

297-7001-301

DMS-100

DMS VoiceMail

Customer Administration Guide

SPM 02 Standard 02.02 March 1994



DMS-100

DMS VoiceMail

Customer Administration Guide

Publication number: 297-7001-301
Product release: SPM 02
Document release: Standard 02.02
Date: March 1994

© 1994 Northern Telecom
All rights reserved.

Printed in the United States of America.

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

DMS, DMS SuperNode, MAP, Meridian, Meridian Mail, SL-100, and NT are trademarks of Northern Telecom. SkyPager is a trademark of SkyTel. Touch Tone is a trademark of Bell Canada.

Publication history

March 1994

Standard 02.02 is the first standard release of the SPM 02 version of this document. SPM 02 is the second software release for DMS VoiceMail.

February 1993

Standard 01.03 is the first standard release of the SPM 01 version of this document. SPM 01 is the first software release for DMS VoiceMail.

Contents

About this document xi

- When to use this document xi
- How DMS VoiceMail documentation is organized xi
 - References in this document xii
- What precautionary messages mean xii
- Typographic conventions xiii
- References xiv

Understanding DMS VoiceMail administration 1-1

- DMS VoiceMail overview 1-1
- How typical messaging systems are deployed 1-1
- DMS VoiceMail deployment 1-3
- System capacity 1-4
- System response time 1-5
- Administration of DMS VoiceMail 1-5
- Customer administration 1-6
- Voice messaging interfaces 1-6
 - VMUIF 1-7
 - MMUI 1-10
- Contents of this guide 1-10
- Organization of chapters 1-11
- An overview of administration 1-12
 - At the DMS VoiceMail administration terminal 1-12
 - At the telephone 1-13
- Administration overview 1-15
- Customer Administration screens: menus and screens 1-17
 - Softkeys 1-18
 - Keypad functions 1-19
 - The Help key 1-19
 - Multi-page screens 1-20
 - Selecting a numbered item in a menu 1-20
 - Entering information in a screen 1-21
 - Selecting an entire line 1-24
 - Error messages 1-24
- Nightly DR audits 1-24
- System and user data storage 1-25

Setting up customer groups **2-1**

- Basic setup procedures 2-2
- Setting up the Outcalling feature 2-5
- Setting up optional features 2-5
 - Voice Menus 2-5
 - Voice Form Applications 2-5
 - AMIS Networking 2-5

Administrator logon **3-1**

- The Logon/Status screen 3-2
- T1 Status 3-3
 - T1 link status 3-3
 - T1 channel status 3-7
- System Status 3-9
- DSP Port Status 3-10
- Silencing Alarms 3-11
- Logging on 3-11
- Logging on at a Multiple Administration Terminal (MAT) 3-14
- Adding customer groups 3-17
- Finding a customer group 3-20
- Modifying a customer group 3-24
- Deleting customer groups 3-25
- The Customer Administration Menu 3-25
- Resetting the system time 3-27
- Using a remote terminal 3-28
- On-line Help 3-29

Making recordings **4-1**

- The call answering greeting and personal verifications 4-1
 - The call answering greeting 4-1
 - The personal verification 4-2
- Broadcast Messages 4-4
- Guidelines for making voice recordings 4-5
- Voice Prompt maintenance 4-6
 - Updating announcements, voice menu and thru-dialer prompts 4-7
- Making recordings using the [Voice] softkey 4-8
 - Playing a recording 4-10
 - Recording a new message 4-10
 - Deleting a recording 4-10

User Administration **5-1**

- Categories of users 5-1
- The User Administration screens 5-2
 - Multiple administration terminals 5-2
- Planning how to add new users to the system 5-3
 - Distributing users over volumes 5-3
 - Adding large numbers of users 5-4
- The User Administration Menu 5-5
- Adding local voice users 5-7
 - User passwords 5-7
 - The Add Local Voice User screen 5-7

Creating a personal class of service	5-18
Creating a remote notification schedule	5-18
Adding directory entry users	5-22
Recording personal verifications using the [Voice] softkey	5-26
Finding users	5-27
Using wildcard characters	5-27
Finding local voice users	5-28
Finding directory entry users	5-35
Viewing and modifying local voice users	5-39
Viewing and modifying directory entry users	5-45
Deleting users	5-48
Deleting local voice users	5-48
Deleting directory entry users	5-50
Distribution Lists	5-52
Creating a distribution list	5-53
Finding a distribution list	5-55
Modifying a distribution list	5-58
Deleting a distribution list	5-59

General Administration **6-1**

The General Administration Menu	6-1
General Options	6-2
The General Options screen	6-2
Changing the customer administrator password	6-6

Voice Administration **7-1**

The Voice Administration menu	7-2
Voice Messaging Options	7-4
Address expansion	7-4
The Voice Messaging Options screen	7-6
Voice Security Options	7-22
The Voice Security Options screen	7-22
Types of services	7-26
Voice messaging services	7-26
Voice services	7-27
Voice forms	7-28
AMIS networking	7-29
The voice services administration menu	7-29
Finding a subset of VSDNs or services	7-31
The Voice Services-DN Table	7-35
Adding DN information	7-38
Viewing and modifying DN information	7-45
Deleting DN information	7-46
The Voice Services Profile	7-48

System Error and Event Reports **8-1**

Overview	8-1
Viewing SEER reports	8-5

Operational Measurements	9-1
Introduction	9-1
OM user usage reports	9-1
Using OM as a Billing Tool	9-1
The Operational Measurements menu	9-2
Operational Measurement Options	9-3
User Usage Reports	9-4
Viewing user usage reports	9-7
<hr/>	
AMIS Networking	10-1
Overview	10-1
Configuring the AMIS service	10-2
Identify the AMIS compose prefix	10-2
Identify the system access number (local number)	10-2
Make sure incoming and outgoing messages are enabled	10-2
Identify the number of messages to transmit per session	10-3
Define the AMIS access DN in the VSDN table	10-3
The Network Administration Menu	10-3
Modifying AMIS Networking Information	10-5
<hr/>	
Class of Service Administration	11-1
Overview	11-1
COS types	11-2
The system COS	11-2
The personal COS	11-2
Administrator responsibility	11-3
Finding a class of service	11-3
Viewing a class of service definition	11-7
<hr/>	
List of terms	B-1
<hr/>	
List of figures	
Figure 1-1	Typical end office deployment 1-2
Figure 1-2	Typical centralized deployment 1-2
Figure 1-3	SPM deployment 1-3
Figure 1-4	SPM hardware configuration 1-4
Figure 1-5	Administration overview 1-15
Figure 1-6	Customer Administration menu hierarchy 1-16
Figure 1-7	General screen layout 1-18
Figure 1-8	Numeric keypad function keys 1-19
Figure 1-9	DMS VoiceMail Help example 1-20
Figure 1-10	Selecting a numbered item in a menu 1-21
Figure 1-11	Entering information in a screen 1-22
Figure 3-1	The DMS VoiceMail Logon/Status screen 3-2
Figure 3-2	The T1 Status softkeys 3-3
Figure 3-3	The T1 Link Status screen 3-4
Figure 3-4	The T1 Channel Status screen 3-7
Figure 3-5	System Status screen 3-9
Figure 3-6	The DSP Port Status screen 3-10
Figure 3-7	The Silence Alarm softkeys screen 3-11
Figure 3-8	The Customer Administration screen 3-12

Figure 3-9	The Customer Administration screen 3-15
Figure 3-10	The Customer Administration Menu at a multiple administration terminal (MAT) 3-16
Figure 3-11	The Add Customer screen 3-18
Figure 3-12	The Find Customer screen 3-21
Figure 3-13	The List of Customers screen (Brief) 3-22
Figure 3-14	The List of Customers screen (Attribute) 3-23
Figure 3-15	The List of Customers screen (COS) 3-23
Figure 3-16	The Customer Administration Menu 3-26
Figure 3-17	A typical remote administration configuration 3-28
Figure 4-1	Recording softkeys 4-9
Figure 5-1	The User Administration menu 5-6
Figure 5-2	The Add Local Voice User screen (basic fields) 5-9
Figure 5-3	Add Local Voice User (Outcalling Fields) 5-20
Figure 5-4	Add Directory Entry User screen 5-23
Figure 5-5	Personal Verification recording softkeys 5-26
Figure 5-6	The Find Local Voice Users screen 5-29
Figure 5-7	The List of Local Voice Users screen (General) 5-32
Figure 5-8	The List of Local Voice Users screen (MWI) 5-33
Figure 5-9	Print Users output 5-34
Figure 5-10	The Find Directory Entry Users screen 5-35
Figure 5-11	The List of Directory Entry Users screen 5-37
Figure 5-12	Print directory entry users output 5-38
Figure 5-13	The View/Modify Local Voice User screen 5-40
Figure 5-14	View/Modify Directory Entry User screen 5-46
Figure 5-15	The Delete Local Voice User screen 5-49
Figure 5-16	The list of directory entry users 5-50
Figure 5-17	The Delete Directory Entry User screen 5-51
Figure 5-18	The Add Distribution List screen 5-53
Figure 5-19	The Find Distribution Lists screen 5-55
Figure 5-20	The List of Distribution Lists screen 5-56
Figure 5-21	The View/Modify Distribution Lists screen 5-58
Figure 5-22	The Delete Distribution List screen 5-59
Figure 6-1	The General Administration menu 6-1
Figure 6-2	The General Options screen 6-3
Figure 7-1	The Voice Administration Menu 7-3
Figure 7-2	The Voice Messaging Options screen for single language systems (MMUI interface) 7-7
Figure 7-3	The Voice Messaging Options screen for multilingual systems (MMUI interface) 7-8
Figure 7-4	The Voice Messaging Options screen for single language systems (VMUIF interface) 7-15
Figure 7-5	The Voice Messaging Options screen for multilingual systems (VMUIF interface) 7-16
Figure 7-6	Voice Security Options screen 7-23
Figure 7-7	The Voice Services Administration menu 7-30
Figure 7-8	The Find Subset of VSDNs/Services screen 7-33
Figure 7-9	The Voice Services-DN Table 7-36
Figure 7-10	The Add DN Information screen 7-38
Figure 7-11	Additional service fields in the Add DN Information screen 7-39
Figure 7-12	The View/Modify DN Information screen 7-45

Figure 7-13	The Delete DN Information screen	7-46
Figure 7-14	Voice Services Profile screen	7-48
Figure 7-15	Initial no response in a voice menu	7-50
Figure 7-16	Delayed response in a voice menu	7-51
Figure 8-1	The System Event and Error Reports screen	8-3
Figure 8-2	The Report screen	8-5
Figure 9-1	The Operational Measurements menu	9-2
Figure 9-2	The Operational Measurement Options screen	9-3
Figure 9-3	The User Usage Reports screen	9-5
Figure 9-4	The Voice Messaging User Usage report	9-7
Figure 10-1	The Network Administration menu	10-4
Figure 10-2	The View/Modify AMIS Networking Information screen	10-5
Figure 11-1	The Find Class of Service screen	11-4
Figure 11-2	The List of Classes of Service screen	11-6
Figure 11-3	The View Class of Service screen (MMUI)	11-8
Figure 11-4	The View Class of Service screen (Change Defaults for VMUIF)	11-10

List of procedures

Procedure 1-1	Changing the contents of a free-form data field	1-23
Procedure 1-2	Changing the contents of a selectable field	1-23
Procedure 2-1	Configuring customer groups	2-2
Procedure 2-2	Configuring the AMIS Networking service	2-6
Procedure 3-1	Viewing the T1 link status	3-6
Procedure 3-2	Viewing the T1 channel status	3-8
Procedure 3-3	Viewing the system status	3-9
Procedure 3-4	Viewing the DSP Port Status screen	3-10
Procedure 3-5	Logging on with the customer administrator password	3-12
Procedure 3-6	Logging on to a Multi-Admin Terminal	3-14
Procedure 3-7	Accessing the Add Customer screen	3-17
Procedure 3-8	Adding a customer group	3-19
Procedure 3-9	Listing customer groups	3-22
Procedure 3-10	Printing a list of customer groups	3-24
Procedure 3-11	Deleting a customer group	3-25
Procedure 3-12	Using the Customer Administration Menu	3-26
Procedure 3-13	Resetting the system time	3-27
Procedure 3-14	Enabling/disabling remote access	3-29
Procedure 4-1	Recording greetings and verifications from a phone	4-3
Procedure 4-2	Sending broadcast messages	4-4
Procedure 4-3	Updating voice menu prompts	4-7
Procedure 4-4	Updating announcements and thru-dialer greetings	4-8
Procedure 4-5	Using the recording softkeys	4-9
Procedure 4-6	Playing a voice recording	4-10
Procedure 4-7	Recording a voice recording	4-10
Procedure 4-8	Deleting a voice recording	4-10
Procedure 5-1	Using the User Administration menu	5-6
Procedure 5-2	Accessing the Add Local Voice User screen	5-8
Procedure 5-3	Adding a Local Voice User	5-16
Procedure 5-4	Changing the user's password	5-18
Procedure 5-5	Creating a personal class of service	5-18
Procedure 5-6	Creating a remote notification schedule	5-19

Procedure 5-7	Accessing the Add Directory Entry User screen	5-22
Procedure 5-8	Adding a Directory Entry User	5-25
Procedure 5-9	Recording, playing, and deleting personal verifications for existing users	5-26
Procedure 5-10	Accessing the Find Local Voice Users screen	5-28
Procedure 5-11	Viewing a list of local voice users	5-31
Procedure 5-12	Printing a list of local voice users	5-34
Procedure 5-13	Accessing the Find Directory Entry Users screen	5-35
Procedure 5-14	Viewing a list of directory entry users	5-36
Procedure 5-15	Printing a list of directory entry users	5-37
Procedure 5-16	Viewing/modifying parameters for local voice users	5-43
Procedure 5-17	Viewing/Modifying parameters for directory entry users	5-47
Procedure 5-18	Deleting a local voice user	5-48
Procedure 5-19	Deleting directory entry users	5-50
Procedure 5-20	Accessing the Add Distribution List screen	5-53
Procedure 5-21	Creating a distribution list	5-54
Procedure 5-22	Find a distribution list or a subset of distribution lists	5-55
Procedure 5-23	Modifying a Distribution List	5-58
Procedure 5-24	Deleting a distribution list	5-60
Procedure 6-1	Using the General Administration menu	6-2
Procedure 6-2	Modifying General Option	6-6
Procedure 6-3	Changing the customer password	6-7
Procedure 7-1	Selecting items from the Voice Administration Menu	7-3
Procedure 7-2	Modifying Voice Messaging Parameters	7-22
Procedure 7-3	Setting Voice Security Parameters	7-26
Procedure 7-4	Finding or printing a subset of VSDNs or services	7-34
Procedure 7-5	Adding, Modifying And Deleting Voice Service DNSs	7-37
Procedure 7-6	Adding DN Information	7-44
Procedure 7-7	Modifying DN Information	7-46
Procedure 7-8	Deleting DN Information	7-47
Procedure 7-9	Setting Voice Service Parameters	7-54
Procedure 8-1	Viewing and printing SEERs	8-6
Procedure 9-1	Using the Operational Measurements menu	9-2
Procedure 9-2	Viewing User Usage Reports	9-6
Procedure 10-1	Using the Network Administration menu	10-4
Procedure 10-2	Configuring AMIS networking information	10-6
Procedure 11-1	Printing a list of existing COSs	11-4
Procedure 11-2	Listing COSs	11-5
Procedure 11-3	Viewing a class of service definition	11-7

List of tables

Table 1-1	DMS VoiceMail system capacities	1-4
-----------	---------------------------------	-----

About this document

This document details the administration procedures to be performed by the DMS VoiceMail customer administrator. It is intended to be used in conjunction with the *System Administration Guide* (NTP 297-7001-300).

The customer administrator may be the same person as the system administrator, or may have been delegated the responsibility of provisioning and maintaining one or more customer groups. The system administrator is responsible for configuring system-wide parameters that affect all customer groups. The customer administrator is responsible for provisioning specific customer groups and customizing the configuration to suit each customer's needs. Customer administration involves procedures such as adding users, creating voice menus and voice forms for customers, and adding VSDNs for services.

When to use this document

This document is written for DMS-100 Family offices with a Service Peripheral Module running software load SPM 02. More than one version of this document may exist. To determine whether you have the latest version of this document, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

How DMS VoiceMail documentation is organized

This document is part of DMS VoiceMail documentation that supports the Northern Telecom line of DMS VoiceMail products. DMS VoiceMail documentation is a subset of the DMS-100 Family library.

The DMS-100 Family library is structured in numbered layers, and each layer is associated with an NT product. To understand DMS VoiceMail products, you need documents from the following layers:

- DMS-100 Family basic documents in the 297-1001 layer
- DMS VoiceMail documents in the 297-7001 layer

DMS VoiceMail documents and other documents that contain related information are listed in "Finding DMS VoiceMail information" in the *DMS VoiceMail Product Guide*. (297-7001-010)

References in this document

The following documents are referred to in this document.


Number	Title
297-7001-100	<i>DMS VoiceMail Planning and Engineering Guide</i>
297-7001-300	<i>DMS VoiceMail System Administration Guide</i>
297-7001-305	<i>DMS VoiceMail System Administration Tools</i>
297-7001-310	<i>DMS VoiceMail Translation Procedures</i>
297-7001-501	<i>DMS VoiceMail Routine Maintenance Procedures</i>
297-7001-503	<i>DMS VoiceMail Trouble-locating and Alarm-clearing Procedures</i>
297-7001-510	<i>DMS VoiceMail Maintenance Messages (SEER) manual</i>
297-7001-306	<i>Voice Forms Application Guide</i> (if Voice Forms are installed)
297-7001-307	<i>Voice Menus Application Guide</i> (if Voice Menus are installed)
297-7001-308	<i>Outcalling Application Guide</i>

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.

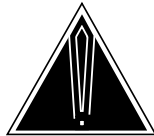
Message	Significance
DANGER	Possibility of personal injury
WARNING	Possibility of equipment damage
CAUTION	Possibility of service interruption or degradation

Examples of the precautionary messages follow.

	<p>DANGER Risk of electrocution</p> <p>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.</p>
---	---

**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** - Where you are required to input specific text, the characters are presented in bold instead of using angle brackets.
Examples: **servord**, **custpwd** (not <s><e><r><v><o><r><d>)
- **Fields in administration 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 *Announcement ID* 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 manual, where reference is made to another part of the manual, 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 “Deleting voice menus” later in this chapter.
See “Time-of-Day Controls” in the “Voice Administration” chapter.
- References to other NTPs or documents are in italics.
Example: See the *Translations Guide* (NTP 297-7001-310) for details.

Understanding DMS VoiceMail administration

This chapter includes a description of the capabilities and operation of DMS VoiceMail, and the relationship of DMS VoiceMail to the public switching telephone network.

For more information about SPM hardware and software requirements, see the *DMS VoiceMail Product Guide* (NTP 297-7001-010).

DMS VoiceMail overview

DMS VoiceMail is a voice processing system designed to provide call answering and voice messaging services for the central office (CO) environment. A DMS VoiceMail system uses a Service Peripheral Module (SPM) and voice processing software, and is administered from either a local or remote terminal.

In the CO environment, DMS VoiceMail supports the DMS-100 switch as well as other central office switches. DMS VoiceMail provides a variety of voice mail services which are sold to user groups as packages. A package can include some or all of the available services.

DMS VoiceMail users are assigned a voice mailbox which they have the option of accessing with a private password. Recorded prompts guide users whenever necessary, and also assist callers to leave messages.

Optional feature packages include AMIS Analog Networking, Voice Forms, Voice Menus, and submailboxes.

How typical messaging systems are deployed

Messaging systems can be deployed as either a small adjunct processor located with individual end offices, or as a larger centralized messaging system that supports a number of end offices. In either case, the voice path is usually over dedicated T1 trunks and the signaling path is typically over dedicated simplified message desk interface (SMDI) links.

Figure 1-1 illustrates a typical end office deployment strategy.

Figure 1-1xxx
Typical end office deployment

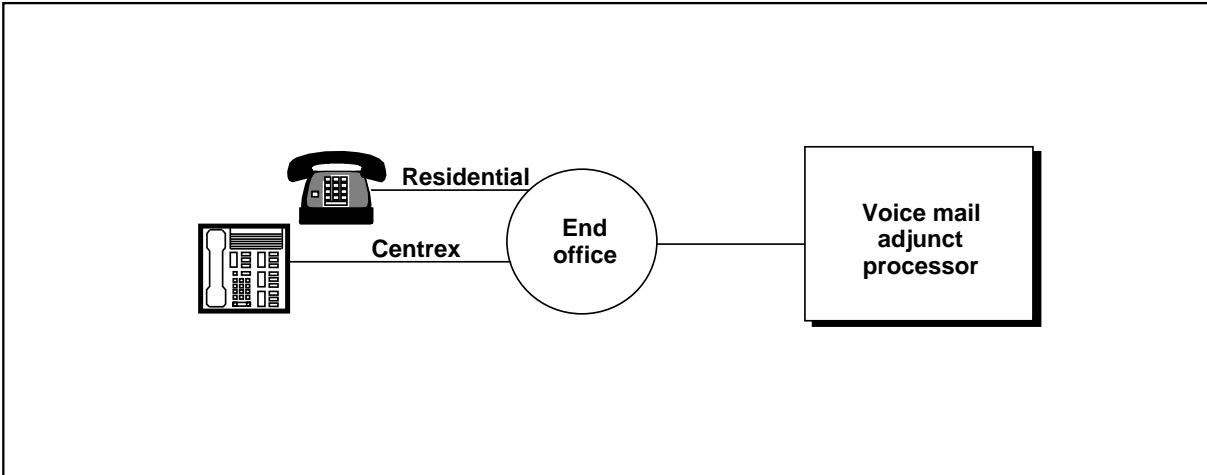
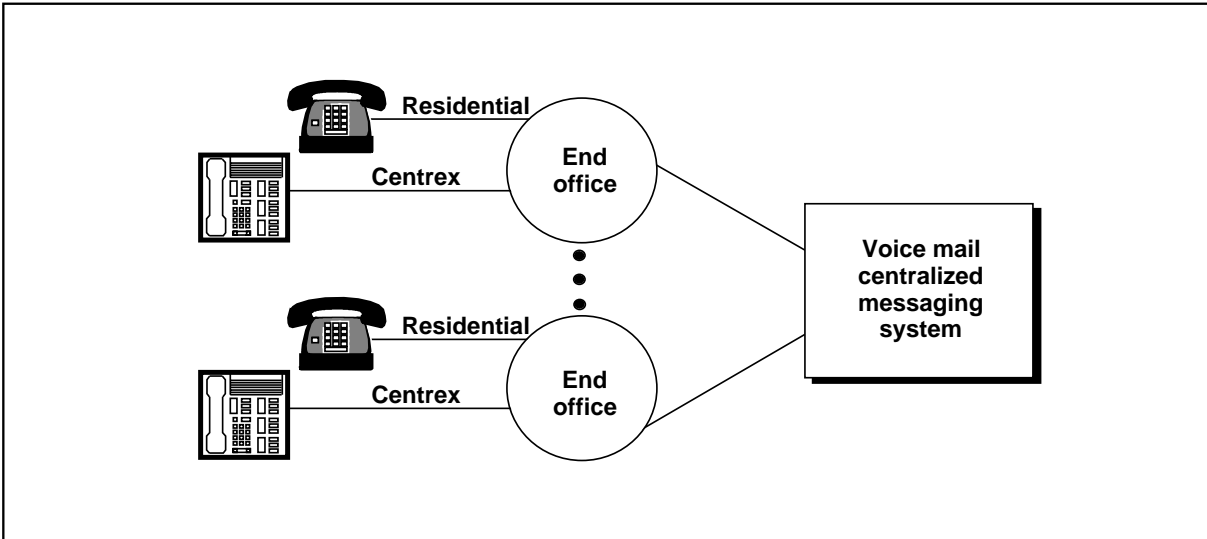


Figure 1-2 illustrates a typical centralized deployment strategy.

Figure 1-2xxx
Typical centralized deployment



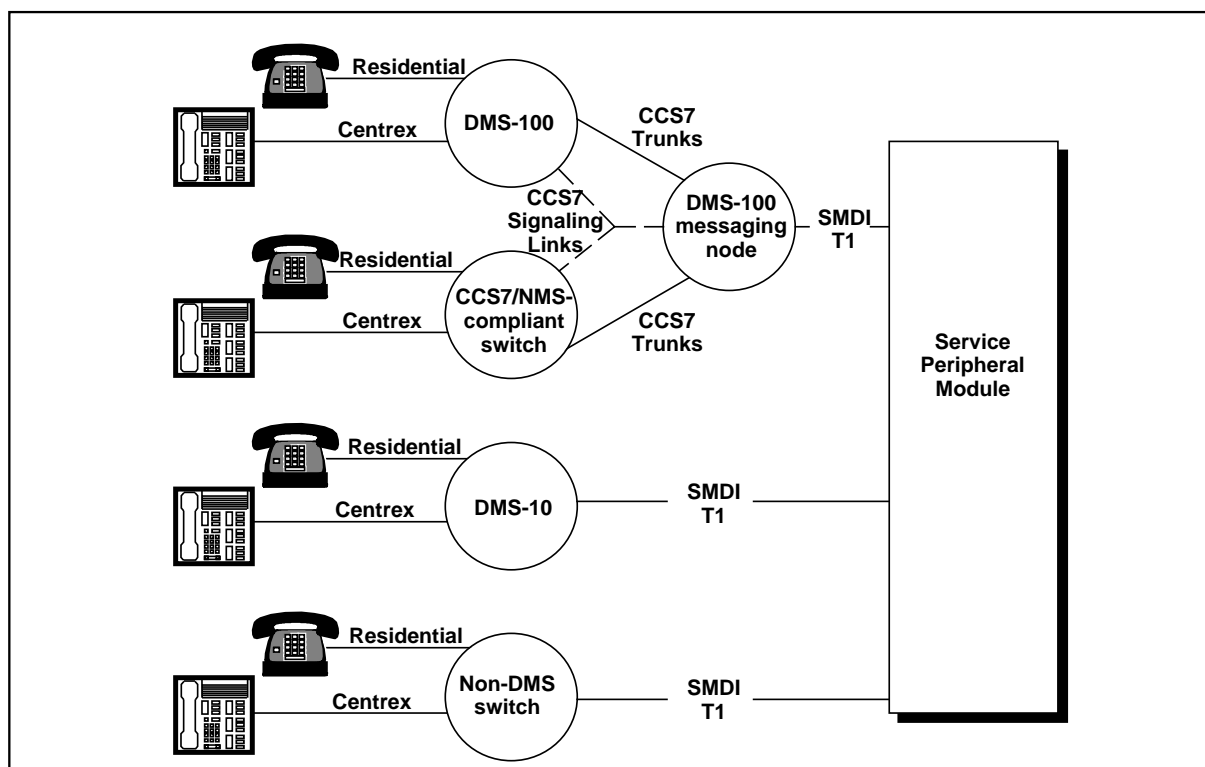
DMS VoiceMail deployment

Deploying an SPM is a solution for messaging systems serving less than 40,000 users. DMS VoiceMail provides a voice messaging system that consists of one SPM and voice processing software, administered from a local or remote terminal.

The SPM is a voice processing server developed for DMS-100 Family and other types of central office switches. The SPM contains up to 192 voice channels for the operating company to provide voice mail service to users.

Figure 1-3 illustrates a typical network configuration using an SPM.

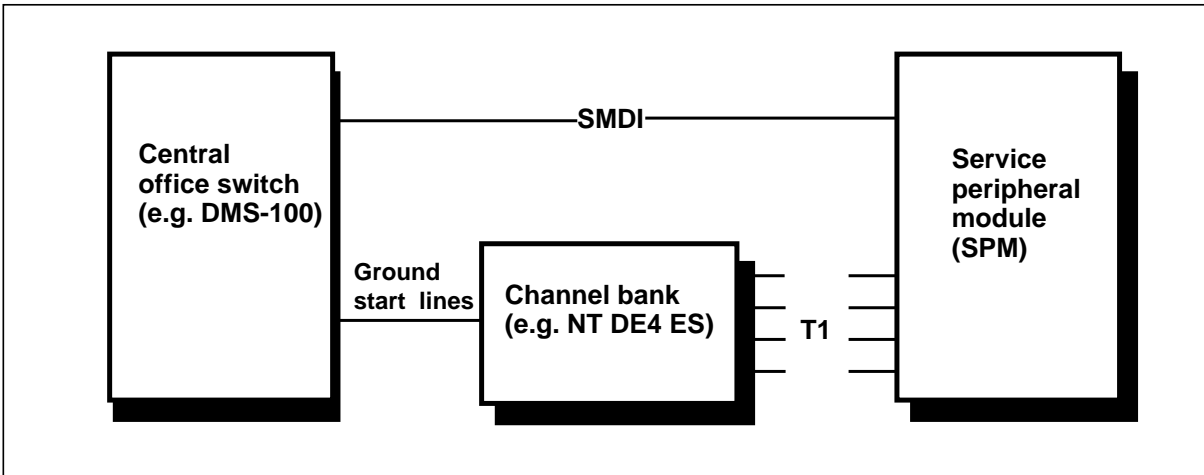
Figure 1-3xxx
SPM deployment



Note: Network Message Service (NMS) is an optional network interface for DMS VoiceMail. NMS uses common channel signaling 7 (CCS7) to offer message service to an entire city, or LATA, from a centralized DMS-100 messaging node in the network.

Figure 1-4 illustrates how the SPM is provisioned with the DMS-100 Family, or alternate, central office switch.

