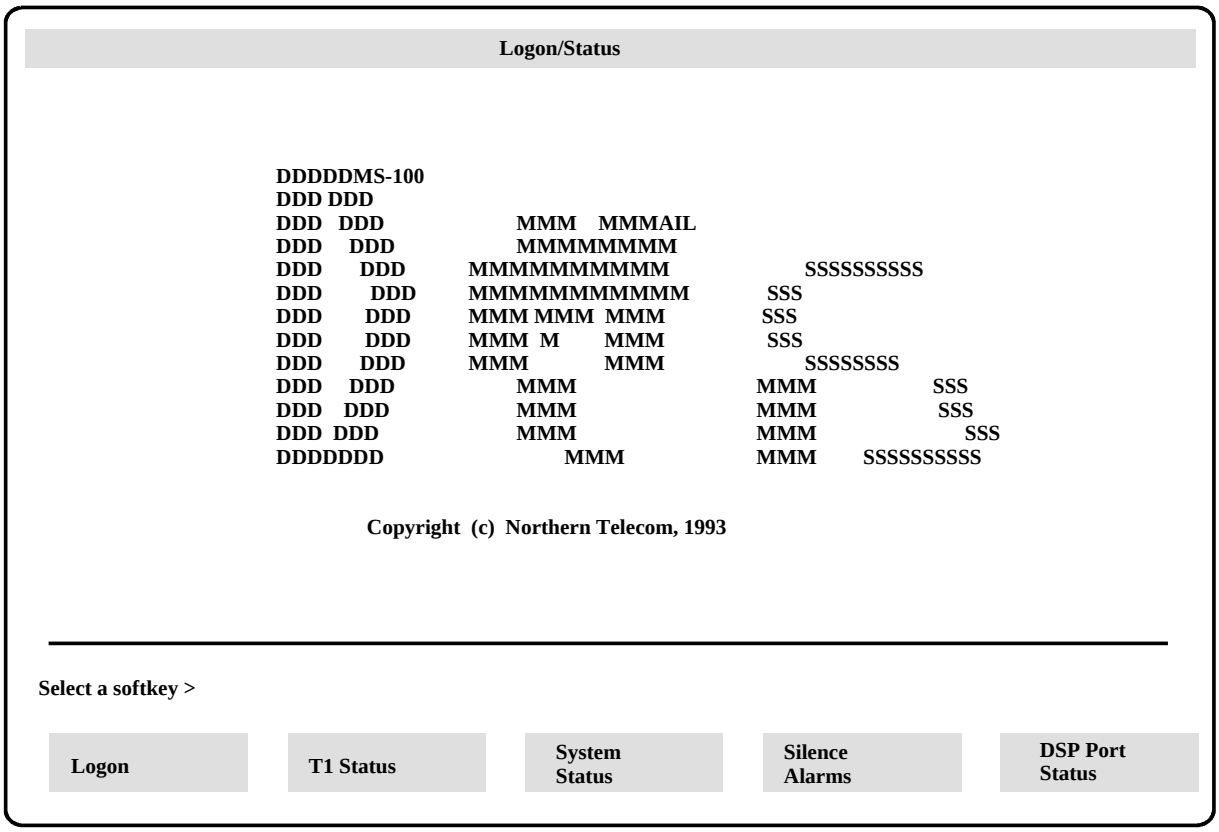
The Logon screen

The Logon screen (Figure 2-1) appears when the administrative console is idle. When the system is installed, the default administration password is "adminpwd" and the password used to access the TOOLS menu is "tools". To ensure system security, change the administrator password as soon as possible.

An unsuccessful logon attempt is automatically recorded in the system log file. As a security precaution, the system forces a ten minute delay after a third unsuccessful attempt to log on, before a further logon attempt will be accepted. Only your Northern Telecom representative has the required privileges to gain access to the system during the lockout period.

To log on to the system and gain access to the tools, use Procedure 2-1, described later in this chapter.

Figure 2-1xxx
The DMS VoiceMail Logon screen



Note 1: When logging on at an MAT, only the [Logon] softkey is displayed.

Procedure 2-1xxx
Logging on

Starting point : Logon Screen.

1 Press [Logon]. Enter the TOOLS password and press <Return>.

You are prompted to enter the administrator password.

2 Enter the Administrator password and press <Return>.

The TOOLS screen appears. See the section "The TOOLS menu" for details.

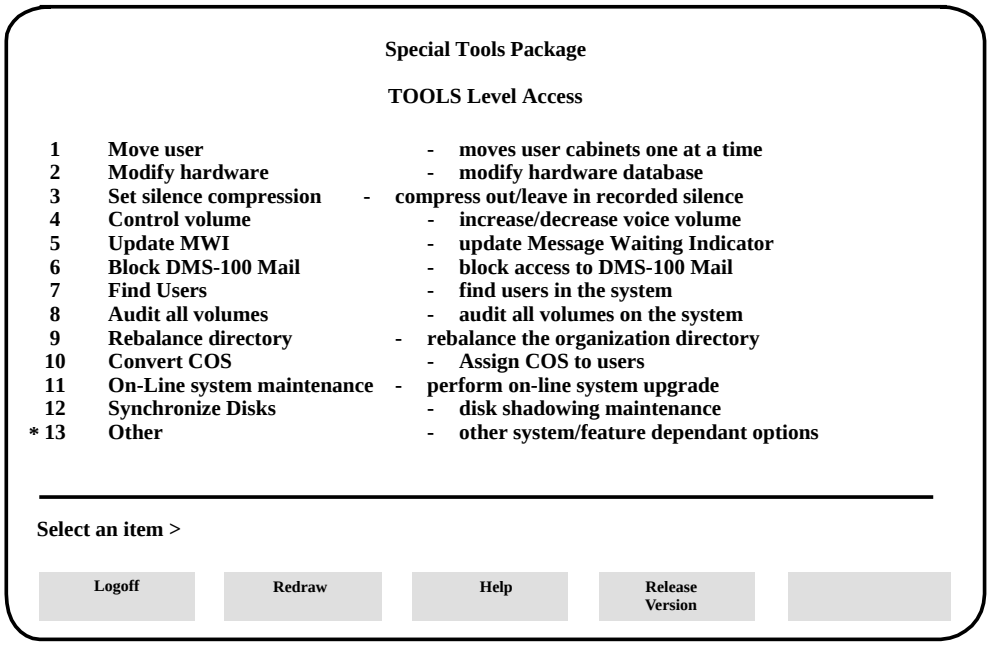
If an invalid password is entered, an error message appears; try logging on again.

The TOOLS menu

The TOOLS menu (Figure 2-2) appears after a successful logon. The menu is a routing menu from which you can select the tool you want. Note that the tools listed on the menu depends on what features you have installed on your system. Never leave the administrative console unattended while you are logged on.

> ***Note:*** The actual screen display may differ slightly from the figures shown here.

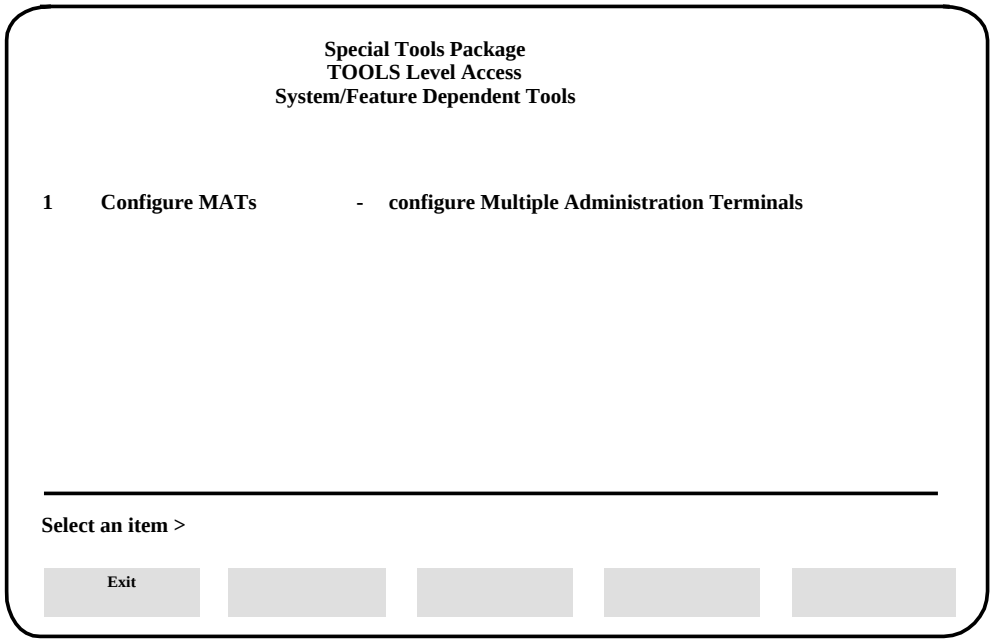
Figure 2-2xxx
The TOOLS menu



* The "Other" option is available if other features are installed.

When you choose the "Other" option from the TOOLS menu, the menu shown in Figure 2-3 is displayed. The items that appear on this menu depend on the features that you have installed on your system. Figure 2-3 shows all possible feature-dependent tools. Your system will most likely have only a few of them and the menu item numbers may therefore be different on your system.

Figure 2-3xxx
Feature-dependent tools



Note: The actual menu would depend on what additional features are installed.

Procedure 2-2xxx
Navigating the TOOLS menu

Starting point : The TOOLS menu.

1 Choose an item by entering its number and pressing <Return>.

The softkeys, if selected, perform the following actions:

[Logoff] returns you to the Logon screen

[Redraw] refreshes the menu screen

[Help] presents general information

[Release Version] provides a brief summary of any pertinent release information; if the screen is simply redrawn then there is no release information available.

For other menu items, consult the appropriate chapter for more details (see the Table of Contents).

After a few moments, the first screen for the tool you have selected will appear.

2 When you have finished using the tool, terminate the program in the manner described in the appropriate procedure. There are two typical methods of terminating a tool. Depending on the tool, you will either:

a. Use the [Exit] softkey, if the tool displays softkeys or

b. Press <Return> without entering data, or when the tool prompts you to enter <Return>. In some cases, when you toggle to a new setting and press <Return> to confirm the change, the tool will automatically return you to the TOOLS menu.

Note: You must terminate one application before starting another.

3 To log off, use the [Logoff] softkey.

The Logon screen is redisplayed.

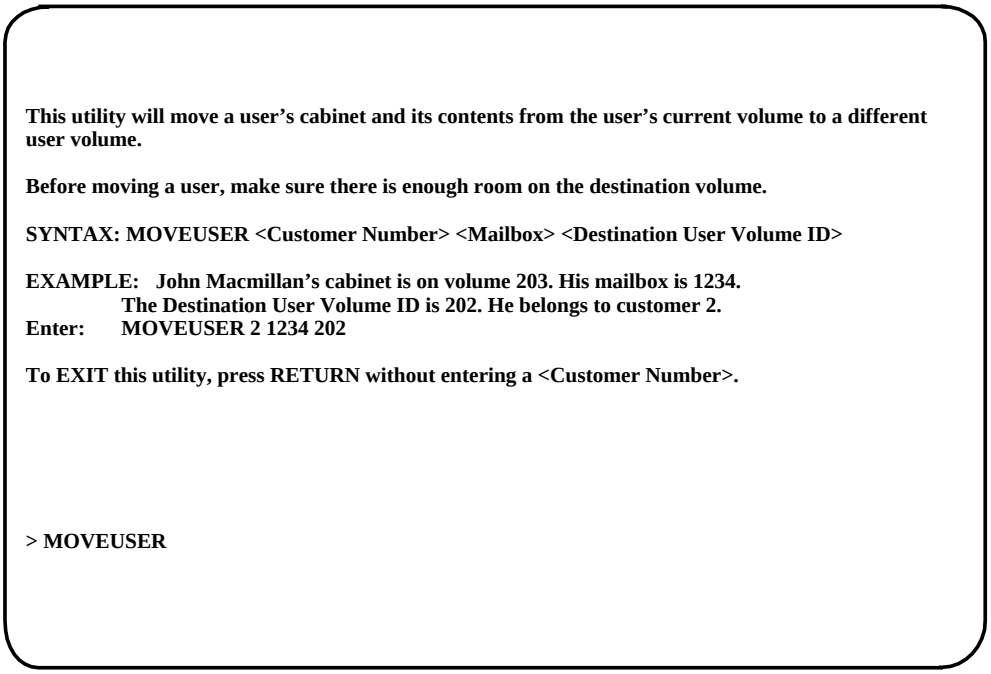
CAUTION
Rebooting the system
After using any of the following tools, you must reboot the system for the changes to take effect:

Modify hardware
Set silence compression
Control volume
Block DMS VoiceMail
Configure MATs

Chapter 3: Move user

The Move user tool moves user cabinets, profiles, and voice messages from one user volume to another. This operation is performed one user at a time. Before moving a user, make sure there is enough room on the destination volume.

Figure 3-1xxx
Move user screen



Procedure 3-1
Moving users from one volume to another

Starting point : The TOOLS menu, Move User window activated.

Note: The command line at the bottom of the screen displays the command MOVEUSER and the cursor is positioned immediately after the command. You do not have to enter "moveuser" yourself.

For each user to be moved, enter the user's customer number and mailbox number followed by the destination user volume ID (see Figure 3-1.)

1 Press <Return>.

The user's cabinet and profile will be created under the "users" directory on the specified volume. This directory must already exist. It will not automatically be created.

If all goes well then the administrator will be notified by the following progress prompts:

Moving Mailbox <mailbox ID> of Customer <customer number> to volume <volume Id>

Mailbox <mailbox ID> of Customer <customer number> moved to volume <volume Id>

The help command provides information on the move user command.

2 Exit the utility by pressing <Return> without entering any data.

Chapter 4: Modify hardware

The Modify hardware tool provides facilities for modifying the contents of the hardware database in your DMS VoiceMail system. The hardware database is a system utility which maintains a current listing and description of all nodes, cards, and ports in your system.

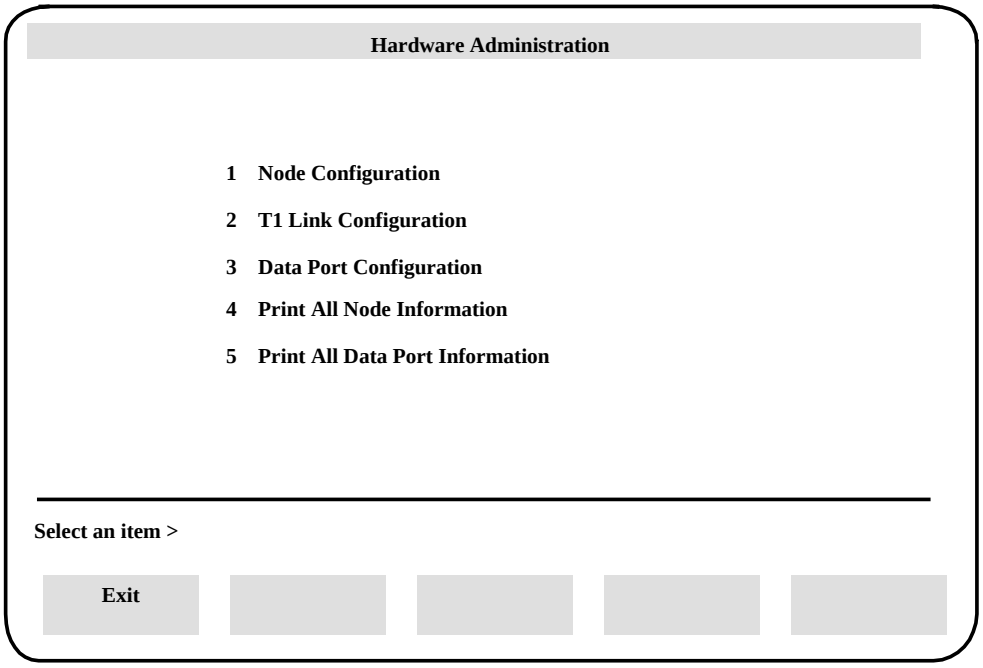
Note: For any changes made with this tool to take effect, you must reboot the system after you have made the required changes.

The Hardware Administration menu

The Hardware Administration menu (Figure 4-1) provides five functions.

CAUTION
Overnight system audits
You should not leave the administrative console in any Hardware Administration menu overnight or important system audits may fail due to lack of available memory.

Figure 4-1xxx
Hardware Administration menu



Procedure 4-1xxx
Navigating the Hardware Administration menu

Starting point : The TOOLS level menu, Modify Hardware selected.

1 The Hardware Administration menu appears (Figure 4-1).

2 Choose an item by entering its number and pressing <Return>.

The menu corresponding to your selection appears. See the following sections for details:

<1> "Node configuration"
<2> "T1 link configuration"
<3> "Data port configuration"
<4> "Print all node information"
<5> "Print all data port information"

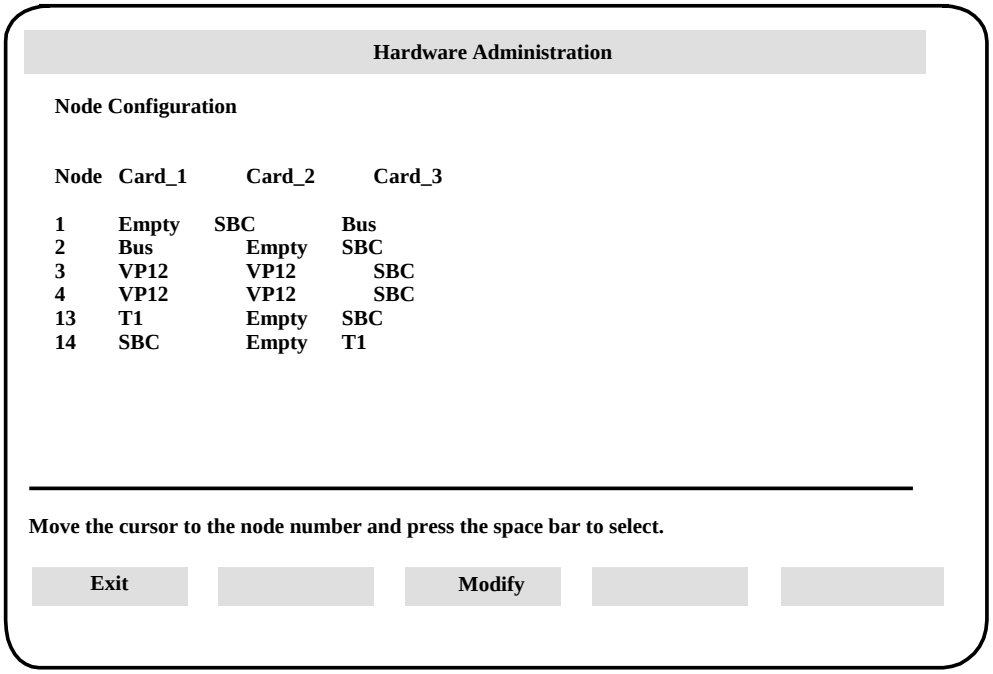
3 Use [Exit] to return to the TOOLS menu.

Node configuration

The Node Configuration screen (Figure 4-2) is a summary listing of the cards found on all nodes in your system.

> ***Note:*** The figures in this section do not necessarily represent actual hardware configurations. They are illustrations only.

Figure 4-2xxx
Node Configuration screen



The following fields are displayed:

- ***Node*** - The node number.
- ***Card*** - The types of cards found on the specified node. The following abbreviations identify the following cards:
  - ***SBC*** - single board computer
  - ***Bus*** - high-speed bus
  - ***VP12*** - 12-channel voice processor
  - ***T1*** - T1 link

Procedure 4-2xxx
Modifying node configurations

Starting point : The Hardware Administration menu, <1> entered.
The Node Configuration screen is displayed (Figure 4-2).

1 Move the cursor to the node you want to modify and press the <Space Bar>.

Your selection is highlighted.

2 Choose step 2a to modify the configuration information of the node or 2b to return to the Hardware Administration menu.

a. Use [Modify]

The Modify Node screen appears; see the next section, "Modify Node".

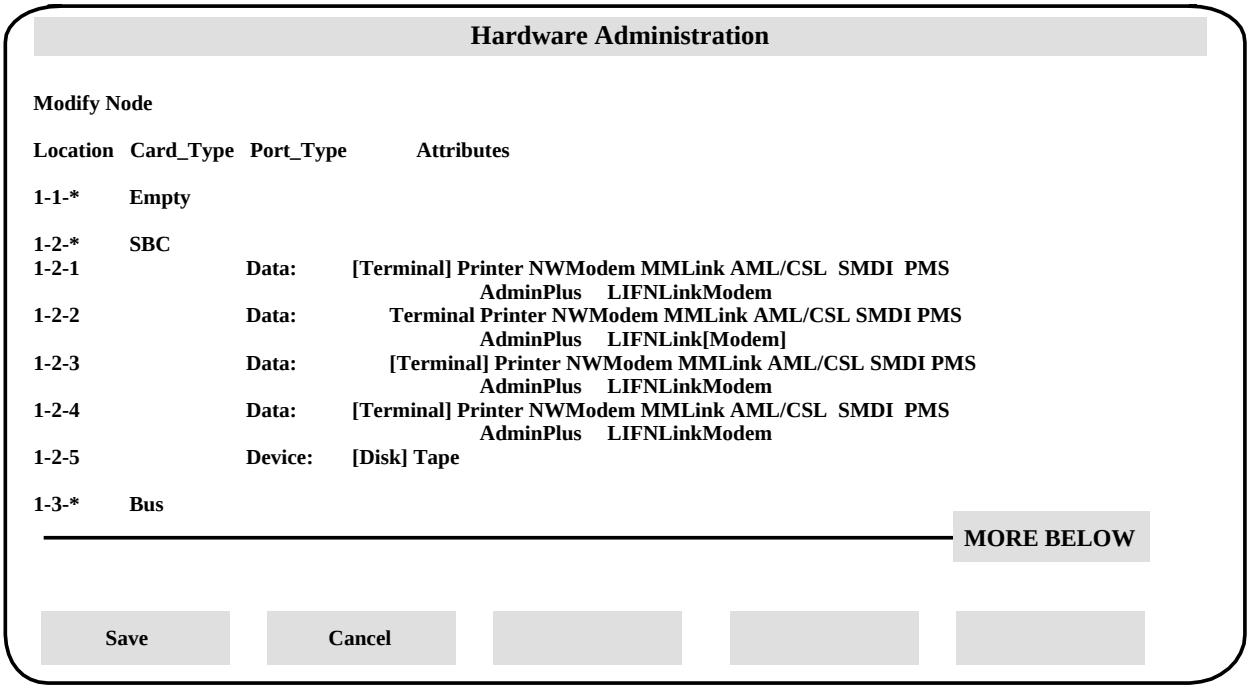
b. Use [Exit].

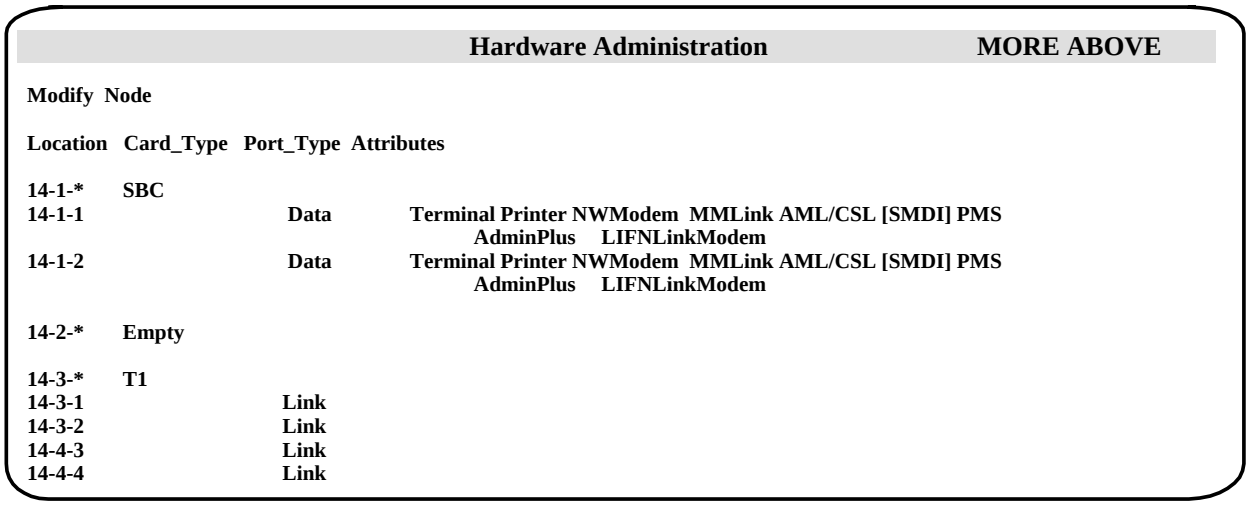
The Hardware Administration menu is displayed.

Modify node

The Modify Node screen (Figure 4-3) displays the cards and ports (and their attributes) for the node you selected in the Node Configuration screen.

Figure 4-3xxx
Modify Node screen





Note: The figures in this section do not necessarily represent an actual hardware configuration. They are presented for illustration purposes only. If the node you are viewing is a system node you may have the following types of cards installed: SBC or Bus. A voice node would have the following types of cards installed: SBC and VP12. A TIFN node would have the T1 card and SBC card installed.

The screen displays the following information about each card on the node:

- ***Location*** - The physical location of the card in the DMS V oiceMail system. The location is identified by the node-card-port number.
- ***Card Type*** - The function of the card; see Node Configuration for a description of the abbreviations used in this field.
- ***Port Type*** - The type of port. “Data” indicates a serial data communications port. “Device” indicates a mass storage device or tape drive. “Voice” indicates a voice processor port. “Link” indicates a T1 link.
- ***Attributes*** (for ports with port type = Data)
  - ***Terminal:*** Indicates a connection to an administration terminal or a personal computer.
  - ***MMLink:*** Not applicable.
  - ***AML/CSL or Meridian Link:*** Not applicable.
  - ***SMDI:*** Simplified Message Desk Interface. This is the communications channel between DMS VoiceMail and the switch.
  - ***Printer:*** Printer serial connection.
  - ***NWModem:*** Not applicable.
  - ***PMS:*** Not applicable.
  - ***AdminPlus:*** Not applicable.
  - ***LIFNLink:*** Not applicable.
  - ***Modem:*** Connection to a modem used for remote access.
- ***Attributes*** (for ports with port type = Device)
  - ***Disk:*** Mass storage subsystem (hard disk)
  - ***Tape:*** Cartridge tape subsystem

Procedure 4-3xxx
Modifying nodes

Starting point : The Node Configuration screen, [Modify] selected. The Modify Node screen is displayed (Figure 4-3).

1 Set the parameters as required.

Note: To move around in the *Attributes (Voice)* field, use <Tab>.

2 Choose step a to save the changes, or b to cancel.

a. Use [Save].

The changes are saved. The Node Configuration screen appears.

b. Use [Cancel].

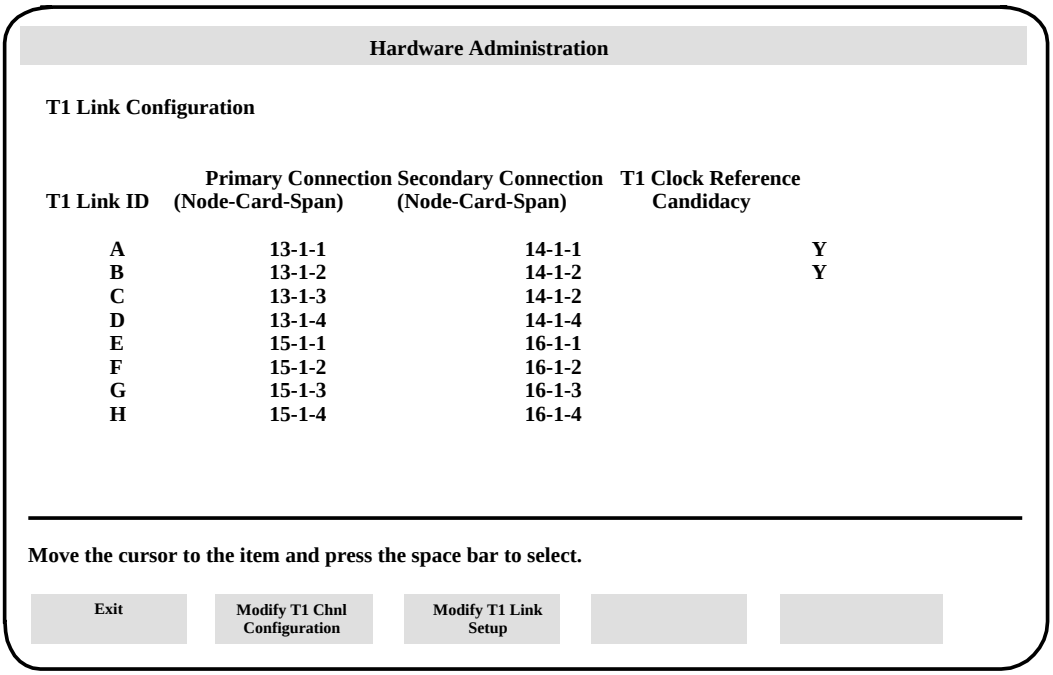
Any changes you have made are discarded. The Node Configuration screen appears.

Note: The system must be rebooted for changes to take effect.

T1 link configuration

The T1 Link Configuration screen lists the T1 links in the DMS VoiceMail system.

Figure 4-4xxx
T1 Link Configuration screen



Note: The figures in this section do not necessarily represent actual hardware configurations. They are illustrations only.

The following fields are displayed on this screen:

- ***T1 Link ID*** - A unique identifier for the T1 link. Each link actually consists of two connections, a primary and secondary connection, to provide redundancy.
- ***Primary Connection*** - The location (node-card-span) of the primary connection.

- ***Secondary Connection*** - The location (node-card-span) of the secondary connection.
- ***T1 Clock Reference Candidacy*** - This field shows whether or not the link has been configured as a candidate for clock referencing. Use the [Modify T1 Link Setup] softkey to nominate a link or to disqualify a current candidate. See the section "Modifying the T1 link setup" for more information about clock referencing.

Procedure 4-4xxx
Modifying T1 Link configurations

Starting point : The Hardware Administration menu, item <2> selected.

The T1 Link Configuration screen appears (Figure 4-4).

1 Move the cursor to the link you want to modify and press <Space Bar>.

Your selection is highlighted.

2 To modify the link configuration information, choose step 2a. To modify the T1 link setup information, choose step 2b. To return to the Hardware Administration menu, choose step 2c.

a. Use [Modify T1 Chnl Configuration].

The Modify T1Channel configuration screen appears; see the next section, "Modifying T1 channels".

b. Use [Modify T1 Link Setup].

The T1 Link Setup screen appears; see the section "Modifying T1 link set-up".

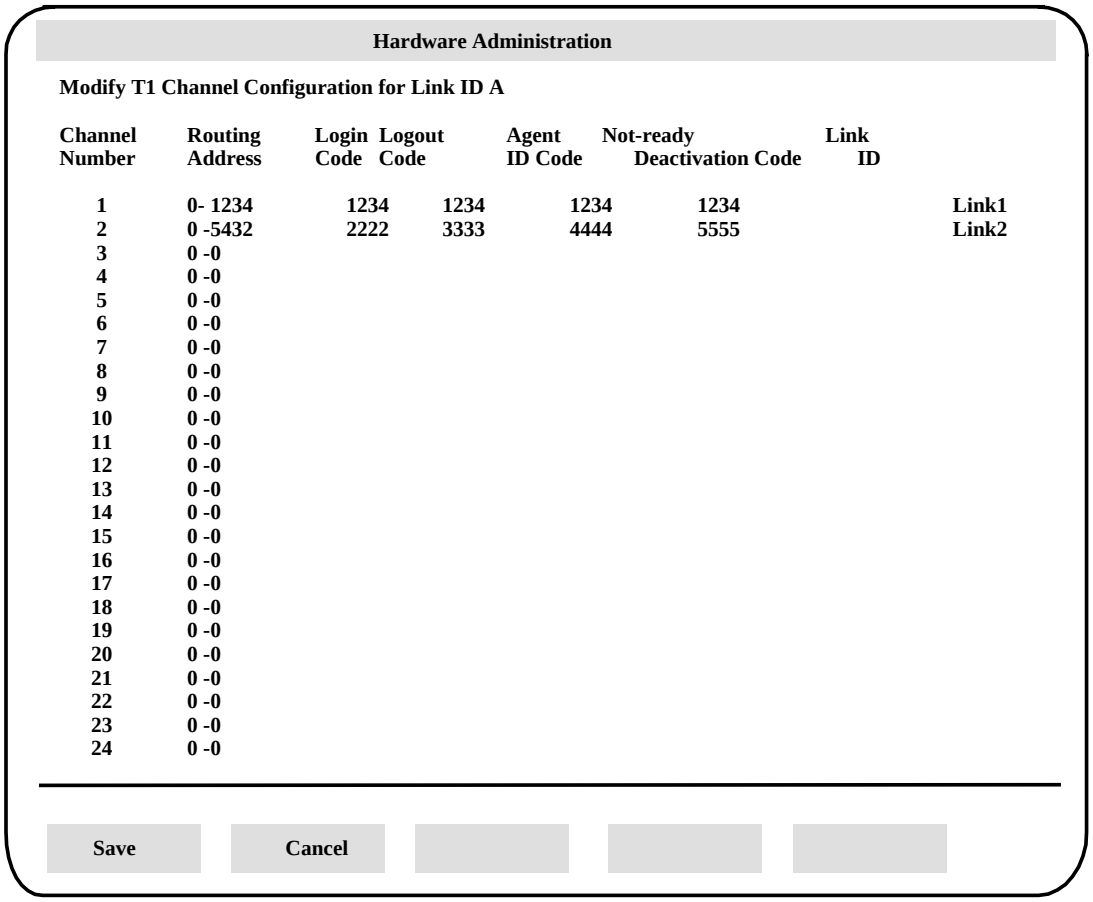
c. Use [Exit].

The Hardware Administration menu is redisplayed.

Modifying T1 channels

The Modify T1 Channel screen (Figure 4-5) displays the T1 Channel configuration for the link you select.

Figure 4-5xxx
Modify T1 Channel screen



Hardware Administration

Modify T1 Channel Configuration for Link ID A

Channel Number	Routing Address	Login Code	Logout Code	Agent ID Code	Not-ready Deactivation Code	Link ID
1	0- 1234	1234	1234	1234	1234	Link1
2	0 -5432	2222	3333	4444	5555	Link2
3	0 -0					
4	0 -0					
5	0 -0					
6	0 -0					
7	0 -0					
8	0 -0					
9	0 -0					
10	0 -0					
11	0 -0					
12	0 -0					
13	0 -0					
14	0 -0					
15	0 -0					
16	0 -0					
17	0 -0					
18	0 -0					
19	0 -0					
20	0 -0					
21	0 -0					
22	0 -0					
23	0 -0					
24	0 -0					

Save **Cancel**

Note: The figures in this section do not necessarily represent an actual hardware configuration. They are presented for illustration purposes only.

The following fields are displayed on this screen:

- ***Channel Number -*** The number of the T1 channel.
- ***Routing Address -*** The location of the corresponding agent in the switch. This is the Message Desk Number and is represented in the format xx-yyyy, where xx is the message desk number and yyyy is the terminal number.

- ***Login Code -*** The channel access code for logging in to the UCD group. This field should be blank if the SMDI_AUTOLOG option has been configured as "Y" (yes) on the switch. When this field is left blank, DMS VoiceMail inserts a default login code.

  If SMDI_AUTOLOG is configured as "N" on the switch, ensure that the code displayed here matches the code configured on the switch. See your DMS administrator.

- ***Logout Code -*** The channel access code for logging out of the UCD group. This field should be blank if the SMDI_AUTOLOG option has been configured as "Y" (yes) on the switch. When this field is left blank, DMS VoiceMail inserts a default login code.

  If SMDI_AUTOLOG is configured as "N" on the switch, ensure that the code displayed here matches the code configured on the switch. See your DMS administrator.

- ***Agent ID Code -*** This ID must match the line number (SMDI_LINE_NO) of the UCD agent that is configured on the DMS. The LINE_NO can either be configured through **so** (servord) or through Table IBNFEAT by entering the SMDI option.
- ***Not-ready Deactivation Code -*** This field is not applicable to DMS UCD environments and should be left blank. It is used in DMS ACD environments for putting the channel to the ACD queue after the channel has logged into the ACD group.
- ***Link ID*** - The Link ID of the SMDI link associated with the T1 channel.

For more information about these options, see the *Translations Guide* (NTP 297-7001-310).

Modifying the T1 link setup

The T1 Link Setup screen (Figure 4-6) is used to modify the T1 clock reference candidacy of a T1 link, the line code format of a T1 link, or the T1 debounce time. You may nominate one or more links to serve as the clock reference for the SPM. An external device in the network (such as the DMS-100, for example) serves as the reference provider.

The actual link that is used as the reference is defined in the T1 Link Status screen (see the "System Status and Maintenance" chapter in the *System Administration Guide*). If any problems occur on the link that is the current clock reference, or if certain maintenance procedures are being carried out on the link or the card, the system will automatically select one of the other nominated links as the new reference. It will also generate a SEER to indicate that a link has been activated as the reference provider. The following situations will cause the system to select another reference.

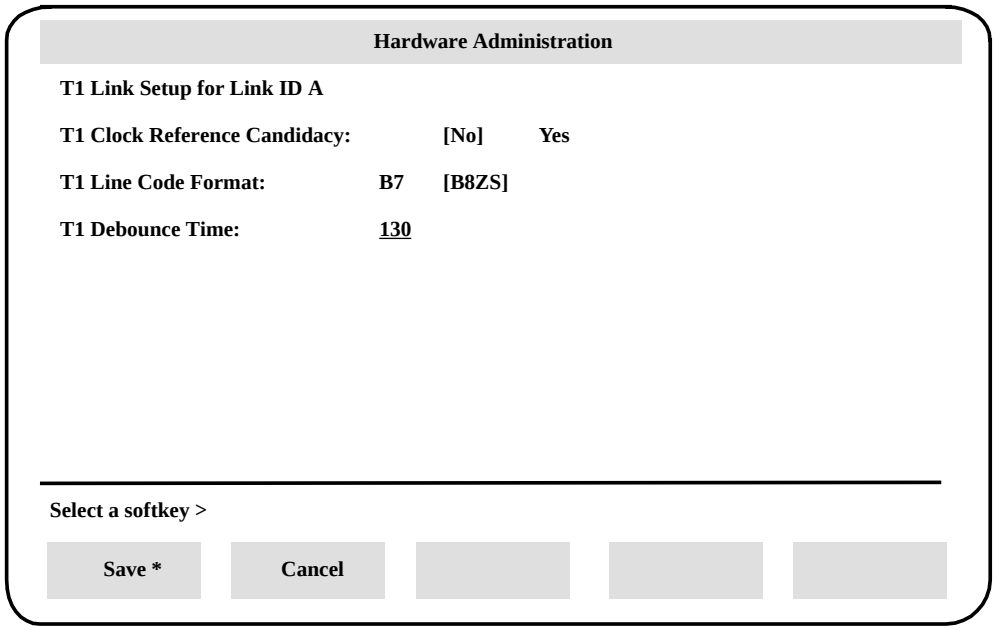
- a red alarm is detected

- a yellow alarm is detected
- there is a hardware fault
- the T1 card on which the link resides is disabled
- the TIFN is disabled
- the switch T1 link command is issued

In order to nominate a T1 link for cross reference candidacy, you must first take both the primary and secondary spans associated with the T1 link out-of-service. T1 links are enabled and disabled in the T1 Link Status screen (described in the "System Status and Maintenance" chapter in the *System Administration Guide*).

The line code format setting must correspond to the line code format setting on the DMS-100 switch for the T1 link. If you modify this field, the change will not take effect until the T1 link is reenabled.

Figure 4-6xxx
Modify T1 Link Setup screen



* If you have not disabled the primary and secondary spans, only the [Exit] softkey is displayed and you will not be able to nominate a link.

The following field is displayed on this screen:

- ***T1 Clock Reference Candidacy*** - "Y es" indicates that the selected T1 link is a clock reference candidate. "No" indicates that the link has not been nominated.

- ***T1 Line Code Format*** - "B7" and "B8ZS" are protocols for the T1 link. "B8ZS" is the default. The setting on this screen must match the setting on the DMS-100 switch for the T1 link.
- ***T1 Debounce Time*** - Enter a value between 0 and 512. This value is the amount of time the system will wait for a T1 span to be cleared of noise after a T1 signal is sent. The default is 130.

Procedure 4-5xxx
Nominating/disqualifying a T1 link as a clock reference candidate

Starting point : The Main Menu.

1 Select System Status and Maintenance.

2 Select T1 Link Status.

3 Press [Disable T1].

You are prompted for the ID of the link you want to disable.

4 Enter the ID of the link you want to disable followed by <return>.

To disable another link, repeat steps 3 and 4.

5 Press [Exit].

The System Status and Maintenance menu is displayed.

6 Press [Exit].

The Main Menu is displayed.

7 Select Hardware Administration.

8 Select T1 Link Configuration.

9 Move the cursor to the T1 link you want to nominate/disqualify and press <Space Bar> to select it.

Your selection is highlighted.

10 Press [Modify T1 Link Setup].

The T1 Link Setup screen is displayed.

11 Select "Yes" to nominate a link or "No" to disqualify a current candidate.

12 Press [Save].

The selected link is nominated/disqualified and the T1 Link Configuration screen is displayed.

13 Return to the T1 Link Status screen in System Status and Maintenance and re-enable the link(s).

14 If necessary, activate one of the candidates as the clock reference using [Change T1 Clocking Mode] in the T1 Link Status screen. See the section "T1 Link Status" in the "System Status and Maintenance" chapter in the *System Administration Guide* for more information.

Data port configuration

The Data Port Configuration screen (Figure 4-7) summarizes the data ports on all nodes in your system. Any data port can be selected and its configuration modified. The abbreviations used in this screen are described under “Node configuration” earlier in this chapter.

Before continuing with the description of the Data Port Configuration screen and the Modify data port screens, the recommended data port uses are listed in the table below (Table 4-1).

Table 4-1xxx
Recommended data port uses

Node	Card	Port	Allowable uses
1 (MSP 1)	2	1	Console (note 1)
1 (MSP 1)	2	2 (modem)	Remote Access
1 (MSP 1)	2	3	Maintenance Printer
1 (MSP 1)	2	4	MAT (note 2)
2 (MSP 2)	3	1	Console (note 1)
2 (MSP 2)	3	2 (modem)	Remote Access
2 (MSP 2)	3	3	
2 (MSP 2)	3	4	MAT (note 2)
3 (SPN 1)	1	1	AdminPlus (if less than 60 ports) (note 3)
3 (SPN 1)	1	2 (modem)	Remote MAT, SMDI (notes 2, 4)
3 (SPN 1)	1	3	
3 (SPN 1)	1	4	MAT (note 2)
4 (SPN 2)	3	1	
4 (SPN 2)	3	2 (modem)	Remote MAT, SMDI (notes 2, 4)
4 (SPN 2)	3	3	
4 (SPN 2)	3	4	ACCESS (note 5)
5 (SPN 3)	3	1	AdminPlus (if less than 60 ports) (note 3)
5 (SPN 3)	3	2 (modem)	Remote MAT, SMDI (notes 2, 4)
5 (SPN 3)	3	3	
5 (SPN 3)	3	4	
6 (SPN 4)	3	1	
6 (SPN 4)	3	2 (modem)	SMDI (note 4)
6 (SPN 4)	3	3	
6 (SPN 4)	3	4	ACCESS (note 5)
7 (SPN 5)	1	1	

7 (SPN 5)	1	2 (modem)	SMDI (note 4)
7 (SPN 5)	1	3	
7 (SPN 5)	1	4	
8 (SPN 6)	3	1	
8 (SPN 6)	3	2 (modem)	SMDI (note 4)
8 (SPN 6)	3	3	
8 (SPN 6)	3	4	ACCESS (note 5)
9 (SPN 7)	3	1	
9 (SPN 7)	3	2 (modem)	SMDI (note 4)
9 (SPN 7)	3	3	
9 (SPN 7)	3	4	
10 (SPN 8)	3	1	
10 (SPN 8)	3	2 (modem)	SMDI (note 4)
10 (SPN 8)	3	3	
10 (SPN 8)	3	4	ACCESS (note 5)
13 (TIFN 1)	3	1 (modem)	SMDI
13 (TIFN 1)	3	2 (modem)	SMDI (note 4)
13 (TIFN 1)	3	3 (modem)	SMDI (note 4)
13 (TIFN 1)	3	4 (modem)	SMDI (note 4)

Notes

1 A relay on the I/O panel switches the terminal to MSP2 port 1 if MSP1 fails.

2 If the Multi-Admin feature is enabled, up to 3 MATs (Multiple Administration Terminals) may be assigned. In the case of local terminals, it is recommended that MSP1 data port 4 be assigned to the first MAT, MSP2 data port 4 be assigned to the second MAT and SPN1 dataport 4 be assigned to a third MAT. For remote user administration, MATs may instead be assigned to a modem data port on an SPN node. A MAT and ACCESS dataport must not be assigned to the same node.