Figure 1-4xxx
SPM hardware configuration



System capacity

The number of mailboxes on a DMS VoiceMail system is calculated by the total available hours of storage, divided by the average time taken by each user's messages and greetings. The average per mailbox time depends on the mailbox size limits and message deletion policy, both of which are set by the service provider.

The SPM is provisioned by selecting appropriate numbers of voice ports and hours of storage. The amount of memory is fixed and is sufficient to run all the supported applications and utilities under full load even in the presence of single point failures. Capacity will be limited more by the number of ports than by limitations of the SPM.

Table 1-1 shows the maximum capacities.

Table 1-1xxx
DMS VoiceMail system capacities

Item	System maximum
Voice messaging channels	192
Voice storage hours	1,200
Storage hours for voice menus, voice form definitions, and personal verifications	100
Customer groups per system	2,000

Item	System maximum
Registered mailboxes per system	40,000
Messages per mailbox	999
Minutes per mailbox	360
Voice service DNs	4,000
Voice menus	4,000
Classes of service	127
Distribution lists per organization	No Limit
Entries per organization distribution list	120
Distribution lists per mailbox	9
Entries per mailbox list	99
Administrative positions	4
Maintenance console	1
Maintenance printer	1
SMDI links	16
Languages	3

System response time

Under normal conditions, for most voice messaging functions, response time should be under one second 95% of the time, and over four seconds no more than one per 10,000 instances.

Administration of DMS VoiceMail

The administration and maintenance interface for the Service Peripheral Module can be monitored by the service provider either locally or remotely. Local versus remote administration is a toggle.

Up to four administrative positions can operate simultaneously from locally or remotely attached terminals: one main administration terminal and up to three multiple administration terminals (MATs) which can be used to perform a subset of administrative tasks (namely user administration, voice services administration and class of service administration in read-only mode).

Note: In the previous release of DMS VoiceMail, MATs were referred to as UATs (user administration terminals) because they only provided access to user administration.

System events are recorded in a log file and reports are printed on a locally attached printer.

The system can be administered remotely through modem access. However, the system cannot be administered both locally and remotely at the same time. In other words, local versus remote administration is a toggle.

Customer administration

Your DMS VoiceMail system is partitioned into customer groups. Apart from installing certain features on your system, additional steps may be required in order to make them available to the subscribers in your customer groups.

If any of the following features are installed on your system, they must be enabled in at least some of the system classes of service that have been defined by the system administrator. At least one class of service with the feature enabled must then be assigned to the customer groups that require the feature. Only those subscribers who are assigned to these classes of service will have access to the feature.

- dual language prompting (MMUI customer groups only)
- delivery to non-users
- remote notification
- AMIS networking

If any of the following features are installed on your system, you must enable them in the General Options screen at the customer administration level for each customer group that requires the feature:

- voice menus (includes voice menus, announcements, thru-dialers and time-of-day controllers)
- voice forms

Any parameters that you configure in the customer administration screens (such as the broadcast mailbox number) affect only the current customer group. Certain parameters (such as defining restriction and permission dialing codes and defining the SEER printer port name) are configured at the system administration level and affect all customer groups. (System administration is described in the *System Administration Guide* (NTP 297-7001-300)).

Voice messaging interfaces

The DMS VoiceMail interfaces allow users to interact with the DMS VoiceMail system to perform the various activities associated with sending and receiving messages and logging into the mailbox.

DMS VoiceMail supports two interfaces:

- Voice Messaging User Interface Forum (VMUIF)
- Meridian Mail User Interface (MMUI), a proprietary voice messaging interface

When a customer group is added to the system, it is defined as either VMUIF or MMUI. Both interfaces cannot be supported by a single customer group.

Whereas the MMUI interface is a command-drive user interface, the VMUIF interface provides a more user-friendly menu-driven user interface.

The following features are common to MMUI and VMUIF:

- handling of forwarded calls
- personalized greetings
- MWI support
- remote notification (the capability for users to change their own remote notification schedules from the telset is only available in the MMUI interface)
- password-protected mailboxes

Passwords are required for MMUI subscribers but optional for VMUIF subscribers. (In fact, the default password for VMUIF subscribers is nil). However, a VMUIF subscriber requires a password in order to log in to his or her mailbox from a phone other than the “home phone”.

- mailbox summaries and message playback
- message reply, reply all and forward
- personal distribution lists
- message compose and send
- AMIS open networking
- class of service
- 18-digit mailbox

VMUIF

VMUIF is an interface for users with dual tone multi-frequency (DTMF) telephone sets. The VMUIF interface is primarily intended for service bureaus and telcos in order to rent voice mailboxes to residential consumers and small business customers.

Users enter a password to log in to a mailbox. While in their mailbox, they can play, delete and skip voice messages. Users can request context-sensitive help at any time. Compose capability is disabled by default for users belonging to VMUIF customer groups. However, it can be enabled to allow users to:

- compose and send messages to other users;
- reply to the sender of a message or reply to all recipients (and the sender) of the message;
- forward a message;
- immediately call back the sender of a message (call sender);
- create personal distribution lists.

The following features are specific to the VMUIF interface:

- call answer only mailbox (compose and send turned off)
- send only mailbox (call answering turned off)
- rotary set interface (message retrieval with no DTMF input required)
- greeting change service (greeting change without DTMF input required)
- introductory tutorial (special greeting on first access)
- volume control (DTMF control of volume and setting default volume)
- submailboxes (up to 8 telset administratable submailboxes-see next section for more details)
- “save as new” (read messages can be reverted to “unread” or “new” status)
- send on disconnect (implicit send command if user hangs up after composing a message)
- mailbox resources (limiting receipt of messages based on mailbox resources)
- enhanced personal distribution lists (personal distribution lists with DNU and AMIS addresses)
- login greeting (customizable login greeting that plays on each login)
- disable reset (automated, timed reset of lockout due to password violation)
- lockout revert (if locked out from the mailbox, a revert DN is possible)

Submailboxes

A mailbox can be partitioned into a main mailbox, plus up to 8 submailboxes. This feature is primarily intended for residential subscribers or environments such as university dormitories where a number of people share a room or a residence. Submailboxes allow each resident to have his or her own mailbox and a personal password to ensure privacy.

When a caller reaches a submailbox, a menu of users is played. For example, a call might hear *“To leave a message for William, press 1 or stay on the line. To leave a message for Paul, press 2. To leave a message for Joan, press 3. To leave a message for Jack, press 4.”* If the caller does not press a key (e.g., the caller is using a rotary phone), and the user stays on the line, he or she can leave a message which will be deposited in the main mailbox. The main mailbox owner can then redirect the message to the appropriate submailbox.

The main mailbox and all associated submailboxes have the same mailbox number but distinguishing passwords. As a result, there is no auto login feature because the password is required to determine the correct mailbox. All passwords must begin with the submailbox number. The password for the main mailbox must begin with “1”. Subsequent submailboxes are numbered beginning with “2” through “9”. When the main mailbox owner initially creates the submailboxes, he or she must define a password and must record a personal verification for each submailbox. Otherwise, the submailbox is not created. Afterwards, each submailbox owner can change their password and personal verification if desired.

A message waiting summary is played after a mailbox owner dials the DMS VoiceMail access number if:

- submailboxes have been created by the main mailbox owner
- the user is calling from the home phone (if the user is calling from a phone other than the home phone, he or she will have to log in, i.e., enter their password, to find out if they have any messages)
- there is at least one new message

This summary is in the form *“Messages are waiting for Joan, Jack.”*

Submailbox capability is enabled in the DMS VoiceMail class of service (COS) assigned to the user. Therefore, if a subscriber asks for submailboxes, you will have to assign him or her to the appropriate class of service. The maximum number of submailboxes allowed is determined by the value entered in the *Maximum Number of Submailboxes* field in the class of service. This value can be between 1 and 8. (A value of “0” in this field indicates that submailbox capability is disabled.) For more information about creating classes of service, refer to the “Class of service administration” chapter. For information about assigning users to classes of service, see the “User administration” chapter.

Although a main mailbox can be divided up into a number of submailboxes, this is done by the owner of the main mailbox only. For example, if a residential subscriber belongs to a class of service in which submailboxes are enabled, they will not automatically be available. It is up to the owner of the main mailbox, not the administrator, to create and administer the

submailboxes. All the administrator does is enable submailboxes and specify the maximum number of submailboxes that can be created in the class of service. The rest is up to the owner of the main mailbox. (You cannot determine how many submailboxes a main mailbox owner has activated.)

Submailboxes can receive call answering and redirected messages only. Submailboxes can redirect any message to the main mailbox or another submailbox.

MMUI

MMUI is the full-featured Northern Telecom proprietary voice mail interface and is primarily intended for business users. The following features are specific to the MMUI interface:

- mailbox thru-dial (user can press “0” + number to call a number while logged into the mailbox)
- name addressing (users can dial other users by name instead of by extension)
- message tagging options (during message composition, users can tag messages as urgent, or for timed delivery)
- retention of unsent/sent messages
- internal and external greeting
- user-changeable personal verification
- customizable customer greeting and customer attendant
- custom operator revert
- user-changeable remote notification schedules through the telset
- express messaging
- bilingual prompting (if more than one language is installed)
- record, playback, message tagging during call answering

The following capabilities are offered with MMUI compose and send:

- message tagging (urgent, private)
- timed delivery
- adding to recorded message
- save a copy of the message

Contents of this guide

This manual describes the basic administration tasks that you will carry out on your DMS VoiceMail system. It assumes that all the hardware, including the administrator’s terminal and optional printer, is in place. DMS VoiceMail administration facilities are used in the initial setup of your system as well as for routine maintenance.

Additional administrative tools and utilities are available. These are described in the *System Administration and Maintenance Tools Guide* (NTP 297-7001-305).

This guide covers the following topics:

- ***Administrative role and responsibilities*** - Your role and responsibilities as administrator are covered in this chapter and in the chapter “Setting up the system”.
- ***Procedures for setting up and administering the system*** - If you are setting up DMS VoiceMail, read the chapter “Setting up the system” before commencing with any of the procedures described in this guide. When setting up for the first time, certain procedures need to be performed before others. This chapter explains this order and points out those parameters that *must* be configured. Procedures required to set up and maintain the DMS VoiceMail system are described throughout this guide. This includes basic setup procedures, some maintenance procedures, voice services, procedures carried out using the telephone (recording personal verification greetings, announcements and a custom call answering greeting) and procedures for administering optional features such as AMIS Networking.

Note: Your system may not include all of the features described in this guide. To obtain features that you do not have, contact your sales representative.

Organization of chapters

The division of this manual reflects the hierarchical set of procedures accessible from the Main Menu. Each item that appears in the Main Menu has a corresponding chapter describing the administrative tasks, and the screens and fields one interacts with to complete the tasks. Each screen and sub-screen in the DMS VoiceMail administrative facility is described using the following structure:

- ***Introduction*** - a brief description of the menu, and any concepts or rules necessary to use the menu
- ***Menu*** - an illustration of the menu and its softkeys.
- ***Screens*** - an illustration of the screen and its softkeys.
- ***Field descriptions*** - a description of each field as it appears on the screen, stating requirements your entries must meet and any default information supplied by the system.
- ***Choice of Actions*** - A description of available softkeys and their actions.

- **Task-oriented Procedures** - are step-by-step descriptions of administrative tasks. They are provided when additional steps are required to complete a task (i.e., in addition to filling in the described fields and using the softkeys).
 - **Starting point** - tells you where in the menu hierarchy the procedure begins.
 - **Body of procedure** - is a numbered list of the required steps and any additional information you may require to complete a task.

An overview of administration

As administrator of DMS VoiceMail, your functions include setting up the initial system configuration (normally a once-only operation) and performing some routine procedures needed for effective operation of the system. Before proceeding with the initial setup of your system, review the DMS VoiceMail *Planning and Engineering Guide* (NTP 297-7001-100). This document provides guidelines for planning and preparing information that is required during the initial setup of your system.

If you are working with an engineering organization to set up your system, you may also have to deliver collected data related to the performance and use of the DMS VoiceMail system (Service Peripheral Module). Your role as administrator in supporting engineering is to review and analyze the data to identify early indications of resource shortages. This data is used in office provisioning calculations. In addition, the administrator collects and supplies data to the maintenance organization for detecting equipment faults.

Administrative procedures are performed either through easy-to-follow, menu-driven screens at your administration terminal or through your telephone. You may need to carry out some procedures frequently, perhaps daily, others only occasionally.

At the DMS VoiceMail administration terminal

The setup and operation of your DMS VoiceMail system involves work at the main administration terminal. (You cannot use one of the secondary MATs since they only give you access to a subset of capabilities.)

Through the administration terminal you can access the screens and menus used to define the characteristics and parameters of your system. Each chapter in this manual describes procedures carried out at a particular menu or set of screens.

Customer administration can be broken down into the following categories:

- **User Administration** - involves the maintenance of a current information base of users and customer distribution lists, as well as carrying out other user-related functions such as recording personal verifications for users.

Note: If the Multiple Administration Terminals feature has been configured, user administration can be performed from a MAT.

- **General Administration** - involves configuring General Options (selecting classes of service, enabling features, and configuring an attendant DN for each customer group); and changing the customer administrator password.
- **Voice Administration** - involves the administration of all voice services used by your organization, assigning phone numbers (DNs) to voice services, setting operational parameters and security for voice services and administering voice services (such as voice menus, announcements, thru-dialers, time-of-day controllers and voice forms), and outcalling (Remote Notification and Message Delivery to Non-users).

Note: If the Multiple Administration Terminals feature has been configured, voice services administration can be performed from a MAT.

- **System Event and Error Reports** - display continual information about errors and events occurring in the system. This information is used for troubleshooting purposes.
- **Operational Measurements** - involves collecting statistical data on user usage of the system. This includes local usage and AMIS networking usage.
- **Network Administration** - involves the administration of AMIS Networking (if installed on the system). AMIS Networking allows DMS VoiceMail users to send messages to and receive messages from users of other voice messaging systems subscribing to the AMIS protocol (which may include non-DMS systems).
- **Class of Service Administration** - involves viewing class of service definitions, if necessary, before assigning them to a customer group. Classes of service are created, modified, and deleted by the system administrator only. However, as customer administrator, you may need to check these definitions from time to time.

Note: Classes of service can be viewed (only) from a MAT, if configured.

At the telephone

To create the various voice recordings required for your system, you must use a telephone as well as the administration terminal. The basic procedures for creating voice recordings are described in detail in the chapter “Making recordings”. You may create the following types of voice recordings:

- ***Personal Verification Recordings*** - A recording of a person's name (and extension) may be recorded for each user. When recorded, it is played to callers instead of the user's phone number, making identification easier. Personal verifications can either be recorded by the administrator at the administration terminal, or by users with their telephone sets.
- ***Custom Call Answering Greeting*** - This greeting is played to external callers who reach the call answering service and is simply a recording of the customer's name. It is played before any personal greetings.
Note: This greeting only applies to MMUI customer groups.
- ***VMUIF Introductory Tutorial Greeting*** - This greeting is played to subscribers belonging to VMUIF customer groups the very first time they log on to their mailbox. It describes how to use the voice messaging system and the features that are available.
Note: This greeting does not apply to MMUI customer groups.
- ***Broadcast Messages*** - A broadcast message is deposited in the mailboxes of all DMS VoiceMail users in a customer group.
- ***Voice Prompt Maintenance*** - This is a service that allows you to record and maintain prompts that are used in voice services (voice menus, thru-dial services, and announcements). For voice menus, you can record the menu greeting, the menu choices prompt, the no response prompt or any play prompts that are included in the menu. However, this service cannot be used to record the prompts that are used in voice forms.

Administration overview

For a better picture of what your administrative responsibilities are and how they relate to each other, Figure 1-5 illustrates a conceptual view of administration and Figure 1-6 illustrates the hierarchy of customer administration menus available at the administration terminal.

Figure 1-5xxx
Administration overview

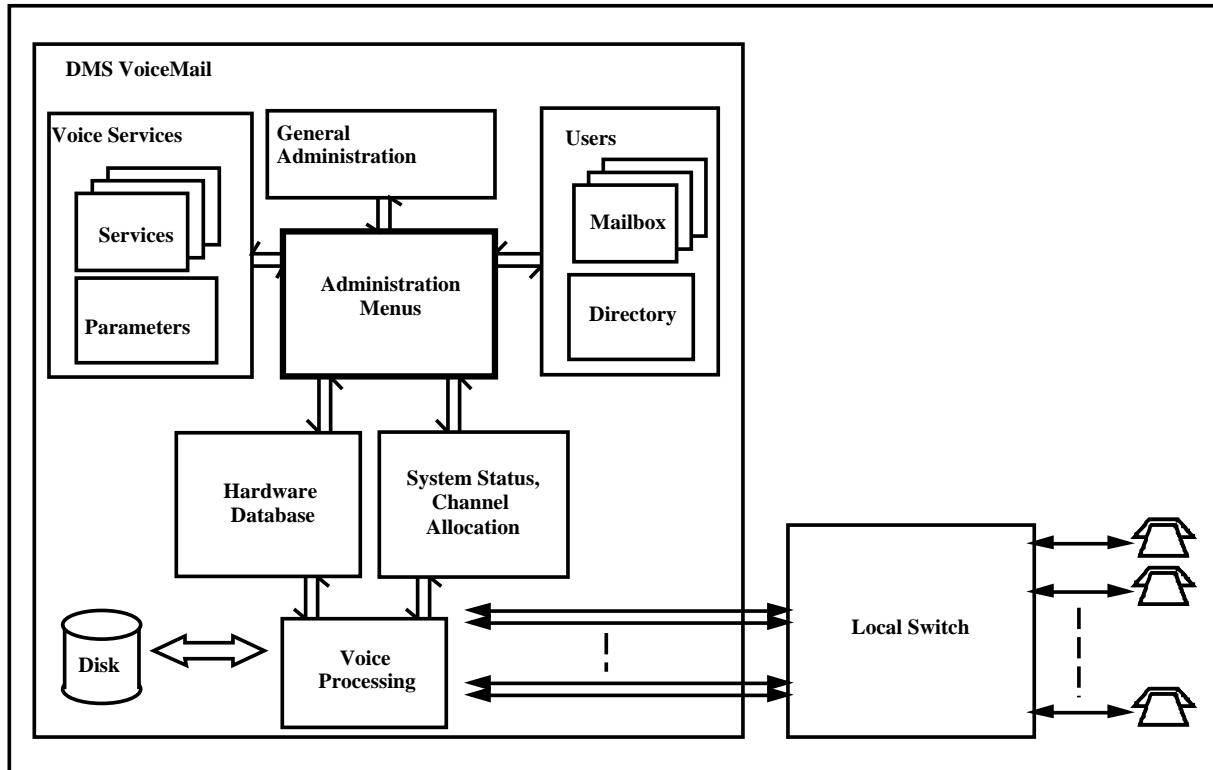
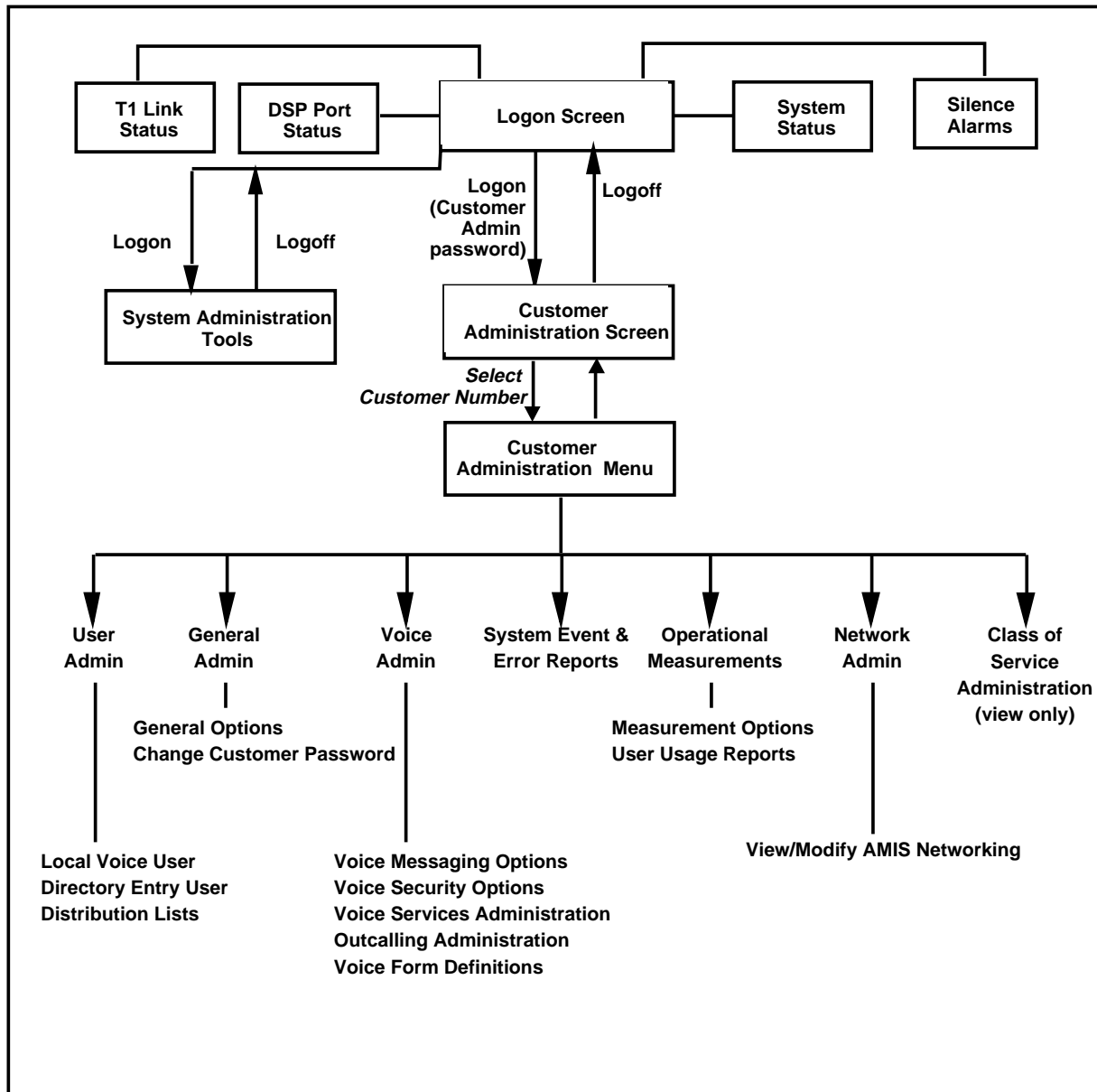


Figure 1-6xxx
Customer Administration menu hierarchy

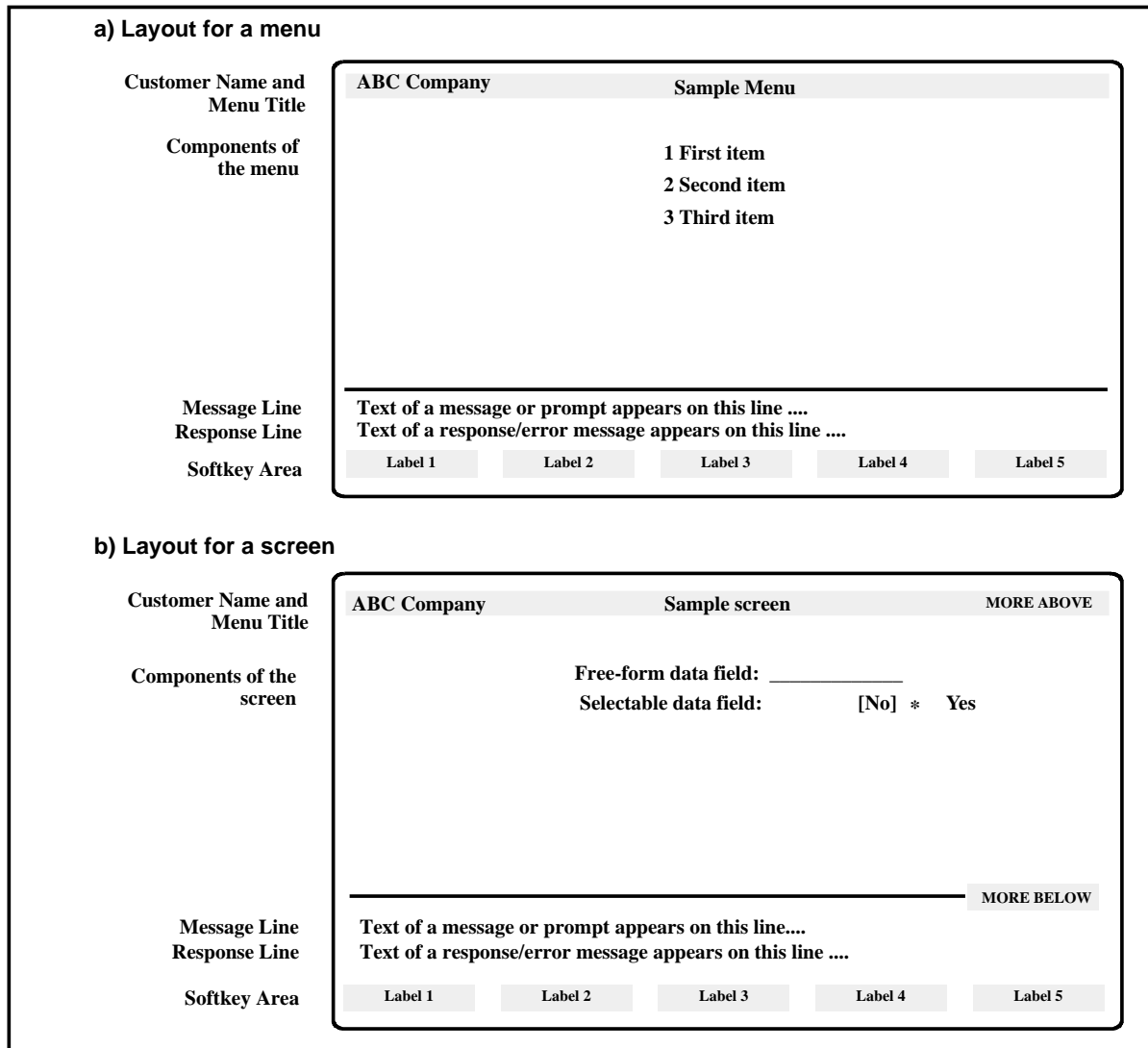


Customer Administration screens: menus and screens

Menus and screens in the Customer Administration facility conform to the general layout shown in Figure 1-7. Menus present a list of numbered items from which to choose. Each major administrative task has a corresponding menu (User Administration Menu, Voice Administration Menu, for example). When an item is selected from a menu, either another menu (a submenu) or a screen will be displayed. Screens contain fields which either present a number of options from which to choose, or a data entry field so that the administrator can enter a number or text.

The title of each screen or menu appears on the first line of the screen. For menus, this is followed by a list of numbered items. For screens, the title is followed by fields for viewing or entering information. The bottom four lines of the screen are reserved for system prompts, responses, error messages, and softkey identification. Two types of fields appear in administration screens: free-form data fields, where you can overwrite existing entries and enter new data; and selection fields, where the system presents a set of options to which the field can be set. Some fields that you can change are filled in automatically by the system. For example, when you add a new user, some of the information fields take on, by default, the values of the last user you added to the system; having some of these fields filled in makes it easier and faster for you to add new users with similar profiles.

Figure 1-7xxx
General screen layout



* In this guide, items surrounded by square brackets indicate a selected option. On DMS VoiceMail screens, selections are actually shaded.

Softkeys

Softkeys appear on the bottom two lines of the display in reverse video (dark characters on a light background). They change depending on the menu or screen and may change with the function you are performing. They correspond to function keys F6 through F10 on the top row of the keyboard. They also correspond to the keys on the keypad shown in Figure 1-8.

Keypad functions

Figure 1-8 also shows the other functions that are available on the keypad by pressing the single keys or the key combinations shown.

VT220 terminals and the following VT220-compatible terminals are supported: VT320, VT420, HP700/22, and HP700/32.

Note: The functions shown in Figure 1-8 are only available if the keypad is in application mode (application mode is the default whenever the system is rebooted). If you choose to work with a numeric keypad (where the numeric keys generate numbers when you press them), then only the F1, F2, F3 and F4 keys retain the functions indicated. The keypad is set to numeric mode through the terminal's set-up function. For details, consult the documentation for your terminal.