3 On the SPM platform, the AdminPlus PC does not replace the system console. If a node 5 is present in the system, AdminPlus should be assigned to one of its data ports. Otherwise, use a port on node 3.

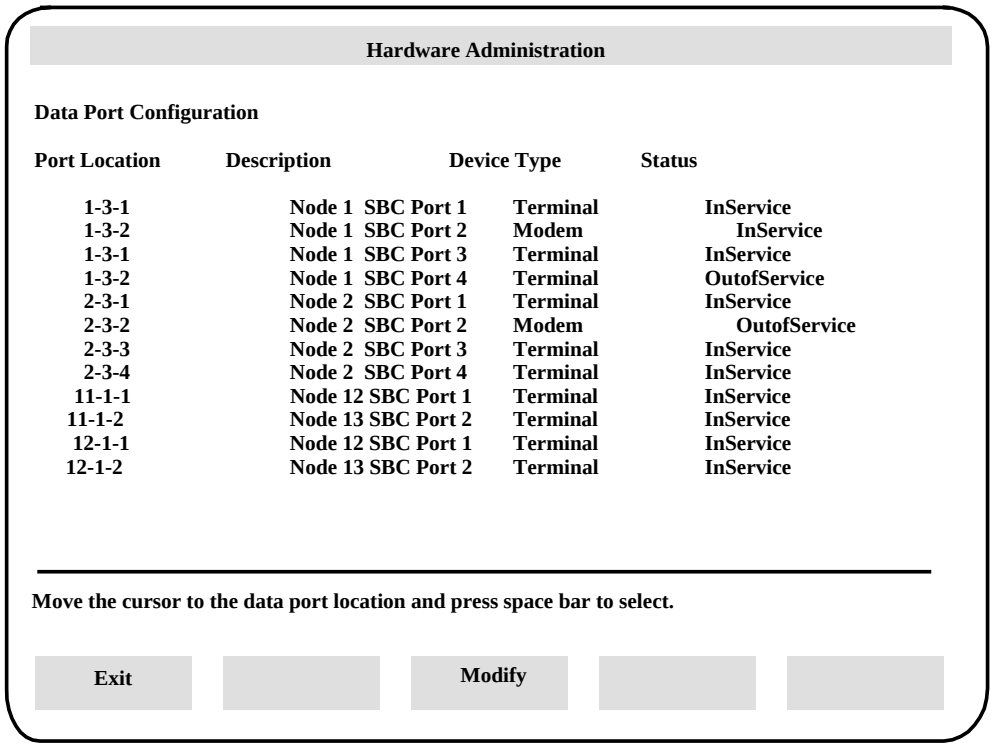
4 If the Multi-SMDI feature is enabled, additional SMDI ports may be assigned. The maximum number of SMDI links that may be supported by the SPM will be determined by the number of ports provisioned, and the number of SPN modem data ports not being used for other features. As an example, an SPM provisioned with 48 voice ports could support 6 SMDI links if no other feature required use of either SPN modem data port. SPMs provisioned with 48 ports will support up to 4 redundant

SMDI ports (TIFN 1 & 2, ports 1 - 4) and 2 non-redundant SMDI ports (SPN 1 & 2, port 2).

5 If the ACCESS Enable feature is installed, an ACCESS port is needed for every 48 voice ports. It must be assigned to an SPN node which has no MAT.

The remainder of this section describes the Data Port Configuration screen, and the Modify data port screens.

Figure 4-7xxx
Data Port Configuration screen



The Data Port Configuration screen displays the following information:

- ***Port Location*** - The port's physical location (node-card-span) in the system.
- ***Description*** - The node and card type on which the port resides.
- ***Device Type*** - The function of the port.
- ***Status*** - The current operational state of the port.

Procedure 4-6xxx
Modifying data ports

Starting point : The Hardware Administration menu, <3> entered.

1 The Data Port Configuration screen appears (Figure 4-7).

2 Move the cursor to port to be modified and press <Space Bar>. Your selection will be highlighted.

3 Choose step 3a to modify the configuration information, or 3b to return to the Hardware Administration menu.

a. Use [Modify].

The Modify Data Port screen appears. See the next section for details.

b. Use [Exit].

The Hardware Administration menu appears.

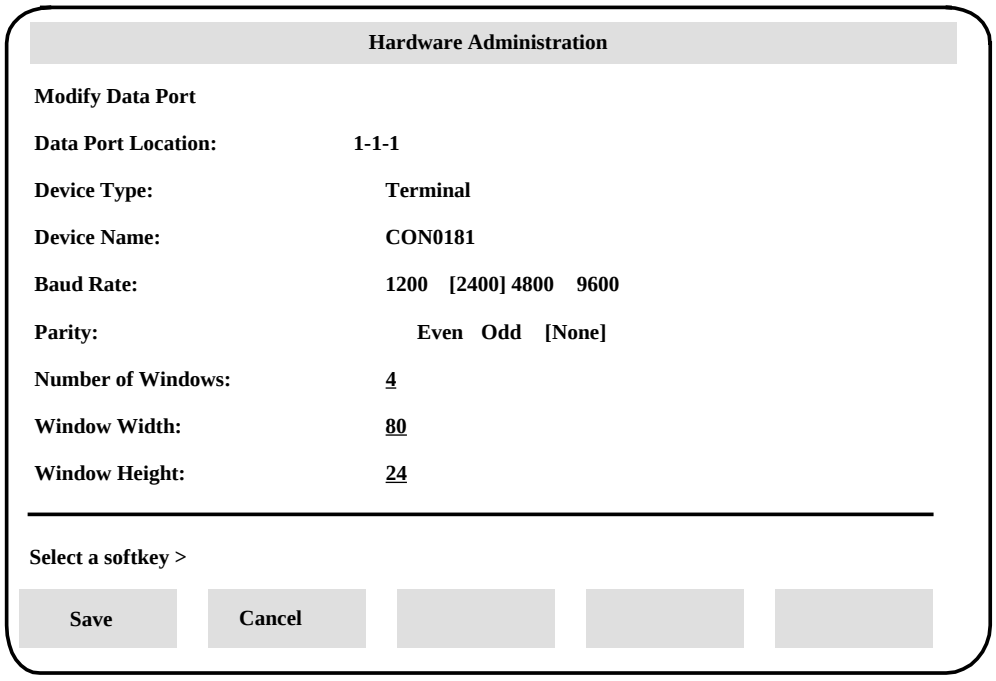
Modify data port

The following sections describe the different Data Port screens which can be displayed. The screen that is displayed is determined by the data port that is selected in the Data Port Configuration screen when you press [Modify].

Terminal data ports

The Modify Data Port screen for terminals (Figure 4-8) allows you to modify information about the terminal connected to the selected port.

Figure 4-8xxx
Modify Data Port screen (Terminal)



The following fields are displayed in the screen:

- ***Data Port Location*** - The port's physical location (node-card-port) in the system. A terminal must be located on node 1, SBC port 1. Other terminals can also be in the system on other data ports.

- ***Device Type*** - "Terminal" will be displayed.
- ***Device Name*** - The name that identifies the terminal.
- ***Baud Rate*** - This setting depends on the current setup of the terminal on the port.
- ***Parity*** - The method by which data is communicated. This can be set to "Even", "Odd", or "None", depending on the current setup of the terminal connected to the port. It is usually set to "None".
- ***Number of Windows*** - This field specifies the number of windows that can be used simultaneously. This will be "6" for the System Administration terminal.
- ***Window Width*** - This field specifies the window width used.
- ***Window Height*** - This field specifies the window height used.

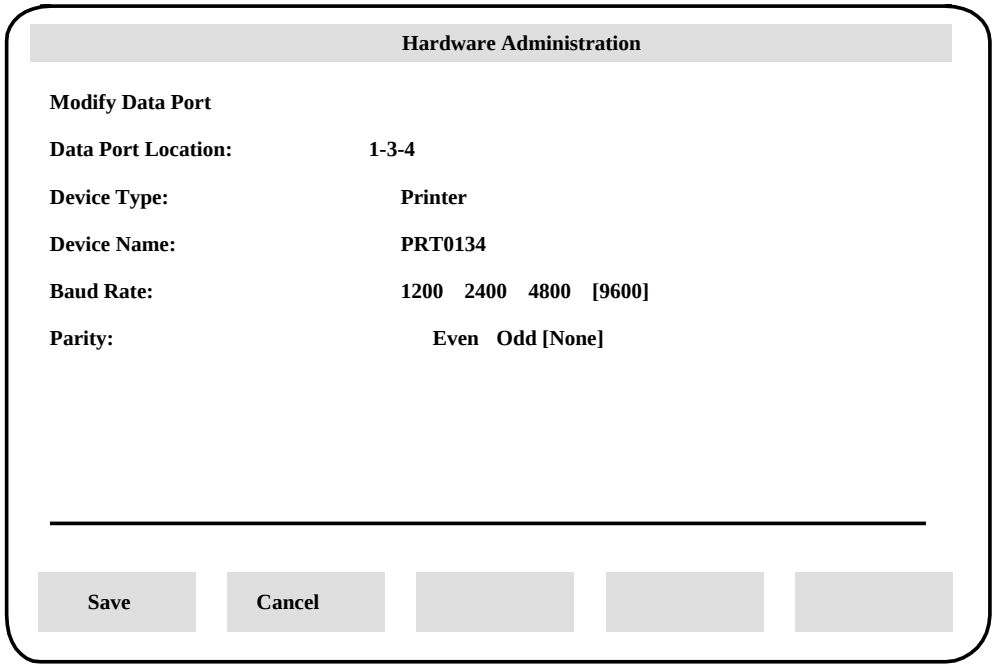
Printer data ports

The Modify Data Port screen for printers (Figure 4-9) allows you to modify the baud rate and parity of the printer connected to the selected port.

Note 1: A secondary printer can be attached directly to the administration terminal. It does not require a separate data port.

Note 2: Operational Measurement reports must be directed to a particular printer. The printer is specified in the General Options screen (see the "General Administration" chapter.)

Figure 4-9xxx
Modify Data Port screen (Printer)



The following fields are displayed in the screen:

- ***Data Port Location*** - The physical location of the port.
- ***Device Type*** - The function of the port. This will be set to “Printer”.
- ***Device Name*** - The name of the device.
- ***Baud Rate*** - The setting will depend on the current setup of the printer that is connected to the port.
- ***Parity*** - The setting will depend on the current setup of the printer connected to the port.

Procedure 4-7xxx
Modifying the printer data port

Starting point : The Hardware Administration menu, <3> entered.

The Data Port Configuration screen appears.

1 Follow Procedure 4-6 to access the Modify Data Port screen.

2 Set the parameters as required.

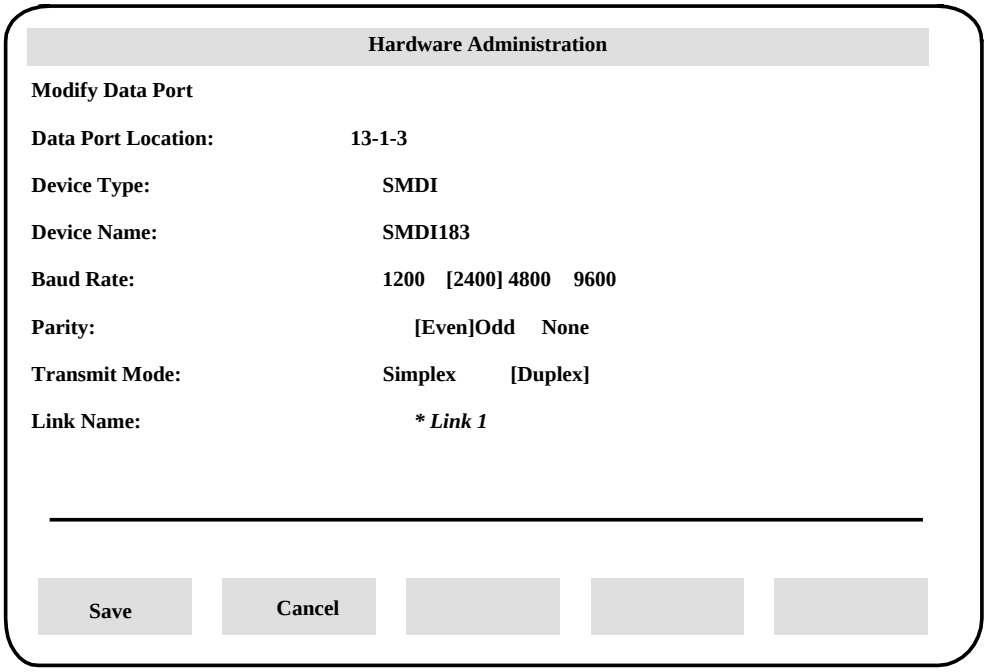
3 Use [Save] to save any changes or [Cancel] to disregard any changes.

The Data Port Configuration screen is displayed.

SMDI data port

The Modify Data Port screen for SMDI (Figure 4-10) allows you to modify the baud rate, parity, and transmit mode of the serial connection to the DMS switch at the selected port.

Figure 4-10xxx
Modify Data Port screen (SMDI)



* The link name used here is for illustration purposes only.

The following fields are displayed in the screen:

- ***Data Port Location*** - The physical location of the port.
- ***Device Type*** - The function of the port. This will be “SMDI”.
- ***Device Name*** - The name of the device. In the above example, set to include the data port location (e.g., SMDI183).
- ***Baud Rate*** - Set this field to “2400” for the MPC card or “1200” for the 1X67FA card.
- ***Parity*** - This will be “Even”.
- ***Transmit Mode*** - This will be “Duplex”.
- ***Link Name*** - The name of the SMDI link. Y ou can enter numeric or alpha characters in this field. It is recommended that you enter a meaningful name so that it is easy to identify the link.

CAUTION
Changing the link name
Do not change the link name once it has been configured and users have been added to the system. If you change the link name, you will have to change it in every user profile that refers to that link.

Procedure 4-8xxx
Modifying the SMDI data port

Starting point : The Hardware Administration menu, <3> entered.

The Data Port Configuration screen appears.

1 Follow Procedure 4-6 to access the Modify Data Port screen.

2 Set the parameters as required.

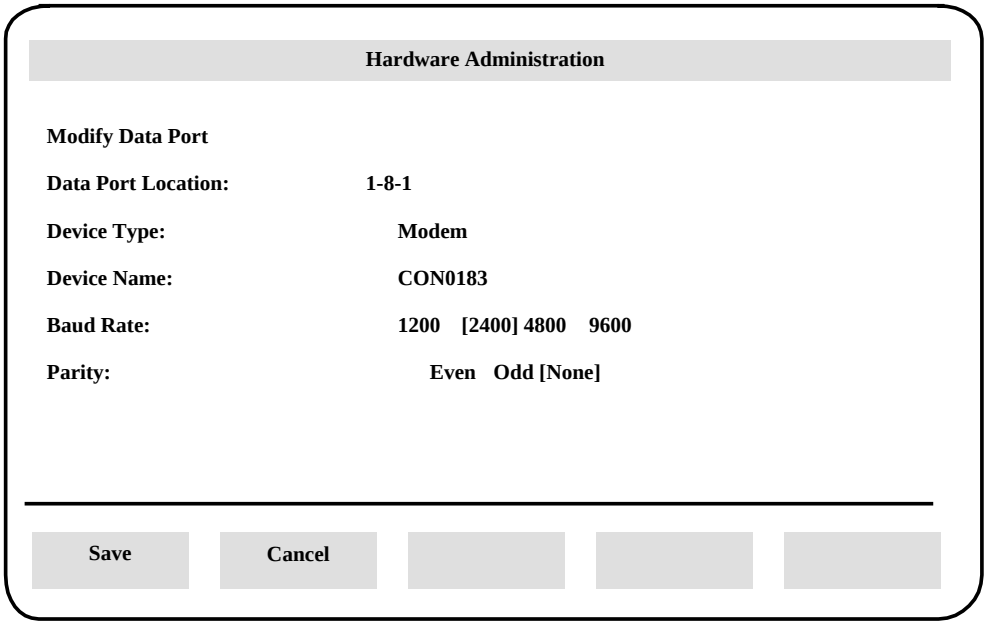
3 Use [Save] to save any changes or [Cancel] to disregard any changes.

The Data Port Configuration screen is displayed.

Modem data port

The Modify Data Port screen for modems (Figure 4-11) allows you to modify the modem characteristics.

Figure 4-11xxx
Modify Data Port screen (modem)



The following fields are displayed on this screen:

- ***Data Port Location*** - The port's physical location (node-card-port) in the system.
- ***Device Type*** - The function of the port. This will be "Modem".
- ***Device Name*** - The name of the device.
- ***Baud Rate*** - The setting will depend on the current setup of the modem connected to the port.
- ***Parity*** - The setting will depend on the current setup of the modem connected to the port.

Procedure 4-9xxx
Viewing the modem data port

Starting point : The Hardware Administration menu, <3> entered.

The Data Port Configuration screen appears.

1 Follow Procedure 4-6 to access the Modify Data Port screen.

2 Set the parameters as required.

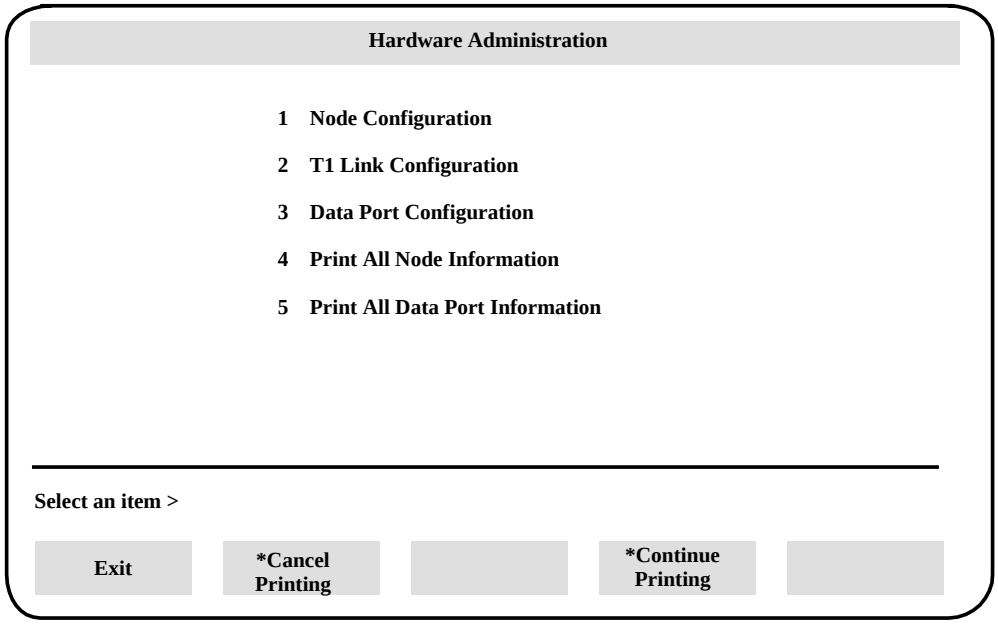
3 Press [Save] to save any changes or [Cancel] to disregard any changes. *The Data Port Configuration screen is displayed.*

The Data Port Configuration screen is displayed.

Printing node or data port information

The following procedure describes how to print a list of all the node or data port information contained in the hardware database.

Figure 4-12xxx
The Hardware Administration menu



*** The Printing softkeys appear after item 4 or 5 has been selected.**

Procedure 4-10xxx
Printing node and data port information

Starting point : The Hardware Administration menu, item <4> or <5> selected.

The following softkeys appear: [Continue Printing] and [Cancel Printing].

You are prompted to check that the printer is ready and online.

1 Choose step 1a to print the node information or 1b to cancel.

a. Use [Continue Printing].

The node or data port information begins printing.

Once printing is complete, the Hardware Administration menu and its softkeys are redisplayed; you may stop printing at any time by proceeding to 1b.

b. Use [Cancel Printing].

The print operation is cancelled and you are returned to the Hardware Administration menu.

There may be some delay before control is returned to the screen while the system waits for the printer to stop printing.

Chapter 5: Set silence compression

The Set silence compression tool (Figure 5-1) allows you to activate or deactivate the silence compression feature. This feature removes (compresses) extended periods of silence from messages.

Figure 5-1xxx
Silence compression screen

```
Package MA_PKG loaded.
Component [0]:
**Location code: 1 254 254 254 254 254 CompType: Node State: InService
  hd_PrimeSPNode Node number: 7E000000 BootError: 0
  Test Location: 254 254 254 254
 System type: hd_GP
 Number of hours: 120
 Dsp Pkg. Id: General-32
Component [0]:
**Location code: 2 3 1 254 254 254 CompType: DSP State: InService
  Pkg: General_32 Encoding: mu-law TxLevel: 0 RxLevel: 0
  DTR RejLevel: -51 DTR MaxAccLevel: 1 SBC SilComp: enabled
  SBC AGC: enabled Centre: -15 Span: 16
Package MA_PKG.AREA loaded.

                    Silence Compression Toggle Utility

                  Current configuration has silence compression.


Do you wish silence compression to be turned on or off?
ON = Silence will be compressed.  OFF = No compression.
Use up/down arrows to toggle answer.

- > OFF
```

Procedure 5-1xxx
Activating/deactivating silence compression

Starting point: TOOLS menu, <7> entered, silence compression window activated.

1 The Silence Compression Toggle Utility screen appears (Figure 5-1).

Note: The actual screen display may differ slightly from the illustration.

2 Choose the required setting by using the up/down cursor keys. If you want to cancel, press the up/down arrow keys until CANCEL appears and press return.

Note: Be sure that the prompt line displays the correct setting before you press <Return>. If silence compression is turned on when you enter this utility, the command line does not display the current setting but displays OFF (the utility assumes you have entered the utility to make a change).