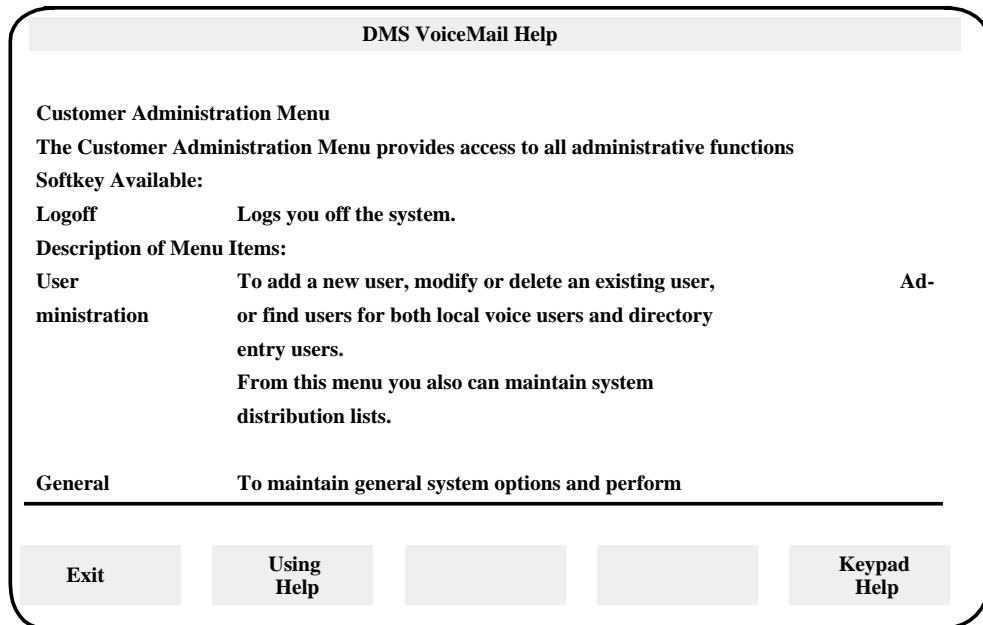
Figure 1-8xxx
Numeric keypad function keys

F1	F2	F3	F4	0+1 - Start of field 0+2 - End of field 0+6 - Restore default value of field F1 - Softkey 1 F2 - Softkey 2 F3 - Softkey 3 F4 - Softkey 4 1 - Previous word in field 2 - Next word in field 4 - Previous field 5 - Next field 7 - Previous page 8 - Next page - - Delete field contents . - HELP ENTER - Softkey 5
7	8	9	-	
4	5	6	,	
1	2	3		
0		.	ENTER	

The Help key

On-line Help is available for most of the menus and screens, including the Main Menu. The <Help> key on the keyboard can be used to display information on whatever screen in which you are working. If you require help with a screen, press the <Help> key. Alternatively, you can press the period (.) on your numeric keypad (see Figure 1-8). The system will display a screen showing explanations of all the fields on the menu or screen in which you are working. When you are done, use the [Exit] softkey on the Help screen to return to the menu or screen in which you were working. Figure 1-9 shows an example of the Help screen for the Customer Administration Menu.

Figure 1-9xxx
DMS VoiceMail Help example



Multi-page screens

Certain screens may contain more fields than can be displayed at once on the screen. Additional pages are viewed by:

Scrolling - If you see “More Below” at the bottom of a screen, or “More Above” at the top of a screen, use the down-arrow key or <Next Scrn> hardkey to view the next page. Use the up-arrow key or <Prev Scrn> hardkey to return to the previous screen. When the “More Below” prompt disappears, you are at the end of the screen; when the “More Above” prompt disappears, you are at the top of the screen.

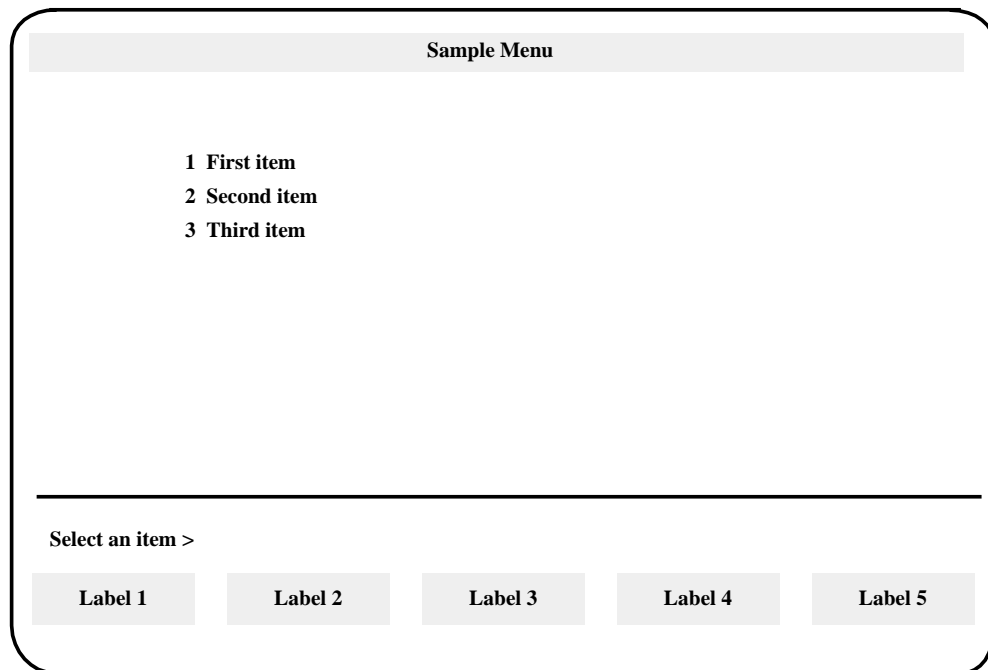
Note: The down arrow key will only display the last input field, even if there is guide text beyond it. To view any guide text that may appear at the very end of a screen, use the <Next Scrn> hardkey.

- **Paging** - Use the [Next Page] softkey if it is displayed.

Selecting a numbered item in a menu

In a menu screen (Figure 1-10), each item has a number. The system displays a prompt requesting you to select an item. To select a menu item, type the corresponding number and press the <Return> key. The number you enter appears next to the “Select an item >” prompt. When you press the <Return> key, the system displays a sub-menu or screen corresponding to the selected item.

Figure 1-10xxx
Selecting a numbered item in a menu



Entering information in a screen

There are two types of modifiable fields in the DMS VoiceMail administration screens (Figure 1-11). *Free-form data fields* are fields in which you enter information, such as a user's name or mailbox number. *Selectable fields*, on the other hand, present a series of specific options from which to choose.

In order to modify a field, you must first move your cursor to it. Once the cursor is in the appropriate field, you can change its contents.

Figure 1-11xxx
Entering information in a screen

Some fields display unmodifiable information. You cannot change the content of these fields. The cursor may or may not position on these fields, depending on the type of screen displayed. When a selectable field is not modifiable, only the selected option will be displayed. For example, if a field is disabled, only “No” will be displayed. It will not be shaded.

Certain data fields must be filled in with a value whereas others are optional. Mandatory fields are pointed out in the field descriptions. If you neglect to fill in a mandatory field and then try to save your settings, the system will not save the screen and will prompt you to fill in the necessary field.

The following keys on the keyboard and on the application keypad (see Figure 1-8), move the cursor within or across fields:

- **<Tab>** moves the cursor to the next field.
- **<4>** on the application keypad moves the cursor to the previous field.
- **<Return>** moves the cursor to the next field.
- **<↑>**, the up arrow key, moves the cursor to the previous field or the field above.
- **<↓>**, the down arrow key, moves the cursor to the next field or the field below.

- <←> <→>, the left and right arrow keys, move the cursor in the corresponding direction within an input field, but not between fields. They also move the cursor from one selection to the next in a selectable field.

The following keys change the contents of fields:

- <**Remove**> clears the current field.
- < > deletes one character to the left of the cursor each time the key is pressed.
- <**Back Space**> deletes the character on which the cursor is positioned.

Procedure 1-1xxx

Changing the contents of a free-form data field

- 1 If the field you want to change is below the current cursor position, use one of the following keys to move the cursor to the appropriate field: <Tab>, <Return>, or down arrow key.
or
If the field you want to change is above the current cursor position, use one of the following keys to move the cursor to the appropriate field: up arrow key or <4>.
- 2 If the field is not blank, delete the current entry using either <Remove> to clear the field, <Back Space> to delete the character on which the cursor is positioned, or < > to delete the character to the left of the cursor (until the entry is deleted).
- 3 Enter the new information.

Procedure 1-2xxx

Changing the contents of a selectable field

- 1 If the field you want to change is below the current cursor position, use one of the following keys to move the cursor to the appropriate field: <Tab>, <Return>, or down arrow key.
or
If the field you want to change is above the current cursor position, use one of the following keys to move the cursor to the appropriate field: up arrow key or <4>.
- 2 Use the right and left arrow keys to position the cursor on the appropriate selection.
- 3 When the cursor is positioned correctly, press <Return> to select.

Selecting an entire line

In some screens you are required to select an entire line. For example, in the View/Modify Directory Entry User screen (Figure 5-14), you must select a name from a list of users to indicate which user profile you want to modify. To select a line in a screen, place the cursor at the beginning of the line and press the <Space Bar>. Screens requiring this mode of selection will indicate this in a prompt (“Move the cursor to the item and press the spacebar to select it”).

Error messages

The system displays error messages, both general and screen-specific, on the line above the softkey display. These messages are simply feedback to the administrator’s actions. (Do not confuse them with SEERS, System Event and Error Reports.) The messages remain on the screen until the next user input or until another error message appears. Typical error messages are:

- “The key entered is not valid at this time.”
- “Enter a number in the range of 1 to 6.”

Note: If SEER printing is disabled, reports will print out on the administration screen. To redraw the screen and clean up any interfering information, press <Control> + <r>. This key combination can be used at any time to redraw the screen.

Nightly DR audits

The DR, or *organization directory*, contains certain information about users, voice services and customer groups. A DR audit is performed if the DR has changed during the day, or if the previous audit did not finish. The purpose of the audit is to rebalance the system. The DR changes whenever you do any of the following:

- User Administration - this includes adding, modifying, deleting users
- Voice Services Administration - this includes adding, modifying, deleting DNs in the VSDN table, as well as adding, modifying or deleting voice and fax service definitions (announcements, thru-dial services, time-of-day controllers, and voice menus)
- Adding customer groups
- Class of Service Administration (view only)



CAUTION

If an audit is in progress, do not perform any of the above actions. These operations will fail if attempted during the audit. A number of SEERs, including 3135, will also be generated.

If performed, the audit begins at 3:30 a.m. (by default) and can take anywhere from a few minutes to 3 hours. (Three hours is the maximum. If the audit is not completed during this time, it will be completed during the next audit.) The length of the audit depends on how many changes have been made (the more changes, the longer it takes). You will know when the audit starts and ends because SEER 3135 is generated.

System and user data storage

Each SPM node in the DMS VoiceMail system has a hard disk drive for data storage. The hard disk drives are partitioned into volumes. Volumes are storage areas for system-related or user-related information. The volumes are already set up when the system is installed.

Setting up customer groups

Once you have configured the basic system parameters, you are ready to add customer groups, configure them to meet the requirements of your customers and add users. Furthermore, most of the optional features that can be installed on DMS VoiceMail also require configuration at the customer administration level.

This chapter outlines general procedures and provides page references to sections that provide detailed information about the various aspects of configuration. Read the appropriate sections before configuring the system.

When doing customer administration, perform all of the tasks necessary for one customer group, then move to the next customer group and perform the necessary administrative tasks for that group. Continue in this manner until you have completed administration of all customer groups.

Begin with Procedure 2-1, “Configuring customer groups” to:

- Change the customer administrator password
- Add customer groups to the system
- Enable features for each customer group
- Customize operating parameters for each customer group
- Add users to customer groups

After you have completed the basic setup, refer to the other procedures in this chapter when you are ready to configure specific features, some of which are optional and may not be installed on your system. The other procedures in this chapter include:

- Configuring outcalling features
- Creating a voice service (such as an announcement, voice menu, time-of-day controller, thru-dialer, or voice form)
- Configuring the AMIS Networking Service

Setup and configuration of system-wide parameters is discussed in the *System Administration Guide*, in the chapter “Setting up the system”.

Basic setup procedures

The following steps are common to all DMS VoiceMail installations, and are necessary for your system's operation.

Procedure 2-1xxx

Configuring customer groups

Step 1. Change the customer administrator password.	
Log on to the administration terminal with the default customer administrator password (custpwd). You are prompted to change the password the first time you try to log on.	See page 3-11.
Step 2. Add customer groups to the system.	
This step must be done before users are added because users are added to specific customer groups. See the sections "Logging on" and "Adding customer groups"	See page 3-17. See page 3-11 and page 3-18.
Step 3. Assign classes of service to each customer group.	
From the Customer Administration Menu, select General Administration, General Options. Assign up to 15 Classes of Service (COSs) to each customer group. When adding users to the customer group, you will have to select one among the 15 COSs available. The following features are either enabled or disabled within the COS: - Remote Notification - Delivery to Non-Users - AMIS Networking, if installed - Dual Language Prompting, if installed (MMUI customer groups only)	See page 6-3.
Step 4. Enable features for each customer group.	
From the Customer Administration Menu, select General Administration, General Options. The following features are disabled by default for all customer groups and must therefore be explicitly enabled for each customer group. - Voice Menus and Announcements, if installed - Voice Forms, if installed	See page 6-3.

Step 5. Set the attendant DN for each MMUI customer group.	
<p>From the Customer Administration Menu, select General Administration, General Options. Do the following:</p> <p>For MMUI customer groups, assign an Attendant DN. If DMS VoiceMail is unable to handle a call, it is reverted to this number. Each user can have a custom revert DN. The system number you enter here is used as the default when adding users. (An attendant DN cannot be configured for VMUIF customer groups.)</p>	See page 6-2.
Step 6. Customize voice messaging options for each customer group.	
<p>From the Customer Administration Menu, select Voice Administration, Voice Messaging Options.</p> <p>For MMUI customer groups:</p> <p>If more than one language is installed on the system, select the default language and the secondary default language. Record a custom call answering greeting (for each language that is installed on the system). Set the maximum delay for timed delivery. Define the name dialing and name addressing prefix (or disable name dialing and addressing if necessary). Configure the broadcast mailbox number. Record a personal verification for the broadcast mailbox. Define the billing DN. Specify the local addressing lengths. Set the mailbox full warning threshold. Set the maximum amount of time that user's read messages are kept before being deleted by the system.</p> <p>For VMUIF customer groups:</p> <p>If more than one language is installed on the system, select the default language and the secondary default language. Record a customized VMUIF introductory tutorial (this is played when users log on for the first time) for each language that is installed on the system for DTMF and dial pulse support. Record the login greeting. Configure the lockout revert DN. Define the personal distribution list prefix. Define the broadcast mailbox number and record a personal verification for the broadcast mailbox. Define the billing DN. Specify the local addressing lengths. Configure the maximum amount of time that user's read messages are kept before being deleted by the system.</p>	See page 7-4.

2-4 Setting up customer groups

Step 7. Customize voice security options for each customer group.	
<p>From the Customer Administration Menu, select Voice Administration, Voice Security Options.</p> <p>Set the maximum number of invalid logon attempts that a user is allowed to make before being locked out of his or her mailbox.</p> <p>For MMUI customer groups, you may want to change the default parameters that affect user passwords (such as the number of days allowed between password changes, the minimum password length, etc.)</p>	See page 7-22.
Step 8. Add voice service DNs.	
<p>From the Customer Administration Menu, select Voice Administration, Voice Services Administration, Voice Services-DN Table.</p> <p>Add a DN for each voice service that will be directly dialable to users and external callers (such as the Voice Messaging DN, the Express Messaging DN, and any voice services.)</p>	See page 7-35.
Step 9. Add users to customer groups.	
<p>Read the section "Planning how to add users to the system" before beginning.</p> <p>From the Customer Administration Menu, select User Administration, Local Voice Users, [Add].</p> <p>Add local voice users. These are users that are on your system and that have a mailbox.</p> <p>Add Directory Entry Users for people who want to be accessible by name dialing, but who do not need a mailbox. (This is only applicable to MMUI customer groups.)</p>	See page 5-3. See page 5-7. See page 5-22.
Step 10. Create distribution lists.	
<p>This step does not have to be part of the initial configuration. If you know which lists you will need to create at this time, you may do so so that they will be ready for you to use. If you are unsure at this point, these can be created at any time.</p> <p>From the Customer Administration Menu, select User Administration, Distribution Lists.</p>	See page 5-52.
Step 11. Make sure the system administrator backs up the system.	
<p>Once the system configuration has been customized, back up the new data onto tape to ensure its safety.</p>	See the "General Administration" chapter in the <i>System Administration Guide</i> .

Setting up the Outcalling feature

The Outcalling feature refers to two functions. The first allows DMS VoiceMail users to be notified of new messages at remote phone or pager numbers and is known as Remote Notification (RN). The other feature, Delivery to Non-Users (DNU) allows users to compose and deliver messages to non-users of DMS VoiceMail. You may not have to change any of the parameters if you find that the default values are adequate. However, you should look over the default configuration to ensure that your customers' specific requirements are met.

See the *Outcalling Application Guide* (NTP 297-7001-308) for details.

Setting up optional features

DMS VoiceMail provides a number of optional features including Voice Menus, Voice Forms, and AMIS Networking.

Voice Menus

The voice menus feature is optional and may not have been installed on your system. If it is installed, the voice menus feature allows you to create announcements, thru-dialers, time-of-day controllers and voice menus.

See the *Voice Menus Application Guide* (NTP 297-7001-307) for details.

Voice Form Applications

Voice forms are an optional feature and may not be installed on your system.

The *Voice Forms Application Guide* (NTP 297-7001-306) provides detailed procedures for configuring voice forms. Please refer to this document.

AMIS Networking

AMIS networking is an optional feature and may not have been installed on your system.

As explained in detail in the chapter "AMIS Networking", you do not have to configure a DN specifically for AMIS networking because both voice menus and thru-dialers can accept incoming calls and pass them on to the appropriate AMIS agent. The only requirement is that the voice menu or thru-dialer have DID access. If the voice menus feature is not enabled, or if none of your voice menus/thru-dialers have DID access, you will have to configure a DN specifically for the AMIS service in the VSDN table.

2-6 Setting up customer groups

Procedure 2-2xxx

Configuring the AMIS Networking service

Step 1. Configure AMIS networking information.	
From the Customer Administration Menu, select Network Administration, View/Modify AMIS Networking to access the View/Modify AMIS Networking Information screen. Configure the AMIS Compose prefix. Configure the Local Number of the System Access Number.	See page 10-5.
Step 2. Make the AMIS service available to incoming AMIS calls.	
Option 1: If any of your voice menus or thru-dialers have DID access (are directly dialable external to the switch), have one of these services accept incoming AMIS calls. From the Customer Administration Menu, select Voice Administration, Voice Services Profile. Set the field <i>Act on AMIS Initiation Tone</i> to "Yes". Publish one of your externally dialable voice menu or thru-dialer numbers as your AMIS number. When an incoming AMIS networking call is received, it will be recognized as such and will be passed on to an AMIS agent.	See page 7-48.
Option 2: <i>If you don't have any voice menus or thru-dialers with DID access, configure a DN for the AMIS service in the VSDN table.</i> <i>From the Customer Administration Menu, select Voice Administration, Voice System Configuration, Voice Services-DN Table, [Add].</i> Enter an Access DN, enter AN (AMIS networking) as the Service.	See page 7-38.

Administrator logon

Once the DMS VoiceMail system has been installed and the software is loaded, you are ready to log on to the system to gain access to the customer administration menus, the starting point for initial setup of customers and general administrative functions.

Administrative functions can be carried out from the main administrative console attached to your DMS VoiceMail system or from a remote terminal connected to the system through a modem. Up to three Multiple Administration Terminals (MATs) are supported. However, only a limited number of administrative tasks can be performed on a MAT as opposed to the main administration terminal. These tasks include user administration (adding, modifying and deleting mailboxes), class of service (COS) administration (note that all COS screens are read-only) and voice services administration (which includes administration of the Voice Services-DN (VSDN) Table and creating, modifying and deleting voice services such as announcements, voice menus, thru-dialers, time-of-day controllers, and voice forms). See *System Administration Tools* (NTP 297-7001-305) for more information about configuring MATs.

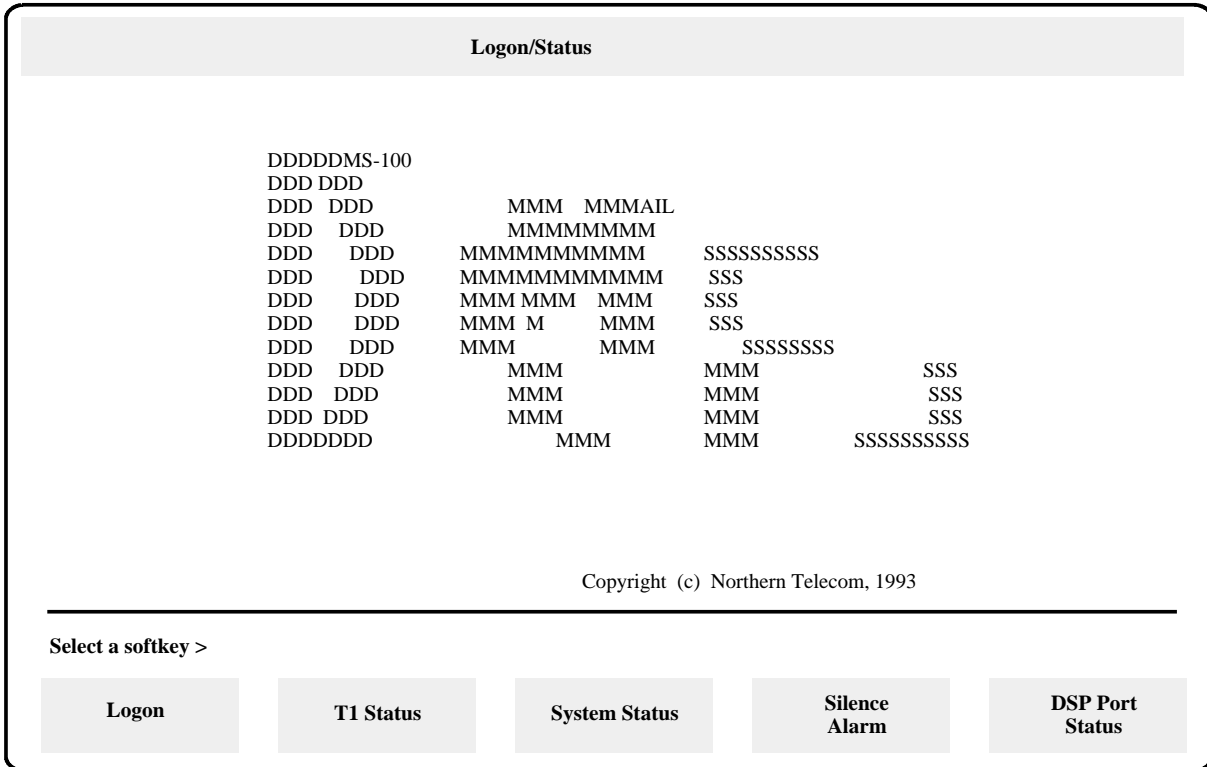
Note: In the previous release of DMS VoiceMail, MATs were referred to as UATs (user administration terminals).

A remote administration configuration is shown in Figure 3-17. If your installation uses this feature for the purpose of support from service personnel, you must coordinate remote administration sessions. See “Using a remote terminal” later in this chapter.

The Logon/Status screen

From the Logon/Status screen (Figure 3-1), you can log on to the administration console to set up and maintain your customer groups, configure various voice services, or use the softkeys on the Logon/Status screen to view the system status, T1 status, DSP port status screens, or silence any alarms.

Figure 3-1xxx
The DMS VoiceMail Logon/Status screen



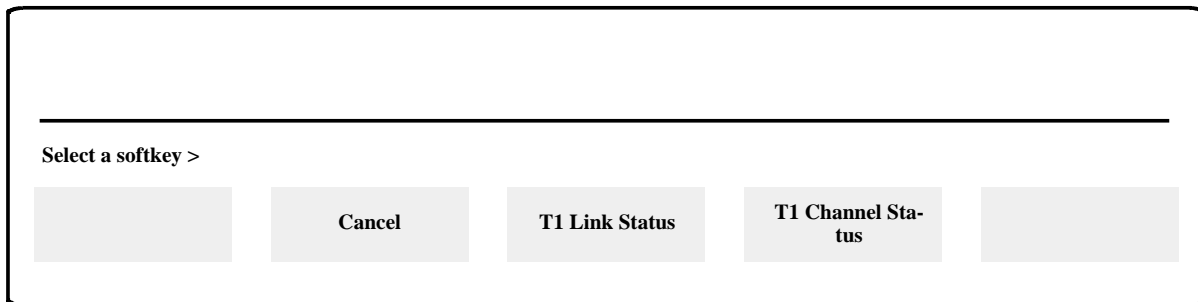
Note 1: When logging on at a MAT, only the [Logon] softkey is displayed.

Note 2: Sometimes when you power down your terminal and then power it back up, the screen is drawn incorrectly. Instead of the line that appears near the bottom of the screen (above the softkeys), a row of “q”s appears instead. Should this ever happen, do the following in order to redraw the screen: Press Ctrl-w (a small window opens up). Type **if**. (You do not have to press <Return>. The “i” means initialize and the “f” means full screen.)

T1 Status

When the T1 Status softkey is pressed, a new row of softkeys is displayed. These are shown in Figure 3-2.

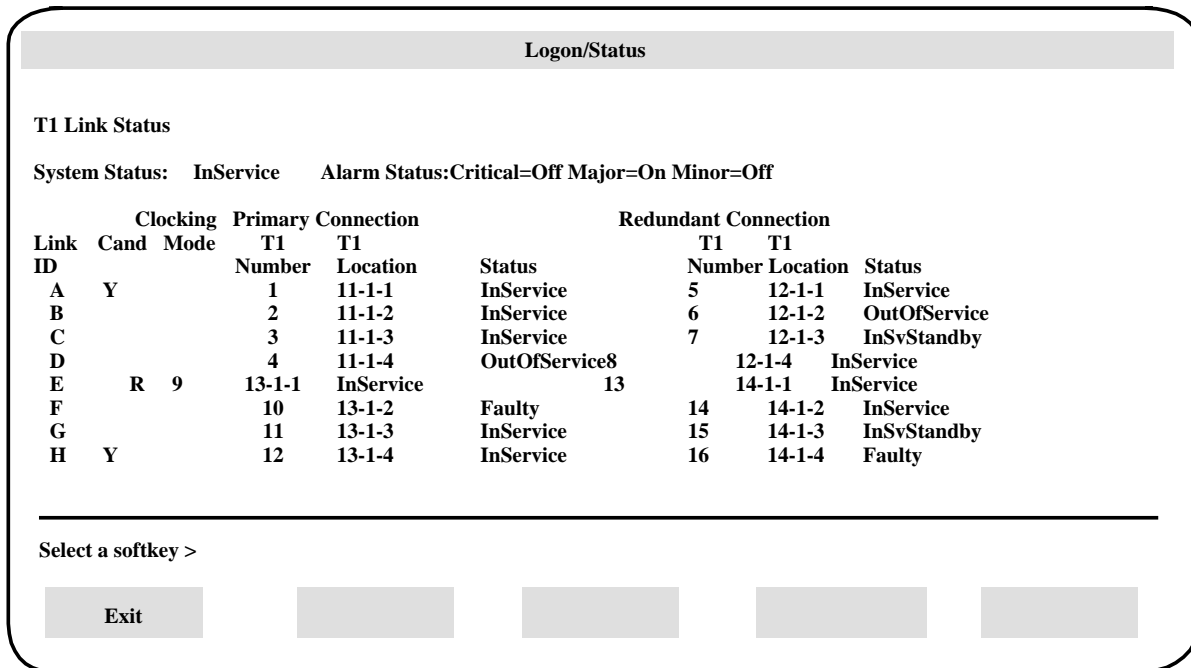
Figure 3-2xxx
The T1 Status softkeys



T1 link status

Use the [T1 Link Status] softkey to view the operational status of the T1 links on the system. The data displayed in this T1 Link Status screen is identical to the T1 Link Status screen in System Status and Maintenance (Figure 3-3). It is, however, read-only when accessed from the logon screen. Only the [Exit] softkey is displayed and you, therefore, cannot disable or enable any links from this screen. This can only be done when the screen is accessed from System Status and Maintenance.

Figure 3-3
The T1 Link Status screen



The following fields are displayed:

- **System Status** - This field displays the current system status. Y our system can be in one of the following states:
 - **InService** indicates that all critical programs on all nodes are operational and the system is accepting calls.
 - **CourtesyPending** indicates that the system is in the process of shutting down. This occurs after using the [Courtesy Down System] softkey in System Status and Maintenance. Incoming calls are directed to an attendant. Calls in progress are not interrupted. Each port is disabled as it becomes idle. The software remains loaded.
 - **CourtesyDown** indicates that the system has shut down and is no longer operational nor accepting calls.
 - **Loading** indicates that the system is loading software while booting up.
- **Alarm Status** - This field indicates the state of each of the following alarm categories:
 - Critical** alarms indicate a service-affecting problem that requires immediate attention.

Major alarms indicate a service-threatening problem that may be allowed to persist (for up to 24 hours). If not attended to, the alarm will become critical.

Minor alarms indicate a problem that has no impact on the system or users.

The status for each type of alarm will be one of the following:

- **Off** indicates that there are no new alarms. This does not necessarily mean that there are no error conditions as alarms may have been silenced from the Logon/Status screen, but the error conditions causing the alarm may still exist.
- **On** indicates that one or more alarm situations was detected.
- **Unk** indicates that the status is unknown.
- **Link ID** - An alphabetic designation used to identify the T1 link in your system. This corresponds to the Link ID in the T1 Link Configuration screen in Hardware Administration. For more information about the T1 Link Configuration screen, refer to the “Hardware Administration” chapter in the *System Administration Guide*.
- **Cand** - A “Y” in this field indicates that the link has been nominated as a candidate for clock referencing. A candidate is nominated from the T1 Link Setup screen in Hardware Administration. See the section “Modifying the T1 link setup” in the “Hardware Administration” chapter of the *System Administration Guide* for more information about clock referencing.
- **Clocking Mode** - The currently activated clock reference is indicated with an “R” in this field. A link is activated by using the [Change T1 Clocking Mode] softkey as described in the “System Status and Maintenance” chapter in the *System Administration Guide*. If none of the links are activated as the clock reference, the system is in free-run mode, meaning that the system is using the internal SPM clock.
- **Primary Connection T1 Number** - The number of the primary T1 connection within the specified T1 link.
- **Primary Connection T1 Location** - The location of the primary T1 connection in the system. This number represents the location in terms of the node-card-span.
- **Primary Connection Status** - The current state of the primary T1 connection.
 - **UnEquipped** indicates that the link is not defined in the hardware database. For more information about modifying the hardware database, see the *System Administration and Maintenance Tools Guide* (297-7001-305).
 - **Faulty** indicates that a hardware problem has been detected on the connection.

- ***InSvY elAlarm*** indicates that the T1 link is in service but has lost signaling with the far end.
- ***InSvRedAlarm*** indicates that the T1 link has lost the signaling with the near end.
- ***InService*** indicates that the T1 connection is fully operational and is currently accepting calls.
- ***InSvStandby*** indicates that the connection is not currently taking calls but is ready to accept calls for the paired T1 connection on the same T1 link.
- ***OutOfService*** indicates that the connection is not operational due to a forced disable.
- ***Pending*** indicates that the connection is in the process of shutting down or restarting.
- ***Redundant Connection T1 Number*** - The number of the secondary T1 connection within the specified T1 link.
- ***Redundant Connection T1 Location*** - The location of the secondary T1 connection in the system. This number represents the location in terms of the node-card-span.
- ***Redundant Connection Status*** - The current state of the secondary connection. See the descriptions for the *Primary Connection Status* field.

Procedure 3-1xxx

Viewing the T1 link status

Starting point: The Logon/Status screen.

- 1 Press the [T1 Status] softkey.
A new row of softkeys is displayed.
- 2 Press the [T1 Link Status] softkey.
The T1 Link Status screen is displayed.
- 3 Select [Exit].
A new row of softkeys is displayed.
- 4 Select [Cancel] to return to the Logon/Status screen.

T1 channel status

Use the [T1 Channel Status] softkey to view the operational status of the T1 channels in the system. This screen is identical to the T1 Channel Status screen in System Status and Maintenance, except that it is read-only when accessed from the logon screen (you cannot enable or disable channels). For more information about System Status and Maintenance, refer to the “System Status and Maintenance” chapter in the *System Administration Guide*.

Figure 3-4
The T1 Channel Status screen

Logon/Status

T1 Channel Status

System Status: **InService** **Alarm Status:** **Critical=Off Major=Off Minor=Off**

Link	Channels																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	a	a	a	.	.	.	.	.	.	.	a	.	.	a	a	.	.	.	.	.	.	.	.	.
B	a	a	a	o	o	o	o	.	.	.	.	.	.	.	a	a	.	.	.	a	.	.	.	.
C	.	a	a	.	.	.	.	.	.	.	a	.	.	.	a	.	.	.	.	.	.	.	.	.
D	a	a	a	.	.	.	.	.	.	.	a	.	.	.	a	a	.	.	.	.	.	.	a	.
E	a	.	.	o	o	o	o	a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
F	.	a	a	.	.	.	a	.	.	.	a	.	.	.	a	a	.	.	.	.	.	.	.	.
G	a	a	.	.	.	.	.	.	.	.	a	.	.	.	.	.	.	.	.	.	.	.	.	.
H	a	a	a	.	.	.	.	.	.	.	a	.	.	.	a	a	.	F	F	F	F	.	.	.

a = Active/in use	. = Idle	O = Out of Service	R = No Resource
F = Faulty	P = Pending	space = Unequipped	L = Loading
C = Courtesy Down	M = MakeBusy		

Select a softkey >

Exit				
------	--	--	--	--

The following fields are displayed on the T1 Channel Status screen:

- **System Status** - See the description in the section “T1 link status”.
- **Alarm Status** - See the description in the section “T1 link status”.
- **Link** - The ID of the T1 link. This is an alphabetic character.
- **Channel Status** - The current state of each channel, indicated by a single-character code (a legend for the codes is at the bottom of the screen).
 - **Active/in use** indicates that the T1 channel is operational and in use.
 - **Idle** indicates that the channel is operational but not currently in use.
 - **OutOfService** indicates that the channel is no longer operational.

- **No Resources** indicates that the T1 channel is available, but there is no software associated with it.
- **Faulty** indicates that the system has detected an error in the channel.
- **Pending** indicates that the channel is in the process of shutting down or restarting.
- **Unequipped** indicates that the channel is not defined in the hardware database. For more information about modifying the hardware database, see *System Administration Tools (297-7001-305)*.
- **Loading** indicates that the channel is currently starting up after a request to enable and that the necessary software is loading.
- **Courtesy Down** indicates that the channel is in a courtesy down state as a result of performing a Courtesy Down System. The channel does not accept calls in this state.
- **MakeBusy** indicates that the channel is in a maintenance-busy state (being used for maintenance procedures). The channel does not accept calls in this state.

Procedure 3-2xxx

Viewing the T1 channel status

Starting point: The Logon/Status screen.

- 1 Press the [T1 Status] softkey.
A new row of softkeys is displayed.
- 2 Press the [T1 Channel Status] softkey.
The T1 Channel Status screen is displayed.
- 3 Select [Exit].
A new row of softkeys is displayed.
- 4 Select [Cancel] to return to the Logon/Status screen.

System Status

The System Status screen (Figure 3-5) is displayed when you press the [System Status] softkey on the Logon/Status screen. The System Status screen is a read-only screen that dynamically updates when the status of the system, system nodes or DSP ports changes.

Figure 3-5xxx
System Status screen

Logon/Status										
System Status: InService					Alarm Status: Critical=Off Major=Off Minor=Off					
Last Event: 60-00 PRM: All System Programs Started								5/31 14:03		
Node	Node	DSP Port/Channel Status				Storage		Used	Text	
		Status	Active	Idle	OutSv	Faulty	Pending	Others			Voice
1	MSP	InService								
2	MSP	InService								
3	SPN	Faulty	0	0	0	12	0	0	32%	40%
4	SPN	OutOfService	0	0	12	0	0	0	41%	6%
Select a softkey >										
Exit									Next Set of Nodes	

For a description of the fields displayed in the System Status screen, refer to the section “System Status” in the “System Status and Maintenance” chapter of the *System Administration Guide*.

Procedure 3-3xxx

Viewing the system status

Starting point: The Logon/Status screen.

- 1 Press the [System Status] softkey to view the status of your system.
- 2 To view the status for the nodes that are not currently displayed, use [Next Set of Nodes].

The [Next Set of Nodes] softkey is replaced by the [Previous Set of Nodes] softkey when the last set of nodes has been displayed.

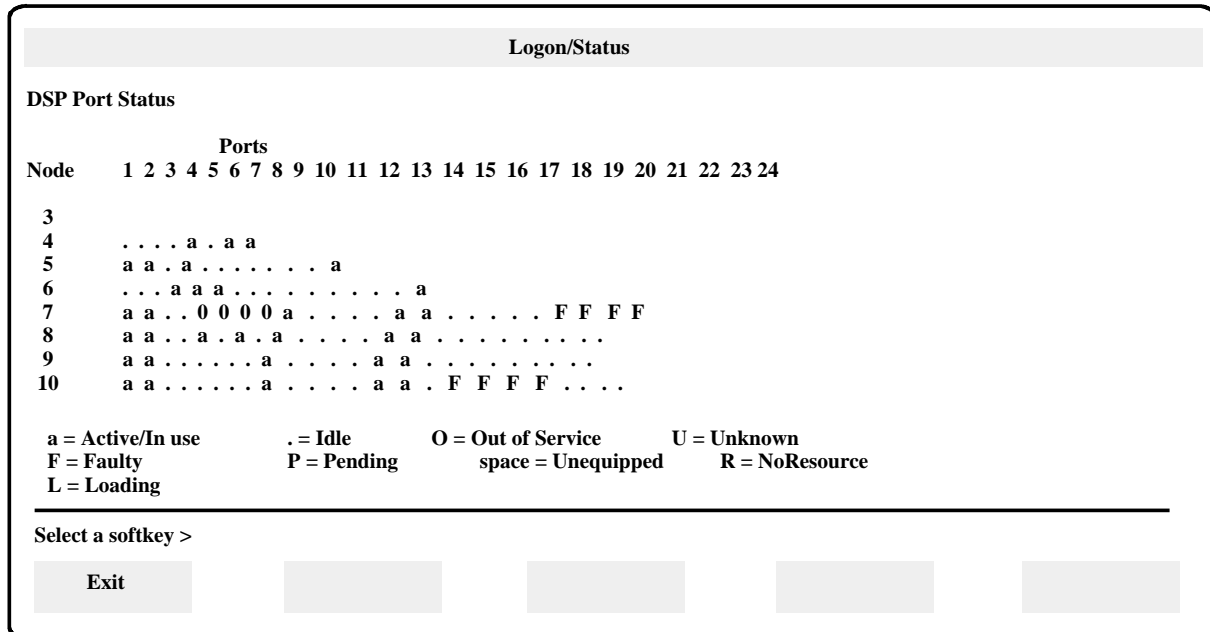
- 3 Use [Exit] to return to the Logon/Status screen.

DSP Port Status

The DSP Port Status screen (Figure 3-6) is displayed when you press the [DSP Port Status] softkey on the Logon/Status screen. This screen is read-only. It is dynamically updated as the status of your DSP ports change. If you suspect that one of your ports is not functioning properly, check this screen. For more information about this screen, see the chapter “System Status and Maintenance” in the *System Administration Guide*.

The example shown in Figure 3-6 illustrates the status for each DSP port with varying numbers of ports per node. Each node can have up to 24 DSP ports.

Figure 3-6xxx
The DSP Port Status screen



Procedure 3-4xxx
Viewing the DSP Port Status screen

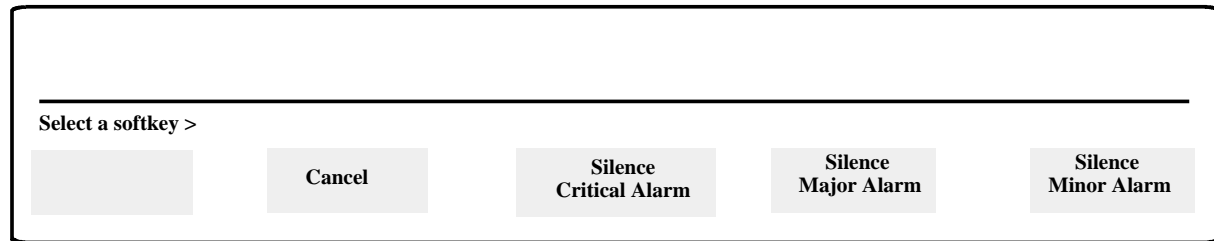
Starting point: The Logon/Status screen.

- 1 Press the [DSP Port Status] softkey to view the status of system DSP ports.
- 2 Use [Exit] to return to the Logon/Status screen.

Silencing Alarms

When the system sounds an alarm, you may silence it using the [Silence Alarm] softkey on the Logon/Status screen. When this softkey is pressed, the softkeys displayed in the following figure are displayed.

Figure 3-7xxx
The Silence Alarm softkeys screen



An alarm will sound if the corresponding severity level SEER is issued indicating that a problem exists. By using the appropriate softkey you can silence either critical, major, or minor alarms. The [Cancel] softkey causes the original set of softkeys to be displayed without silencing any alarms. Try to clear the problem as well or the alarm could be turned on again if you simply silence it. Alarms persist until you silence them. (There is no timeout period after which they are turned off by the system.)

For more information on alarms, refer to the *Trouble locating and alarm clearing procedures* (NTP 297-7001-503) and the *Maintenance Messages* manual (NTP 297-7001-510).

Logging on

When you press the [Logon] softkey you are prompted for a password. If you are logging on for the first time, use the default customer administration password **custpwd**. You will be prompted for a new password immediately after you log on for the first time. The system does not allow you to log on until you have changed the default password.

The customer administrator password is used to access all customer groups. It is not possible to create a separate password for each customer group. This is also the password that is used to log on to a Multiple Administration Terminal (MAT). If this password is changed at one terminal, it automatically changes for all terminals.

Passwords can be up to 16 characters in length. It is recommended that the password be no less than 7 digits in length for added system security. The longer the password, the less probable it is that someone will manage to guess it correctly.

You should continue to change the logon password on a regular basis to ensure the security of your system. In the future, you will change the password from the General Administration menu.

Procedure 3-5xxx

Logging on with the customer administrator password

Starting point: The Logon/Status screen.

- 1 Press [Logon]. Enter the customer administrator password and press <Return>. (The default password is custpwd.) If the system has been down due to a power outage or some other problem, the system prompts you to enter the date and time. Enter the date and time in the format indicated, with leading zeroes, slashes, and colon (e.g., 31/01/89 09:35).

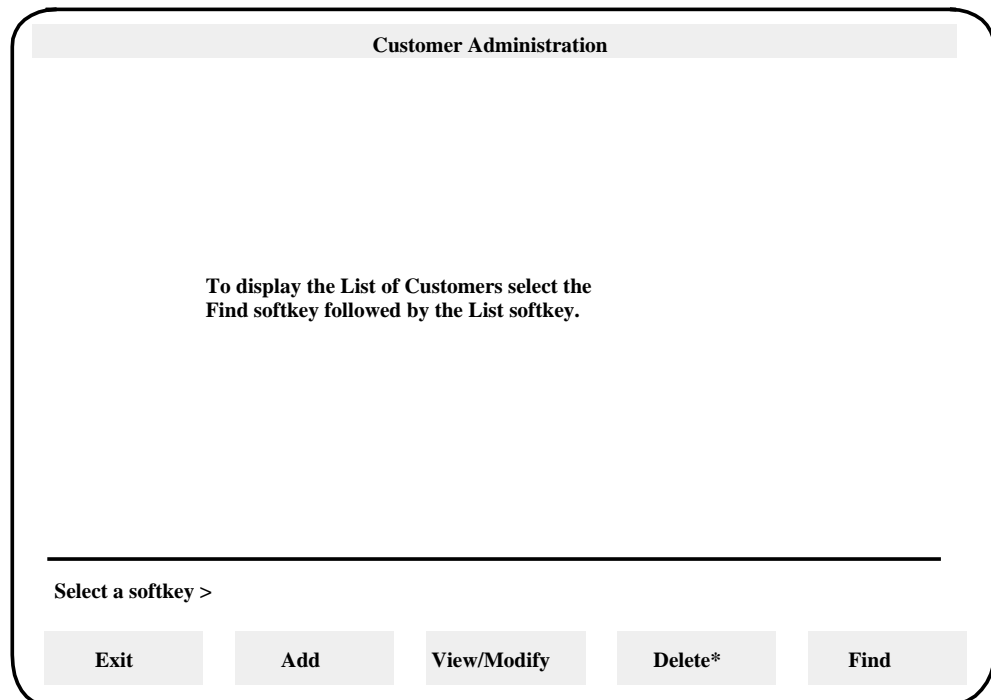
If an invalid password is entered, an error message appears. Try logging on again.

Note: *If you are logging in for the first time, you will be prompted to change the default password. To do so, enter a new password and press <Return>. You are prompted to re-enter the password for verification. Enter the password again and press <Return>. If you entered the password incorrectly the second time, you will have to enter the password again.*

The Customer Administration screen (Figure 3-8) is displayed.

Figure 3-8xxx

The Customer Administration screen



* This softkey is displayed only if more than one customer exists.

The following actions are possible from this screen:

- a. Press the [Add] softkey to add a customer group to the system. See the section “Adding customer groups” for details. (Main administration terminal only.)
- b. Press the [View/Modify] softkey to view or modify an existing customer group. See the section “Modifying a customer group”.
- c. Press the [Delete] softkey to delete an existing customer group. Note that this action is only possible if more than one customer group exists on the system. See the section “Deleting customer groups”. (Main administration terminal only.)
- d. Press the [Find] softkey to find a particular customer group or a subset of customer groups. See the section “Finding a customer group”.
- e. Press the [Exit] softkey to exit this screen and return to the Logon/Status screen.

**CAUTION****If you forget your password**

If you have forgotten your password, you will have to reboot the system from the install tape. When the system boots from the tape, an item is presented which allows you to reset the password to the original default. Once this has been done, the install tape can be removed from the tape drive and the system will reboot from the disk. Once the system is up, use the default password to log on. You will be prompted to change it immediately. Use a memorable yet non-obvious password.

Logging on at a Multiple Administration Terminal (MAT)

If the Multiple Administration Terminal feature is configured, your DMS VoiceMail system can support up to four administration terminals (one main administration terminal and up to three secondary terminals). When you log on to a secondary terminal, you can perform User Administration and Voice Services Administration. Class of Service Administration is available as a series of read-only screens.

Use the customer administrator password to log on to a secondary terminal (the default is **custpwd**). You can only change this password at the main administration terminal. A password change is automatically carried over to all configured MATs.

If you log on to a secondary terminal with the default password, you will be prompted to enter a new password immediately. (The system will not allow you to log on until you have changed the default password.)

When you log on successfully, the Customer Administration screen (Figure 3-9) is immediately displayed. You can only view or modify existing customer groups from a multiple administration terminal. You do not have permission to add or delete customer groups.

Procedure 3-6xxx

Logging on to a Multi-Admin Terminal

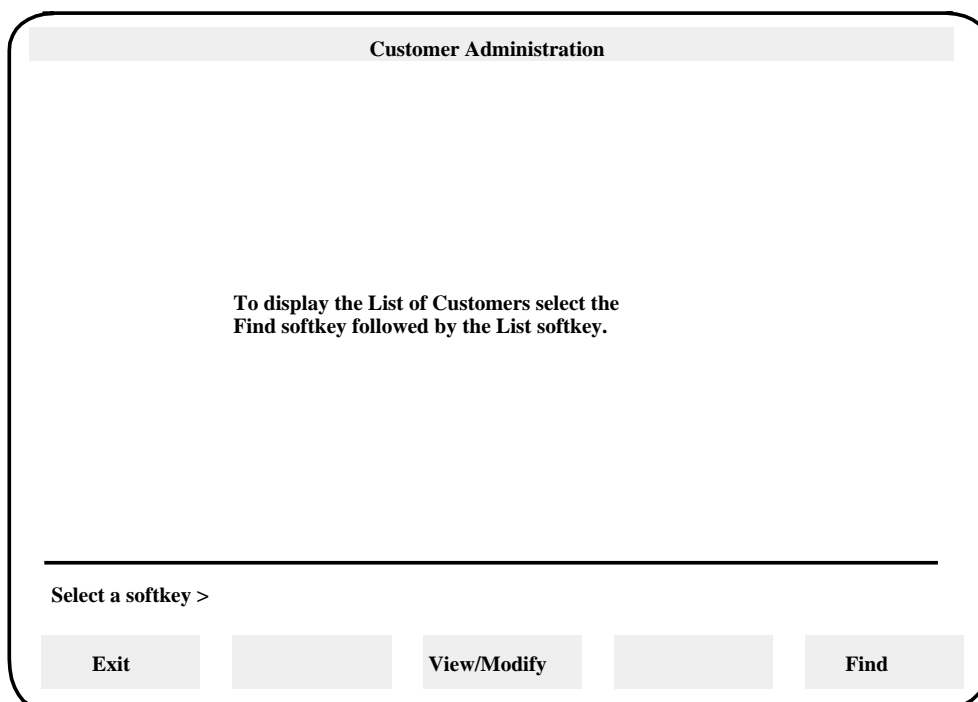
Starting Point: The Logon/Status screen.

- 1 Press the [Logon] softkey.
- 2 Enter the customer administrator password and press <Return>.

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

If the password is valid, the Customer Administration screen (Figure 3-9) is displayed.

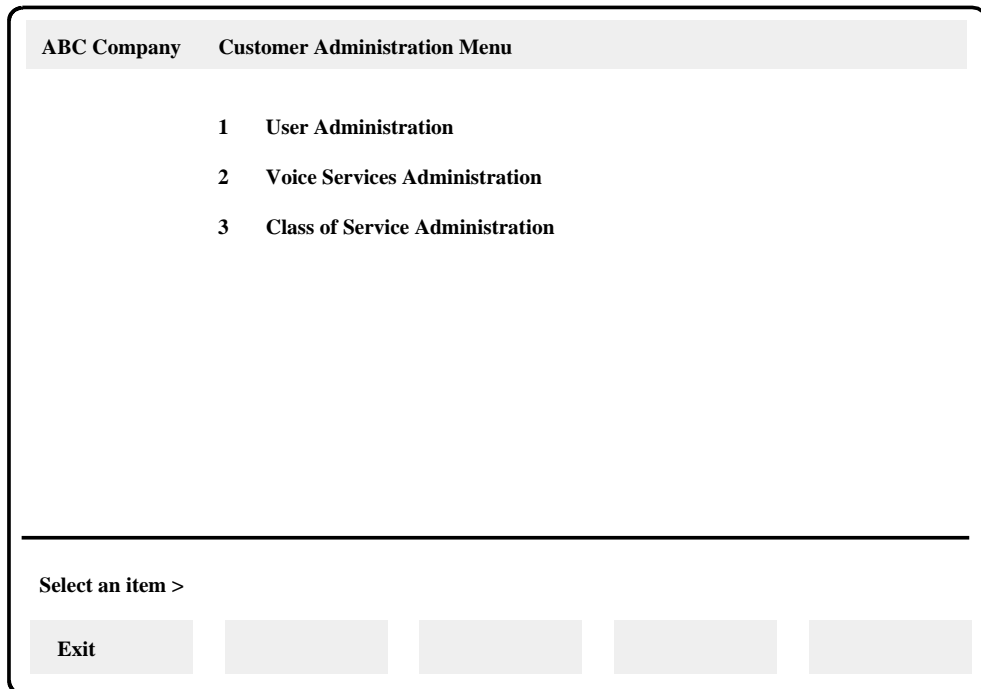
Figure 3-9xxx
The Customer Administration screen



Note: This screen is not filled in until a valid operation is performed. Valid operations include selecting the [Exit], [View/Modify], or [Find] softkey.

- 3 To view or modify a customer group, you can either use the [View/Modify] softkey or the [Find] softkey.
If you know the customer number, use the [View/Modify] softkey. (See step 3a.)
If you are not sure of the customer number, use the [Find] softkey first. (See step 3b.) This will allow you to retrieve a particular customer group using other search criteria (such as the customer group's name).
 - a. Press the [View/Modify] softkey.
You are prompted for a customer number.
Enter the number associated with the customer you want to modify. Press <Return>.
The Customer Administration Menu (Figure 3-10) is displayed.

Figure 3-10xxx
The Customer Administration Menu at a multiple administration terminal (MAT)



b. Press the [Find] softkey.

The Find Customer screen is displayed. See page 3-21 for more information about using the find function.

4 Select an item from the menu.

Select <1> to perform User Administration. See the “User Administration” chapter for more information.

Select <2> to perform Voice Services Administration. See the “Voice Administration” chapter for more information.

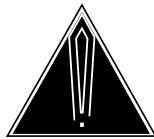
Select <3> to view the existing Classes of Service. See the “Class of Service Administration” chapter for more information.

For information about configuring multiple administration terminals, see the chapter “Configure MATs” in the *System Administration Tools* guide (NTP 297-7001-305).

Adding customer groups

When DMS VoiceMail is installed, one default customer group is automatically added to the system. This customer is numbered as customer 1. You may either leave this original customer as it is and add your own customers or you may modify Customer 1 when you are creating your first customer on the system. (If you want to change the customer name you will have to do so through the General Options screen.)

When adding customer groups to the system, you can proceed in one of two ways. You can either add all customer groups to the system first and then configure the customer-specific parameters for each one, or you can add a customer group, configure all necessary parameters for that customer, then add the next customer group, and continue in this fashion until all customer groups have been added and configured. You may find that the second method saves some time, since there is less jumping back and forth through various levels of administration screens.



CAUTION

Do not add customer groups during nightly DR audit

At 3:30 a.m. every day, an audit of the DR directory is performed. Do not add or modify customer groups during this audit. Depending on how unbalanced the system is, this audit can take anywhere from 10 minutes (if the system has not been modified since the last audit) to 3 hours (if there have been many changes, such as a lot of users or services being added or modified).

Procedure 3-7xxx

Accessing the Add Customer screen

Starting Point: The Customer Administration screen.

- 1 Press the [Add] softkey.
You are prompted to enter the customer number.
- 2 Enter a number which is not already associated with an existing customer and hit <Return>.
You may enter a value from 1 to 2000.
The Add Customer screen is displayed. See Figure 3-11.

Figure 3-11xxx
The Add Customer screen

Customer Administration

Add Customer

Customer Number: 2

Customer Name: _____

Customer Type: [Private] Residential

Interface Type: [MMUI] VMUIF

Select a softkey >

Save Cancel [] [] []

The following fields are displayed:

- **Customer Number** - A unique number that distinguishes this customer from other customer groups. The valid range is from 1 to 2000.
- **Customer Name** - A unique name to describe the customer.
- **Customer Type** - A customer group can be one of two types:
 - **Private** - This type is primarily intended for centrex customers who desire full-featured voice messaging.
 - **Residential** - This type is intended for customer groups that will be made up of residential subscribers.

Customer type and interface type are independent of each other and can be combined in any way. However, the following should be noted. If the customer type is Residential, subscribers will not have access to name dialing and name addressing (even if the interface type is MMUI). Name dialing and name addressing are available only if the customer type is private and the interface type is MMUI.

- **Interface Type** - Two types of interfaces are available:
 - **MMUI** - This interface provides users with a command driven interface and is primarily intended for centrex customers who require full-featured voice messaging. This interface provides users with call answering functionality so that callers can leave a message when the user is away from or on the phone. Compose and send capabilities are always enabled.

The following functions (configured in the class of service) are unique to MMUI and are not available with the VMUIF interface:

- personal verification changeable by user
 - dual language prompting (on multi-lingual systems)
 - administrator capability
 - retain copy of sent messages
 - remote notification keypad interface
 - extension dialing
 - name dialing and name addressing
- **VMUIF** - This interface provides users with a simplified menu-driven interface. Compose and send capability are disabled by default, but can be enabled (in the class of service). VMUIF also supports dial pulse telephone sets and allows subscribers to get around their mailboxes without any keypad input whatsoever. Name dialing and name addressing are not available to subscribers in VMUIF customer groups.

The following functions (configured in the class of service) are unique to VMUIF and are not available with the MMUI interface:

- family mailbox (up to 8 submailboxes)
- dial pulse support
- skip to first new message
- login from call answering

Note: Once subscribers have been added to a customer group, the interface type cannot be changed.

Procedure 3-8xxx

Adding a customer group

Starting Point: The Customer Administration screen.

- 1 Enter a customer name that is descriptive enough to easily identify the customer.
- 2 Specify the customer type (Residential or Private).
- 3 Specify the interface type (MMUI or VMUIF).

- 4 To save the customer group, go to step 4a. To cancel this operation, go to step 4b.

- a. Press [Save].

The Customer Administration Menu is displayed. The name of the customer group you just created will appear in the top-left corner of the Customer Administration Menu as well as all customer administration screens. From the Customer Administration Menu you will specify the specific administrative task you want to perform, such as adding users and configuring mailboxes, creating distribution lists, or configuring voice services. The various administrative tasks are described throughout the rest of this guide.

- b. Press [Cancel].

The customer is not added to the system and you are returned to the Customer Administration screen.

Finding a customer group

Use the [Find] softkey on the Customer Administration screen to find a particular customer group or a subset of customer groups. If you only remember part of the number or name, you can use wildcard characters to retrieve a subset of customer groups that match the retrieval pattern you have specified.

The fields on the Find Customer screen 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 **Eno+** in the *Customer Name* field, all customer groups that have a name beginning with “Eno” will be retrieved.

The underscore (_) matches a single character. For example, if you enter **2_** in the *Customer Number* field, customer groups that are numbered between 20 and 29 will be retrieved. To retrieve all customer groups numbered 1100 to 1199, enter **11_ _**.

When you press the [Find] softkey, the Find Customer screen (Figure 3-12) is displayed.

Figure 3-12xxx
The Find Customer screen

Customer Administration

Find Customer

List Format: [Brief] Attribute COS

Customer Number: 2+ _____

Customer Name: _____

Exit List Print

The following fields are displayed:

- **List Format** - Specify the format in which you want the list to be displayed or printed. Your options are:
 - **Brief** - Only the customer number and customer name are displayed. See Figure 3-13.
 - **Attribute** - The resulting list includes the following information: the customer number, customer name, the type of interface (MMUI or VMUIF), and the customer type (residential or private). See Figure 3-14.
 - **COS** - The customer number, customer name and all of the classes assigned to the customer group are displayed. See Figure 3-15.
- **Customer Number** - If you know the number of the customer group you want to view or modify, enter it in this field. This will be a number between 1 and 2000.

If you remember only part of the number, you can use wildcard characters to replace the character(s) you cannot remember. For example, if you know the number is in the 50's, enter "5_".

- **Customer Name** - If you know the name of the customer group you want to view or modify, enter it in this field. (The name can be up to 30 characters in length.) If you don't remember the exact name, you can use wildcard characters to specify the name as closely as possible. All customer groups that have a name matching the retrieval pattern you specify will be listed. For example, if you enter "A+ack", the following customer groups might be retrieved: Adarondack and Adtrack.

Once you have specified the customer name or number (or a retrieval pattern), you can either view the resulting list on screen or print it.

Procedure 3-9xxx

Listing customer groups

Starting Point: The Customer Administration screen.

- 1 Press the [Find] softkey.
The Find Customer screen is displayed.
- 2 Specify the list format (brief, attribute, or COS).
- 3 Enter one of the following: the customer's name, the customer's number (either the exact name/number or use wildcard characters to specify a retrieval pattern). To retrieve all customers, leave all fields blank.
- 4 Press [List].
The List of Customers screen is displayed.