3 Press <Return>.

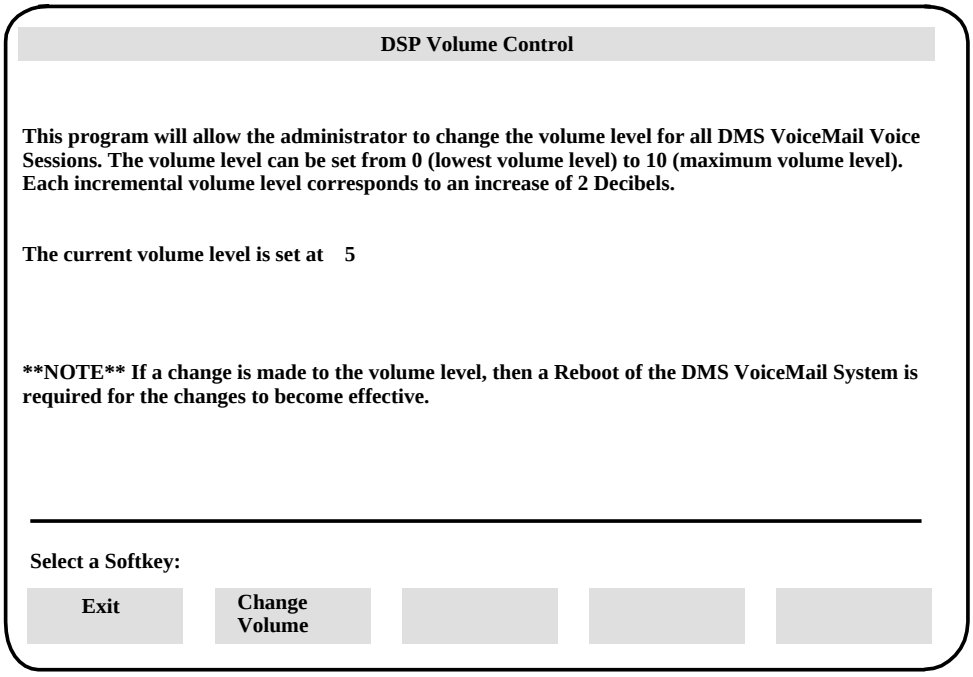
The selection is made and the utility is terminated.

Note: If a change is made, you will have to reboot the system for the change to be effective.

Chapter 6: Control volume

The Control volume tool allows the administrator to change the volume levels on both recording and playback voice paths. Each incremental level change, from level 0 to level 10, corresponds to an increase of two decibels.

Figure 6-1xxx
Control volume utility screen



Procedure 6-1xxx
Changing the volume level

Starting point: TOOLS menu, Control volume tool selected. The current volume level is shown in the center of the screen.

1 To change the volume level, press [Change Volume].

2 Enter the desired volume level and press <Return>.

The screen will be redrawn, showing the new volume level at the center of the screen.

3 Press [Exit] to return to the TOOLS menu.

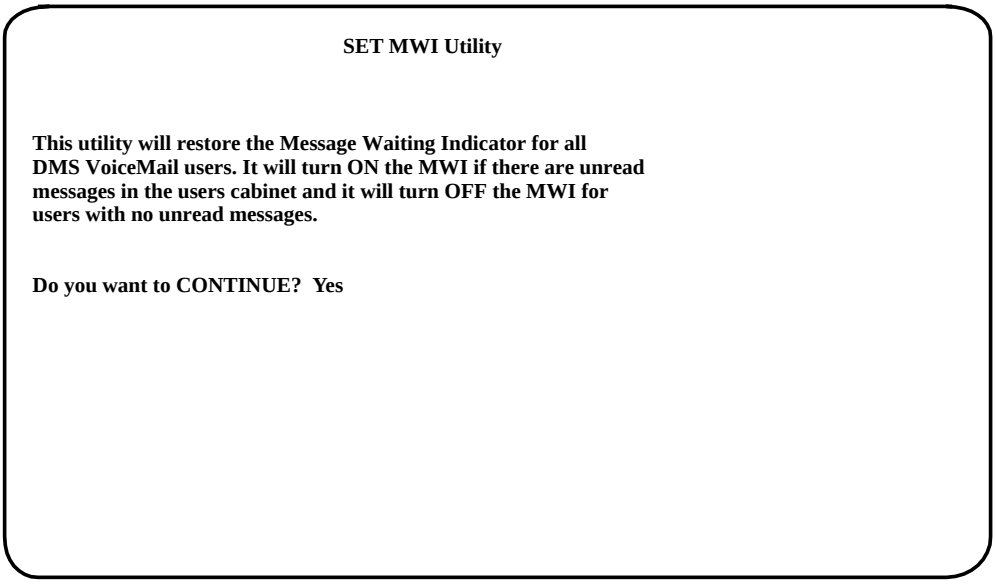
Note: The system must be rebooted for a change in volume level to take effect.

Chapter 7: Update MWI

The Update MWI tool will restore the Message Waiting Indicators (MWIs) for all DMS VoiceMail users. It will turn the MWI on if there are unread messages in a user's cabinet and it will turn the MWI off for users with no unread messages.

This tool should be run after the switch is rebooted, since a reboot causes all message waiting indicators to be turned off. It is also useful if the link goes down at a peak time period, because users who were connected to DMS VoiceMail at the time may not have updated MWIs. The update requires 0.4 seconds per user to complete.

Figure 7-1xxx
SET MWI Utility screen



Procedure 7-1xxx
Restoring message waiting indicators

Starting point: TOOLS menu, Update MWI tool selected.

1 The screen displays information about the SET MWI tool and prompts:

Do you want to continue? YES

2 Use the up/down cursor (arrow) keys to toggle the response from YES to NO, or from NO to YES.

Select YES if you want to reset the MWIs.

Select NO if you do not want to reset the MWIs.

3 If you choose YES, another set of prompts (shown below) are displayed. Use these **CheckTime** prompts to enter the date and time that the link to the switch went down:

CheckTime YR (Base 1980): 0
CheckTime MON (1..12): 1
CheckTime DAY (1..31): 1
CheckTime HR (0..23): 0
CheckTime MIN (0..59): 0
CheckTime SEC (0..59): 0

4 After you respond to the CheckTime prompts, the following message is displayed:

Initiated the updating of Message Waiting Indicators.

Press <Return> to continue...

5 Press <Return> to terminate the utility and return to the TOOLS menu.

The following SEERs are produced for each node that has users:

SEER>06/23/92 16:41:36 269332 S:SysInf LOCN: 2/ 3/7C00000004490F05 9106 MWIAUDIT 202: Starting the Audit

SEER>06/23/92 16:41:44 270172 S:SysInf LOCN: 2/ 3/7C00000004490F05 9105 MWIAUDIT 202: The Audit is Finished

Chapter 8: Block access to DMS VoiceMail

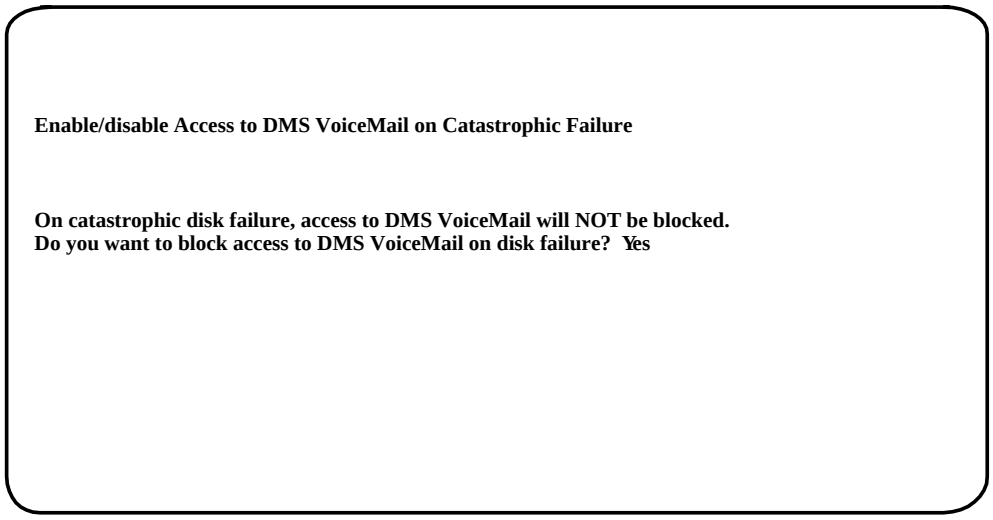
The Block access tool allows the administrator to choose whether to deny all access to DMS VoiceMail voice services in the event of a serious disk failure. (Note that a serious disk failure is not likely to occur.)

The default setting is to allow access. However, when you run this tool, the default response to the prompt is “Yes” (i.e., to deny access). Use the toggle key to change the response back to “No” (if you want to allow access). If the setting has already been changed to deny access, a prompt appears asking you if you want to allow access. The default response is “Yes”.

If access is blocked and a disk failure occurs, DMS VoiceMail voice services “shut down” and calls are immediately routed to a live attendant (as configured on the switch). DMS VoiceMail system administration and maintenance capabilities remain operational.

> ***Note:*** The default is to not block access to DMS VoiceMail voice services in the event of a serious disk failure.

Figure 8-1xxx
Block access tool screen



Procedure 8-1xxx
Blocking access to DMS VoiceMail voice services

Starting point: TOOLS menu, Block MM window activated.

6 The screen will display the setting currently in effect. Depending on your configuration, one of the following lines will be displayed:

On catastrophic disk failure, access to DMS VoiceMail will NOT be blocked.
Do you want to block access to DMS VoiceMail on disk failure? Yes

or

On catastrophic disk failure, access to DMS VoiceMail will be blocked.
Do you want to allow access to DMS VoiceMail on disk failure? Yes

7 Use the up/down cursor (arrow) keys to display the desired response (Yes or No).

Select "Yes" to change the current setting.

Select "No" to leave the current setting as is.

8 Press <Return> to confirm your selection.

One of the following messages will appear if you selected "Yes":

Upon reboot, access to DMS VoiceMail will be blocked

or

Upon reboot, access to DMS VoiceMail will not be blocked

One of the following messages will appear if you selected "No":

No change. Access to DMS VoiceMail will NOT be blocked on disk failure.

or

No change. Access to DMS VoiceMail will NOT be blocked on disk failure.

After one of these messages is displayed, the TOOLS menu is automatically redisplayed.

Note: The system must be rebooted for the change to take effect.

Chapter 9: Find Users

The Find Users tool allows you to search for and view, modify, or print profiles for existing users. You can also delete users or record a personal verification for a user.

To access the Find Users screen, follow these steps:

1 Select Find Users from the TOOLS menu. The system prompts for a customer number.

2 Enter a valid customer number and press return.

3 After you enter a valid customer number, the system displays a screen from which you can select a user type (local voice user or directory entry user).

4 After you select a user type, the Find Users screen appears. In the Find Users screen, you need only complete fields to the extent necessary to identify a user or group of users.

After you retrieve a user or group of users, the system then presents the options (through softkeys) to list, print, view, modify, or delete users, or to record a personal verification for a user. These options as well as the associated screens and fields are discussed in more detail in the remainder of this chapter.

Using wildcard characters

The fields on the Find Users screen (Figure 9-2) accept three wildcard characters: "+" (the plus sign), "_" (underscore), and "?" (question mark).

The plus sign (+) is used to match a number of characters. For example, if you enter "2+" in the *Mailbox Number* field, all mailboxes beginning with 2 will be retrieved.

The underscore (_) matches a single character. For example, if you enter "210_" in the *Mailbox Number* field, mailboxes with numbers in the range 2100 to 2109 will be retrieved. To retrieve all mailboxes numbered 2100 to 2199, enter "21_ _".

The question mark (?) produces a “sound match”. This is useful if you are unsure of the spelling of a user’s name. For example, a user calls to inform you that his mailbox has been disabled and tells you that his name is “John Crowe”. You forget to ask him for the spelling of his last name (it could be spelled Crow or Crowe). If you enter “Crow+”, the system will only find all surnames that begin with Crow. If you enter Crow_, the system will find surnames that begin with Crow and are followed by one letter. If you enter Crow?, the system will find all names that sound like “Crow”.

Note: The search criteria that you specify in this screen also apply when you use the [Print] softkey.

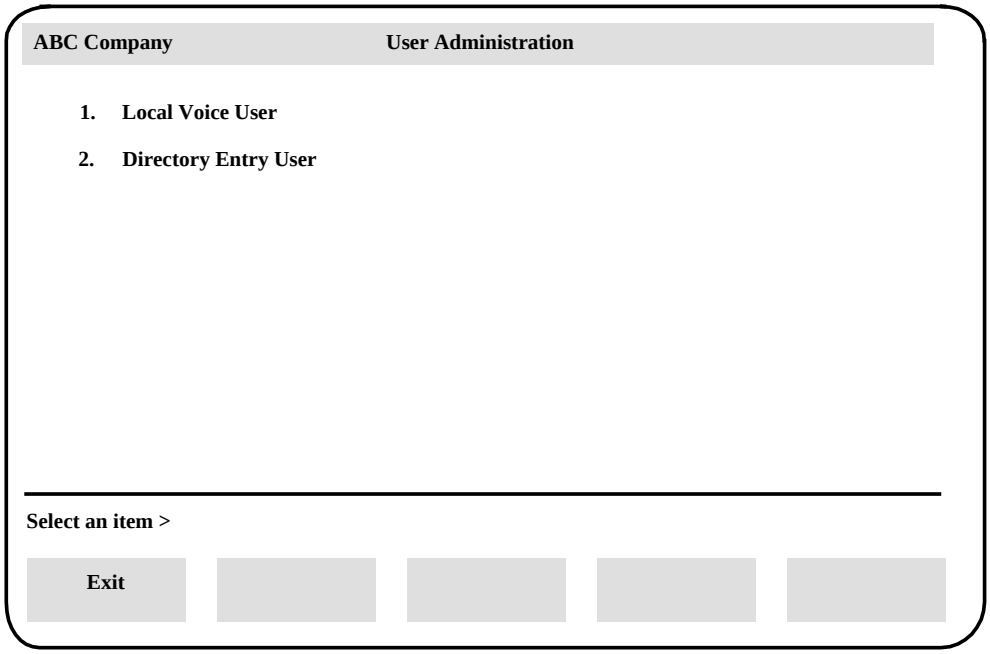
Selecting the User Type

When you select Find Users from the TOOLS menu, the system displays a prompt at the bottom of the TOOLS menu screen asking for a customer group or number:

Enter customer number > 1

The number “1” appears by default. Type over this number if you want a different customer group. After you enter a valid customer group, the screen shown in Figure 9-1 appears.

Figure 9-1xxx
User Type selection screen



To find local voice users, select item 1. To find directory entry users, select item 2. The appropriate Find Users screen appears. The remainder of this chapter discusses how to select, view, modify, or delete specific users.

Finding local voice users

To access the Find Local Voice User screen, follow Procedure 9-1.

Procedure 9-1xxx
Accessing the Find Local Voice Users screen

Starting point The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

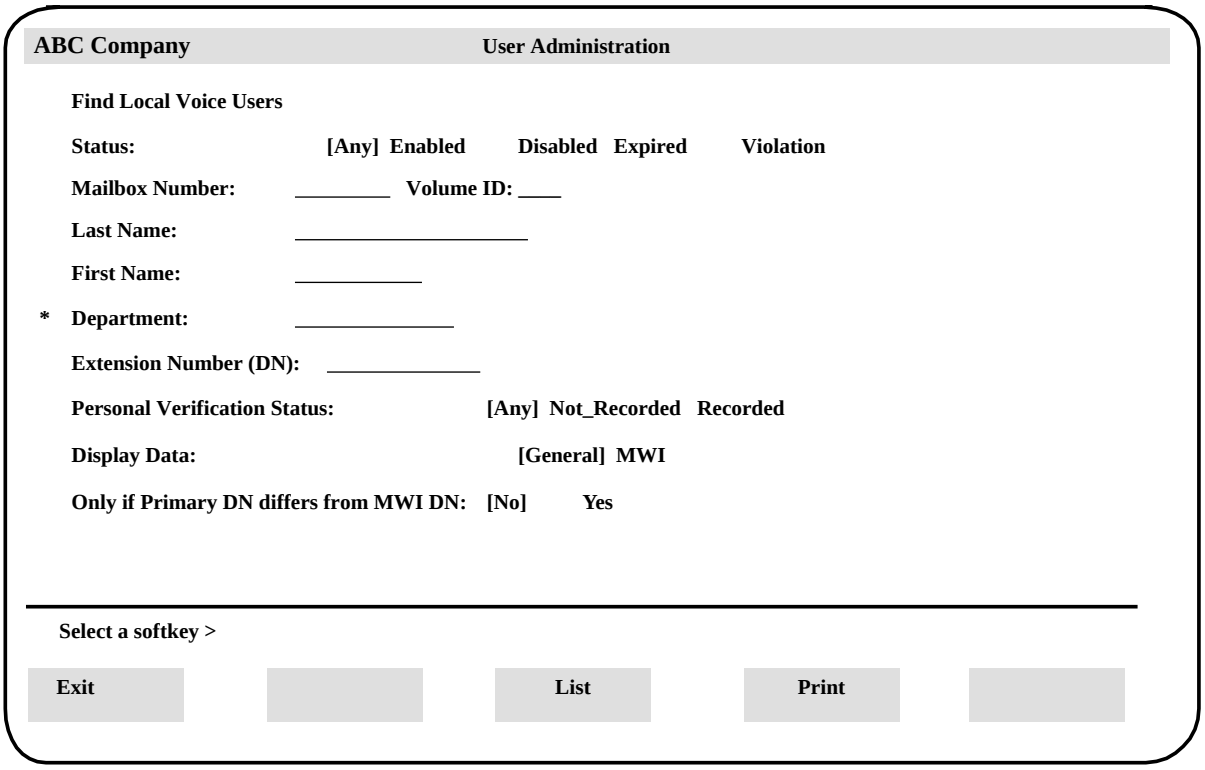
2 Specify the customer group.

A screen appears from which you can select the user type.

3 Select "Local Voice User".

The Find Local Voice Users screen (Figure 9-2) is displayed.

Figure 9-2xxx
The Find Local Voice Users screen



* This field is displayed only for MMUI customers.

The following fields are displayed:

- ***Status*** - This field allows you to retrieve and view local voice users according to their mailbox status. You have five choices:
  - ***Any*****:** Select this option if the mailbox status is not a search criterion.
  - ***Enabled*****:** Select this option if you want to find users whose mailboxes are enabled.
  - ***Disabled*****:** Select this option to find users whose mailboxes are disabled. These users cannot log on, however messages are still received. A mailbox may be disabled if the user has made too many logon attempts with an incorrect password or if their password has expired.
  - ***Expired:*** Select this option to find users whose passwords have expired. This situation can occur only if users are required to change their password before the number of days stipulated in the field *Maximum Days Permitted Between Password Changes* in the V oice Security Options screen. If this field is set to "0", users passwords will never expire. If a user's password has expired, their mailbox will be disabled and they will not be able to log on.
  - ***Violation*****:** Select this option to find users who have surpassed the maximum number of allowed invalid logon attempts for their mailbox (configured in the Voice Security Options screen). Users who have made too many invalid logon attempts will not be able to log on and their mailbox will be disabled.
- ***Mailbox Number*** - This field can hold up to 18 characters.
- ***Volume ID*** - This field specifies the hard disk volume to which a user is assigned. All users must be assigned to a volume.

  Information on disk usage can be obtained (by system administrators only) through the Disk Usage report (see the "Operational Measurements" chapter in the *System Administration Guide*). If you notice that one volume is getting full, you should move some of the users to another volume. Set the *Volume ID* field to the ID of the volume that is almost full in order to get a list of user's names and their mailbox numbers. You can then move some of these users to another volume with the Move user tool accessible through the TOOLS menu.
- ***Last Name*** - The user's last name. Fill in this field if you want to retrieve a particular user and only remember the last name. Use wildcard characters if you are unsure of the spelling.
- ***First Name*** - The user's first name. Fill in this field if you want to retrieve a particular user and only remember the first name or if you remember the last and first names (in order to narrow down the search). Use wildcard characters if you are unsure of the spelling.

- ***Department*** - (MMUI only.) The department to which the user belongs. Fill in this field if you want to retrieve a particular user and only remember the department. If you remember the user's name and department, this will help to narrow down the search. Use wildcard characters if you are unsure of the spelling or exact name of the department.
- ***Extension Number (DN)*** - The user's primary extension DN. Enter the user's DN if it is known. Use wildcard characters to retrieve a subset of users in a particular range of DNs.
- ***Personal Verification Status*** - You may view users according to whether or not they have a personal verification recorded. If you want to ensure that all users have a recorded personal verification, you can generate a list of of users who don't have a recorded verification. You can then record verifications for these users or contact them and ask them to do this themselves. The default is "Any", meaning that the personal verification status will not be used as a search criterion.
- ***Display Data*** - This field determines the format of the list of users. Your choices are:
  - ***General:*** When selected, the list of users includes the following information: user's name, mailbox number, department, COS number, the amount of storage used, and whether or not a personal verification has been recorded. See Figure 9-3.
  - ***MWI:*** When selected, the list of users includes the following information: user's name, DN, mailbox number, the number of read messages, the number of unread messages, the number of text messages, and the MWI status. See Figure 9-4.
- ***Only if Primary DN differs from MWI DN*** - This field is useful for identifying users who have their MWI DN set to the extension DN of another user. The MWI DN has to be the same as the Primary DN in order for the user to be notified of new mail. Choose "Yes" to display only those users whose primary DN differs from their MWI DN, and then modify their MWI DNs to match their Primary DNs.

Viewing a list of local voice users

The List of Local Voice Users screen (Figure 9-3) appears when the [List] softkey on the Find Local Voice Users screen is used. It provides a list of user names and mailboxes matching the search parameters entered in the Find Local Voice Users screen. Users are sorted by the first search parameter that is filled in on the Find Local Voice Users screen. From the resulting list you can select a particular user and view, modify, or delete the user's profile, or record a personal verification for the user.

Procedure 9-2xxx
Viewing a list of local voice users

Starting point : The Find Local Voice Users screen.

1 Fill in the screen with the required search parameters.

2 Use [List] to display search results on the screen.

The List of Local Voice Users screen is displayed. If Display Data is set to "General", see Figure 9-3. If Display Data is set to "MWI", see Figure 9-4.

3 To view, modify, or delete a user, or record a personal verification for the user, move the cursor to the user's name and press the <Space Bar> to select it. To view or modify a user profile, go to step 3a. To delete a user profile, go to step 3b. To record a personal verification for the user, go to step 3c.

a. Press the [View/Modify] softkey.

The View/Modify Local Voice User screen is displayed. See the section "Viewing and modifying local voice users" on page 9-10.

b. Press the [Delete] softkey.

The Delete Local Voice User screen is displayed. See the section "Deleting local voice users" on page 9-30.