Figure 3-13xxx

The List of Customers screen (Brief)

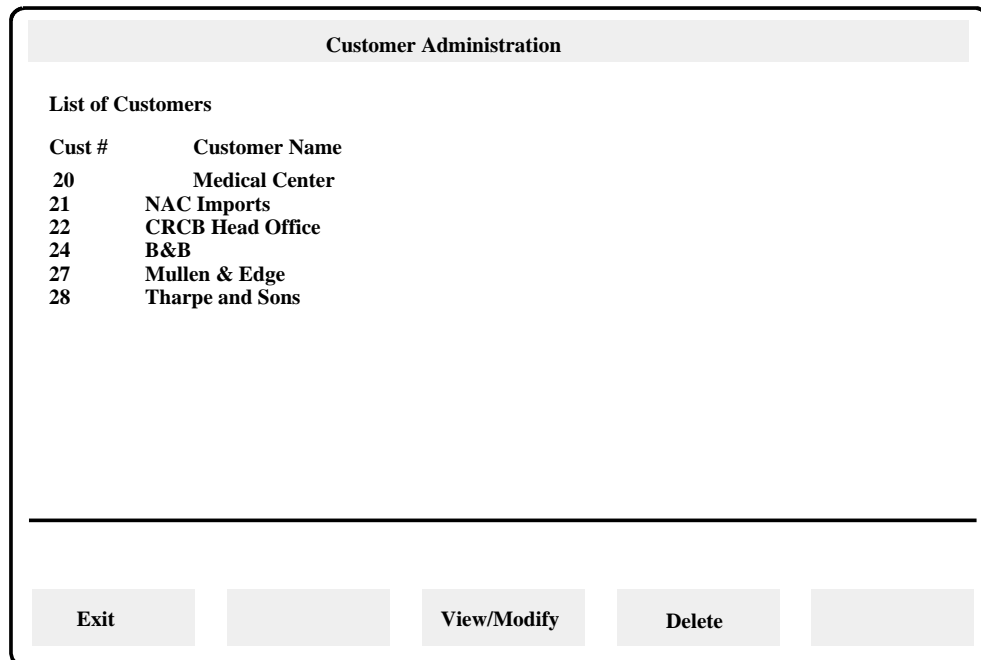


Figure 3-14xxx
The List of Customers screen (Attribute)

Customer Administration			
List of Customers			
Cust #	Customer Name	I/F TypeType	Cust
20	Medical Center	VMUIF	Priv
21	NAC Imports	MMUI	Priv
22	CRCB Head Office	MMUI	Priv
24	B&B	MMUI	Priv
27	Mullen & Edge	VMUIF	Priv
28	Tharpe and Sons	MMUI	Res

Exit		View/Modify	Delete	
------	--	-------------	--------	--

Figure 3-15xxx
The List of Customers screen (COS)

Customer Administration		
List of Customers		
Cust #	Customer Name	Classes of Service
20	Medical Center	1 4 9 45 89 90 101 125
21	NAC Imports	1 3 45 47 51 56
22	CRCB Head Office	5 9 11 23 26 41 56 59 67 73 79 82 88 91 95
24	B&B	1 21 29 35 41 67 101 108
27	Mullen & Edge	11 34 101 109 115 120
28	Tharpe and Sons	72 79

Exit		View/Modify	Delete	
------	--	-------------	--------	--

5 Press [Exit].

The Find Customers screen is displayed.

Procedure 3-10xxx
Printing a list of customer groups

Starting Point: The Customer Administration screen.

- 1 Press the [Find] softkey.
The Find Customer screen is displayed.
- 2 Specify the list format (brief, attribute, or COS).
- 3 Enter one of the following: the customer's name, the customer's number (either the exact name/number or use wildcard characters to specify a retrieval pattern). To retrieve all customers, leave all fields blank.
- 4 Press [Print].
The following softkeys appear: [Continue Printing] and [Cancel Printing].
You are prompted to make sure your printer is ready and on-line.
- 5 Choose step 5a to print or 5b to cancel.
 - a. Use [Continue Printing] to start printing.
Once printing is complete, the Find Customer screen and its softkeys are redisplayed; you may stop printing at any time by proceeding to 5b.
 - b. Use [Cancel Printing] at any time to cancel printing.
As a result of print buffering, you may experience some delay before control is returned to your screen and the printer actually stops printing.
- 6 Press [Exit].
The Find Customers screen is displayed.

Modifying a customer group

The [View/Modify] softkey appears on the Customer Administration screen and the List of Customers screen. To use this softkey from the Customer Administration screen, you must know the customer number (you are prompted for it). If you do not know the customer number, use the [Find] softkey first and then use the [View/Modify] softkey in the List of Customers screen.

Once you have specified the customer group you wish to view or modify and pressed [View/Modify], the Customer Administration Menu is displayed (as shown on page 3-25).

Deleting customer groups

Before you can delete a customer group, you must delete everything associated with it; namely all users in the customer group, the distribution lists that include those users, the entries in the VSDN table, and all voice services (voice menus, announcements, thru-dialers, time-of-day controllers, and voice forms). See the chapter “User Administration” for more information about deleting users and distribution lists, and the “Voice Administration” chapter for information about deleting VSDNs and voice services.

Note: If you only have one customer group, you can not delete it.

Procedure 3-11xxx Deleting a customer group

Starting Point: The Customer Administration screen.

- 1 Press the [Delete] softkey.

Note: The [Delete] softkey is not displayed if there is only one customer.

You are prompted for a customer number. (If you do not know the customer number, use the [Find] softkey first and then use the [Delete] softkey in the List of Customers screen.)

- 2 Enter the number associated with the customer you want to delete.

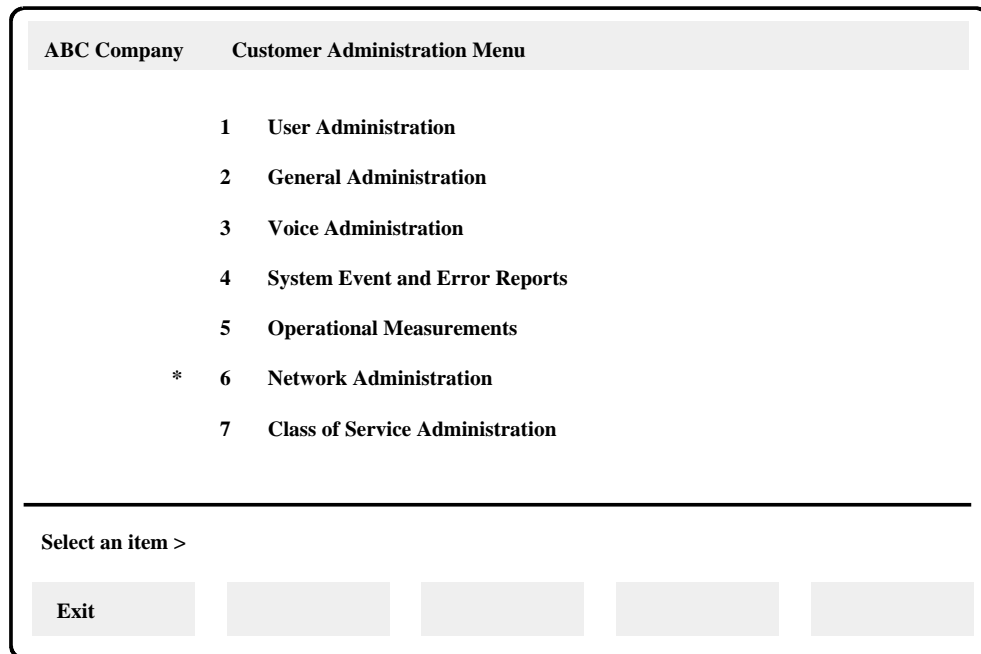
The customer is deleted and the Customer Administration screen is redrawn. The deleted customer name and number are no longer displayed on the screen.

The Customer Administration Menu

The Customer Administration Menu (Figure 3-16) is a routing menu from which you can select the type of administrative function you require. The changes you make affect only the current customer group.

Note: For security and memory usage reasons, do not leave the administrative console unattended while you are logged on. Also, remember to log out at night. If you do not log out, critical audit and backup routines may not be able to run due to insufficient memory.

Figure 3-16xxx
The Customer Administration Menu



* This option is displayed only if AMIS Networking is installed.

Procedure 3-12
Using the Customer Administration Menu

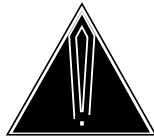
Starting point: The Customer Administration Menu.

- 1 Choose an item by entering its number and pressing <Return>.
The appropriate menu appears. See the following chapters for details:
 - "User Administration";*
 - "General Administration";*
 - "Voice Administration";*
 - "System Event and Error Reports"*
 - "Operational Measurements";*
 - "Network Administration" (if AMIS networking is installed)*
 - "Class of Service Administration"*
- 2 Carry out the required administrative functions, then return to the Customer Administration Menu; repeat step 1 to carry out additional administrative tasks, or proceed to step 3.
- 3 Use [Exit].
The Customer Administration screen is redisplayed.

Resetting the system time

It is possible that the system time may be undefined, as may happen when a time signal is not provided by the switch to which DMS VoiceMail is connected or when a time signal is provided but the link to the switch is temporarily down. In both cases, the system automatically prompts you for the correct time. You cannot proceed with administrative functions unless the system date and time are defined.

You may be required to enter the time at the Logon/Status screen, under unusual circumstances such as power outages. At other times, you can perform optional system time changes as desired. See “Changing the system time” in the chapter “General Administration” in the *System Administration Guide*.



CAUTION

Setting the time ahead

If you set the time ahead by a number of days (if for example, the current time is incorrect or you are testing time of day controllers), all read messages that meet the *Read Message Retention Value* (set in the Add or View/Modify Class of Service screen) will be deleted. For example, today is December 9th and the read message retention limit is 7 days. You set the time ahead by 48 hours (2 days). Any messages that are currently 5 or 6 days old will be deleted during the next nightly audit.

Procedure 3-13 Resetting the system time

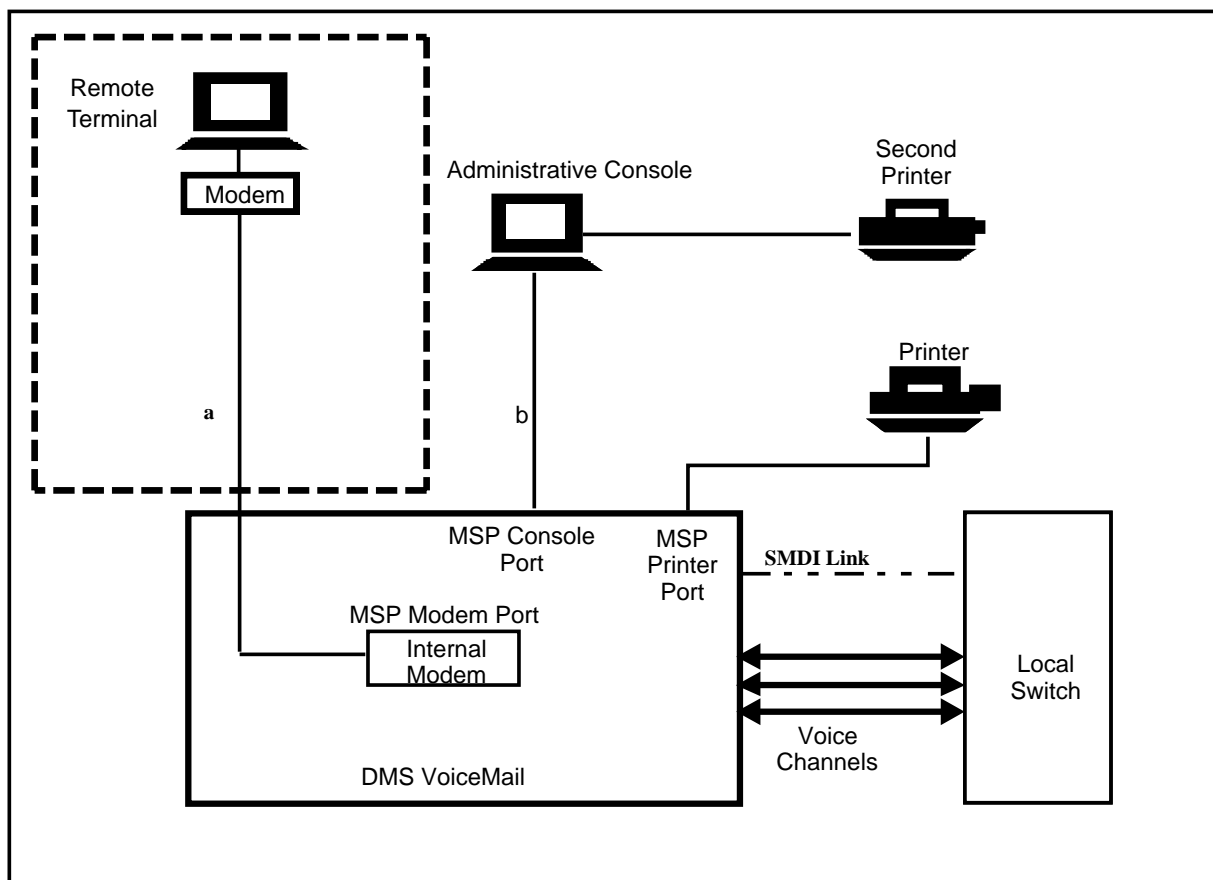
Starting point: Logon/Status screen, system time incorrect or undefined after logon.

- 1 You are prompted for the correct time. Enter the date and time in the format indicated, with leading zeroes, slashes, and colon (e.g., 31/01/89 09:35).
The Customer Administration screen is displayed.
- 2 Use [Cancel] if you choose not to set the system time.
The password prompt is redisplayed.
You may wish to investigate the source of the time discrepancy; see DMS VoiceMail Trouble-locating and alarm-clearing procedures (NTP 297-7001-503).

Using a remote terminal

If your installation has a remote terminal installed for service personnel, as shown in Figure 3-17 (Connection Option a), the remote access user can log on to the system to perform administrative functions once remote access has been enabled at the local terminal. While a remote logon is in effect, no administrative functions can be carried out from the local console. (When remote access is disabled, a remote user cannot log in to the system.) You should therefore schedule remote logins with the remote user for a time when you will not require access to the system.

Figure 3-17xxx
A typical remote administration configuration



“Appendix C: Remote Access” in the *System Application Software Installation and Modification Guide* (NTP 297-7001-504) provides information needed to set up a remote terminal and modem.

Procedure 3-14xxx
Enabling/disabling remote access

Starting point: The Logon/Status screen, at the local system administration console.

- 1 To bring up the COBRAVT selection window, enter **Ctrl-w** (while holding down the <Ctrl> key, press <w>).

Note: For help using COBRAVT, type a question mark (?). A help screen is displayed.

- 2 Type **m** (case does not matter).

- 3 Notify the user at the remote terminal.

The Logon/Status screen appears at the remote console.

The remote user hits the <Break> key to gain control of the console.

The remote user enters the administration password to gain access to the system.

The administrative functions described in this manual are identical when viewed from the local or remote administrative terminal.

- 4 To disable remote access, repeat steps 1 and 2 at the local administration terminal.

Control is returned to the local console, and the Logon/Status screen is redisplayed.

*You can terminate a remote logon by entering **Ctrl-w m** at the local console at any time during the remote log on.*

Note: *This may cause data loss if the remote administrator is in the process of changing system data and a save was not performed.*

On-line Help

As described earlier in the chapter “Understanding DMS VoiceMail administration”, on-line help is available for most of the menus and administration screens, including the Customer Administration Menu. The <Help> key on the keyboard can be used to display information in whichever screen you are working. If you require help with a screen, press the <Help> key. The system will display explanations of all the fields on the menu or screen in which you are working. When you are done, use the [Exit] softkey on the Help screen to return to the screen in which you were working.

Making recordings

The call answering greeting and personal verifications

These greetings are used for identification purposes. One identifies a customer to external callers and the other identifies users during message composition.

The call answering greeting

Note: This greeting is used only by MMUI customer groups.

The call answering greeting is recorded for each customer group on the system. This greeting is played when an external caller reaches a user's mailbox through call answering. It is played before the user's personal greeting (if recorded). It is also played by the remote notification service during notification delivery. If you do not record a custom greeting, there is no default call answering greeting and external callers simply hear the user's personal greeting when they reach a mailbox. For centrex customer groups, this recording can be used to identify the organization to external callers. For residential customer groups, this recording can be customized by the service provider to "brand" or introduce the call answering service to callers.

Because this greeting is used in a variety of situations, you will have to consider how to best word this greeting (or decide if you want to record a greeting at all). For example, during remote notification calls, the following prompt is played to MMUI users if no call answering greeting is recorded: *"Hello. DMS VoiceMail has received a message for ..."*. For users belonging to VMUIF customer groups, the prompt is *"Hello. Call Answering has received a message for ..."*.

When a custom call answering greeting exists, the following prompt is played: *"Hello. <Call Answering Greeting> has received a message for ..."*. If the call answering greeting is something like *"Hello. Thank you for calling the Medici Institute"*, the prompt will not sound right when used during remote notification. Consider the following when deciding whether or not to record a call answering greeting.

- If you do not record a call answering greeting, the organization's name will not be announced at the beginning of a call answering session. When an external caller is connected to a user's mailbox, the caller will only hear the user's external greeting (or internal greeting, if an internal but not external greeting is recorded). If you feel that the user's personal greeting is sufficient, you may regard this greeting as unnecessary.
- If you record just the organization's name ("*The Medici Institute*"), the greeting that is played during call answering may sound too abrupt. However, the prompt that is played during remote notification will sound quite natural.
- A friendlier greeting ("*Thank you for calling the Medici Institute*"), is ideal for call answering scenarios, yet results in an awkward sounding prompt for remote notification.

The personal verification

The personal verification is a recording of a user's first and last names (and extension, if desired). For example: "*Cathy Bush, extension 8593*". It is used to identify the owner of a mailbox.

Note that the personal verification is different from the user's personal greeting (VMUIF subscribers have one personal greeting whereas MMUI subscribers can record two: one for internal callers and one for external callers).

The personal greeting is played during a call answering session. For example, a caller phones Cathy Bush. She doesn't answer the phone and the call is, therefore, forwarded to DMS VoiceMail. It is at this point that the personal greeting is played, not the personal verification.

The personal verification is played in the following situations:

- During message composition, the personal verification is played after the mailbox number is entered to verify that the correct person is being addressed.
- Messages delivered to non-users (using the Delivery to Non-Users feature) include the personal verification. The recipient of the message will be more likely to listen to the message if they recognize who the message is from.
- When a user is called using the name dialing feature, the personal verification is played instead of spelling out the name to the caller.
- During remote notification the system will play the verification to identify for whom the message is intended.

Note: You can also record verifications for users as you add them to the system. This is done using the [Voice] softkey on the User Administration menus. See “Recording Personal Verifications using the [Voice] softkey” in the “User Administration” chapter in the *Customer Administration Guide*.

If no personal verification is recorded, the system plays a recording of the user’s mailbox number. Since it is easier to determine if you have reached the correct person by hearing their name than hearing their extension number, it is highly recommended that a personal verification is recorded for all users with mailboxes.

The personal verification can be recorded by you (the administrator) as you add each user to the system or by the users themselves. If you want users to record their own verifications, the system administrator will have to enable this feature in the Add or View/Modify Class of Service screen. The field is called *Personal Verification Changeable by User* and it is disabled by default for all new classes of service.

The procedure for recording personal verifications at the administration terminal is described in the “User Administration” chapter. However, it is ideal to have users record their own personal verifications because the user’s own voice is likely to be more recognizable to callers. The user’s procedure for recording a name for personal verification is covered in the DMS VoiceMail *Quick Reference Guide*. If you prefer that users record their own personal verifications, ensure that they are informed of this feature and that they are instructed in the procedure.

Procedure 4-1 **Recording greetings and verifications from a phone**

Note: Carry out the following procedure for each customer group. When you log on to the administrative mailbox in step 1, ensure that the mailbox belongs to the correct customer group.

- 1 Log on to a mailbox with administrator capabilities.
- 2 Follow 2a to record a call answering greeting or 2b to record Personal Verification recordings.
 - a. To record a call answering greeting, press **829** on the telephone keypad.
 - b. To record a Personal Verification for a user, press **89**, enter the user’s mailbox number and then press **#**.
- 3 Choose step 3a to replace an existing call answering greeting or Personal Verification, or 3b to add a new greeting or verification.
 - a. Press **76** to delete the old greeting. Proceed to 3b.
 - b. Press **5** to start recording.

If a previous recording exists, the added recording will be appended to the existing message.

- 4 Wait for the tone and say the custom call answering greeting or Personal Verification (name of user).
- 5 Press # to stop recording. (Do not hang up the phone during recording as this may produce a click sound.)
- 6 To check the recording, press 2 (play).
- 7 When recording is finished, press 83 to end the voice messaging session, then hang up.

Broadcast Messages

Note: It is recommended that you refrain from sending broadcast messages during busy hours.

There may be times you need to send a message to all users within a particular customer group. This type of message, known as a *broadcast message*, is issued by addressing a message to the broadcast mailbox number which is defined in the Voice Messaging Options screen (as described in the the chapter “Voice Administration”).

Note: You cannot send a broadcast message to all users in the system (only to all users in a particular customer group.) Although the broadcast mailbox number can be the same for all customer groups in the system (the default is “999”), the mailbox to which you log on determines to which customer group the message will be sent. For example, when you log on to a mailbox that belongs to Customer Group 101, only the users in this customer group will receive the message.

It is a good idea to record a personal verification for the broadcast mailbox (before you record any broadcast messages as described in Procedure 4-2). This verification is played to users when they receive the message. You can either identify who the message is from (i.e., the administrator) or that the message is a broadcast message so that each recipient knows that all users have received the message. This verification is recorded from the Voice Messaging Options screen using the [Voice] softkey. See the section “Voice Messaging Options” in the “Voice Administration” chapter for details.

Procedure 4-2xxx **Sending broadcast messages**

Note: If you have not recorded a personal verification for the broadcast mailbox, do so from the Voice Messaging Options screen before beginning.

- 1 Log on to a mailbox with broadcast capability. Make sure the mailbox belongs to the customer group to which you want to send the broadcast message.
- 2 Press 75, enter the broadcast mailbox number, and press #.
- 3 Press # again to end the list.
- 4 Press 5 to start recording.
- 5 Wait for the tone and say the message to be broadcast.
- 6 Press # to stop recording.

- 7 To check the recording, press **2** (play).
- 8 To send the broadcast message, press **79**.
- 9 When the message is sent, press **83** to end the session, then hang up.

Guidelines for making voice recordings

Prompts used solely for administrative purposes can be recorded without much preparation other than deciding on the exact wording of the prompt. For voice menus or announcements played to the public or members of your organization, more formal preparation may be necessary. The following is a list of guidelines you may wish to use when recording prompts:

- Use a voice that is similar to the DMS VoiceMail prompts and consider using only one voice to avoid distracting callers by changes in pitch, tone, intonation, or accent. Choose a voice that suits your organization's image. Select the person who will read the text and print complete, definitive copies of the script. Audition a few candidates by recording their voices, then playing the recordings over the telephone line. Low-pitched voices are reproduced over telephone lines better than high-pitched ones.
- Record in quiet surroundings.
- Start recording immediately after the tone and stop the recording immediately after the last word. This prevents unnecessary pauses when system prompts and Personal Verification recordings are joined together.
- Do not hang up the phone while recording as this may produce clicks in the recording. Instead press **#** to stop recording.
- For applications that provide current information, it is perhaps best to have the person who knows the information monitor the prompts to ensure that the information is always up-to-date.
- When recording a Personal Verification for two or more people in your organization who have the same name (or very similar names), provide more information (their extension number or title, for example) to distinguish them.
- Record a few names for Personal Verification and listen to them before recording the remaining names. This ensures that the procedure is done correctly and the intonation is good. Test each of the following areas where Personal Verification applies:
 - call answering greeting (MMUI customer groups only);
 - message envelope playback;
 - address playback in the compose command;
 - name dialing and name addressing (MMUI customer groups only).

Voice Prompt maintenance

If you delegate the task of maintaining recordings used in voice services (voice menus, thru-dialers, and announcements), ensure that your delegates are trained in using the Voice Prompt Maintenance service. You can also use this service when you must re-record prompts frequently. The service allows you to review and modify voice prompts through a DTMF telephone rather than the administrative console.

Though prompts cannot be deleted through the Voice Prompt Maintenance Service, recording a new prompt automatically overwrites any previous prompt. You cannot update a voice recording through the Voice Prompt Maintenance Service while the voice service is being updated through the Voice Services Administration screens. Callers hear the old version of the menu, thru-dialer or announcement while it is being updated.

Most voice services (voice menus, announcements, thru-dialers, and voice forms) contain recorded data or prompts of one kind or another. An announcement contains just one recorded prompt which is played back to callers. A voice menu contains an introductory greeting as well as a prompt which specifies the actions which a user can take by pressing keys on the telephone keypad. Thru-dialers also contain an introductory greeting. Prompts can be recorded by the administrator from the administration terminal, or by using the Voice Prompt Maintenance Service.

The voice prompt maintenance service can be used to update recordings in voice menus, announcements and thru-dialers. Although voice forms contain numerous recordings (for the form name, field names and field questions), these prompts cannot be updated using the voice prompt maintenance service. Voice form prompts can only be recorded from the administration terminal.

To use the voice prompt maintenance service, you must define an Update Password for the application (see “Voice Services Administration” in the “Voice Administration” chapter). If no Update Password is assigned, the menu or announcement will not be accessible through the Voice Prompt Maintenance Service and can only be updated through Voice Services Administration.

Note: You must assign a DN to the voice prompt maintenance service in the VSDN table (described in the section “The voice services administration menu” in the chapter “Voice Administration”). This DN is dialed directly to access the service.

Updating announcements, voice menu and thru-dialer prompts

Voice menus consist of a recorded greeting, and a prompt which specifies the actions which a user can take by pressing keys on the telephone keypad. The Add a Voice Menu Definition screen is used to create a voice menu and define its general characteristics. Voice recordings in the new menu can be recorded by the administrator, or by a delegate using the voice prompt maintenance service. For more information about voice menus, announcements, thru-dialers, and time-of-day controllers, refer to the *Voice Menus Application Guide* (NTP 297-7001-307).

Procedure 4-3xxx

Updating voice menu prompts

- 1 Dial the Voice Prompt Maintenance Service DN.
The system prompts you for an ID.
- 2 Enter the required Voice Menu ID and press #.
The system prompts you for the Update Password.
- 3 Enter the Update Password and press #.
- 4 The system plays a menu with four choices:
 - a. Update Greeting prompt
 - b. Update Menu Choices prompt
 - c. Update No Response prompt
 - d. Update Other Menu prompts
- 5 Select the required function.
If you select a, b, or c you are prompted to play the prompt if it exists.
If you select d, you are prompted for the number of the prompt. This number is the number of the key a caller using the menu must press to hear the prompt. Enter the appropriate number.
- 6 Play or record the prompt.
If you selected d after playing, recording, or updating the prompt, enter a number sign (#) to go back to where you can enter the (key) number of another prompt.
- 7 To return to the ID prompt, enter a number sign.
You can now work on another menu by going to step 2.

An Announcement is simply a voice recording that can be played back as part of a voice menu (when a particular menu item is selected) or as a stand-alone service, having a unique DN that users dial in order to hear the information recorded in the announcement.

Thru-dialers perform basic call handling within a voice menu or as a stand-alone service. When used within a voice menu, the system recording prompts callers to enter an extension or name (if enabled) and places the call. Custom prompts are not required. However, when a thru-dialer is used as a stand-alone service, a custom greeting should be recorded. For example a thru-dialer may be used as an autoattendant in which case the greeting should contain the company name and should inform callers to stay on the line if they don't have a touch tone phone.

Procedure 4-4xxx

Updating announcements and thru-dialer greetings

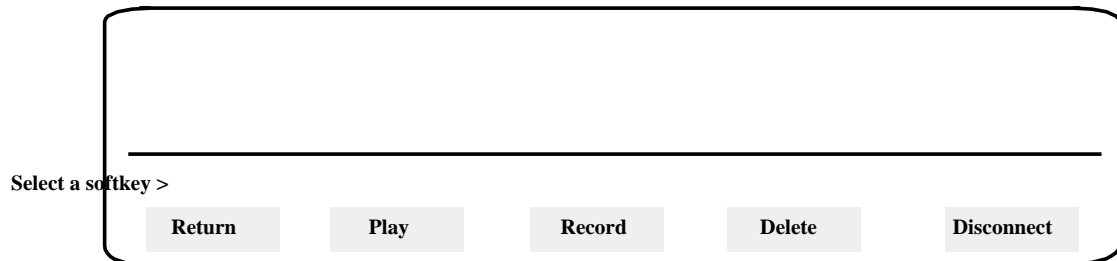
- 1 Dial the Voice Prompt Maintenance Service DN.
The system prompts you for an ID.
- 2 Enter the required Announcement ID or Thru-dialer ID and press #.
The system prompts you for the Update Password.
- 3 Enter the Update Password and press #.
You are prompted to use Play or Record. (Use Play to hear the entire prompt from start to finish.)
- 4 Play the announcement or greeting, or update it and save the new announcement.
Record overwrites the old recording.
- 5 To return to the ID prompt, enter a number sign.
You can update another announcement or thru-dialer greeting by going to step 2.

Making recordings using the [Voice] softkey

The [Voice] softkey is displayed on some administration screens. Depending on the screen in which it is located, this softkey is used to record personal verifications and prompts for voice menus, announcements, thru-dialers, and voice forms. If the environment around your terminal is noisy, you may prefer to use a phone that is in a quieter location to dial into the Voice Prompt Maintenance Service to record voice menu prompts and announcements. When the [Voice] softkey is pressed, a new set of softkeys is displayed. See Figure 4-1.