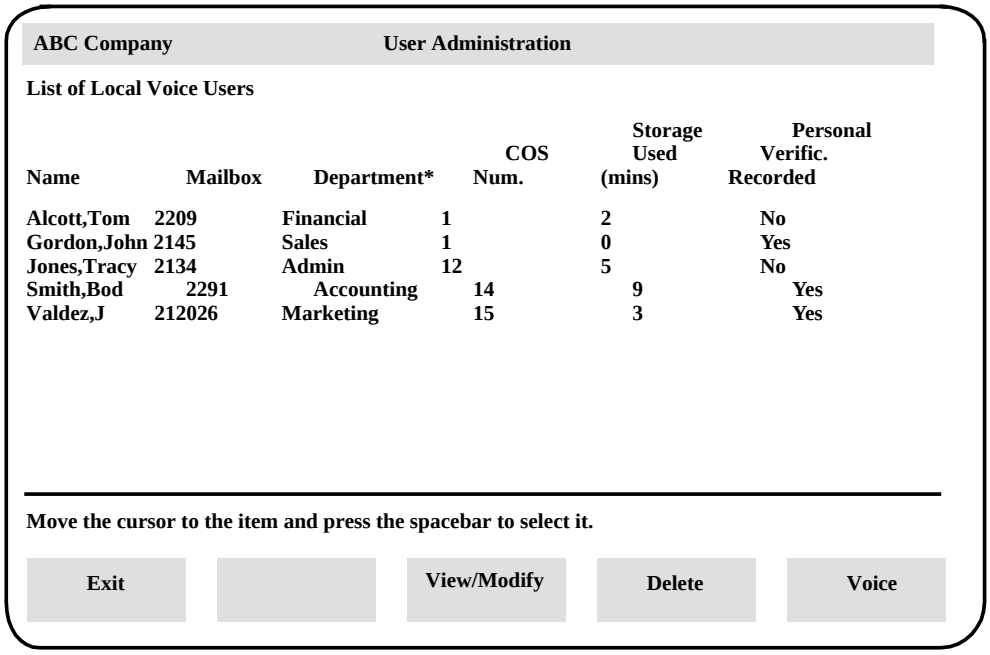
c. Press the [Voice] softkey.

The recording softkeys are displayed. Refer to the section "Recording personal verifications with the [Voice] softkey on page 9-33.

The List of Local Voice Users screen

When you choose to list the retrieved local voice users on screen, the display format of the screen depends on how the *Display Data* field in the Find Local Voice Users screen is configured. Figure 9-3 shows the general format and Figure 9-4 shows the MWI format.

Figure 9-3xxx
The List of Local Voice Users screen (General)

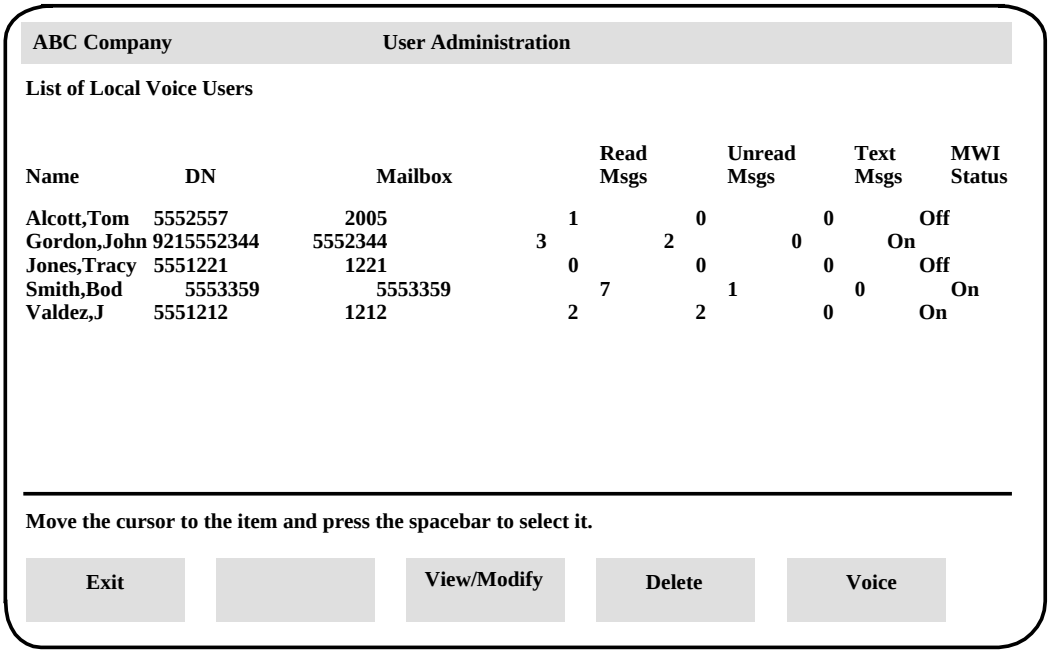


*** The Department column only appears if this is an MMUI customer.**

The following information is displayed for each retrieved user:

- ***Name*** - The user's last name followed by the first name.
- ***Mailbox Number*** - The user's mailbox number.
- ***Department*** - (MMUI only.) The user's department name.
- ***COS Num*** - This field indicates the Class of Service to which the user belongs.
- ***Storage Used*** - The minutes of voice storage used by the user.
- ***Personal Verification Recorded*** - Indicates whether or not a spoken name has been recorded for this user.

Figure 9-4xxx
The List of Local Voice Users screen (MWI)



The following information is displayed for each retrieved user:

- ***Name*** - The user's last name followed by the first name.
- ***DN*** - The user's primary DN.
- ***Mailbox Number*** - The user's mailbox number.
- ***Read Msgs*** - The number of read messages in the user's mailbox.
- ***Unread Msgs*** - The number of unread messages in the user's mailbox.
- ***Text Msgs*** - The number of text messages in the user's mailbox.
- ***MWI Status*** - The status of the message waiting indicator. "On" indicates that there are unread messages waiting. "Off" indicates there are no new messages (even though there may be unread messages in the mailbox).

Printing a list of local voice users

The results of your search can also be printed. Instead of using the [List] softkey on the Find Local Voice Users screen, use the [Print] softkey.

Procedure 9-3xxx
Printing a list of local voice users

Starting point : The Find Local Voice Users screen.

1 Fill in the screen with the required search parameters.

2 Press the [Print] softkey.

Two new softkeys are displayed: [Continue Printing] and [Cancel Printing].

3 Press [Continue Printing] to send the results to the printer.

See Figure 9-5 for an example of the printer output.

Press [Cancel Printing] at any time to cancel the print job.

Figure 9-5xxx
Print Users output

8/27/92 ABC Company Page 1

List of Local Voice Users

Name	Mailbox	Department*	COS Num.	Storage Used (mins)	Personal Verific. Recorded
Alcott,Tom	2209	Financial	1	2	No
Gordon,John	2145	Sales	1	0	Yes
Jones,Tracy	2134	Admin	12	5	No
Smith,Bod	2291	Accounting	14	9	Yes
Valdez,J	212026	Marketing	15	3	Yes

* The Department column only appears if the interface is MMUI.

Viewing and modifying local voice users

From the List of Local Voice Users screen, select the user you wish to modify. Once you have selected (highlighted) the user, press the [View/Modify] softkey. The View/Modify Local Voice User screen is displayed (Figure 9-6).

This screen is identical to the Add Local Voice User screen (documented in the "User Administration" chapter in the *System Administration Guide*), with the following exceptions:

- the *Volume ID* field is read-only

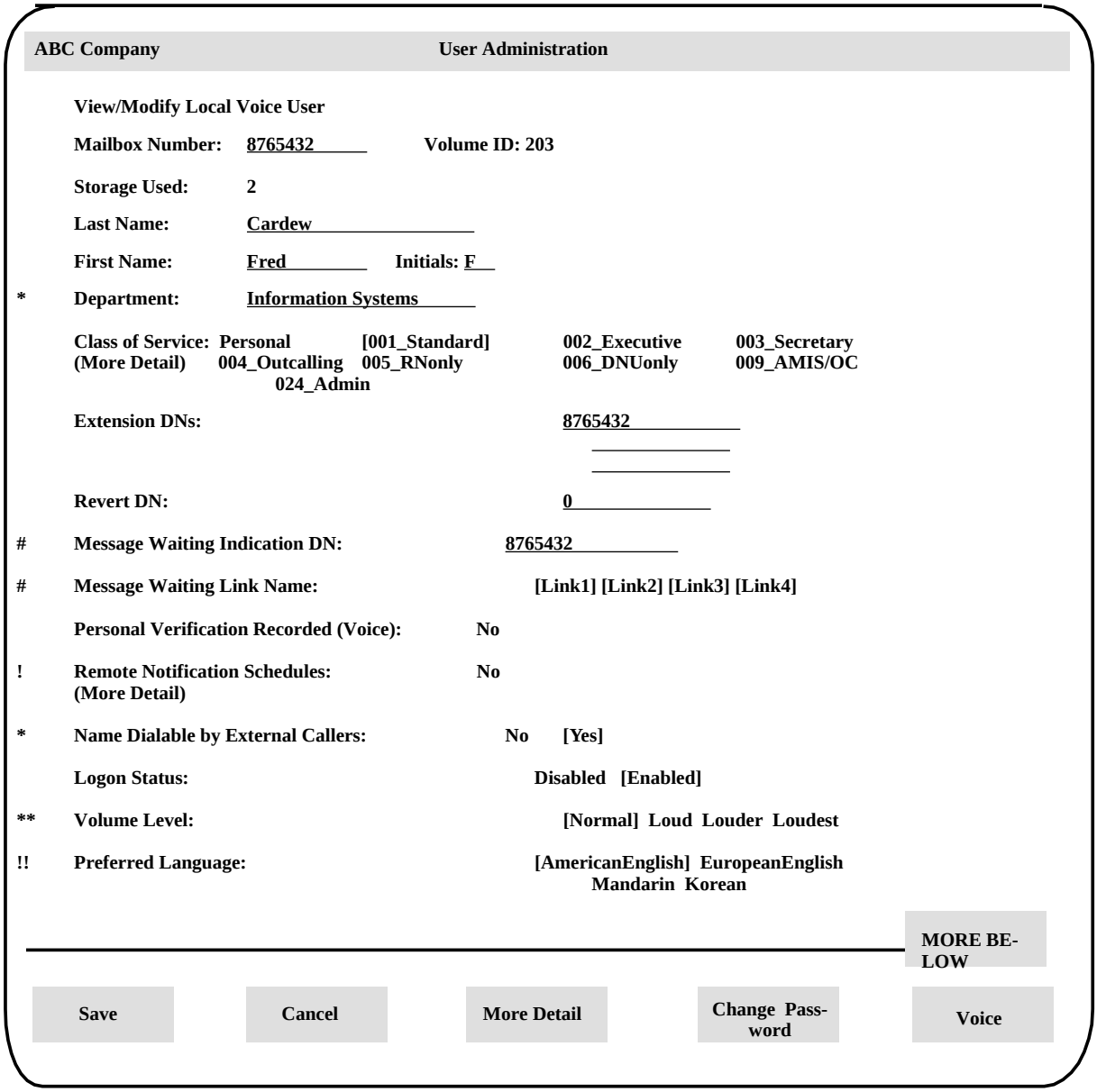
  To change the volume on which the user profile is stored, you must use the Move user tool.

The following additional fields are displayed at the bottom of the screen:

- *Invalid Logon Attempts*
- *Time of Last Logon*
- *Time of Last Mailbox Lockout* (VMUIF only)
- *Calls Rejected after Mailbox Full* (VMUIF only)
- *Personal Greeting Recorded* (VMUIF only)
- *Internal Personal Greeting Recorded* (MMUI only)
- *External Personal Greeting Recorded* (MMUI only)
- *Password Last Changed*

  Important: If you must change a local voice user's last name once the mailbox has been added and is in use, do not modify it in this screen. Instead, make sure the user has listened to all of his or her messages, delete the mailbox, and then re-add it with the new last name. DMS VoiceMail uses the user's last name to keep track of users, mailboxes and messages. Modifying the *Last Name* field can cause inconsistencies.

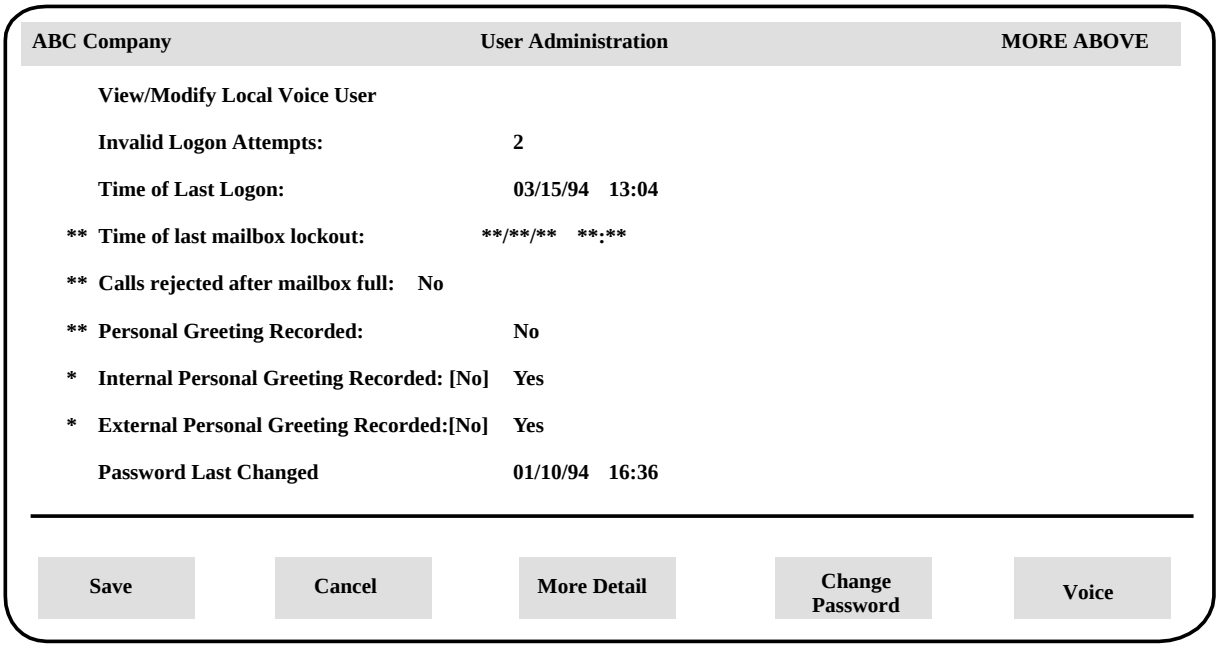
Figure 9-6xxx
The View/Modify Local Voice User screen



***** These fields are displayed only if the user belongs to an MMUI customer group.
****** This field is displayed only if the user belongs to a VMUIF customer group.
# These fields are displayed only if the MWI option is not set to "None" in the user's COS.
! This field is displayed only if Outcalling is enabled and Remote Notification capability is set to "Yes" in the selected COS.
!! This field is displayed only in a multi-lingual system.

Figure continued on next page.

Figure 9-6xxx (continued)
Additional fields in the View/Modify Local Voice User screen



*** These fields are displayed only if this is an MMUI customer.**
**** These fields are displayed only if this is a VMUIF customer.**

Note 1: **If you have logged on to a terminal while another administrator is modifying the same user, only the [Exit] softkey will be displayed.**
Note 2: **If the mailbox has never been locked out, asterisks appear in the *Time of last mailbox lockout* field, as shown in this screen example.**

All the fields are described below.

- ***Mailbox Number*** -This field is automatically filled in with the DN you entered to access this screen, although it can be changed from within this screen. In an office or centrex environment, this is the number that is dialable by other local users (typically a 4-digit DN). If this is a Residential subscriber, this is the directory number. This field is mandatory. If it is not filled in, you will not be able to save the user profile. If the system DN length is not zero, then the mailbox number must be the same length as the system DN length.

  The mailbox number can be up to eighteen digits in length. This number should not conflict with any of the following:

  - the broadcast mailbox number
  - other DNs
  - the name dialing prefix (see "V oice Messaging Options" in the "Voice Administration" in the *System Administration Guide*)
  - delivery to non-user dialing prefixes (see "Outcalling Administration" in the *Outcalling Application Guide*)
  - system distribution list numbers

- other mailbox numbers
- the AMIS prefix
- the personal distribution list prefix (for VMUIF subscribers)

- ***Volume ID*** - This field specifies the hard disk volume to which the user is assigned. All users must be assigned to a volume. (The user profile cannot be saved if this field is blank.) This field defaults to the volume with the greatest amount of free voice space.

  Note: On the View/Modify screen, the *Volume ID* field cannot be modified. To change the volume on which the user profile is stored, use the Move user tool.

- ***Storage Used*** - This read-only field indicates how many minutes of voice messages are currently stored for the current user. If Family Mailbox is enabled for this user, all submailbox greetings and messages take up voice storage allocated to the mailbox. This value is rounded up to the nearest minute. Before deleting a user, check this field to make sure that there are no voice messages in the mailbox.

  For MMUI customer groups, the system still accepts calls when the mailbox is full. Contact your Northern Telecom representative if you want this default changed. For VMUIF customer groups, calls are rejected (i.e., the system will not take messages) when the mailbox is full.

  Note: A user may inform you that he or she has received the mailbox full warning, but that the mailbox is definitely not full. For example, the user is certain that there are only two short messages in the mailbox. A prematurely full mailbox is caused by an unexpected system reboot that leaves inconsistencies between the volume server and what is actually in the mailbox. This problem will be fixed automatically during the scheduled nightly audit. However, if an unexpected reboot happens at a busy traffic time, select “Audit all volumes” from the TOOLS menu. This will update the real mailbox storage information that is stored on disk and prevent prematurely full mailboxes.

- ***Last Name*** - The last name of the new local voice user, up to 41 characters in length. This field accepts any characters with the exception of the restricted characters “+”, “_”, and “?”. However, you should limit yourself to alphanumeric characters. If you use any control characters or special characters, name dialing and name addressing may not work properly. This field is blank by default. Be sure to fill it in and ensure correct spelling because the name dialing and name addressing features use this information.

Important: If you must change a user's last name once the mailbox has been added and is in use, do not modify this field. Instead, make sure the user has listened to all of his or her messages, delete the mailbox, and then re-add it with the new last name. DMS VoiceMail uses the user's last name to keep track of users, mailboxes and messages. Modifying the *Last Name* field can cause inconsistencies.

- ***First Name*** - The first name of the new local voice user. You can enter up to 21 characters, including the space and hyphen (-). However, you should limit yourself to alphanumeric characters for the reasons mentioned in the *Last Name* field. Ensure correct spelling because the Name Dialing and Name Addressing features use this information.
- ***Initials*** - The initials of the local voice user. This field can hold up to 5 alphanumeric characters. This field is for display only and can be used by the administrator to distinguish users with identical first and last names. These initials, however, cannot be used in name dialing.

  Note: If you do not enter any initials, the system will automatically fill in this field with the first initial of the user's first name.

- ***Department*** - (MMUI only.) The department to which the user belongs. You may enter up to 31 characters. The characters "+", "?" and "_" are restricted. It is recommended that you use alphanumeric characters only and avoid using special characters altogether (even though some are accepted by this field) for the reasons mentioned for the *Last Name* field.

  With the Find Users tool, only the first ten characters of the department are displayed. Therefore try to assign unique identifiers for each department when adding users with the User Administration function (see the *System Administration Guide* for details). For example, if you have the departments Marketing Sales and Marketing Advertising, you should enter them as Sales Marketing and Advertising Marketing.

- ***Class of Service (More Detail)*** - The Class of Service (COS) to which the user belongs.

  If you press the [More Detail] softkey while the cursor is on this field, you will see the COS definition for the selected COS. The fields are read-only and are provided as a reminder to you, so that you can verify the configuration of a COS before selecting one for the user.

  If the "Personal" COS is selected when you press [More Detail], you will be able to modify the fields and create a custom COS especially for this user. This is useful if the user doesn't fit into any of the COSs that have been assigned to the user's customer group. However, each personal COS will have to be maintained separately, and in addition to the system COSs. See the section "Creating a personal class of service" in the "User Administration" chapter in the *System Administration Guide* for more information.

- ***Extension DNs*** - The user's extension number(s). A user can have up to three extension DNs defined in his or her user profile (a primary, secondary and tertiary DN). This means that a caller can dial any of these numbers and still reach the user's mailbox. A DN can be up to 30 digits in length.

  The first field is for the primary DN and is mandatory. You cannot save the user profile if this field is blank.

  For Centrex customer groups, DNs are typically four digits in length. For SMDI link systems, when the mailbox number and primary DN are not the user's 7-digit directory number, you must enter the 7-digit directory number as the secondary DN. The tertiary DN is optional.

  > ***Note 1:*** If the SMDI link is set to 10-digit messaging, enter the full 10-digit DN (including the area code).

  For residential/small business customer groups, DNs are typically seven digits in length. If the 7-digit (or 10-digit) directory DN is the primary DN, the secondary DN is optional. The tertiary DN is optional.

- ***Revert DN*** - This is the number to which calls are passed in the following situations:

  - a caller presses "0" during a call answering session, or
  - when a user waits more than 2 seconds to enter "#" after dialing 0 in order to place a call while in his mailbox (known as mailbox thru-dial or extension dialing).

  In an office or centrex environment, calls are normally reverted to back-up people such as secretaries or receptionists. For residential subscribers, this may be their office number, for example. The revert DN may be up to 30 digits in length and can begin with 0 (zero).

  For MMUI customer groups, this field defaults to the System Attendant DN for the first user you add during the current system administration session. Subsequent users (that are added within the same system administration session) inherit the revert DN of the previously added user. The System Attendant DN is configured in the General Options screen (see "General Options" in the "General Administration" chapter of the *System Administration Guide*).

  If this field is filled in, the user will have to include a statement in his or her external and internal greetings to inform callers that they can press the revert DN (usually "0") if they want to be connected to a secretary or cellular phone.

  Users can also configure their own Revert DN through their telephone set. This is covered in the *Voice Messaging User Guide.*

For VMUIF customer groups, this field is blank by default. You can, however, enter a DN in this field if the subscriber requests this capability. A small business may ask for this feature so that calls can be reverted to a secretary. Residential subscribers may ask for this feature if they want callers to be able to try them at another number, such as that of a cellular phone. (Note that for VMUIF customer groups, this DN only applies to call answering sessions because subscribers do not have mailbox thru-dial capabilities.)

> ***Note:*** The DNs you are allowed to enter in this field are limited by the Custom Revert Restriction/Permission codes that are set in this user's class of service.

- ***Message Waiting Indication DN*** - This field is not displayed if the *Message Waiting Indication Options* field in the user's COS is set to "None". If this field is displayed, it is mandatory. This DN specifies the telephone extension at which message waiting indication is activated when a new message is put in the user's mailbox. This field defaults to the user's mailbox number. This DN must be the user's 7-digit directory number as it is configured on the switch.

  Note: If the SMDI link is configured for 10-digit messaging, enter the user's 10-digit directory number (this DN includes the area code).

  This field should be set to "None" for users that don't have physical telephone sets, but does have a mailbox. For example, a salesperson may only rarely be at the office and does not have a phone as a result, but still requires a number for callers to leave messages.

- ***Message Waiting Link Name*** - This field is displayed only if this is an SMDI link system and if the *Message Waiting Indication Option* in the user's COS is set to "None". This name specifies the link on which the message waiting indication is sent for this user.

  This field is intended for systems with the Multi-SMDI feature (indicated as "SMDI" in the General Options screen which is described in the "General Administration" chapter of the *System Administration Guide*) so that you can distribute users over all available links. If you have only one SMDI link, this field defaults to the link name entered in the hardware database and cannot be changed from this screen.

If you do have multiple SMDI links, do not put all users on the same link. Instead, distribute users (as evenly as possible) across all available links. This field defaults to the first link name defined in the hardware database. You can cycle through the other link names while in this screen. To display the next link name, delete the current link name and press <Tab> or <Return>. Repeat this procedure until you have cycled through all of the link names (you may want to write them down as you go). You can also view the link names in the View Data Port screen (SMDI) if you log on as system administrator, as described in the chapter "Hardware Administration" in the *System Administration Guide*).

- ***Personal Verification Recorded (Voice***) - The spoken name of the user can be recorded by the administrator using the [Voice] softkey or by the user at the telephone. When a verification is recorded, this field is updated to show "Yes". Otherwise, it will show "No". For information about recording personal verifications for users, refer to the section "Recording personal verifications using the [Voice] softkey on page 9-33. See the chapter "Making recordings" in the *System Administration Guide* for more information about the personal verification and when it is used.
- ***Remote Notification Schedules (More Detail)*** - This is a read-only field, and it is displayed only if Outcalling is an installed feature and the *Remote Notification Capability* field is set to "Yes" for the selected COS. In this field, "Yes" indicates that remote notification schedules have been set up for this user. This field will show "Yes" even if the schedules are disabled (as long as at least one schedule has been created).

  To create a remote notification schedule for a user, press the [More Detail] softkey while the cursor is on this field. See the section "Creating a remote notification schedule" in the "User Administration" chapter in the *System Administration Guide*.
- ***Name Dialable by External Callers*** - (MMUI only.) When this field is set to "Yes", external callers can use name dialing to call the user. This may not be desirable for all users, since a caller could get through to any extension as long as they know the person's name. You may therefore want to set this field to "No" for those users who have their phone calls screened by a secretary. The default is "Yes".
- ***Logon Status*** - A mailbox will become disabled if too many logon attempts are made using the wrong password. (The maximum number of incorrect logon attempts is set in the Voice Security Options screen.) If the status is "Disabled", an explanation is displayed on the line below this field. When the status is "Enabled" the user has full access to the mailbox and messages are accepted. The default is "Enabled".

If the user belongs to an MMUI customer group and his or her mailbox becomes “Disabled”, the user cannot log on to the system, however, messages are still received. To reenable a mailbox, access the user profile through the View/Modify Local Voice User screen and set Logon Status to “Enabled”.

If the user belongs to a VMUIF customer group, the user will be able to log on, however, the system will no longer take messages (i.e., calls are rejected). This field is affected by the *Lockout Duration* field in the subscriber’s class of service. A non-zero value in the *Lockout Duration* field indicates that the subscriber’s mailbox will automatically be reenabled once the specified time period has passed (up to 24 hours). A value of “00:00” indicates that the subscriber will be locked out until the administrator reenables the mailbox manually by setting the Logon Status to “Enabled”.

- ***Volume Level*** - (VMUIF only.) This field controls the default volume level for voice messaging login sessions. The options are: “Normal”, “Loud”, “Louder”, “Loudest”. The default is “Normal”. Note that if there are submailboxes, this field affects only the main mailbox.
- ***Preferred Language*** - This field applies only to multilingual systems. The language specified in this field determines the language in which prompts are played (this includes prompts that are played to the user during a login session and to callers during express messaging and call answering sessions). This field can display a maximum of four of the languages installed on your system. The default is the first language in the list.

  Note: If the *Default Language Overrides User’s Preferred Language* is set to “Yes” in the Voice Messaging Options screen, prompts played during call answering and express messaging sessions will be in the default language.

Additional fields in the View/Modify Local Voice User screen

- ***Invalid Logon Attempts*** - This is a read-only field displaying the number of successive logon attempts using an incorrect password. When the maximum number of successive invalid logon attempts is reached, the user’s mailbox is disabled.

  A large number of successive invalid logon attempts may indicate a security problem. For example, someone may be trying to get into your system through this particular mailbox. Should this value be suspiciously high, contact the owner of the mailbox and determine if he or she has had problems logging in. The owner may have simply forgotten the mailbox password and tried a variety of passwords. If you are sure that there is no security risk, re-enable the mailbox by setting the *Logon Status* field to “Enabled”. This action resets the *Invalid Logon Attempts* field to “0”.

- ***Time of Last Logon*** - This is a read-only field displaying the time of the last successful logon. In the case of a new user who has not logged on yet, no date or time will be displayed.

  A considerable amount of time between the current date and the user's last logon could indicate one of several things. In a centrex environment: the user may be on holiday or off site and not retrieving messages. Or the user may have left the organization. For both centrex and residential/small business customer groups: the user may not know how to log on and retrieve messages; or the user may have forgotten his or her password (in which case he or she may have stopped trying to log on and has not contacted the administrator to change the mailbox password). Try to contact the user to determine if there is a problem. You might also want to check the voice messaging user usage report (described in the "Operational Measurements" chapter in the *System Administration Guide*) to see if the user has messages waiting.

- ***Time of last mailbox lockout*** - (VMUIF only.) This is a read-only field displaying the time of the last mailbox lockout. This is usually due to an excessive number of invalid logon attempts. To re-enable a disabled mailbox, set the *Mailbox Status* field to "Enabled".

- ***Calls rejected after mailbox full*** - (VMUIF only.) If any calls have been rejected due to a full mailbox, this field will display "Yes". "No" either indicates that the mailbox is not full or that the subscriber's mailbox is full but no calls have been rejected.

  You may never actually see this field set to "Yes" because when the user logs on, this field is reset to "No". When a user logs on after messages have been lost, he or she will hear a message indicating that the mailbox is full and that messages have been lost. In turn, the user may inform you of lost messages. Ask the user to delete messages if this has not already been done.

  If a subscriber complains about lost messages, you can reassign him or her to another class of service that has a larger voice storage limit. However, if many subscribers are losing calls, you might want to consider manipulating the following fields in the class of service to which they belong:

  - V oice Storage Limit
  - Maximum Call Answering Message Length
  - Maximum Message Length
  - Maximum Personal Greeting Length
  - Read Message Retention

- ***Personal Greeting Recorded*** - (VMUIF only.) This is a read-only field which indicates whether or not the subscriber has a recorded personal greeting.

- ***Internal Personal Greeting Recorded*** - (MMUI only.) This is a read-only field which indicates whether or not an internal personal greeting has been recorded by the user. This greeting is played to callers that have reached the user from a line inside the switch.

  This greeting may be less formal and can include information that is not appropriate to external callers. For example, *"Hi, this is David. I'm not at my desk right now, so please leave a message after the tone. If this is an urgent matter, you can find me at Brian's desk."*

- ***External Personal Greeting Recorded*** - (MMUI only.) This is a read-only field. It indicates whether or not an external personal greeting has been recorded by the user. For users in centrex customer groups, this greeting is played to callers who reach the user's mailbox from an outside trunk. This message should be more formal than the internal greeting.

- ***Password Last Changed*** - This is a read-only field displaying the date and time of the last password change. For new MMUI users, this is the time at which the user was added. For VMUIF subscribers, the time is set to "nil".

  If the interface type is MMUI, there is a maximum imposed on the number of days permitted between password changes. This value is set in the Voice Security Options screen (documented in the "Voice Administration" chapter in the *System Administration Guide*). If this maximum is exceeded, the user's mailbox is disabled. To re-enable a disabled mailbox, set the *Logon Status* field to "Enabled". You should also ensure that the user understands why the mailbox was disabled and confirm that he or she is aware of the password expiry limit.

Procedure 9-4xxx
Viewing/modifying parameters for local voice users

Starting point : The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

2 Specify the customer group number.

A screen appears from which you can select the user type.

3 Select "Local Voice User".

The Find Local Voice Users screen (Figure 9-2) is displayed.

4 Fill in the screen with the required search parameters.

5 Use [List] to display search results on the screen.

The List of Local Voice Users screen is displayed.

6 Move the cursor to the user you wish to view or modify and press the space bar to select the user. The line of data is highlighted.

7 Press the [View/Modify] softkey.

The View/Modify Local Voice User screen appears.

8 Make the necessary modifications.

9 If a personal verification has not been recorded for this user, you can record one now by pressing the [Voice] softkey.

a. Enter the extension number of the phone you will be using to record the verification.

A new set of softkeys is displayed.

b. Press the [Play] softkey to see if a verification has been recorded.

If there is no verification, or if you want to record a new one, continue with step 9c. If you do not need to re-record the verification, go to step 9f.

c. Press the [Record] softkey.

d. At the sound of the beep, speak the user's name into the telephone handset.

e. Press the [Stop] softkey to stop recording.

f. Press the [Disconnect] softkey.

g. Press the [Return] softkey.

See the section, "Recording personal verifications using the [Voice] softkey" on page 9-33 for more information about the recording softkeys.

10 Use [Change Password] if necessary.

You are prompted to enter the new password, then to re-enter the new password to verify it. The passwords are not displayed on the screen.

User passwords must be numeric and up to 16 digits long. By default, the initial password for a new user is the same as the user's mailbox number.

11 Go to step 11a to save the new user, or 11b to cancel the addition.

a. Use [Save].

The system saves the new user profile and prompts for another local voice user's mailbox number. To view or modify another user, go to step 4. If you do not want to modify another user at this time, go to step 11b.

b. Use [Cancel].

New user information is discarded.

Finding directory entry users

To access the Find Directory Entry Users screen, follow Procedure 9-5.

Procedure 9-5xxx
Accessing the Find Directory Entry Users screen

Starting point The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

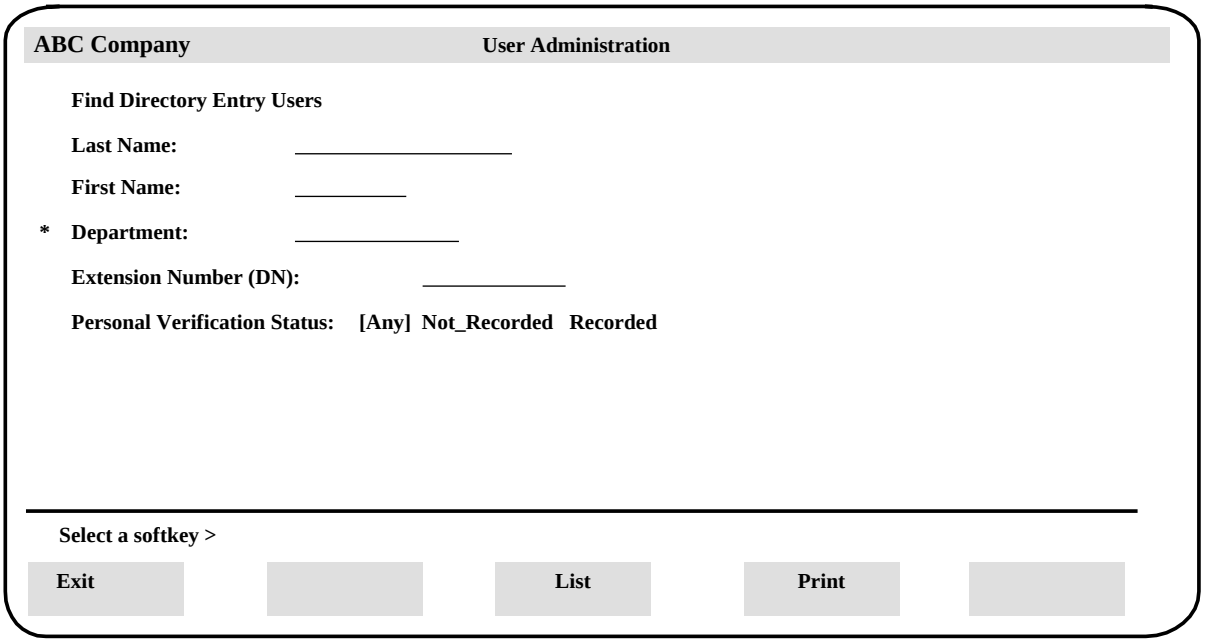
2 Specify the customer group.

A screen appears from which you can select the user type.

3 Select “Directory Entry Users”.

The Find Directory Entry Users screen (Figure 9-7) is displayed.

Figure 9-7xxx
The Find Directory Entry Users screen



*** The Department field only appears if this is an MMUI customer.**

The following fields are displayed:

- ***Last Name*** - The user’s last name. Fill in this field if you want to retrieve a particular user by last name. Use wildcard characters if you are unsure of the spelling.
- ***First Name*** - The user’s first name. Fill in this field if you want to retrieve a particular user and only remember the first name or if you remember the last and first names (in order to narrow down the search). Use wildcard characters if you are unsure of the spelling.
- ***Department*** - (MMUI only.) The department to which the user belongs. Fill in this field if you want to retrieve a particular user and only remember the department. If you remember the user’s name and department, this will help to narrow down the search. Use wildcard characters if you are unsure of the spelling or exact name of the department.
- ***Extension Number (DN)*** - The user’s primary extension DN. Enter the user’s DN if it is known. Use wildcard characters to retrieve a subset of users in a particular range of DNs.

- ***Personal Verification Status*** - You may view users according to whether or not they have a personal verification recorded. If you want to ensure that all users have a recorded personal verification, you can generate a list of of users who don't have a recorded verification. You can then record verifications for these users or contact them and ask them to do this themselves. The default is "Any", meaning that the personal verification status will not be used as a search criterion.

Viewing a list of directory entry users

The List of Directory Entry Users screen (Figure 9-8) appears when the [List] softkey on the Find Directory Entry Users screen is used. It provides a list of user names matching the search parameters entered in the Find Directory Entry Users screen. Users are sorted by the first search parameter that is filled in on the Find Local Voice Users screen. From the resulting list you can select a particular user and view, modify, or delete the user's profile, or record a personal verification for the user.

Procedure 9-6xxx
Viewing a list of directory entry users

Starting point : The Find Directory Entry Users screen.

1 Fill in the screen with the required search parameters.

2 Use [List] to display the results of the search on the screen.

See Figure 9-8.

3 To view, modify, or delete a directory entry user, move the cursor to the user's name and press the <Space Bar> to select it. To view or modify a user profile, go to step 3a. To delete a directory entry user, go to step 3b. To record a personal verification for the user, go to step 3c.

a. Press the [View/Modify] softkey.

The View/Modify Directory Entry User screen is displayed. See the section "Viewing and modifying directory entry users" on page 9-25.

b. Press the [Delete] softkey.

The Delete Directory Entry User screen is displayed. See the section "Deleting directory entry users" on page 9-31.

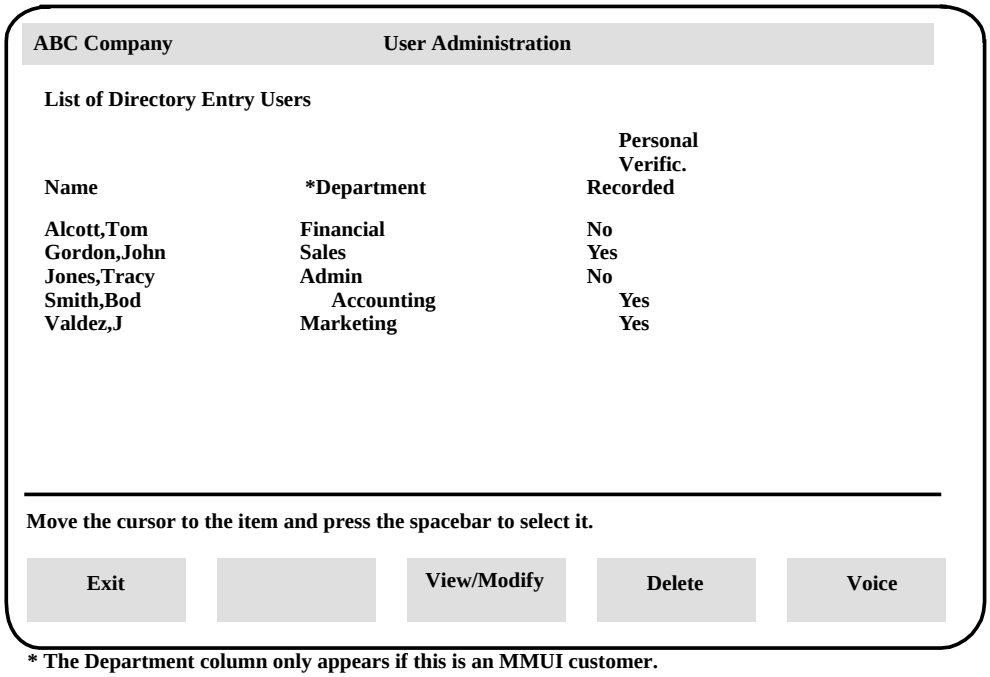
c. Press the [Voice] softkey.

The recording softkeys are displayed. Refer to the section "Recording personal verifications with the [Voice] softkey on page 9-33.

The List of Directory Entry Users screen

The List of Directory Entry Users screen (Figure 9-8) is displayed when you use the [List] softkey from the Find Directory Entry Users screen.

Figure 9-8xxx
The List of Directory Entry Users screen



*** The Department column only appears if this is an MMUI customer.**

The following information is displayed for each user that is retrieved:

- ***Name*** - The user's last name followed by the first name.
- ***Department*** - (MMUI only.) The user's department name.
- ***Personal Verification Recorded*** - This field indicates whether or not a spoken name (personal verification) has been recorded for this user.

Printing a list of directory entry users

The results of your search can also be printed. Instead of using the [List] softkey on the Find Directory Entry Users screen, use the [Print] softkey.

Procedure 9-7xxx
Printing a list of directory entry users

Starting point : The Find Directory Entry Users screen.

1 Fill in the screen with the required search parameters.

2 Press the [Print] softkey.

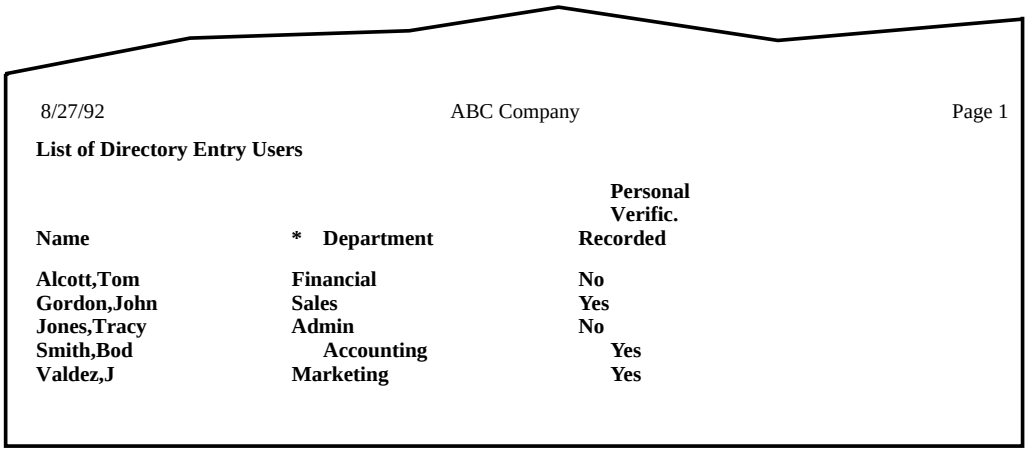
Two new softkeys are displayed: [Continue Printing] and [Cancel Printing].

3 Press [Continue Printing] to send the results to the printer.

See Figure 9-9 for an example of the printer output.

Press [Cancel Printing] at any time to cancel the print job.

Figure 9-9xxx
Print directory entry users output



8/27/92 ABC Company Page 1

List of Directory Entry Users

Name	* Department	Personal Verific. Recorded
Alcott,Tom	Financial	No
Gordon,John	Sales	Yes
Jones,Tracy	Admin	No
Smith,Bod	Accounting	Yes
Valdez,J	Marketing	Yes

***** The Department column only appears if the interface is MMUI.

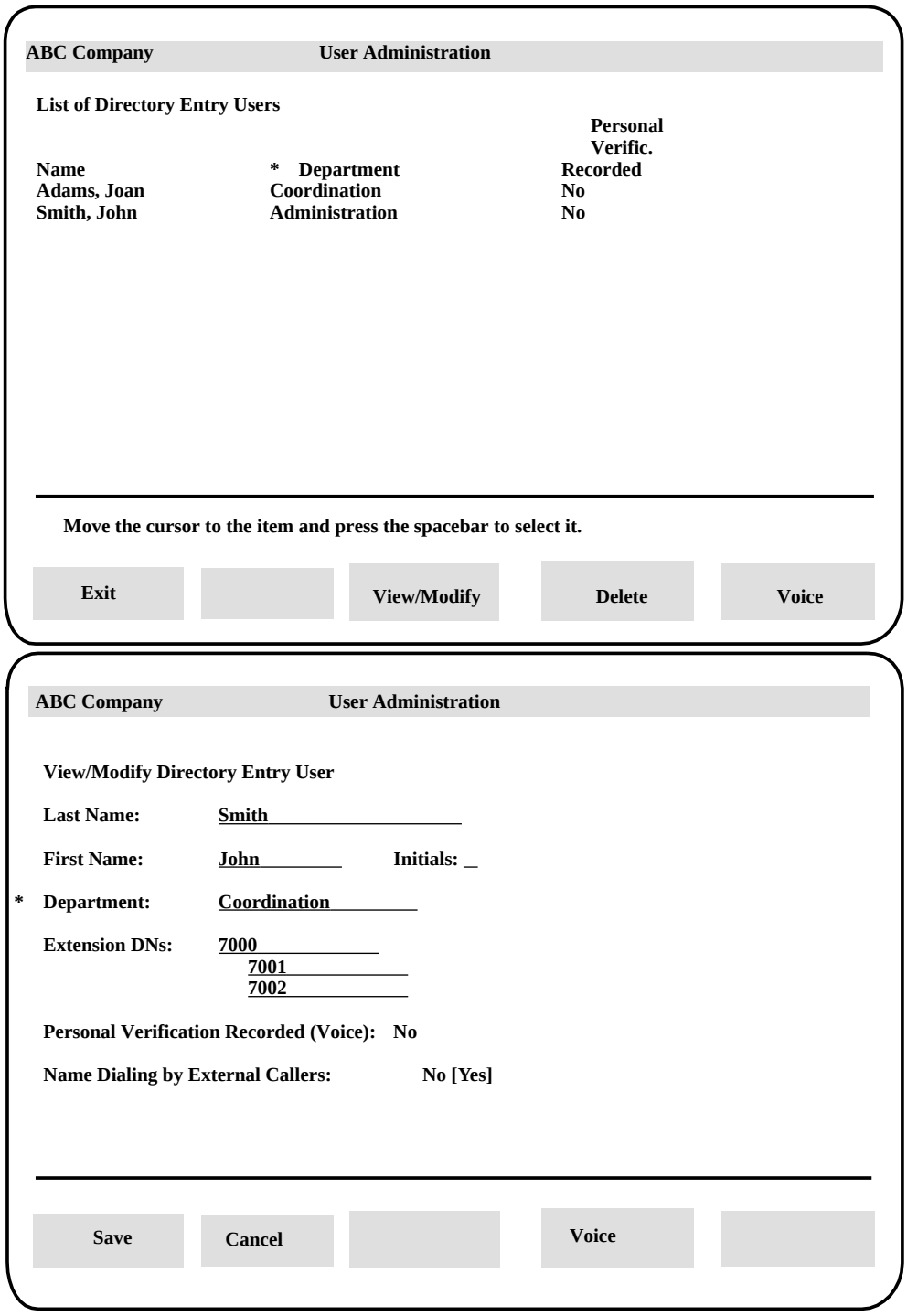
Viewing and modifying directory entry users

From the List of Directory Entry Users screen (the top screen illustrated in Figure 9-10), select the user you wish to modify. Once you have specified the user select the [View/Modify] softkey. The View/Modify Directory Entry User screen is displayed (the bottom screen illustrated in Figure 9-10).