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

Figure 4-1
Recording softkeys



Procedure 4-5
Using the recording softkeys

- 1 Press the [Voice] softkey.
You are prompted for an extension number.
- 2 Enter the extension number of the phone set you are going to use to make the recording.
The phone will ring when you finish entering the extension.
- 3 Pick up the telephone handset.
- 4 To record, go to step 4a. To listen to the existing recording, go to step 4b. To delete the existing recording, go to step 4c. To return to the original set of softkeys, go to step 4d.
 - a. Press the [Record] softkey. At the sound of the beep begin speaking 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 recording has already been made, it is played over the phone.
 - c. Press the [Delete] softkey.
If a recording 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.

Playing a recording

The voice recording can be played using the [Play] softkey.

Procedure 4-6xxx

Playing a voice recording

Starting point: The current screen, Voice softkeys displayed.

- 1 Use [Play].
*If there is no current recording, a message is displayed on the console.
If a recording is available, it is played, and the [Stop] softkey is displayed;*
- 2 Use [Stop] at any time to stop the playback.
The Voice Recording softkeys are redisplayed.

Recording a new message

The voice recording can be recorded using the [Record] softkey. This overwrites any existing recording.

Procedure 4-7xxx

Recording a voice recording

Starting point: The current screen, Voice softkeys displayed.

- 1 Use [Record].
*A message is displayed on the console requesting you to make the recording, and a beep can be heard in the telephone receiver.
The [Stop] softkey is displayed.*
- 2 Say the text of the recording and use [Stop] when you are done.
*The Voice Recording softkeys are redisplayed.
The recording will be stopped automatically if you exceed the Maximum Prompt Size or the Record Timeout set in the Voice Service Profile screen.
If a recording existed before, it is overwritten.*

Deleting a recording

The recording can be deleted using the [Delete] softkey.

Procedure 4-8xxx

Deleting a voice recording

Starting point: The current screen, Voice softkeys displayed.

- 1 Use [Delete].
A message is displayed on the console requesting you to confirm the deletion; the softkeys [OK to Delete] and [Cancel] are displayed.

- 2 Choose 2a to delete the recording, or 2b to cancel.
 - a. Use [OK to Delete].

The recording is deleted.

The Voice Recording softkeys are redisplayed.
 - b. Use [Cancel].

The Voice Recording softkeys are redisplayed; the recording is not deleted.

User Administration

Note: Before adding any users to a customer group, make sure that Classes of Service (COS) have been created and assigned to this customer group. For information about creating Classes of Service, see the chapter “Class of Service Administration” in the *System Administration Guide*.

Categories of users

User administration primarily involves adding users to customer groups, and once added, maintaining the existing user profiles. When you add a new user to a customer group, you must specify the user type. There are two categories of users as described below:

- **Local Voice Users** have DNs on the local switch. Each local voice user has a mailbox with call answering capability. This means that if the user is away from his or her phone (or on the phone), callers are connected to their personal mailbox in which they can leave a voice message. Users belonging to MMUI customer groups also have access to voice messaging functions (i.e., they can compose and send messages to other users and non-users). Users belonging to VMUIF customer groups tend not to have compose and send capabilities (although these can be enabled). Instead, they typically have access to a simplified call answering interface only.
- **Directory Entry Users** can only be added to customer groups with the MMUI interface type (generally, these are Centrex customer groups). A directory entry user is registered in the DMS VoiceMail directory but does not have a mailbox. As a result, they do not have access to voice messaging functions. They can, however, be referenced by such features as name dialing and thru-dialers (that may be part of an automated attendant service).

The User Administration screens

The User Administration screens provide the necessary facilities to add, modify and delete directory entry users and local voice users. When you add a user to the system, you are essentially creating a user profile which contains all of the pertinent information relating to that user.

The Find facility simplifies the process of locating existing users for the purpose of modifying or deleting them. You can retrieve a particular user profile or a subset of user profiles using various search criteria such as first or last name, department (MMUI), mailbox status (disabled, enabled, etc.), or personal verification status (to find all those users who do not have personal verifications).

When you add users to the system, the user profile is based on the Class of Service (COS) to which he or she is assigned. Classes of service serve as templates to simplify the process of adding new users to the system and provide a way of changing a parameter (such as enabling/disabling a feature, changing a maximum limit) for a group of users (all of the users who belong to the Class of Service). Up to 127 system COSs can be defined. You can assign up to 15 of these COSs to a customer group.

Personal classes of service can be created to meet the needs of a user who does not fit into any of the existing classes of service. This is described in more detail in the section “Adding local voice users”. Classes of service are described in the chapter “Class of Service Administration”.

Note: Classes of service can only be created by the system administrator.

Multiple administration terminals

DMS VoiceMail supports up to four administration terminals. This includes one main administration terminal and up to three secondary terminals. All administrative functions can be performed on the main administration terminal. The secondary terminals have limited functionality. They can be used to:

- perform user administration;
- perform customer-specific voice services administration (such as creating or modifying voice services), and
- view class of service definitions.

If more than one administrator accesses a user profile or distribution list at the same time, the administrator who first gained access to the user or list is the only one who can modify the information. The information displayed on the other terminals will be read-only and the only softkey available will be the [Exit] softkey.

For information about configuring multiple administration terminals, see the chapter “Configure MATs” in the *System Administration Tools* guide (NTP 297-7001-305).

Planning how to add new users to the system

Before you begin to add any users to the system, you should do some planning first. Ask yourself the following questions:

- 1 How are you going to distribute users over volumes to ensure that some of your volumes don't become full while others remain empty?
- 2 If you are adding large numbers of users in a short time period (i.e., in a 24-hour period), there are special considerations.

Distributing users over volumes

DMS VoiceMail systems can have from one to eight voice nodes, each of which contains a hard disk drive for data storage. The hard disk drives are partitioned into volumes. Volumes are storage areas for system and user related information. The volumes are already set up when your system is installed.

Users are automatically distributed over volumes. Whenever you add a new user, the volume to which the user is added defaults to the volume with the greatest amount of free voice space. This ensures that certain volumes do not fill up while others remain empty.

However, you should be careful that you do not assign too many heavy users to the same volume. Putting certain types of users who share the same usage pattern (especially those who use the system heavily) on the same volume increases the probability that too many channels will try to access the same disk at one time. For example, all secretaries are added to the same volume (volume 203). They all come in at 9:00 a.m. and log on immediately. Suddenly a large number of channels are trying to access the disk. This situation is not desirable. It is therefore recommended that you distribute users across volumes randomly in such a manner that does not result in correlations in access patterns among the users on a volume.

Before adding users to the system, survey your users to estimate average usage in terms of number of messages and length of each message. Compare this with the capacity of the available disk volumes and the minutes of storage you wish to assign to users, and estimate the number of users each volume can accommodate. Randomly assign users on different disks to distribute traffic evenly to the disk drives. Ideally, each user volume should have an equal number of users. For example, to randomly select users, choose the volume based on the first letter of the user's surname.

Note: For VMUIF subscribers, the maximum voice storage for each mailbox is equal to the mailbox size plus the maximum message length.

Information on disk usage can be obtained through the Disk Usage report generated by the system administrator (see “How to Interpret OM Reports” in the “Operational Measurements” chapter of the *System Administration Guide* (NTP 297-7001-300)). A listing of disk volumes can be obtained by displaying the Volume Administration screen shown in the General Administration chapter of the *System Administrator’s Guide*. For information about volume names and how information is distributed on the volumes, see “Volume numbers and distribution” in the General Administration chapter of the *System Administration Guide* (NTP 297-7001-300).

If a volume becomes full and you need to move users to another volume, you can do so using the Move User utility. This utility is available under the Tools menu. To move a user you must know the user’s mailbox number. For more information, see the *System Administration Tools* guide (NTP 297-7001-305).

Adding large numbers of users

It is not recommended that you add a large number of users (600 or more total, not per customer group) in a short period of time. (A short period of time here means a 24-hour period between two nightly audits. These audits take place between 2:30 a.m. and 5:00 a.m.). When you add such a large number of users, the organization directory which stores user profile information, can become unbalanced and perform less efficiently. The nightly audit rebalances the directory. If you must add a large number of users between audits, consider the following factors:

- 1 Ensure that the number of users to be added is within the engineering guidelines for the system. Specifically, DMS VoiceMail is engineered for up to 5,000 users per voice node.
- 2 If you have both residential and private customer groups, the type of user affects system load. Residential subscribers place less of a load on the system than private users.

Note: When adding users to a private customer group, add them in *reverse alphabetical order*. When you add users to a private customer group in alphabetical order, performance will gradually degrade after approximately 600 users have been added. This degradation in performance will be corrected when the next nightly audit occurs.

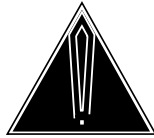
When adding users to a residential customer group, you can add them in any order.

- 3 Distribute users across volumes as evenly as possible. See the section “Distributing users over volumes” earlier in this chapter.

- 4 Do not add more than 2000 users to the same exchange. Otherwise, the system will become unbalanced. The next nightly audit will rebalance the system. For example, if the exchanges 763, 766 and 769 exist on your switch, do not add more than 2000 users to any of them within a 24-hour period.
- 5 For MMUI users, be careful of how you fill in the Department field. Avoid broad categories which will place more than 100 users in a single department.

The User Administration Menu

When User Administration is selected from the Customer Administration menu, the User Administration menu (Figure 5-1) is displayed. From this menu you can add, modify or delete local voice users, directory entry users, or distribution lists.

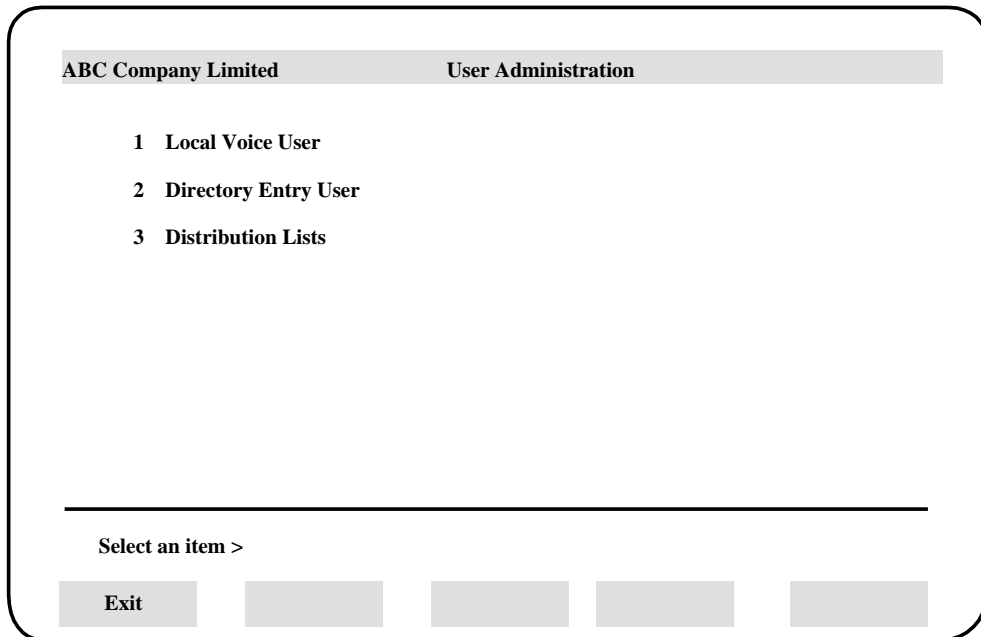


CAUTION

Do not perform user administration during nightly DR audit

At 3:30 a.m. every day, an audit of the DR directory is performed. Do not perform user administration (adding, modifying or deleting users) during this audit. Depending on how unbalanced the system is, this audit can take anywhere from 10 minutes (if the system has not been modified since the last audit) to 3 hours (if there have been many changes, such as a lot of users or services being added or modified).

Figure 5-1xxx
The User Administration menu



Procedure 5-1xxx
Using the User Administration menu

Starting point: The Customer Administration Menu.

Us1 Select User Administration.

The User Administration menu is displayed (Figure 5-1).

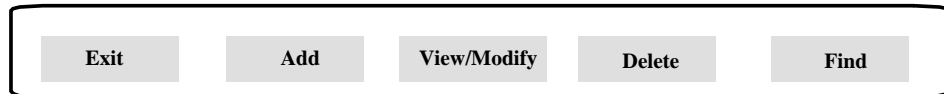
Us2 Choose an item by entering its number and pressing <Return>.

Select Local Voice User if you want to add a local voice user to a customer group, or modify or delete an existing local voice user profile.

Select Directory Entry User if you want to add a directory entry user to a customer group, or modify or delete an existing directory entry user profile.

Select Distribution Lists if you want to add a distribution list, or modify or delete an existing list.

The following softkeys are displayed when you select one of the above options:



Us3 Press [Exit] to return to the User Administration menu.

Adding local voice users

Most of the users that you add to the system will be local voice users. When you add a user, you are creating a user profile. This profile contains all of the information pertinent to the user and specifies the functionality that is available to the user.

Before adding local voice users you should:

- 1 Determine the capacity of your disk volumes.
- 2 Survey users to determine the classes of service (COSs) that will be necessary and to estimate the average system usage of each type of user.
- 3 Create COSs to reflect the results of your survey.
- 4 Assign COSs to customer groups.

User passwords

Each local voice user belonging to an MMUI customer group must have a password. When you add a new user, the system assigns a default password (the user's mailbox number). This password can be changed by the administrator or by the user at the telephone set.

When you add a local voice user to a VMUIF customer group, the system does not assign a password. A user that does not have a password can access DMS VoiceMail from his or her "home phone" only. If the user belongs to a class of service for which remote notification is enabled, a password is necessary so that the user can call from a phone other than the home phone in order to listen to messages. In fact, if the user wants to be able to log on to his or her mailbox from any phone (not just the home phone), a password will be necessary. You can create a password at the administration terminal using the [Change User Password] softkey in the Add (or View/Modify) Local Voice User screen. Alternatively, you can inform subscribers that they will have to create a password using their telephone set in order to use remote notification and to log on to their mailbox from a phone other than the home phone.

The Add Local Voice User screen

When you press the [Add] softkey, you are prompted to enter the new Local Voice User mailbox number. After a valid mailbox number is entered and the <Return> key is pressed, the Add Local Voice User screen (Figure 5-2) is displayed.

The Add Local Voice User screen is actually made up of three screens:

- **Basic Fields** - This is the first screen that is accessed after you press the [Add] softkey. It contains information such as the user's mailbox number, name, COS number, extension DNs, revert DN, and message waiting indication DN.

- ***Class of Service Fields*** - This screen is accessed by placing the cursor on the *Class of Service* field and pressing the [More Detail] softkey. This screen allows you to view (only) the configuration of the COS that is selected (for verification purposes). However, if the “Personal” COS is selected, you can modify the fields to create a custom COS for the user.
- ***Outcalling Fields*** - If Outcalling is installed on the system and the *Remote Notification Capability* field is set to “Yes” in the class of service selected for the user, you can create a remote notification schedule for the user from this screen. The screen is accessed by moving the cursor to the *Remote Notification Schedules* field and pressing the [More Detail] softkey.

Procedure 5-2xxx

Accessing the Add Local Voice User screen

Starting point: The Customer Administration menu.

Us1 Select User Administration.

Us2 Select Local Voice User.

Us3 Press the [Add] softkey.

You are prompted for a mailbox number.

Us4 Enter the user’s DN followed by <Return>.

Enter the network DN (the DN that is configured on the DMS), not the dialable DN. DN lengths must match the System DN Length that is configured in the General Options screen.

This number will be used in the Add Local Voice User screen to fill in the Mailbox Number, primary Extension DN and Message Waiting Indication DN fields.

After the mailbox number has been entered, the Add Local Voice User screen is displayed.

Figure 5-2xxx
The Add Local Voice User screen (basic fields)

ABC Company	User Administration
Add Local Voice User	
Mailbox Number:	8765432 Volume ID: 203
Storage Used:	0
Last Name:	Cardew
First Name:	Fred Initials: F
* Department:	Information Systems
Class of Service:	Personal [001_Standard] 002_Executive 003_Secretary (More Detail) 004_Outcalling 005_RNonly 006_DNUonly 009_AMIS/OC 024_Admin
Extension DN:	8765432 8762999
Revert DN:	0
! Message Waiting Indication DN:	8765432
#! Message Waiting Link Name:	[Link1] Link2 Link3 Link4
Personal Verification Recorded (Voice):	No
## Remote Notification Schedules: (More Detail)	No
* Name Dialable by External Callers:	No [Yes]
Logon Status:	Disabled [Enabled]
** Volume Level:	[Normal] Loud Louder Loudest
!! Preferred Language:	[AmericanEnglish] EuropeanEnglish Mandarin Korean
<div style="display: flex; justify-content: space-around;"> Save Cancel More Detail Change Password Voice </div>	

- * These fields are displayed only if the user belongs to an MMUI customer group.
 ** This field is displayed only for VMUIF customer groups.
 # This field is displayed only if your system has SMDI links.
 ## This field is displayed only if Outcalling is installed and Remote Notification Capability is set to Yes in the selected COS.
 ! These fields are displayed only if the MWI option is not set to None in the selected COS.
 !! This field is displayed only in multilingual systems.

The following fields are displayed:

- **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. This field is mandatory. If it is not filled in, you will not be able to save the user profile.

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

- the broadcast mailbox number,
- other DNs,
- the name dialing prefix (see “Voice Messaging Options” in “Voice Administration”),
- delivery to non-user dialing prefixes (see the *Outcalling Application Guide* (NTP 297-7001-308),
- system distribution list numbers,
- other mailbox numbers,
- the AMIS prefix,
- the personal distribution list prefix (VMUIF customer groups only)

Note: People that are not in the office much (such as salespeople) may not have their own telephone set. You still can, however, configure a mailbox for these people so that they can collect and listen to messages. All that you need is an available DN on the switch that is not associated with a physical telephone set.

- **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.
- **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, you can log on at the Tools level and select the menu item “Audit all volumes”. This will update the real mailbox storage information that is stored on disk and prevent prematurely full mailboxes. See the *System Administration Tools* guide (NTP 297-7001-305) for more information about this tool.

- **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 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 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 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.

You can retrieve users on the basis of department when using the Find Users function (described later in this chapter). With Find Users however, only the first ten characters of the department are displayed. Therefore try to assign unique identifiers for each department. 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)** - This field specifies the Class of Service (COS) to which the user belongs. Up to 15 COSs will be displayed. The COSs that are displayed in this screen depend on the selections made in the General Options screen (see the “General Administration” chapter). Only the “Personal” COS will be displayed if you have not yet assigned any COSs to this customer group.

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, 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” on page 5-18 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. 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 of the user and is mandatory. You cannot save the user profile if this field is blank. It is automatically filled in with the DN you entered to access this screen and is therefore the same as the mailbox number.

For centrex customer groups, DNs are typically four digits in length. For SMDI link systems, if 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.

- **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 user administration session. Subsequent users (that are added within the same user 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 “General Administration”).

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 *DMS VoiceMail Voice Messaging User Guide*. However, you might want to restrict users from changing their own revert DNs. This can be done by filling one of the sets of restriction/permission codes with the digits 0 to 9 in the Voice Security Options screen at the system administration level. The restriction/permission set can then be assigned to the custom revert feature in the user’s class of service. The service provider can still enter a revert DN through user administration and custom revert will work. However, users will not be able to change this DN from a telephone set. See the chapter “Class of service administration” in the *System Administration Guide* for details about setting up these restriction codes.

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 number at which message waiting indication (MWI) is activated when a new message is put in the user's mailbox. This field defaults to the user's mailbox number. This must be a network DN (i.e., it must be in the format in which DNs on the DMS are configured, such as a public network DN in the format NPA-NXX-XXXX).

Note: To modify or delete this DN, make sure MWI is turned off first. If the MWI DN is changed when MWI is on, MWI will never be turned off.

This field should be set to "None" for users that don't have a physical telephone set, but do 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 only displayed if the system has SMDI links and if the *Message Waiting Indication Option* field in the user's COS is set to something other than "None". This field will display a list of all available link names. The selected name specifies the link on which the message waiting indication is sent for this user. Each link name can be up to 19 characters long.

This field is intended for systems with the Multi-SMDI (indicated as "SMDI" in the General Options screen) feature 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.

- **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 5-26. See the chapter “Making recordings” for more information about the personal verification and when it is used.

- **Remote Notification Schedules (More Detail)** - This field is displayed only if Outcalling is installed and if Remote Notification Capability is set to “Yes” in the user’s COS.

“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” on page 5-18.

- **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 *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.

Procedure 5-3xxx
Adding a Local Voice User

Starting point: The User Administration menu.

- Us1** Select Local Voice User.
- Us2** Press the [Add] softkey.
- Us3** The [Cancel] softkey appears, and you are prompted to enter a mailbox number.
- Us4** Go to step 4a to proceed, or 4b to cancel.
- a. Enter the mailbox number and press <Return>.
 The Add Local Voice User screen appears (Figure 5-2).
- b. Use [Cancel].
 The User Administration softkeys are displayed.
- Us5** Enter the *Last Name, First Name, Initials,* and *Department* (for MMUI customer groups) of the new user.
- Us6** Assign the user to a Class of Service (either to one of the system COSs or create a personal COS if necessary). To view a COS, press the [More Detail] softkey while the cursor is on the *Class of Service* field. Fields in the COS are read-only. To create a personal COS, make sure “Personal” is selected and then press [More Detail]. The fields in the personal COS are modifiable from this screen.

 See the chapter “Class of Service Administration” for screen illustrations and field descriptions.
- Us7** Specify the user's *Extension DNs, Revert DN, Message Waiting Indication DN* and *Message Waiting Link Name*.

Us8 If you need to create a personal verification for the user, move the cursor to the *Personal Verification Recorded (Voice)* field and press [Voice]. (This is necessary if the field *Personal Verification Changeable by User* is set to “No” in the COS and the user requires or desires a personal verification.)

- 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. 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.

See the section, “Recording personal verifications using the [Voice] softkey” on page 5-26 for more information about the recording softkeys.

Us9 If remote notification is enabled in the COS to which the user belongs and you need to create a schedule for the user, move the cursor to the *Remote Notification Schedules* field and press [More Detail].

See the section “Creating a remote notification schedule” on page 5-18 for details on setting up a schedule.

Us10 For VMUIF users, set the volume to the desired level.

Us11 For multilingual systems, specify the user’s preferred language.

Us12 For MMUI users, the default password is the same as the user’s mailbox number. For VMUIF users, there is no initial password. To change the password, see Procedure 5-4.

Us13 Go to step 13a to save the new user, or 13b to discard this user profile.

- a. Use [Save].

The system saves the new user and prompts for another local voice user’s mailbox number; go to step 4a to add another user, or to 13b to exit this screen.

- b. Use [Cancel].

New user information is discarded. The User Administration softkeys are displayed.

Procedure 5-4xxx
Changing the user's password

Starting point: The Add Local Voice User screen.

- Us1** Press the [Change Password] softkey.
You are prompted to enter the new password.
- Us2** Enter the new password (up to 16 digits in length) and hit <Return>.
(The password is not displayed on the screen.)
You are prompted to re-enter the password for verification.
- Us3** Re-enter the password and hit <Return>.
If there is a mismatch between the first and second passwords, return to step 2.

Creating a personal class of service

If a user has special requirements that are not met by any of the existing COSs, you can create a personal COS that is customized for that user. All personal COSs must be maintained individually since any changes made to a system COS will not affect the personal COSs that exist on the system. If, for example, it is decided that all users belonging to a particular customer group will be given access to a particular feature, you would have to modify the COSs that are assigned to that customer group as well as all users with personal COSs that exist in that customer group. To create a personal COS, follow Procedure 5-5.

Procedure 5-5xxx
Creating a personal class of service

Starting point: The Add Local Voice User screen.

- Us1** Move the cursor to the *Class of Service* field.
- Us2** Select the Personal COS (the first COS in the list).
- Us3** Press the [More Detail] softkey.
The View/Modify Class of Service screen is displayed. Refer to the "Class of Service Administration" chapter for screen illustrations and field descriptions (beginning on page 11-7).
- Us4** Make the necessary modifications.
- Us5** Press the [Return to Basic Fields] softkey to return to the Add Local Voice User screen.

Creating a remote notification schedule

The administrator, using the administration terminal, can set up Remote Notification schedules for each user. If the *Keypad Interface* field is enabled in the user's class of service, the user can set up his or her own schedule using the telephone keypad. (Note that VMUIF subscribers cannot create schedules from their telephone sets.) Figure 5-3 on page 5-20 displays the fields that are used to create schedules.

A remote notification schedule allows you to define numbers where users can be reached at different times of the business day, as well as non-business days. There are three different schedules associated with each user: one for business days, one for non-business days, and one temporary schedule. The temporary schedule overrides the other two schedules until the time specified. This schedule is useful if a user will be at a different number for a short period.

For more details about the remote notification feature and remote notification schedules, see the *Outcalling Application Guide* (297-7001-308).

To create a remote notification schedule, follow Procedure 5-6.

Procedure 5-6xxx
Creating a remote notification schedule

Starting point: The Add Local Voice User screen.

- Us1** Move the cursor to the *Remote Notification Schedules* field.
- Us2** Press the [More Detail] softkey.
The outcalling fields are displayed. See Figure 5-3 on the following page.
- Us3** Create a business day schedule and a non-business day schedule for the user. Refer to the field descriptions on the following pages.
- Us4** Press the [Return to Basic Fields] softkey when you are done.

Figure 5-3
Add Local Voice User (Outcalling Fields)

ABC Company	User Administration	MORE ABOVE
Add Local Voice User - Outcalling Fields		
Current State of Remote Notification:	Off	
# Message Remote Notification Option:	[Any] Urgent	
Business Days Schedule:		
* Period 1 from (hh:mm): ___ to (hh:mm): ___	[Disabled] Enabled	
Target 1 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 2 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 3 DN: _____	Phone Tone Voice Numeric [Service]	Pager ID Number: ___
Non-Business Days Schedule:		
* Period 1 from (hh:mm): ___ to (hh:mm): ___	[Disabled]Enabled	
Target 1 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 2 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 3 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Temporary Schedule up to midnight of (dd/mm/yy): ___		
* Period 1 from (hh:mm): ___ to (hh:mm): ___	[Disabled]Enabled	
Target 1 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 2 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
Target 3 DN: _____	[Phone] Tone Voice Numeric Service	Pager Callback Number: ___
The Outcalling Fields data will be saved only if the user is saved.		
Return to Basic Fields		

*There are actually three periods listed for each schedule, each with three targets.
 # This field is displayed only for MMUI users.

The following fields are displayed:

- **Current State of Remote Notification** - This is a read-only field which indicates whether or not remote notification is currently enabled or disabled for this user.
- **Message Remote Notification Option** - (MMUI only) This field specifies the type of message that will cause the system to remotely notify the mailbox owner. If “Any” is selected, the user will be notified of all new messages. If “Urgent” is selected, only those messages that are tagged as urgent will trigger a remote notification call.

- **Schedules** - Up to three remote notification schedules can be defined for each user. One for business days, one for non-business days and a temporary schedule for short-term remote notification. (The temporary schedule overrides the Business and Non-Business days schedules until midnight of the date specified, including the current day. When the duration expires, the schedule status is automatically set to “Disabled”.)

To enable a schedule, define a valid time period and set the appropriate schedule to “Enabled” (defining the time period alone will not automatically enable the schedule). For a time period to be valid, the times must be chronologically correct, non-overlapping, within the 24-hour time window (midnight to midnight) and the targets must be dialable, non-restricted phone or pager numbers.

Within each schedule, you can define up to three time periods. For each time period, you can define up to 3 RN target DNs. The target DN can be a phone number, a directly dialable pager number, or a common pager service number (if this is a general access pager service, such as SkyPager).

For each target DN that you enter you must define the type of device to which the service will be outcalling. If the device is a phone, select “Phone”. You do not have to enter anything in the *Pager Callback Number* field. To define a pager as the target device, select one of the following options:

- **Tone** - to define either a Tone-only or Tone and Voice pager. You do not need to enter anything in the *Pager Callback Number* field.
- **Voice** - to define a Tone and Voice pager. You do not need to enter anything in the *Pager Callback Number* field.
- **Numeric** - to define a digital or numeric pager with DID access. Fill in the call-back number to be displayed in the *Pager Callback Number* field. If you do not enter a callback number here, the *Default Numeric Pager Data* field in the Outcalling Options screen will be used to display the default callback number.
- **Service** - to define a digital or numeric pager with general access. Enter the pager’s PIN number in the *Pager ID Number* field. In this case, the call-back number is taken from the *Default Numeric Pager Data* field in the Outcalling Options screen. This is a customer-wide call-back number that is displayed on all pagers configured with “Service” as the RN target device.

You may also have to change the *Numeric Pager Data Terminator* field (also in Outcalling Options). If the paging service accepts the # terminator, leave the default setting as it is. If the service does not accept this terminator, make sure this field is blank.

The Outcalling Options screen is described in the *Outcalling Application Guide* (297-7001-308).

Note: To delete a time period, delete the associated “from” and “to” times and save the settings. To temporarily disable a time period, select “Disabled”.

If the *Keypad Interface* field in the user’s COS is set to “Yes”, the user can create his or her own schedules using mailbox commands. (Note that this functionality is not available to VMUIF subscribers.)

Adding directory entry users

Directory entry users do not have voice mailboxes associated with their extensions. This is useful, for example, when a telephone is used by a number of different people. You do not necessarily wish to create a mailbox for this type of phone, but you may wish to associate the names of the people who use the phone with the extension. Then other DMS VoiceMail users can dial the phone using thru-dial features such as Name Dialing.