Note 1: If the interface type is VMUIF, there will be no directory entry users.

Note 2: DMS VoiceMail supports up to four administration terminals (one main administration terminal for system and customer administration and up to three secondary terminals that are used to perform a subset of the customer administration capabilities). If your system has multiple administration terminals, only the first administrator who logs on to perform administration on a particular entity (e.g., user) can modify that entity. Screens will be read-only for other administrators who then access the same entity.

Figure 9-10xxx
View/Modify Directory Entry User screen



Note: **If you have logged on to a terminal while another administrator is modifying the same user, only the [Exit] softkey will be displayed.**

*** This field is available only if this is an MMUI customer group.**

The View/Modify Directory Entry Users screen contains the following fields:

- ***Last Name*** - The last name of the new directory entry user, up to 41 characters in length. This field is mandatory. This field accepts any characters with the exception of the restricted characters "+", "_", and "?". However, you should limit yourself to alphanumeric characters for name dialing and name addressing to work properly. This field is blank by default. Be sure to fill it in and ensure correct spelling because the Name Dialing and Name Addressing features use this information.
- ***First Name*** - The first name of the new directory entry user. You can enter up to 21 characters, including the space and hyphen (-). The default is blank. Ensure correct spelling because the Name Dialing and Name Addressing features use this information.
- ***Initials*** - The initials of the directory entry user. This field can hold up to 5 alphanumeric characters. This field is for display only and can be used by the administrator to distinguish users with identical first and last names. These initials, however, cannot be used in name dialing.

  Note: If you do not enter any initials, the system will automatically fill in this field with the first initial of the user's first name.

- ***Department*** - (MMUI only.) The department to which the user belongs. You may enter up to 31 characters. The characters "+", "?" and "_" are restricted. It is recommended that you use alphanumeric characters only and avoid using special characters altogether (even though some are accepted by this field) for the reasons mentioned in the *Last Name* field. When adding the first user to the customer group, this field will be blank by default. For subsequent users, this field defaults to the department entered for the last user added.

  With the Find Users tool, only the first ten characters of the department are displayed. Therefore try to assign unique identifiers for each department when adding users with the User Administration function (see the *System Administration Guide* for details). For example, if you have the departments Marketing Sales and Marketing Advertising, you should enter them as Sales Marketing and Advertising Marketing.
- ***Extension DNs*** - The user's extension number or numbers. A user's DN can be up to 30 digits in length. A user can be associated with three possible extensions. The first field is the user's primary extension number and is mandatory and defaults to the number entered to access the Add Directory Entry User screen.

  The first field is for the primary DN and is mandatory. You cannot save the user profile if this field is blank.

For Centrex customer groups, DNs are typically four digits in length. When the mailbox number and primary DN are not the user's 7-digit directory number, you must enter the 7-digit directory number as the secondary DN. The tertiary DN is optional.

Note: If the SMDI link is set to 10-digit messaging, enter the full 10-digit DN (including the area code).

For residential/small business customer groups, DNs are typically seven digits in length. If the 7-digit (or 10-digit) directory DN is the primary DN, the secondary DN is optional. The tertiary DN is optional.

- ***Personal Verification Recorded (Voice)*** - If a personal verification has been recorded for this user, this field displays "Yes". "No" indicates that no verification is currently recorded. The setting in this field changes when the [Voice] softkey is used to record a verification (or when a user records their own verification from their telephone set). The personal verification is used in address lists, during call answering sessions and when name dialing is used.
- ***Name Dialable by External Callers*** - When this field is set to "Y es", external callers can use name dialing to dial the user. This may not be desirable for all users as a caller can get through to any extension as long as they know the person's name. You may therefore want to set this field to "No" for those users who have their phone calls screened by a secretary. This field defaults to "Yes".

Procedure 9-8xxx
Viewing/Modifying parameters for directory entry users

Starting point : The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

2 Specify the customer group number.

A screen appears from which you can select the user type.

3 Select "Directory Entry Users".

The Find Directory Entry Users screen (Figure 9-7) is displayed.

4 Fill in the screen with the required search parameters.

5 Use [List] to display search results on the screen.

The List of Directory Entry Users screen is displayed.

6 Move the cursor to the user you wish to view or modify and press the space bar to select the user. The line of data is highlighted.

7 Select [View/Modify].

The View/Modify Directory Entry User screen appears.

8 Modify the fields as needed.

9 Press the [Voice] softkey to record a personal verification recording, if one is not already recorded.

a. Enter the extension number of the phone you will be using to record the verification.

A new set of softkeys is displayed.

b. Press the [Record] softkey.

c. At the sound of the beep, speak the user's name into the telephone handset.

d. Press the [Stop] softkey to stop recording.

e. Press the [Disconnect] softkey.

f. Press the [Return] softkey.

See the section, "Recording personal verifications using the [Voice] softkey" on page 9-33 for more information about the recording softkeys.

10 Go to step 10a to save the changes, or 10b to cancel the changes.

a. Use [Save].

The system saves the modified directory entry user.

b. Use [Cancel].

If you have not saved the modified user data, any changes will be discarded. The List of Directory Entry Users screen is displayed.

Deleting users

Before deleting a user, you may want to ensure that there are no voice messages in the user's mailbox. This can be verified by checking the *Storage Used* field in the Modify Local Voice User screen. If there are messages remaining, you may want to make sure that the user listens to them before you delete the user.

CAUTION
Deleting mailboxes
User usage data is collected by the system once a day (at approximately 4:00am). If a user's mailbox is removed before user usage data is collected, the data will be lost. (See the chapter "Operational Measurements" in the *Customer Administration Guide*.) To avoid this situation, disable the user for one day to give the system time to collect the user usage data. Then remove the mailbox. (If you have the AdminPlus feature and file downloading capability then do not delete the mailbox until you have downloaded the data.) See the description of the *Logon Status* field in the "View/Modify Local Voice User" section earlier in this chapter. Once data is processed then you can delete the user if you wish.

Deleting local voice users

When you delete a local voice user, the user's mailbox (including all messages), Personal Verification, any personal greetings, and all entries of that user in system distribution lists are deleted. To delete a local voice user, follow Procedure 9-9.

Procedure 9-9xxx
Deleting a local voice user

Starting point: The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

2 Specify the customer group number.

A screen appears from which you can select the user type.

3 Select "Local Voice User".

The Find Local Voice Users screen (Figure 9-2) is displayed.

4 Fill in the screen with the required search parameters.

5 Use [List] to display search results on the screen.

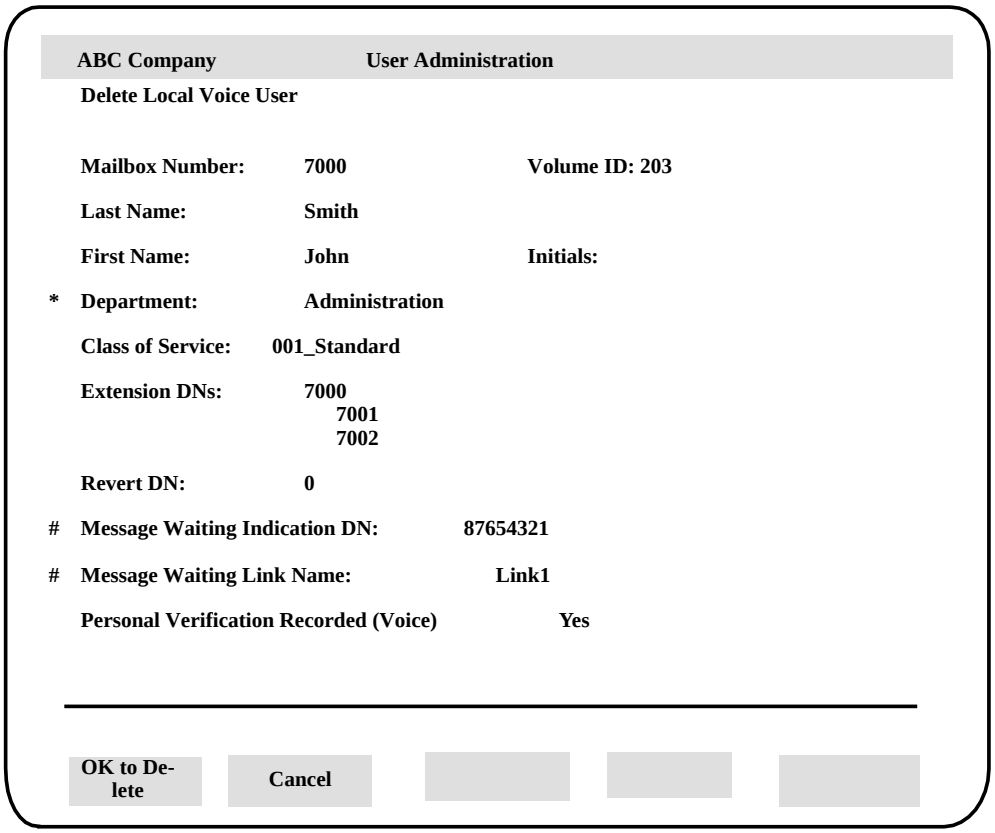
The List of Local Voice Users screen is displayed.

6 Move the cursor to the user you wish to delete and press the space bar to select the user. The line of data is highlighted.

7 Press the [Delete] softkey.

The Delete Local Voice User screen (Figure 9-11) is displayed.

Figure 9-11xxx
The Delete Local Voice User screen



*** This field is displayed only if this is an MMUI customer.**
 # These fields are displayed only if this is an SMDI link system.

Note: **If you have logged on to a terminal while another administrator is modifying the same user, only the [Exit] softkey will be displayed.**

8 Choose step 8a to delete the user, or 8b to cancel.

a. Use [OK to Delete].

The user is deleted and the system prompts for another extension number.

b. Use [Cancel].

The user is not deleted.

Deleting directory entry users

To delete a directory entry user, follow Procedure 9-10.

Note that when you delete a directory entry user, their personal verification is automatically deleted.

Procedure 9-10xxx
Deleting directory entry users

Starting point : The TOOLS menu

1 Select Find Users.

The system prompts for a customer group number.

2 Specify the customer group number.

A screen appears from which you can select the user type.

3 Select “Directory Entry User”.

The Find Directory Entry Users screen (Figure 9-2) is displayed.

4 Fill in the screen with the required search parameters.

5 Use [List] to display search results on the screen.

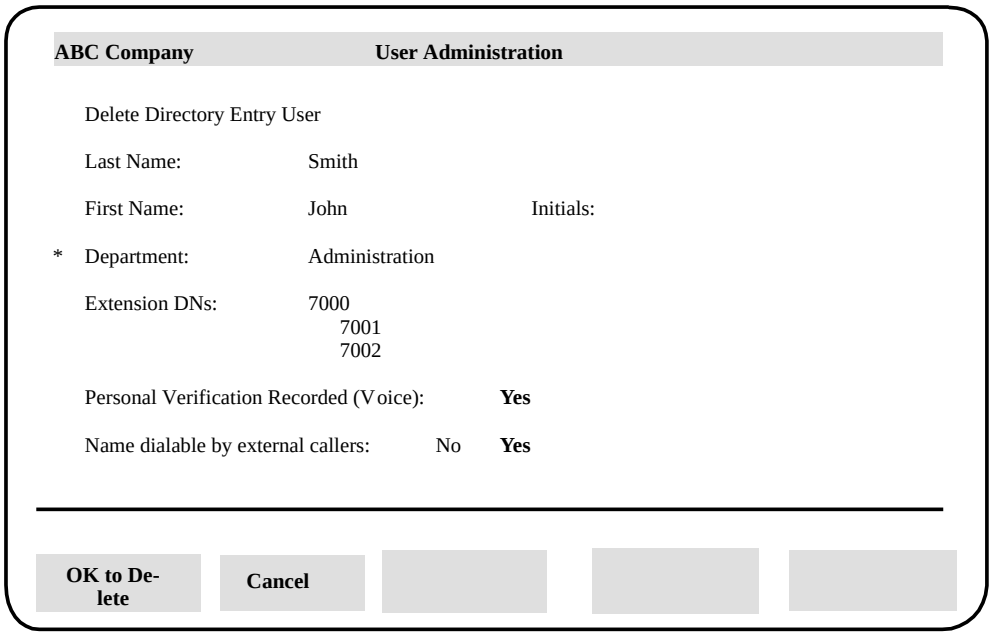
The List of Directory Entry Users screen is displayed.

6 Move the cursor to the user you wish to delete and press the space bar to select the user. The line of data is highlighted.

7 Press the [Delete] softkey.

The Delete Directory Entry User screen (Figure 9-12) is displayed.

Figure 9-12xxx
The Delete Directory Entry User screen



Note: If you have logged on to a terminal while another administrator is modifying the specified user, only the [Exit] softkey will be displayed.

*** This field is available only if this is an MMUI customer group.**

8 Choose step 8a to delete the user, or 8b to cancel.

a. Use [OK to Delete].

The user is deleted and the system returns to the Find Directory Entry Users screen.

b. Use [Cancel].

The deletion is canceled.

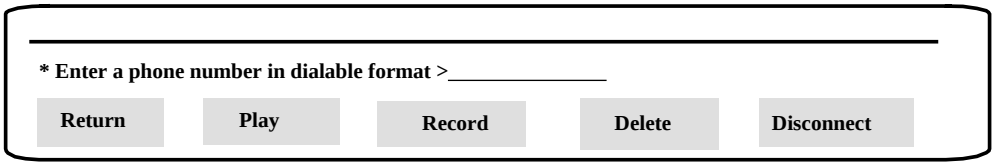
Recording personal verifications using the [Voice] softkey

The [Voice] softkey is used to provide a new set of softkeys for recording, playing and deleting Personal Verifications for directory entry local voice users. By using the voice subset of softkeys, the *Personal Verification Recorded (Voice)* field is set to "Yes" or "No".

Personal verifications can only be recorded for users if MMUI is installed on the system. It is not intended for VMUIF subscribers. Although the administrator can still record a personal verification from this screen, it will never be used since VMUIF subscribers do not have access to the features that use the verification.

Note: A telephone set is required to record the Personal Verification. Ensure that a phone set is available near the administration terminal where you are working.

Figure 9-13xxx
Personal Verification recording softkeys



Procedure 9-11xxx
Recording, playing, and deleting personal verifications for existing users

Starting point : The TOOLS menu.

1 Select Find Users.

The system prompts for a customer group number.

2 Specify the customer group number.

A screen appears from which you can select the user type.

3 Select one of the following: Local Voice User or Directory Entry User.

The Find Users screen is displayed.

4 Fill in the screen with the required search parameters.

5 Use [List] to display search results on the screen.

6 Move the cursor to the user you want to modify and press the space bar to select the user. The line of data is highlighted.

7 Press the [Voice] softkey.

You are prompted for an extension number.

8 Enter the extension number of the phone set you are going to use to record a spoken name.

The phone will ring when you finish entering the extension.

9 Pick up the telephone handset.

10 To record a new verification, go to step 10a. To listen to the existing personal verification, go to step 10b. To delete the existing personal verification, go to step 10c. To return to the original set of softkeys, go to step 10d.

a. Press the [Record] softkey. At the sound of the beep speak the personal verification for the user into the handset.

When you pressed the [Record] softkey, a new [Stop] softkey appeared in its place.

Press the [Stop] softkey to stop recording.

b. Press the [Play] softkey.

If a verification has been recorded for the user recorded, it is played over the phone.

c. Press the [Delete] softkey.

If a verification has been recorded, it is deleted. A prompt is displayed advising you that the recording was deleted.

d. If you are satisfied with the recording, press either [Disconnect] or [Return] to display the original softkeys.

When you use [Return], the line is not disconnected (unless you hang up the receiver). This means that if you decide to re-record or listen to the recording, you do not have to re-enter the telephone extension after pressing the [Voice] softkey.

When you use [Disconnect], the line is disconnected and if you press [Voice] to access the recording softkeys again, you will have to re-enter the telephone extension.

Chapter 10: Audit all volumes

The Audit all volumes tool frees disk space occupied by deleted voice messages. When users delete voice messages, the disk space taken up by those messages isn't immediately freed up and made available until an audit takes place.

The use of this tool is normally not required because system audits are performed automatically on a daily basis (typically beginning at 2:30 a.m) to make this disk space available. However, if your system is heavily loaded and there is a lot of traffic, you may have to perform additional audits using the "Audit all volumes" tool. If SEERs with the return code 1103 are being generated, this is an indication that the server is full and that an audit is in order.

Procedure 10-1xxx
Auditing all volumes

1 Select "Audit all volumes" from the TOOLS menu and press <Return>.

Auditing begins immediately. The system does not respond with any prompts because this is a non-destructive procedure.

Once auditing is complete, the TOOLS menu is re-displayed.

Chapter 11: Rebalance directory

This tool rebalances the access structure for the organization directory in order to speed up searches and updates to its entries.

The rebalance directory tool is run automatically every night (usually at 3:30 am). However, if many updates have been made to the directory, then it may help to run the tool during the day right after the updates are done. For example, if many users of voice services are added during the day and system performance decreases (e.g., the system is noticeably slower as you attempt to add more users), then a directory rebalance may speed up the system. During the rebalancing, updates are disabled. SEER number 3135 will indicate when the rebalancing has started and stopped.

Figure 11-1xxx
Sample run (prompts and responses) for the Rebalance tool (after "Rebalance directory" is selected from the TOOLS menu)

```
Organization directory rebalancing not currently running.
You are about to rebalance the organization directory.

Seers numbered 3135 will indicate when the
rebalancing begins and ends.

Do you wish to continue? Yes
Enter time limit (hrs) 2
Enter time limit (min) 0
Do the rebalancing? Yes
* SEER>03/11/93 09:58:41     ...
* 3135 DR Audit Begun: [ ]

* SEER>03/11/93 10:40:18 ...
* 3135 DR Audit Done ...
```

* These lines include additional numbers and data not show here. Also, SEERs are printed to the screen only if no printer is connected.

Procedure 11-1xxx
Rebalancing the directory

Starting point: The TOOLS menu.

1 Select “Rebalance directory” from the TOOLS menu.

Note: Run this tool when system performance slows down significantly while adding (or after adding) many users in one day. A rebalancing (once completed) will speed up the entry process, but you will not be able to add users while the rebalancing tool is still running.

2 The system displays some help text, followed by the prompt “**Do you wish to continue?**”. If you have satisfied the required conditions for running this tool (see Step 1), then answer “Yes” and press return. If you respond with “No”, the rebalancing is not started and you are returned to the TOOLS menu.

If you do respond with “Yes”, the system prompts you for a time limit (first hours, and then minutes):

Enter time limit (hrs)

Enter time limit (min)

3 Enter a time limit (e.g., 2 hours, 0 minutes) for the rebalancing to finish.

If the rebalancing does not finish within the enforced time limit, rerun the rebalancing tool.

If the time limit is reached, a 3135 SEER with a timeout message is printed. If the rebalancing does finish with no problems before the time limit is reached, a 3135 SEER with the message “DR audit completed” is printed.

4 After you set a time limit, the following prompt appears:

Do the rebalancing?

Enter “Yes” to begin the rebalancing. SEER 3135 will print once to indicate that the rebalancing (“DR Audit”) has begun, and then once more to indicate that either the rebalancing has finished or the timeout limit has been reached.

Procedure 11-2xxx
Stopping the rebalancing process

Starting point: The TOOLS menu.

1 Select “Rebalance directory” from the TOOLS menu.

If the rebalancing tool is already running, the system informs you of this and asks you if you wish to stop the rebalancing:

The directory is currently being rebalanced.

Do you wish to stop the rebalancing?

2 Enter “Yes” to stop the rebalancing. The rebalancing tool will stop when it has finished the directory files it is currently rebalancing. If the rebalancing tool is not running (i.e., the system prompts and messages are similar to those shown in Figure 11-1), then enter “No” to the prompt to indicate that you do not wish to continue.

Note: The next time you run the Rebalance directory tool, the rebalancing will continue from where it stopped the last time it was run.

Chapter 12: Convert COS

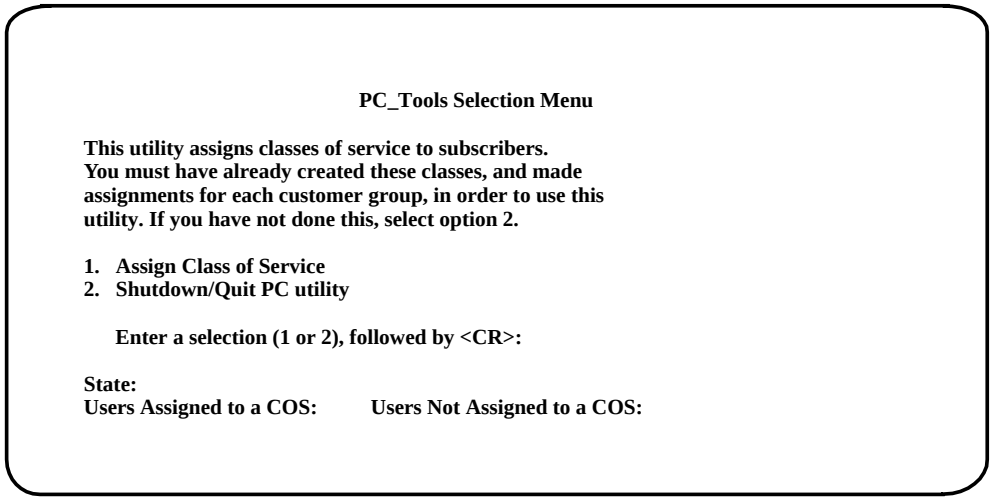
Class of Service (COS) is a feature introduced in SPM02 (for details on what Class of Service is, refer to the *System Administration Guide*, NTP 297-7001-300). Following an MM8 to SPM02 conversion, users will be assigned a personal COS. Users with a personal COS are not part of any defined COS. After you define COSs using the system administration "Class of Service" facility, you can use the Convert COS tool to assign users to one of the defined COSs currently associated with the customer group that exactly matches the user's mailbox attributes.