The Add Directory Entry User screen (Figure 5-4) contains fields that identify each directory entry user and associate the users with primary and optional secondary and tertiary extension numbers. Primary extension numbers are not unique; several users can share the same extension.

Procedure 5-7xxx

Accessing the Add Directory Entry User screen

- Us1** Select User Administration.
- Us2** Select Directory Entry User.
- Us3** Press the [Add] softkey.

You are prompted for an extension.

- Us4** Enter the user’s DN followed by <Return>.

Enter the network DN (the DN that is configured on the DMS), not the dialable DN. DN lengths must match the System DN length that is configured in the General Options screen.

Note: *Make sure this DN does not conflict with any distribution list numbers. If a distribution list and a directory entry user share the same number, the distribution list number will take precedence over a directory entry user number during compose. The message will not be sent to the directory entry user.*

This number will be used in the Add Directory Entry User screen to fill in the primary Extension DN field.

Once the DN has been entered, the Add Directory Entry User screen is displayed.

Figure 5-4xxx
Add Directory Entry User screen

* These fields are displayed only if the subscriber belongs to an MMUI customer group.

The 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.

You can retrieve users on the basis of department when using the Find Users function (described later in this chapter). With Find Users however, only the first ten characters of the department are displayed. Therefore try to assign unique identifiers for each department. 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 for the primary DN and is mandatory. You cannot save the user profile if this field is blank. It is automatically filled in with the DN you entered to access this screen and is therefore the same as the mailbox number.

Note: Make sure none of these DNs conflict with any distribution list numbers. If a distribution list and a directory entry user share the same number, the distribution list number will take precedence over a directory entry user number during compose. The message will not be sent to the directory entry user.

- **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** - (MMUI only.) When this field is set to “Yes”, 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 5-8xxx
Adding a Directory Entry User

Starting point: The User Administration menu.

Us1 Select Directory Entry User.

Us2 Press the [Add] softkey.

You are prompted to enter an extension number.

Us3 Enter the extension number and press <Return>.

The Add Directory Entry User screen is displayed (Figure 5-4).

Us4 Enter the *Last Name, First Name, Department, and Extension Number(s)* of the new user.

Us5 Set *Name Dialable by External Callers*, if necessary.

Us6 Use [Voice] to record a Personal Verification recording.

- 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. 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.

See the section, "Recording personal verifications using the [Voice] softkey" on page 5-26 for more information about the recording softkeys.

Us7 Go to step 7a to save the new user, or 7b to cancel the addition.

- a. Use [Save].

The system saves the user and prompts for another extension number. To add another user, enter the extension and press <Return>. Then go to step 4. Go to step 7b to exit.

- b. Use [Cancel].

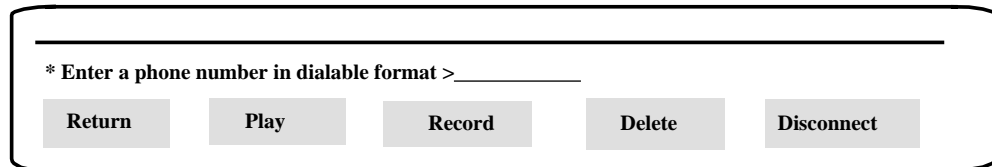
Any new user information that entered is discarded and the User Administration softkeys are displayed.

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 and local voice users. By using the voice subset of softkeys, the *Personal Verification Recorded (Voice)* field is set to “Yes” or “No”. The [Voice] softkey is available on the Add or View/Modify User screens, the Add or View/Modify Distribution List screens, and several of the Voice Services Administration screens.

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 5-5xxx
Personal Verification recording softkeys



Procedure 5-9xxx

Recording, playing, and deleting personal verifications for existing users

Starting point: The Customer Administration menu.

- Us1** Select User Administration.
- Us2** Select one of the following: Local Voice User or Directory Entry User.
- Us3** Use the [View/Modify] softkey if you know the extension DN of the user or use the [Find] softkey to retrieve the user according to name or department (etc.).
- Us4** From the View/Modify User screen, press the [Voice] softkey.
You are prompted for an extension number.
- Us5** 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.
- Us6** Pick up the telephone handset.

Us7 To record a new verification, go to step 7a. To listen to the existing personal verification, go to step 7b. To delete the existing personal verification, go to step 7c. To return to the original set of softkeys, go to step 7d.

- 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.

Finding users

The Find function can be used to retrieve a list of users for viewing or printing. This is useful for record-keeping purposes. It is also useful if you need to view or modify a particular user profile but you do not know the mailbox number. (When you press the [View/Modify] softkey at the bottom of the User Administration menu, you are prompted for a mailbox number.) If you only know the last name, for example, use the [Find] softkey to retrieve the user profile according to name.

Using wildcard characters

The fields on the Find Users screen (Figure 5-6) 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 Users] softkey.

Finding local voice users

To access the Find Local Voice User screen, follow Procedure 5-10.

Procedure 5-10xxx

Accessing the Find Local Voice Users screen

Starting point: The User Administration menu.

Us1 Select Local Voice Users.

Us2 Press the [Find] softkey.

The Find Local Voice Users screen (Figure 5-6) is displayed.

Figure 5-6xxx
The Find Local Voice Users screen

ABC Company
User Administration

Find Local Voice Users

Status: [Any] Enabled Disabled Expired Violation

Mailbox Number: _____ Volume ID: _____

Last Name: _____

First Name: _____

* Department: _____

Extension Number (DN): _____

Personal Verification Status: [Any] Not_Recorded Recorded

Display Data: [General] MWI

Only if Primary DN differs from MWI DN: [No] Yes

Select a softkey >

Exit

List

Print

* This field is displayed only for MMUI customer groups.

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 Voice 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** - The mailbox number of the local voice user. This field can hold up to 18 characters.
- **Volume ID** - This field specifies the hard disk volume to which a user is assigned.

Information on disk usage can be obtained (by system administrators only) through the Disk Usage report. (See "How to Interpret OM Reports" 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 utility accessible through the Tools menu. (See the *System Administration Tools* guide (NTP 297-7001-305).)

- **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 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 5-7.
 - **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 5-8.
- **Only if Primary DN differs from MWI DN** - Choose "Yes" to display only those users whose primary DN differs from their MWI DN. Typically, a user's primary DN is the same as their MWI DN. If these DNs must be the same for the user to be notified of new mail, then set this field to "Yes" to find all users for whom there is a mismatch between the primary and MWI DN. Furthermore, if a user's MWI DN is different from his or her primary DN, the MWI DN may actually be the extension DN of another user. This field can help you identify such occurrences.

Viewing a list of local voice users

The List of Local Voice Users screen (Figure 5-7) 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.

Procedure 5-11xxx

Viewing a list of local voice users

Starting point: The Find Local Voice Users screen.

Us1 Fill in the screen with the required search parameters.

Us2 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 5-7. If Display Data is set to "MWI", see Figure 5-8.

Us3 To view, modify, or delete a 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".
- b. Press the [Delete] softkey.
The Delete Local Voice User screen is displayed. See the section "Deleting local voice users".
- c. Press the [Voice] softkey.
The recording softkeys are displayed. Refer to the section "Recording personal verifications with the [Voice] softkey" on page 5-26.

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 5-7 shows the general format and Figure 5-8 shows the MWI format.

Figure 5-7xxx
The List of Local Voice Users screen (General)

ABC Company		User Administration			
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

Move the cursor to the item and press the spacebar to select it.

Exit
View/Modify
Delete
Voice

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

The following information is displayed for each user retrieved:

- **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 up by the user.
- ***Personal Verification Recorded*** - Indicates whether or not a spoken name has been recorded for this user.

Figure 5-8xxx
The List of Local Voice Users screen (MWI)

ABC Company		User Administration				
List of Local Voice Users (MWI Status)						
Name	DN	Mailbox	Read Msgs	Unread Msgs	Text Msgs	MWI Status
Alcott, Tom	5552557	2005	1	0	0	Off
Gordon, John	9215552344	5552344	3	2	0	On
Jones, Tracy	5551221	1221	0	0	0	Off
Smith, Bod	5553359	5553359	7	1	0	On
Valdez, J	5551212	1212	2	2	0	On

Move the cursor to the item and press the spacebar to select it.

Exit		View/Modify	Delete	Voice
------	--	-------------	--------	-------

The following information is displayed for each user retrieved:

- ***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 5-12xxx

Printing a list of local voice users

Starting point: The Find Local Voice Users screen.

Us1 Fill in the screen with the required search parameters.

Us2 Press the [Print] softkey.

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

Us3 Press [Continue Printing] to send the results to the printer.

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

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

Figure 5-9xxx

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 appears only if this is an MMUI customer group.

Finding directory entry users

To access the Find Directory Entry Users screen, follow Procedure 5-13.

Procedure 5-13xxx

Accessing the Find Directory Entry Users screen

Starting point: The User Administration menu.

- 1 Select Directory Entry Users.
- 2 Press the [Find] softkey.

The Find Directory Entry Users screen (Figure 5-10) is displayed.

Figure 5-10xxx

The Find Directory Entry Users screen

ABC Company User Administration

Find Directory Entry Users

Last Name: _____

First Name: _____

* Department: _____

Extension Number (DN): _____

Personal Verification Status: [Any] Not_Recorded Recorded

Select a softkey >

Exit [] List Print []

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

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 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 5-11) 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.

Procedure 5-14xxx

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 5-11.
- 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 directory entry user, 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".
 - b. Press the [Delete] softkey.
The Delete Directory Entry User screen is displayed. See the section "Deleting directory entry users".
 - c. Press the [Voice] softkey.
The recording softkeys are displayed. Refer to the section "Recording personal verifications with the [Voice] softkey on page 5-26.

The List of Directory Entry Users screen

The List of Directory Entry Users screen (Figure 5-11) is displayed when you choose to list users from the Find Directory Entry Users screen.

Figure 5-11xxx
The List of Directory Entry Users screen

ABC Company		User Administration	
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	
<hr/> Move the cursor to the item and press the spacebar to select it.			
Exit		View/Modify	Delete
			Voice

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

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

- **Name** - The user's last name followed by the first name.
- **Department** - 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 5-15xxx

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 5-12 for an example of the printer output.
Press [Cancel Printing] at any time to cancel the print job.

Figure 5-12xxx
Print directory entry users output

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

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

Viewing and modifying local voice users

Use the View/Modify Local Voice User screen to change the parameters of an existing local voice user. This screen is identical to the Add Local Voice User screen, with several 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 (as documented in the *System Administration Tools* guide, NTP 297-7001-305).

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 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 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 5-13xxx
The View/Modify Local Voice User screen

ABC Company		User Administration	
View/Modify Local Voice User			
Mailbox Number:	<u>876543</u>	Volume ID:	203
Storage Used:	2		
Last Name:	<u>Cardew</u>		
First Name:	<u>Fred</u>	Initials:	<u>F</u>
* Department:	<u>Information Systems</u>		
Class of Service:	Personal [001_Standard]	002_Executive	003_Secretary
(More Detail)	004_Outcalling 005_RNonly	006_DNUonly	009_AMIS/OC
	024_Admin		
Extension DNs:	<u>8765432</u>		
	<u>8762499</u>		
	<u>8761324</u>		
Revert DN:	<u>0</u>		
! Message Waiting Indication DN:	<u>8765432</u>		
!# Message Waiting Link Name:	<u>[Link1] Link2 Link3 Link4</u>		
Personal Verification Recorded (Voice):	No		
## Remote Notification Schedules:	No		
(More Detail)			
* Name Dialable by External Callers:	No [Yes]		
Logon Status:	Disabled [Enabled]		
** Volume Level:	[Normal] Loud Louder Loudest		
!! Preferred Language:	[AmericanEnglish] EuropeanEnglish Mandarin Korean		

Save
Cancel
More Detail
Change Password
Voice

- * These fields are displayed only if the user belongs to an MMUI customer group.
- ** This field is displayed only for VMUIF customer groups.
- # This field is displayed only if your system has SMDI links.
- ## This field is displayed only if Outcalling is installed and Remote Notification Capability is set to Yes in the selected COS.
- ! These fields are displayed only if the MWI option is not set to None in the selected COS.
- !! This field is displayed only in multilingual systems.

Figure 5-13xxx (continued)
Additional fields in the View/Modify Local Voice User screen

ABC Company	User Administration	MORE ABOVE
View/Modify Local Voice User		
Invalid Logon Attempts:	2	
Time of Last Logon:	03/31/93	
* Time of last mailbox lockout:	**/**/** **:**	
* Calls rejected after mailbox full:	No	
* Personal Greeting Recorded:	No	
** Internal Personal Greeting Recorded: [No]	Yes	
** External Personal Greeting Recorded:[No]	Yes	
Password Last Changed	**/**/** **:**	
<div style="display: flex; justify-content: space-around; margin-top: 10px;"> Save Cancel More Detail Change Password Voice </div>		

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

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

Note: If you have logged on to a terminal while another administrator is modifying the same user, the [Exit] softkey will be displayed instead of the [Save] softkey and the only other softkey will be the [More Detail] softkey.

For descriptions of the fields shown on the previous page, see “Adding local voice users” earlier in this chapter. This section describes only the following additional fields which are not displayed in the Add 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 invalid logon attempts is reached, the user’s mailbox is disabled.

A large number of 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; 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; 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) 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:

- Voice 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. 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 5-16xxx

Viewing/modifying parameters for local voice users

Starting point: The User Administration menu.

- 1 Select Local Voice User.
- 2 Press the [View/Modify] softkey if you know the user’s mailbox number or [Find] to retrieve the user profile according to some other search criteria (such as name, department, etc.)

If you select [View/Modify], you are prompted to enter a mailbox number. Go to step 3.

If you select [Find], the Find Local Voice Users screen is displayed. See page 5-29.

- 3 Enter the mailbox number and press <Return>.

The View/Modify Local Voice User screen appears.
- 4 Make the necessary modifications.
- 5 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 5c. If you do not need to re-record the verification, go to step 5f.
- 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 5-26 for more information about the recording softkeys.

- 6 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.

- 7 Go to step 7a to save the new user, or 7b 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 3. If you do not want to modify another user at this time, go to step 7b.

- b. Use [Cancel].

New user information is discarded. The User Administration menu is displayed.

Viewing and modifying directory entry users

When you choose to view or modify a directory entry user, you are prompted for an extension number. If more than one directory entry user is associated with that extension you will see the List of Directory Entry Users screen (the top screen illustrated in Figure 5-14). From the list of users, choose the user you want to view or modify. Once you have specified the user, the View/Modify Directory Entry User screen is displayed (the bottom screen illustrated in Figure 5-14). If only one user is associated with the extension you enter, the View/Modify Directory screen is displayed immediately.

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 can be used to perform user administration, voice services administration or class of service administration). If your system has multiple administration terminals, only the first administrator who logs on to perform administration on a particular entity (such as a user or distribution list) can modify that entity. Screens will be read-only for other administrators who then access the same entity.

Figure 5-14xxx
View/Modify Directory Entry User screen

ABC Company		User Administration	
List of Directory Entry Users			
Name	Department *	Personal Verific. Recorded	
Adams, Joan	Coordination	No	
Smith, John	Administration	No	

Move the cursor to the item and press the spacebar to select it.

Exit View/Modify

ABC Company		User Administration	
View/Modify Directory Entry User			
Last Name:	<u>Smith</u>		
First Name:	<u>John</u>	Initials:	____
* Department:	<u>Coordination</u>		
Extension DNs:	<u>7000</u>		
	<u>7001</u>		
	<u>7002</u>		
Personal Verification Recorded (Voice):	Yes		
Name Dialable by External Callers:	No [Yes]		

Save Cancel Voice

* This field is displayed only if this is an MMUI customer group.
 Note: If you have logged on to a terminal while another administrator is modifying the same user, only the [Exit] softkey will be displayed.

The fields on this screen are identical to those on the Add Directory Entry User screen, described on page 5-23.

Procedure 5-17xxx**Viewing/Modifying parameters for directory entry users**

Starting point: The User Administration menu.

- 1 Select Directory Entry Users.
- 2 Select [View/Modify].
You are prompted for an extension number.
- 3 Enter the extension number and press <Return>.
If only one user is assigned to the extension number, the View/Modify Directory Entry User screen appears (Figure 5-14).
If more than one user share the extension, the List of Directory Entry Users screen appears. Select a user by placing the cursor on the user you want to view or modify. Press <Space Bar> to select the user and then press [View/Modify].
- 4 Modify the fields as needed.
- 5 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 5-26 for more information about the recording softkeys.
- 6 Go to step 6a to save the modified user, or 6b to cancel all changes.
 - a. Use [Save].
The system saves the modified directory entry user and prompts for another extension number. To modify another user, go to step 3. If you don't want to modify another user at this time, go to step 6b.
 - b. Use [Cancel].
If you have not saved the modified user data, any changes will be discarded. The User Administration softkeys are 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 4:00 a.m.). If a user's mailbox is removed before user usage data is processed then the data will be lost. (See the chapter "Operational Measurements".) To avoid this situation, do not delete the mailbox until the data is processed. Instead, the mailbox should be disabled. See the description of the *Logon Status* field in the "Viewing and modifying local voice users" 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 5-18.

Procedure 5-18xxx

Deleting a local voice user

Starting point: The Customer Administration Menu.

- 1 Select User Administration.
- 2 Select Local Voice Users.
- 3 Press the [Delete] softkey.

You are prompted for the user's mailbox number.

If you do not know the mailbox number, press [Find] instead of [Delete]. From the Find Local Voice Users screen, you can specify the user's last name, first name, or department (MMUI), in order to retrieve a particular mailbox.

- 4 If you pressed the [Delete] softkey, enter the mailbox number.
The Delete Local Voice User screen (Figure 5-15) is displayed.

Figure 5-15xxx
The Delete Local Voice User screen

ABC Company		User Administration	
Delete Local Voice User			
Mailbox Number:	7000	Volume ID:	203
Last Name:	Smith	First Name:	John
Initials:		Department:	Administration
* Extension DNs:	7000		
	7001		
	7002		
Revert DN:	0		
Message Waiting Indication Options:	Any		
** Message Waiting Indication DN:	87654321		
*** Message Waiting Link Name:	Link1		
Personal Verification Recorded (Voice)	Yes		
MORE BELOW			
OK to Delete	Cancel		

- * This field is displayed only if this is an MMUI customer group.
- ** These fields are displayed only if the MWI option is not set to None in the selected COS.
- # This field is displayed only on systems with SMDI links.

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

- 5 Choose step 5a to delete the user, or 5b 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 5-19.

When you gain access to the Delete Directory Entry User screen, you are prompted to enter the extension number of the user. A different screen is displayed depending on whether there is more than one user associated with this extension number. When you delete a directory entry user, their personal verification is automatically deleted. (The screen illustrated in Figure 5-16 is displayed when there is more than one user. The screen depicted in Figure 5-17 is displayed when there is only one user.)

Procedure 5-19xxx Deleting directory entry users

Starting point: The User Administration menu.

- 1 Select Directory Entry Users.
- 2 Press the [Delete] softkey.
You are prompted for an extension number.
- 3 Enter the extension number and <Return>.

If more than one user shares the extension number, the List Directory Entry Users screen appears (Figure 5-16). Select the required user and press [Delete]. The Delete Directory Entry User screen appears. Proceed to step 4.

Figure 5-16xxx The list of directory entry users

ABC Company		User Administration	
List of Directory Entry Users			
Name	Department *	Personal Verific.	
Adams, Joan	Coordination	Recorded	
Smith, Robert	Administration	No	
<hr/> Move the cursor to the item and press the spacebar to select it.			
Exit			Delete

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

If only one user is assigned to the extension number, the Delete Directory Entry User screen appears (Figure 5-17). Proceed to step 4.

Figure 5-17xxx
The Delete Directory Entry User screen

ABC Company		User Administration	
Delete Directory Entry User			
Last Name:	Smith		
First Name:	John	Initials:	
* Department:	Administration		
Extension DNs:	7000 7001 7002		
Personal Verification Recorded (Voice):	Yes		
Name dialing accessible to external callers:	No	Yes	
<hr/>			
OK to De- lete	Cancel		

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

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

- 4 Choose step 4a to delete the user, or 4b to cancel.
 - a. Use [OK to Delete].

The user is deleted and the system prompts for an extension number. To delete another user, go to step 3. If you do not need to delete another user, go to step 4b.
 - b. Use [Cancel].

The deletion is canceled.

Distribution Lists

Distribution lists allow you to address the same voice message to more than one person at a time. (Users can also create personal distribution lists which serve the same purpose.) When the message is sent, it is deposited in every mailbox included in the list. Distribution lists are created in the Add Distribution List screen (Figure 5-18).

You can create any number of distribution lists containing up to 120 entries each. You may find it easier to assign numbers to distribution lists that are of a different series from those used as mailbox numbers to avoid confusion or conflict. Ensure that distribution list numbers do not conflict with any dialing plan prefixes or codes. Distribution list numbers cannot be the same length as either of the local addressing lengths defined in the Voice Messaging Options screen. Users can create up to 9 personal distribution lists using their telephone keypad. Each personal distribution list can contain up to 99 entries.

You can also record a list title for each distribution list that you create. The idea of a list title is similar to that of the personal verification. It is played when a distribution list number is entered when addressing messages. It is recommended that you record a list title, describing who is included in the list or the purpose of the list. This will make it easier to identify whether or not you have entered the correct list number when addressing messages.

Note: All mailbox numbers in a distribution list must belong to the same customer group.

The following types of numbers do not have mailboxes associated with them and therefore can not be included in a distribution list:

- numbers of directory entry users
- remote notification targets
- delivery to non-user targets

Furthermore, mailbox numbers at AMIS sites cannot be included in customer distribution lists.

Creating a distribution list

To add a new distribution list for the customer, follow Procedure 5-20 to access the Add Distribution List screen.

Procedure 5-20xxx

Accessing the Add Distribution List screen

Starting point: The User Administration menu.

- 1 Select Distribution Lists.
- 2 Press the [Add] softkey.
You are prompted for a distribution list number.
- 3 Enter a number that conforms to the rules described under the *List Number* field.

The Add Distribution List screen is displayed (Figure 5-18).

Figure 5-18xxx
The Add Distribution List screen

ABC Company User Administration

Add Distribution List

List Number: 1234

List Title: _____

List Title Recorded (Voice): No

Mailbox Numbers:

Save Cancel [] More Fields Voice

The screen shows the following fields:

- **List Number** - This value uniquely identifies the distribution list. The valid range is from 11 to 999999999999999999 (only numeric characters are allowed). The numbers 1 to 9 are reserved for user's personal distribution lists and cannot be used by administrators.

A customer distribution list number cannot duplicate any of the following:

- a mailbox number
- a directory entry user's DN

If a distribution list and a directory entry user share the same number, the distribution list number will take precedence over a directory entry user number during compose. The message will not be sent to the directory entry user.

- the name dialing prefix (The default prefix is 11. Do not use 11 to number a list unless you are sure that the name dialing prefix has been changed.)
- another distribution list number
- the AMIS prefix (if AMIS networking is installed)
- the personal distribution list prefix (VMUIF customer groups only)
- delivery to non-user prefixes
- **List Title** - The title of the distribution list, up to 41 characters in length. Do not use the special characters "+", "?", or "_". This field is blank by default. This title can also be used with name addressing when you compose and send a message.
- **List Title Recorded (Voice)** - This is read-only field which indicates whether or not a spoken name has been recorded for this list. It is a good idea to record a spoken title for each distribution list. This will help you to identify the list after you have entered its number when composing a message. Choose a name that uniquely identifies this list.
- **Mailbox Numbers** - Enter the mailbox numbers of the local voice users who are to be included in the distribution list. Each field holds up to 18 digits. Up to 120 mailbox numbers are allowed in a distribution list. By default, these fields are blank. The [More Fields] softkey can be used to add fields as additional mailboxes are required.

Procedure 5-21xxx
Creating a distribution list

Starting point: The Add Distribution List screen.

- 1 Enter a name for the list in *List Title*.
- 2 Move the cursor to the List Title Recorded field and press the [Voice] softkey to record a list title. For more information about using the record softkeys, see page 5-26.
- 3 Enter the mailbox numbers of the users you want to include in the distribution list.
- 4 Use [More Fields] if you have reached the last available *Mailbox Number* field and wish to add more mailboxes to the list. Up to 120 mailboxes can be included in a list.

- 5 Choose step 5a to save the distribution list or 5b to cancel.

- a. Use [Save].

The distribution list is saved. If you have created a long distribution list, it may take a few moments to save.

You are prompted to enter a number for a new distribution list. Create another list or go to step 5b to leave the screen.

- b. Use [Cancel].

The User Administration softkeys are displayed.

Finding a distribution list

The Find function can be used to generate a list of distribution lists for record-keeping purposes, or to find a particular list or subset of lists in order to modify it (them). The List function allows you to view the distribution lists that have been retrieved on screen. From the retrieved list, you can select a distribution list in order to view it, modify it or delete it. If you want a printed copy of the distribution lists that are retrieved, use the Print Titles function to print just the titles and list numbers or the Print Entries function to print the mailboxes associated with each distribution list.

Procedure 5-22xxx

Find a distribution list or a subset of distribution lists

Starting point: The User Administration menu.

- 1 Select Distribution Lists.
- 2 Press the [Find] softkey.

The Find Distribution Lists screen (Figure 5-19) is displayed.

Figure 5-19xxx

The Find Distribution Lists screen

The screenshot shows a screen titled "Find Distribution Lists" within the "User Administration" menu of "ABC Company". The screen contains two input fields: "List Number:" with the value "1234" and "List Name:" with an empty field. At the bottom, there are five softkey buttons: "Exit", "List", "Print Titles", and "Print Entries".

- 3 Enter the number or the name of the list you want to find. To find a subset of distribution lists, use wildcard characters to create a search pattern. For example, to retrieve all lists beginning with 1, enter "1+". You can also use wildcard characters if you want to retrieve a particular list but cannot remember the exact number or name.
- 4 To view a list of the retrieved distribution lists, press the [List] softkey.
This will display the lists sorted by list number in ascending numerical order. Use the list to obtain the number of an existing distribution list, if you need to modify, delete, or print it. See Figure 5-20.

Figure 5-20xxx
The List of Distribution Lists screen

ABC Company		User Administration	
List of Distribution Lists			
	List Number		List Title
	1		Whole Group
	5		Purchasing
	9		Accounting
	12		Engineering
<hr/>			
Exit		View/Modify	Delete

- a. To view or modify one of the retrieved lists, move the cursor to the distribution list you want to modify and press <Space bar> to select it. Then press the [View/Modify] softkey. See the section "Modifying a distribution list".
 - b. To delete one of the retrieved lists, move the cursor to the distribution list you want to modify and press <Space bar> to select it. Then press the [Delete] softkey. See the section "Deleting a distribution list".
- 5 To print the titles of the retrieved distribution lists, press the [Print Titles] softkeys.
The following softkeys appear: [Continue Printing] and [Cancel Printing].
You are prompted to check that the printer is ready and on-line.
 - 6 Choose step 6a to print the distribution list titles or 6b to cancel.
 - a. Use [Continue Printing].
The list of distribution list titles begins printing.
Once printing is complete, the Distribution Lists screen and its softkeys are redisplayed; you may stop printing at any time by proceeding to 6b.

- b. Use [Cancel Printing].
The print operation is canceled, and you are returned to the Distribution Lists screen.
There may be some delay before control is returned to the screen because the system waits for the printer to stop.
- 7** To print the entries in the retrieved distribution lists, press the [Print Entries] softkey.
The following softkeys appear: [Continue Printing] and [Cancel Printing].
You are prompted to check that the printer is ready and on-line.
- 8** Choose step 8a to print the distribution list entries or 8b to cancel.
 - a. Use [Continue Printing].
The list of distribution list entries begins printing.
Once printing is complete, the Find Distribution Lists screen is displayed.
You may stop printing at any time by proceeding to 8b.
 - b. Use [Cancel Printing].
The print operation is canceled, and you are returned to the Find Distribution Lists screen.
There may be some delay before control is returned to the screen because the system waits for the printer to stop.

Modifying a distribution list

The fields in the View/Modify Distribution List screen are identical to those in the Add Distribution List screen. Refer to page 5-53 for field descriptions.

Figure 5-21xxx
The View/Modify Distribution Lists screen

ABC Company User Administration

View/Modify Distribution List

List Number: 6674
 List Title: Accounting
 List Title Recorded (Voice): No
 Mailbox Numbers:
 5234 5339 5214 5341

Save Cancel More Fields Voice

Note: If you log on while another administrator is modifying the same distribution list, only the [Exit] softkey will be displayed.

Procedure 5-23xxx

Modifying a Distribution List

Starting point: The User Administration screen.

- 1 Select Distribution Lists.
- 2 Select [View/Modify] if you know the number of the distribution list you want to view or modify.
If you do not know the number of the list, press the [Find] softkey instead. Refer to page 5-55 for more information.
If you used the [View/Modify] softkey, you are prompted to enter the distribution list number.
- 3 Enter the list number to be modified, then press <Return>.
The View/Modify Distribution List screen appears (Figure 5-21).
- 4 Modify the list number and/or title if you wish.
- 5 Change, add, or delete any mailbox numbers.

- 6 Use [More Fields] if you have reached the last available mailbox number and wish to add more mailboxes to the list. Up to 120 mailboxes can be included in a list.
- 7 To record a list title for this distribution list, move the cursor to the *List Title Recorded* field and press the [Voice] softkey. Recording softkeys are described on page 5-26.
- 8 Choose step 8a to save the distribution list or 8b to cancel.
 - a. Use [Save].

The distribution list is saved; if you have modified a long distribution list, it may take a few moments to save.