No other administration should be done while this tool is running. This tool requires about 5 seconds per user to complete.

To use this tool, select "Convert COS" from the TOOLS menu. After a few seconds, the TOOLS menu will refresh. After the screen has refreshed, press Ctrl-W to access a pop-up window titled "CobraVT".

From the CobraVT window, select "PC_UTIL" (use the up/down arrow keys to move the highlight bar to "PC_UTIL" and press return). After you select PC_UTIL, the screen shown in Figure 12-1 appears.

Figure 12-1xxx
Convert COS screen display



To run this tool, enter "1" and press return. To stop this tool, enter "2" and press return. See Procedure 12-1 for complete steps for running this tool or returning to the TOOLS menu.

Besides the menu items, the following fields also appear on this screen:

- ***State*** - The status of the tool. This can be one of the following:
  - ***Idle:*** No menu item has been selected yet. The conversion is not currently running.
  - ***Running:*** Item 1 has been selected and the conversion is running.
  - ***Finished:*** The conversion has completed.
  - ***ShuttingDown:*** Menu item 2 has been selected and the tool is shutting down.
  - ***Terminated:*** The conversion has stopped due to a fatal error. See the SEERs messages to find the reason for the error.

  Note: When you select item 1 to run the conversion, the *State* field will briefly display "ShuttingDown" and then "Finished" before displaying "Running".

- ***Users Assigned to a COS*** - After you select item 1 to run the conversion, this field is updated approximately every 4 minutes to show the number of users who have had a COS assigned to them as a result of this conversion.
- ***Users Not Assigned to a COS*** - After you select item 1 to run the conversion, this field is updated approximately every 4 minutes to show the number of users who have been examined by the tool but did not match one of the defined COSs.

Procedure 12-1xxx
Assigning a COS to users with a personal COS

Starting point: TOOLS menu, Convert COS selected, Ctrl-W pressed.

Note: Before running this tool, you must have already defined the COSs and assigned them to this customer (see the System Administration Guide, NTP 297-7001-300).

1 From the CobraVT window, select PC_UTIL (use the up/down arrow keys to move the highlight bar to “PC_UTIL” and press return). After you select PC_UTIL, a menu appears with the following choices:

1. Assign Class of Service

2. Shutdown/Quit PC utility

2 Enter “1” to run this tool and assign COSs, or enter “2” to stop this tool (see step 7 for directions on how to return to the TOOLS menu).

3 If you entered “1”, the message “Conversion is up and running” appears at the bottom of the screen. When the conversion is complete, the message “Conversion is complete” appears at the bottom of the screen. This tool will take approximately 5 seconds per user to complete.

Immediately after you enter 1, the *State* field will briefly display “ShuttingDown” and then “Finished” before displaying “Running”.

4 Approximately every 4 minutes the fields *Users Assigned to a COS* and *Users Not Assigned to a COS* are updated to show the number of users assigned and not assigned a COS during this conversion routine. A SEER (class 57) will be printed for each user with a personal COS who could not be assigned a COS because the user’s mailbox attributes did not match an existing COS.

5 When the conversion is complete (all users who have a personal COS have been checked to see if they match an existing COS), the *State* field displays the status “Finished”.

6 After the conversion has completed, enter “2” and press return to shutdown this tool.

7 To return to TOOLS menu, follow the steps below:

a. Press Ctrl-W to access the CobraVT window. The highlight bar should be on the PC_UTIL line. PC_UTIL should also now have an asterisk beside it.

b. While the highlight bar is still on the PC_UTIL line, press the “R” key to remove the PC_UTIL window.

c. Next, use the up/down arrow keys to move the highlight bar to “MMI” and press return. The TOOLS menu is redisplayed.

Chapter 13: On-Line system maintenance

The On-Line system maintenance tool allows support personnel to perform system maintenance and upgrade functions without shutting down the system and losing complete service for an extended period of time. For more details on on-line system maintenance, refer to the *System Installation and Modification Guide* (NTP 297-7001-504). This chapter describes only the use of the On-Line system maintenance tool and its options.

The following functions have on-line procedures for them:

- Software upgrade
- Hardware modification
- Language expansion
- Move voice service cabinet
- Feature enable

Note: On-line functions will only work if all of the SPM components are fully operational.

Process

The on-line system maintenance functions require that the redundant system is divided into two separate halves so that one side can take over service while the other side is upgraded. Initially, one half (known as the odd node) is courtesied down so that the system maintenance procedures can be performed on it. When this happens, the other half (known as the even node) serves the users at a reduced capacity. Since service capacity is reduced, you are advised not to perform on-line maintenance procedures during peak hours.

The fact that only one side is functional at a time determines the process for on-line upgrade. All on-line system maintenance functions except Feature Enable are governed by the same three-stage process. In general, these are:

1 The Preparation Stage

2 The Start System Stage

3 The Completion Stage

You must log out of the MMI screen and log back in to it between each stage, for the following reasons:

1 You must log out between stages one and two so that the system can use the most recent version of the on-line system maintenance software (which has been loaded onto disk during the preparation stage) for software upgrade.

2 You must log out between stages two and three because a switchover between MSP1 and MSP2 must occur in order for both halves of the system to be updated. You are initially logged on to MSP1. At the end of stage 2, this node must be rebooted and have the new software loaded into it while MSP2 takes over service.

In each stage you must:

1 Begin by selecting the same on-line system maintenance function from both the TOOLS menu and the On-line System Maintenance menu that you did at the beginning of the previous stage.

2 End by removing the window after the prompt instructing you to do so appears on the screen.

Though the system will keep track of the completion of each stage, it is very important to remember that it is a three part process and that all stages must be completed before the maintenance function is done.

Online System Event and Error Report (SEER) Log

Throughout the online-system maintenance procedure, a number of System Events and Error Reports (SEERS) will be generated which will provide important information about the on-line maintenance process. These SEERS fall into the following three categories:

1 SEERS that indicate an event causing the on-line upgrade to fail and the process to abort.

2 SEERS that indicate an unexpected event. You will be prompted with a question asking you if you want to abort or continue.

3 SEERS that indicate events expected by, or part of, the online maintenance process. The process will continue without interruption.

Seers generated during the online maintenance functions are stored in files during each of the separate stages. These files are:

1 :RW1:PrepOL.Log (for SEERs generated during the Preparation stage.)

2 :RW1:StrtOL.Log (for SEERs generated during the Start stage.)

3 :RW1:EndOL.Log (for SEERs generated during the Ending stage.)

For detailed information on how to restore when an error occurs see the *Trouble Locating and Alarm Clearing Guide* (NTP 297-7001-503). For more information on SEERs, see the *Maintenance Messages Manual* (NTP

297-7001-510). Also consult the *Log Report Manual* (NTP 297-1001-840) for more information on DMS Logs.

Login

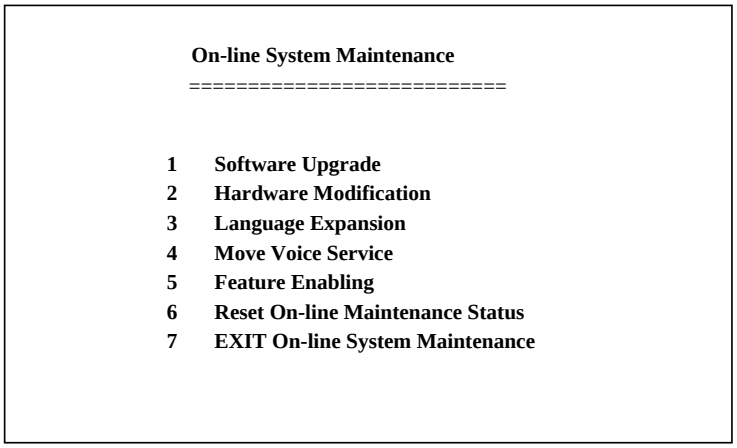
You can access on-line system maintenance functions through the console terminal by doing the following:

1 Log in to the main MMI screen using the TOOLS level password. The TOOLS menu will appear.

2 Choose “On-Line system maintenance” from the TOOLS menu. The On-line System Maintenance menu appears (Figure 13-1).

3 Select the appropriate system maintenance function.

Figure 13-1
On-line System Maintenance Menu

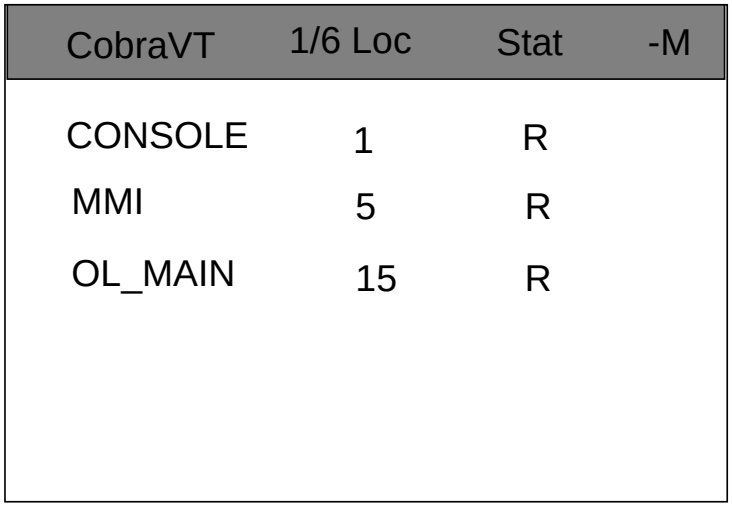


Logout

Log out of the MMI menus by doing the following:

1 Remove the window by pressing Control W. This will activate CobraVT CLI window shown in Figure 13-2.

Figure 13-2
CobraVT CLI window



2 Move the cursor up or down until OL_MAIN is highlighted.

3 Type “R” to remove the OL_MAIN window.

4 Move the cursor up to the MMI Window menu item and press <return> or type the letter “S” in order to access the MMI TOOLs window again.

Chapter 14: Synchronize Disks

Disk shadowing is a mass storage technique in which the same data is duplicated onto a pair of disks in real time. It is used to:

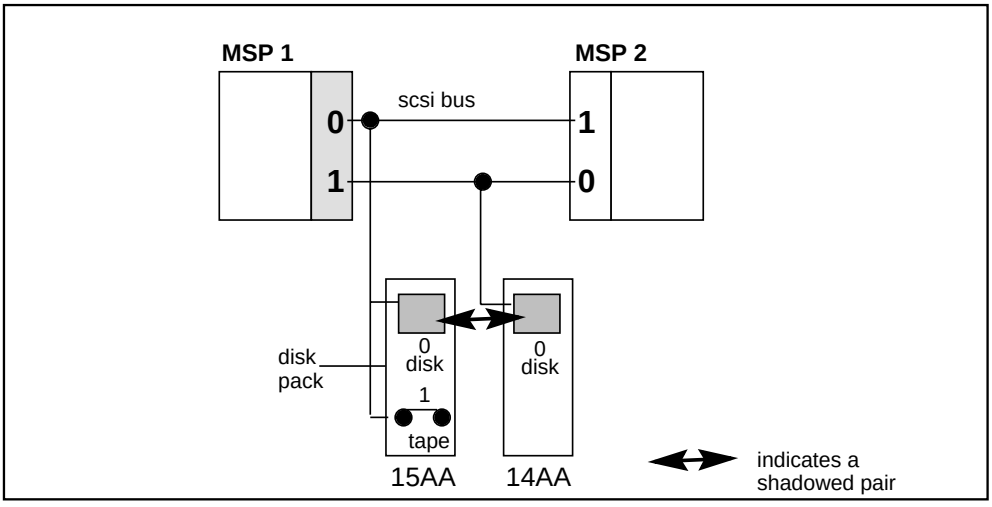
- reduce the chance of data loss and downtime due to disk failure
- double disk read throughput

Note: Most disk operations can be performed using the Disk Maintenance facility (see the "System Status and Maintenance" chapter in the *System Administration Guide*, NTP 297-7001-300).

Disk configurations

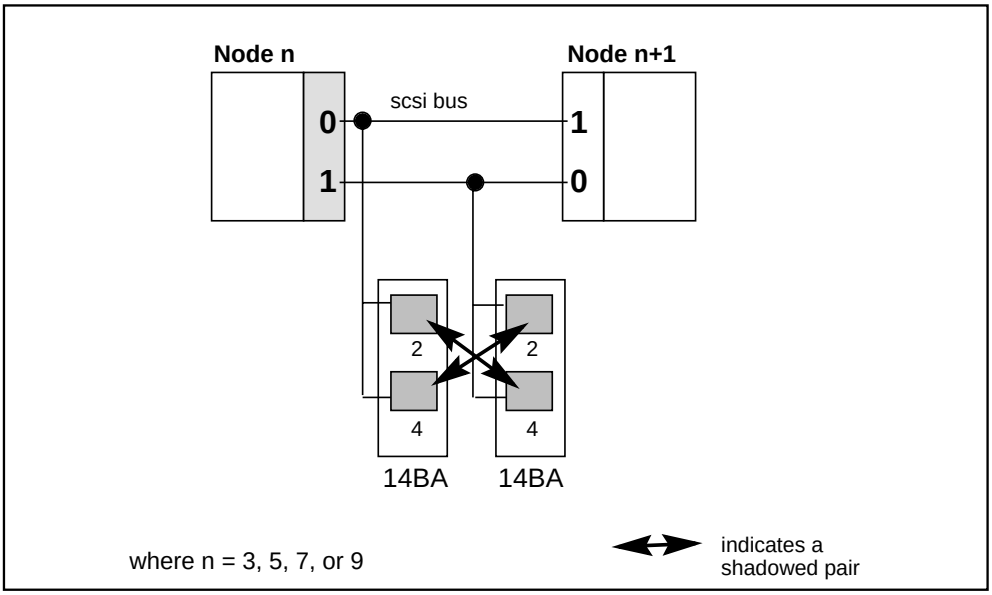
All SPMs come with disk shadowing. The configuration on nodes 1 and 2 is shown in Figure 14-1. The configuration on nodes 3 to 10 is shown in Figure 14-2.

Figure 14-1xxx
SPM configuration on MSP 1 and MSP 2



Note: The "0"s and "1"s are SCSI IDs.

Figure 14-2xxx
SPM configuration on nodes 3 to 10



Note the following:

- Each disk pack contributes a disk to each shadowed pair.
- Each node can access its partner's disk drives as a result of SCSI bus coupling, where node "n+1" and node "n" are partners.

The last point gives rise to the following bus and SCSI device numbering scheme:

- Bus 0 on a node is bus 1 on its partner.
- SCSI IDs normally run from 0 to 7. The device number of a device on bus 0 is simply its SCSI ID. The device number of a device on bus 1 is its SCSI ID plus 8.

Commands

All of the following commands print out a return code. 0 indicates normal completion; anything else indicates an error.

enable *src mem*

A shadowed pair is brought online by synchronizing the contents of the two disks that comprise it. This operation is referred to as "syncing" and is started by the enable command.

src specifies the location of the disk pack containing current data. Since there is only one disk pack on a SCSI bus, *src* refers to a bus, and can be either 0 or 1.

The enable command automatically distinguishes between the single-disk AA packs and the dual-disk BA packs. In particular, the enable command will sync both shadowed pairs related to a BA pack.

mem gives the maximum amount of memory that enable is allowed to use. The default value of 64k is recommended. Do not set this value above 64k on a live system.

WARNING

1. Syncing from the wrong source will result in lost data. Also, syncing is usually done from disk packs with enabled disks unless you are trying to clear SEER 6608.

2. Do not set the maximum memory to a value greater than 64k on a live system.

3. Do not sync from both members of a node pair at the same time.

enable -1 *ss dd mem*

This form of the enable command syncs a given disk pair and is invoked by specifying -1 for *src*. *ss* is the device number of the disk to sync from, *dd* is the device number of the disk to sync to, and *mem* is the maximum amount of memory allowed.

disable *id*

A disk in a shadowed pair can be taken offline either by the system (automatically, in the event of a failure) or by the disable command (manually). The first method sets off a major alarm; the second does not.

find *id*

id is the number of the device to be checked. If this device is a disk, it will be spun up and its size (in 512-byte blocks) will be printed. This command may be used to verify that a node is able to communicate with all of its disks.

info *node*

This command displays a summary of a node's view of its disks. This information can be used to check if the node's disks are in sync (both disks enabled), and if a node's view of its disks is consistent with its partner's view.

For example, on node 3 of an SPM, one might get the following output:

```
node 3

disk pair 0
boot region:      32-2031
file region:      2032-2936592
disk 2:  RW
disk 12: RW

disk pair 1
boot region:      32-2031
file region:      2032-2936592
disk 10:  --
disk 4:  RW
```

The "disk *n*:" fields in the output indicate each disk's state, and if they are enabled. If both disks are enabled, they are in sync.

The first position of a disk's state is "R" or "-" depending on whether it is handling reads or not. Similarly, the second position is either "W" or "-", depending on whether it is handling writes or not. When the disk's state is "RW", the disk is described as "enabled".

Also, a node can access the same disks as its partner, where node "n+1" and node "n" are partners. Following our example, node 4 accesses the same disks as node 3:

```
node 4

disk pair 0
boot region:      32-2031
file region:      2032-2936592
disk 2:  --
disk 12: RW

disk pair 1
boot region:      32-2031
file region:      2032-2936592
disk 10:  RW
disk 4:  RW
```

Notice from the disk states that disk pair 0 on a node is disk pair 1 on its partner. In the example above, disk pair 0 on node 3 (disk 2 and disk 12 from the node 3 perspective) is the same as disk pair 1 on node 4 (disk 10 and disk 4 from the node 4 perspective).

init

This command should be used to put the system back into a normal state if a sync operation is interrupted.

node

This command displays the ordinal number of the node that this utility is running on.

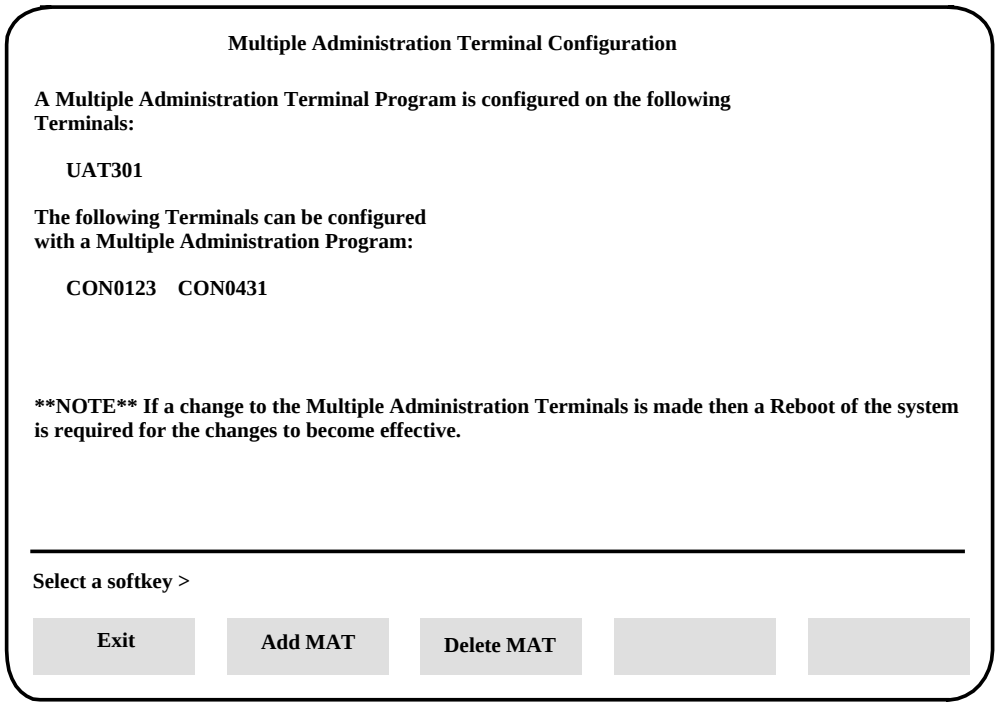
Chapter 15: Configure MATs

Note: This tool is available if the Multiple Administration Terminals feature is installed on your system.

The Configure MATs tool allows you to view or change the number of Multiple Administration Terminals (MATs). The tool lists the currently configured MATs and provides a means for adding the MAT program to a terminal or deleting it from one. Terminals are normally defined as MAT terminals during installation. Therefore, this tool is only used in the event that you need to change the configuration that was created during installation.

The Configure MATs option is displayed when you select “Other” from the main TOOLS menu. When you select Configure MATs, the screen shown in Figure 15-1 is displayed.

Figure 15-1xxx
The Multiple Administration Terminal (MAT) Configuration screen



A terminal name is displayed in this screen for any data port that is defined as “Terminal” in the hardware database. The first part of the screen displays all terminals that have been configured with the Multiple Administration Terminal Program. The bottom portion of the screen displays those terminals that can be configured with the program. The following procedures describe how to add and delete the MAT program.

Procedure 15-1xxx
Adding an MAT

Note: If there are no available terminal ports, an existing unused data port must be configured using the modify hardware tool. No more than three Multiple Administration Terminals can be installed on a system.

1 Press the [Add MAT] softkey.

You are prompted to specify the name of the terminal that you want to add.

A new softkey, [Cancel], is displayed. If you do not wish to proceed, use [Cancel] to quit the operation.

2 Enter name of one of the terminals that can be configured with a Multiple Administration Program. Press <Return>.

You are prompted to provide a suffix for the new terminal name. All terminals configured with the Multiple Administration Terminal program begin with “UAT”.

3 Enter the suffix for the new terminal name (you do not have to enter “UAT”).

The terminal name is added to the top of the screen where the configured terminals are listed.

4 Press [Exit] to return to the “Others” submenu of the main TOOLS menu.

5 Reboot the system for the changes to take effect.

Procedure 15-2xxx
Deleting an MAT

1 Press the [Delete MAT] softkey.

You are prompted to specify the name of the terminal that you want to delete.

A new softkey, [Cancel], is displayed. If you do not wish to proceed, use [Cancel] to quit the operation.

2 Enter name of one of the terminals that is currently configured with a Multiple Administration Program. Press <Return>.

The terminal name is removed from the top of the screen and moved to the list of terminals that can be configured with the Multiple Administration Program. The name is changed from UATxxx to CONxxx.

3 Press [Exit] to return to the “Others” submenu of the main TOOLS menu.

4 Reboot the system for the changes to take effect.

DMS-100 Family

DMS VoiceMail

System Administration Tools

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