You are prompted to enter a number for another distribution list. To modify another distribution list, return to step 3. Go to step 8b to exit the screen.
 - b. Use [Cancel].

Deleting a distribution list

When you delete a distribution list, only the list itself is deleted. The mailboxes that are referred to in the list are not deleted. This field is identical to the Add Distribution List screen except that all of the fields are read-only.

Figure 5-22xxx
The Delete Distribution List screen

ABC Company	User Administration
Delete Distribution List	
List Number:	1001
List Title:	Accounting
List Title Recorded (Voice):	No
Mailbox Numbers:	
4455	4652
4239	4807
<hr style="border: 0.5px solid black;"/> <p>Select a softkey ></p>	
OK to delete	Cancel

Note: If you log on while another administrator is modifying the same distribution list, only the [Exit] softkey will be displayed.

Procedure 5-24xxx
Deleting a distribution list

Starting point: The User Administration menu.

- 1 Select Distribution Lists.
- 2 Press the [Delete] softkey.

You are prompted to enter the distribution list number.

If you do not know the number, use the [Find] softkey instead. This allows you to retrieve a list according to its title, or to retrieve a subset of lists. See page 5-55 for more information.

- 3 If you used the [Delete] softkey, enter the number of the distribution list you want to delete followed by <Return>.

The Delete Distribution List screen appears (see Figure 5-22).

- 4 Choose step 4a to delete the distribution list or 4b to cancel.

- a. Use [OK to Delete].

The distribution list is deleted. If you delete a long distribution list, the operation may take a few moments to complete.

You are prompted to enter a number for another distribution list to delete. To delete another distribution list, go to step 3. If you do not need to delete another list, go to step 4b.

- b. Use [Cancel].

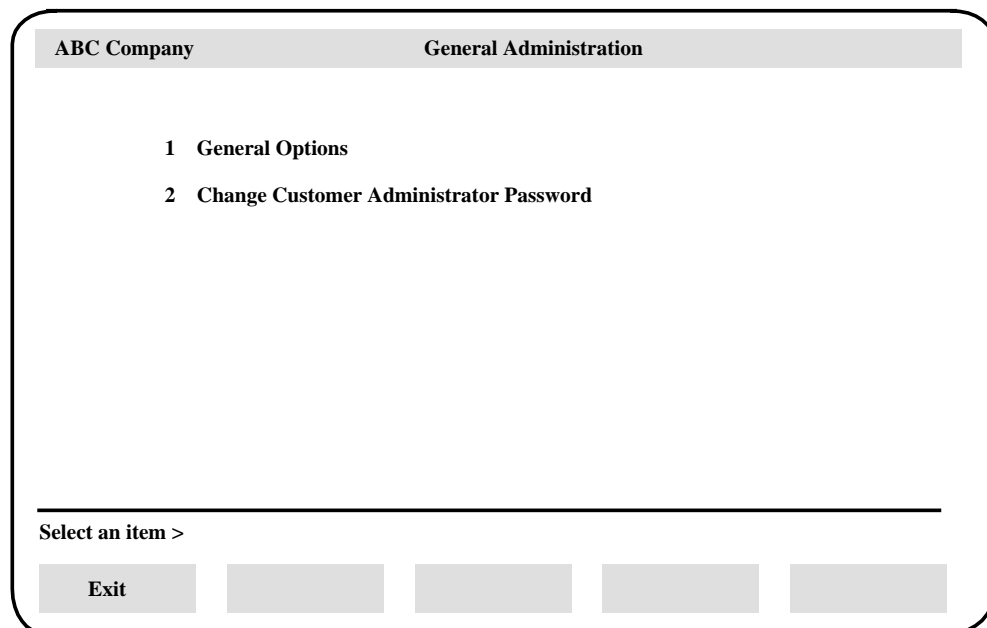
General Administration

At the customer administration level, there are two items in the General Administration menu. General Options allows you to enable features that are installed on the system for specific customer groups, define the customer name and customer number (that will appear on administration screens and reports), assign classes of service to the customer group and define the attendant DN for the customer group. You can also change the customer administrator password from this screen. It is recommended that you do this on a regular basis to ensure the security of your system.

The General Administration Menu

The General Administration menu displays the options shown in Figure 6-1.

Figure 6-1
The General Administration menu



Procedure 6-1xxx

Using the General Administration menu

Starting point: The Customer Administration Menu.

- 1 Select General Administration.

The General Administration menu appears (Figure 6-1).

- 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> "General Options";

<2> "Changing the customer administrator password"

- 3 Use [Exit] to return to the Customer Administration Menu.

General Options

The General Options screen contains parameters for configuring broad characteristics of your customers.

The General Options screen

The General Options screen exists at both the customer administration level and the system administration level. When you are logged on as customer administrator, you can configure the following parameters specifically for each customer group: customer name, customer number, available classes of service, available features, and the attendant DN. The system administrator can configure certain parameters in the General Options screen that affect all customer groups. These include: the system name, system number, date format (which appears on reports), SEER printing, SEER printer port name, and reports printer port name. Therefore SEER printing can only be disabled or enabled for the entire system, not selectively on a customer basis. Furthermore, you can only specify one printer port name (for SEERs and reports) so that all customer groups print to the same printer.

Figure 6-2xxx
The General Options screen

ABC Company **General Administration**

General Options

System Name: DMS VoiceMail Customer

System Number: 0

System DN Length: 0

Customer Name: ABC Company

Customer Number: 2000

Customer Type: **Private** Residential

Available Features: Multi-Customer
Multiple Administration Terminals
SMDI
Voice Messaging
AMIS
Dual Language Prompting
Outcalling
Voice Menus & Announcements [Disabled] Enabled
Voice Forms [Disabled] Enabled

Class of Service Selection: 1 2 5 12 15 _ _ _ _
_ _ _ _ _

Attendant DN 0 _____

Date Format for Administration and Maintenance Reports: **mm/dd/yy** yy/mm/dd dd/mm/yy

SEER Printing Disabled **Enabled**

Valid Printer port names can be viewed from Dataport configuration in the Hardware Administration Menu.

SEER Printer Port Name: (blank implies console port)

Reports Printer Port Name: (blank implies console port)

Save Cancel

The following fields are displayed:

- **System Name** - This is the name by which DMS VoiceMail is identified to the switch. This field is read-only and displays the name supplied during installation or entered by the system administrator.
- **System Number** - Not applicable.

- **System DN Length** - (This field is read-only.) This is the length of the DNs that are configured on the DMS. This field accepts values in the range 0-18. The default is "0".
Set this field to the length of system DNs (those configured on the DMS).
- **Customer Name** - The name of the current customer group. If the name is changed and saved, the customer name displayed on the top-left corner of DMS VoiceMail administration screens will change to reflect the new name. This field holds a name up to 30 alphanumeric characters in length. This name will show up on reports and lists printed by the customer administrator.
- **Customer Number** - The number of the current customer group. This is a read-only field. The number is configured when the customer is added from the Customer Administration screen.
- **Customer Type** - This field reflects the choice that was made when the customer group was added. The two customer types are:
 - **Private** - This customer type is intended for centrex customer groups.
 - **Residential** - This customer type is intended for residential and small business customer groups.

Note: Once users are added to the customer group, this field becomes read-only and can no longer be modified.

- **Available Features** - This list displays (1) system-wide features and (2) customer-specific features. The first part of the list indicates system-wide features that are available for all customers. For three of these features (AMIS, Dual Language Prompting and Outcalling), their availability to users depends on the Class of Service that the user belongs to. Therefore, even though these features may be installed on the system, a particular user in this customer group may not have access to them if they are disabled in the Class of Service to which he or she belongs (see the chapter "Class of Service Administration" for more information about enabling these features).

The second part of the list is modifiable and indicates features that must be selectively enabled (or disabled) for each customer group. Voice Menus and Announcements and Voice Forms are initially set to "Disabled" and must, therefore, be manually enabled for each customer group requiring a particular feature.

The following features are system features and are available to all customer groups. Some of these features are optional and may not be installed on your system.

- Multi-Customer

Note: Do not try changing a multi-customer system to a single customer system after you have added users.

- Multiple Administration Terminals
- SMDI (this is the Multi-SMDI feature which provides additional connectivity capability)
- Voice Messaging

The following are optional features. They are system features, and if installed, are available to all customer groups. These features can either be enabled or disabled in the class of service definitions. For example, if AMIS is installed on the system, but disabled in the COS to which a user belongs, that user will not be able to receive or compose AMIS messages.

- AMIS
- Dual Language Prompting (MMUI customer groups only)
- Outcalling

If any of the following features are installed on your system, they must be enabled on a per customer basis.

- Voice Menus & Announcements
- Voice Forms
- **Class of Service Selection** - Assign up to 15 (from the 127) system COSs to the customer group. When adding users, you will be able to assign them to one of the COSs you specify here.
- **Attendant DN** - This field is only applicable to MMUI customer groups. This field indicates the extension number to which a caller is transferred when a user-customized revert to the operator is unsuccessful. (The custom revert is defined in the Add or Modify Local Voice User screen. This is described in the “User Administration” chapter.) The number can be up to 30 digits and may begin with the digit “0”. This field may be left blank. The default is “0”.

The following fields are read-only. They are configured at the system level by the system administrator.

- **Date Format for Administration and Maintenance Reports** - The format selected is used on reports generated by the MMI, including lists of users, operational measurement reports, and SEERs. It also specifies the format used for inputting dates. The default is mm/dd/yy. Other possibilities are yy/mm/dd and dd/mm/yy.
- **SEER Printing** - When this field is “Enabled”, System Error and Event Reports (SEERs) are printed as events or errors occur. When this field is “Disabled” SEERs can only be viewed on screen. More detail is given when SEERs are printed than when they are displayed on screen. The default is “Enabled”.

Even when the system is working well and few error reports are generated, many event reports are produced. This means that the SEER buffer will fill up relatively quickly. Once full, contents are automatically deleted. It is therefore recommended that you print your SEERs on a regular basis. This will also help you troubleshoot problems as you will be able to look back through system events to monitor the beginning and history of a problem. If you are going to view SEERs on screen only, do so on a daily basis as critical information can be lost within a few days.

- **SEER Printer Port Name** - The printer port to which the dedicated SEER printer is connected (if installed). This requires a data port on the MSP node which must be defined as a printer port in the hardware database. This field holds up to 12 alphanumeric characters. This field can be left blank in order to print to the console printer port.
- **Reports Printer Port Name** - This field indicates the printer port to which the dedicated printer for Operational Measurement reports, and general printing from the System Administration menus, is connected (if installed). This requires a data port on the SPM which must be defined as a printer port in the hardware database. This field can be left blank in order to print to the console printer port.

Procedure 6-2xxx

Modifying General Option

Starting point: General Administration screen, <1> entered.

The General Options screen appears (see Figure 6-2), with the cursor positioned in Customer Name.

- 1 Use the cursor keys to move the cursor to the field you wish to modify; make the required changes.
- 2 Choose step 2a to save the changes, or 2b to cancel.
 - a. Use [Save].
Changes are saved and the General Administration screen is displayed.
 - b. Use [Cancel].

You are returned to the General Administration screen.

Changing the customer administrator password

When the system is first installed you are given a default customer administrator password (**custpwd**). When you log on for the first time you are prompted for a new password. For security purposes, you should continue to change it regularly. Passwords are not case-sensitive; any capitalization used in defining the password need not be used when entering the password. The minimum password length is 1 and the maximum length is 16 characters. It is recommended that your administration password be at least 7 characters long for added security.

Procedure 6-3xxx
Changing the customer password

Starting point: General Administration Menu, <2> entered.

Note: The passwords are not displayed on the screen as you enter them.

- 1 You are prompted to enter the existing administrator password.
- 2 Enter the existing password.
- 3 You are prompted to enter the new password.
- 4 Enter the new password.
The customer administrator password is alphanumeric (it can contain both letters and numbers) and must be between 1 and 16 characters in length.
- 5 You are prompted to enter the new password again, for verification purposes.
The new password is recorded and you are returned to the General Administration screen.

Voice Administration

Voice administration comprises all facilities related to processing voice information. These facilities offer a range of functions from the simple playback of a recorded announcement to the more sophisticated automated attendant service. Voice Administration can be divided into the following categories:

- ***Voice Messaging Options*** - These parameters determine the general characteristics of the voice messaging service for each customer group. For MMUI customer groups this includes configuring the broadcast mailbox number, the maximum delay for timed delivery, the name dialing prefix, the mailbox full warning threshold, and the maximum read message retention. The custom call answering greeting is also recorded in this screen (once for each language that is installed on the system). For VMUIF customer groups, you will configure the lockout revert DN, the personal distribution list prefix, and the maximum read message retention. From this screen, you will also record any introductory tutorials which describe the call answering service to new subscribers and the login greeting.
- ***Voice Security Options*** - These parameters allow you to control the level of security provided to users of DMS VoiceMail. For example, you can set the maximum number of invalid logon attempts that are allowed before a user's mailbox is disabled as well as several parameters related to user passwords. At the customer administration level, voice security options allow you to set other parameters to control the level of security of your users' mailboxes.
- ***Voice Services Administration*** - allows you to add service DNs to the system (and maintain existing DN information), create a Voice Services Profile, and create and maintain voice services such as announcements, thru-dialers, voice menus, and time-of-day controllers. These services offer a range of functions from the simple playback of a recorded announcement to the more sophisticated voice menus which allow callers to make choices by pressing keys on their telephone keypads and automated attendants which take calls during off-hours or holidays. They include announcements, thru-dialers, time-of-day controllers, and voice menus.

- **Outcalling Administration** - allows you to specify outcalling parameters which affect the remote notification and delivery to non-user features. You can also view the outcalling audit trail report to monitor the progress of remote notification and delivery to non-user calls.

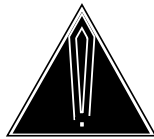
Note: Outcalling is documented in the *Outcalling Application Guide* (NTP 297-7001-308).

- **Voice Form Definitions** - allow you to develop custom applications that ask specific questions of callers and collect their voice responses. These applications can be thought of as the electronic equivalent of the traditional paper form or questionnaire.

Note: Voice forms are documented in the *Voice Forms Application Guide* (NTP 297-7001-306).

The Voice Administration menu

The Voice Administration menu (Figure 7-1) is displayed by selecting option 3 from the Customer Administration Menu.



CAUTION

Overnight system audits

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

Figure 7-1xxx
The Voice Administration Menu

ABC Company Voice Administration

- 1 Voice Messaging Options
- 2 Voice Security Options
- 3 Voice Services Administration
- * 4 Outcalling Administration
- ** 5 Voice Form Definitions

Select an item >

Exit

* This item is displayed only if Outcalling is installed. For more information about outcalling, refer to the *Outcalling Application Guide*.

** Voice Forms are documented in the *Voice Forms Application Guide*.

Procedure 7-1xxx
Selecting items from the Voice Administration Menu

Starting point: The Customer Administration Menu.

- 1 Select Voice Administration.
The Voice Administration menu appears (Figure 7-1).
- 2 Select an item by entering its number and pressing <Return>.
The menu corresponding to your selection appears. See the following sections for details:
 - <1> *"Voice Messaging Options";*
 - <2> *"Voice Security Options;*
 - <3> *"The voice services administration menu"*
 - <4> *The Outcalling Application Guide*
 - <5> *The Voice Forms Application Guide*
- 3 Use [Exit] to return to the Customer Administration Menu.

Voice Messaging Options

The Voice Messaging Options screen allows you to set voice messaging parameters for each customer group. For MMUI customer groups, this includes setting the broadcast mailbox number, the maximum allowed delay for time delivery, the mailbox full warning threshold, the maximum read message retention, and the name dialing prefix. The custom call answering greeting is also recorded in this screen. For multilingual systems, you can record a custom call answering greeting in all of the languages that are installed on your system. For VMUIF customer groups this means recording various greetings (tutorials and the login greeting), defining the personal distribution list prefix, the lockout revert DN and the maximum read message retention.

Address expansion

Because local DN lengths are likely to be shorter than full system DN lengths, you can use address expansion to make it more convenient for subscribers during mailbox login and message addressing. This feature is used to mimic addressing by telephone number since mailbox numbers actually correspond to the full network DN. In North America, the standard network DN length is 10 digits (in the form NPA-NNX-XXXX). This feature will only work if the DNs configured on the switch are the same length as those on DMS VoiceMail.

For example, if the system DN length is 10, and a subscriber is addressing a message to another user in the same customer group (with local DN 2339), the subscriber only needs to enter the local DN (2339), not the full system DN. If address expansion is not set up, subscribers will have to enter full DNs during mailbox login, express messaging and message composition.

The following fields are used to configure address expansion:

- **System DN Length** - This field is located in the General Options screen (accessed from the General Administration menu) at the system administration level.

The system DN length is the length of the DNs that are configured on the DMS switch. In North America, the standard network DN length is 10 digits (in the form NPA-NNX-XXXX).

- **Local Addressing Lengths** - This field is located in the Voice Messaging Options screen, accessed from the Voice Administration menu at the customer administration level. The local addressing length is the local DN length for the customer group. Up to two addressing lengths can be defined for each customer group.

Address expansion occurs only when the address entered by the subscriber is of a local DN length.

For residential customer groups, the local addressing length is usually 7 digits. For private customer groups, it is usually 4 digits.

The actual expansion digits are defined in the following fields. These fields are located in the Add DN Information screen. This screen can only be accessed by the customer administrator by selecting Voice Administration, Voice Services-DN Table, from the Customer Administration menu. Once the DNs have been defined, they can be modified from the system administration level in the View/Modify DN Information screen.

- ***Voice Messaging Expansion Digits*** - During message composition, if a subscriber enters an address that is less than the system DN length and equals one of the defined local addressing lengths for the customer group, the entered address is prefixed with the digits entered in this field in order to expand it out to the full network DN.
- ***Express Messaging Expansion Digits*** - During express messaging, if a subscriber enters an address that is less than the system DN length and equals one of the defined local addressing lengths for the customer group, the entered address is prefixed with the digits entered in this field in order to expand it out to the full network DN.

A second field, Enforce Dial, is associated with the expansion digits fields in the Add DN information screens:

- ***Enforce Dial*** - Enforce dial applies only to logging in (in the case of voice messaging) and when entering mailbox numbers for express messaging. The subscriber is not allowed to enter a full-length system DN that conflicts with the expansion digits.

The primary reason for using enforce dial is to prevent people from circumventing toll switches. For example, there are two DMS VoiceMail systems, one in Toronto and the other in Montreal. A DMS VoiceMail customer can be prevented from using the local DMS VoiceMail system to send a voice message to the far-end system, thereby allowing the operating company to bill for the toll charges to the far-end switch.

Otherwise, the operating company would have to absorb the toll charges.

Examples:

The System DN Length is 10 (e.g., 416-555-2337).

The local addressing length for Customer 50 (a private customer group), is four. The expansion digits for voice messaging and express messaging are 416555.

The local address length for Customer 100 (a residential customer group), is seven. The expansion digits for voice messaging and express messaging are 416.

A subscriber in Customer 50 enters a 10-digit address during message composition. The address is not expanded since it matches the system DN length.

A subscriber in Customer 100 enters a 7-digit address during message composition. The address is expanded to 10-digits using the expansion digits defined in the *Voice Messaging Expansion Digits* field.

A subscriber in Customer 50 enters a 5-digit address during message composition. The address is not expanded to the full 10-digit network DN since it is not of a local DN length.

Enforce dial is enabled for voice messaging in Customer 100. A subscriber enters 514-575-2115 to log on to voice messaging. Because this is in conflict with the expansion digits (416) defined for voice messaging, the subscriber is not permitted to log on. (If enforce dial had not been enabled, the subscriber would be able to log on in this example.)

The Voice Messaging Options screen

This screen will display different fields depending on a) which interface is selected for the customer group (MMUI or VMUIF) and b) whether or not multiple languages are installed on the system. Figure 7-2 displays the screen for a single language system with the MMUI interface. Figure 7-3 displays the screen for a multilingual system with the MMUI interface. Figure 7-4 displays the screen for a single language system with the VMUIF interface and Figure 7-5 displays the screen for a multilingual system with the VMUIF interface.

Figure 7-2xxx
The Voice Messaging Options screen for single language systems
(MMUI interface)

ABC Company	Voice Administration
Voice Messaging Options	
Voice Messaging Interface:	MMUI VMUIF
Customized recording for AmericanEnglish:	
Call Answering Greeting (Voice):	No
Maximum Delay for Timed Delivery (days):	<u>31</u>
Name Dialing and Name Addressing	Disabled [Enabled]
* Prefix for Name Dialing and Name Addressing:	<u>11</u>
Broadcast Mailbox Number:	<u>999</u>
Broadcast Mailbox Personal Verification (Voice):No	
Billing DN:	<u>2365778</u>
Dialing prefix for Outgoing calls:	<u>416</u>
Customer DN Length:	<u>30</u>
Local Addressing Lengths:	<u>0</u> <u>0</u>
Mailbox Full Warning Threshold (percentage):	<u>0</u>
Maximum Read Message Retention (days):	<u>7</u>
("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)	
Select a softkey >	
Save	Cancel
	Voice

* This field is displayed only if the Name Dialing and Name Addressing field is set to "Enabled".

Figure 7-3xxx
The Voice Messaging Options screen for multilingual systems
(MMUI interface)

ABC Company	Voice Administration
Voice Messaging Options	
Default Language:	[AmericanEnglish] Swedish
* Secondary Default Language:	[AmericanEnglish] Swedish
Default Language Overrides User's Preferred Language:	[No] Yes
Voice Messaging Interface:	MMUI VMUIF
Customized recording for AmericanEnglish:	
Call Answering Greeting (Voice):	No
Customized recording for Swedish:	
Call Answering Greeting (Voice):	No
Maximum Delay for Timed Delivery (days):	<u>31</u>
Name Dialing and Name Addressing	Disabled [Enabled]
** Prefix for Name Dialing and Name Addressing:	<u>11</u>
Broadcast Mailbox Number:	<u>2335</u>
Broadcast Mailbox Personal Verification (Voice):No	
Billing DN:	<u>2365778</u>
Dialing prefix for Outgoing calls:	<u>416</u>
Customer DN Length:	<u>30</u>
Local Addressing Lengths:	<u>0</u> <u>0</u>
Mailbox Full Warning Threshold (percentage):	<u>0</u>
Maximum Read Message Retention (days):	<u>7</u>
("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)	
Select a softkey >	
Save	Cancel
	Voice

* This field is displayed only if Dual Language Prompting is installed.
 ** This field is displayed only if Name Dialing and Name Addressing is set to "Enabled".

The following fields are displayed if the MMUI interface is enabled. The first three fields are displayed only on multilingual systems. (For VMUIF field descriptions, see page 7-17.)

- **Default Language** - This field lists all of the languages that are installed on the system. The primary default language (the first language installed) is highlighted. The selection made here determines the language in which prompts are played to callers during call answering and express messaging sessions.
- **Secondary Default Language** - This field is available if the Dual Language Prompting feature is installed. The selection made here determines the secondary language in which prompts are played to callers during call answer and express messaging sessions. During call answering or express messaging, prompts are first played in the default language, followed by the secondary default language.
- **Default Language Overrides User's Preferred Language** - When two or more languages are installed, users can specify a "preferred" language which is different from the default language. (The user's preferred language is defined in the Add or View/Modify Local Voice User screen.) When this field is set to "No", callers will hear DMS VoiceMail prompts in the preferred language of the user they have called. However, if this field is set to "Yes", the language specified in the *Default Language* field overrides the user's preference. This may be desirable if the centrex customer wishes to present a common language to all callers regardless of the preferred language of the called party.

When set to "Yes", only those prompts that are played to callers during call answering and express messaging sessions are affected. Subscribers will still hear prompts in their preferred language while they are logged on to DMS VoiceMail. For example, if the default language is AmericanEnglish, and a user's preferred language is Mandarin, the user will still hear DMS VoiceMail prompts in Mandarin. However, callers will hear prompts in English.

- **Voice Messaging Interface** - This is a read-only field. MMUI is compatible with full-featured voice messaging and is displayed if MMUI was selected as the interface type in the Add Customer screen.
Note: Classes of Service that are assigned to the customer group must have the same voice messaging interface type.
- **Customized Recording for <language>** - On multilingual systems, this field is displayed once for each language that is installed.

- **Call Answering Greeting (Voice)** - This field indicates whether or not a custom call answering greeting has been recorded. The call answering greeting is played to external callers when they are connected to a user's mailbox through call answering. This greeting is played before any personal greetings and typically contains the spoken name of the customer. To make a custom greeting, use the [Voice] softkey at the bottom of this screen. If you do not record your own greeting, no call answering greeting is played (there is no default greeting).
- **Maximum Delay for Timed Delivery** - This field displays the maximum number of days that a message can be delayed before being delivered. The valid range is from 0 to 365 days. The default is "31". If this field is set to "0" timed delivery of messages will not be available to users.
- **Name Dialing and Name Addressing** - This field allows you to disable the name dialing and name addressing features. These features should be disabled in those countries where the telephone keypads do not map to an alphabetical sequence recognizable to DMS VoiceMail. This field defaults to "Enabled".

Note: If you disable name dialing and name addressing and then re-enable them, the prefix for name dialing and name addressing is changed from the current value to null. Be sure to enter the correct prefix after re-enabling these features.

- **Prefix for Name Dialing and Name Addressing** - This field is displayed only if the *Name Dialing and Name Addressing* field is set to "Enabled". This field defines the prefix that users must dial in order to use name dialing or name addressing. The valid range is from 1 to 99. The (recommended) default is "11".

Note: Check that this number does not conflict with any of the following:

- mailbox numbers (including the broadcast mailbox number)
- telephone extensions
- distribution list numbers
- the DNU prefix
- location prefixes
- the AMIS compose prefix

These numbers conflict if their first two digits match the name dialing prefix.

Note: If name dialing and name addressing were disabled and then re-enabled, this field is reset to null.

- **Broadcast Mailbox Number** - A broadcast message is a voice message that is delivered to all users in the customer group. In order to send a broadcast message, you (or a user) must specify a special mailbox number (the broadcast mailbox number) when composing the broadcast message. The default mailbox number is “999”. This number can be the same for all customer groups because the customer group to which a broadcast message is sent depends on the customer group to which the mailbox you log on to belongs. For example, to send a broadcast message to the users in customer group 100, log on to a phone with broadcast capability that belongs to this customer group.

If this default number conflicts with the ESN access code and causes a conflict (e.g., if “9” is used as the ESN access code), change the broadcast mailbox number. If you change the broadcast mailbox number for this reason (or any other reason), ensure that the new number does not conflict with other numbers in the system.

- **Broadcast Mailbox Personal Verification (Voice)** - This field indicates whether or not a spoken name has been recorded for the broadcast mailbox number. This verification is announced to users before the message is played. It should inform users that the message they are about to hear is a broadcast message (and who it is from, as users may need to get in touch with the sender).
- **Billing DN** - Whenever an outgoing call is made, it is charged against a DN. Typically, the mailbox number of the user that initiates the outcall is stored and used for billing purposes. However, if for some reason the mailbox number is not known (if for example, the system fails or the call is dropped), the Billing DN will be used instead. It is essentially a standby DN for those cases in which the mailbox number is unattainable. This DN can be up to 30 digits in length. This field is optional and can be left blank. The default is “null”.
- **Dialing prefix for Outgoing calls** - This prefix is used to translate DNs that are used to place outgoing calls DNs that are dialable from the DMS VoiceMail channel. This prefix is used only when the DN length is less than or equal to the DN length specified in the following field, *Customer DN Length*. This prefix can be up to 30 digits in length.

Features that place outgoing calls and that may, therefore, reference this field are call sender, thru-dial, reverts from voice messaging and call answering, remote notification voice menus and voice forms. DNU (delivery to non-user) does not reference this field since DNU target DNs are always entered in a dialable format.

Example:

The Customer DN length for a private customer is four (since subscribers normally dial 4-digit extensions). The dialing prefix in this example is “267” (this is the exchange code or NNX). In a call sender scenario, a subscriber receives a message from another subscriber at mailbox 2337 and uses the call sender feature to call back immediately. The system takes the originating subscriber’s primary DN (2337) and compares it to the value in the *Customer DN Length* field. Since it equals this value (4), the prefix is added to the primary DN to create the dialing DN 267-2337 and the call is placed.

- **Customer DN length** - This is the length of local DNs (extension numbers, for example) within the current customer group. This DN can be up to 30 digits in length. For centrex customer groups, the customer DN length is typically four. For residential customer groups, the DN length is typically seven. The default is “0”.

If DMS VoiceMail is trying to make an outgoing call, (a user wants to use call sender, for example) and the DN of the calling party is equal to or less than the customer DN length, the prefix specified in the previous field, *Dialing Prefix for Outgoing Calls*, is added to the customer DN to generate the full system DN. See the example that is provided in the preceding field description.

- **Local Addressing Lengths** - This field specifies the length of mailbox numbers in the current customer group. (This is different from the *Customer DN Length* field which specifies the length of DNs. Local addressing lengths refer to mailbox numbers.) For example, in the case of private customer groups, mailbox numbers are typically 4-digit extensions. By specifying the local addressing lengths (and expansion digits), message addressing and login are made more convenient to subscribers by allowing them to enter the shorter mailbox number during login and message composition rather than the full system DN length mailbox address.

Note: The *System DN Length* field (in the General Options screen at the system administration level) must be set to a non-zero value before you can enter local addressing lengths.

When a user enters a mailbox number that is the same length as the local addressing length (and, therefore, shorter than the system DN length) during either mailbox login, express messaging, or message addressing, it will be expanded to the full system DN length. The local mailbox number is padded with the digits that are defined as Expansion Digits for the Voice Messaging DN (for login) and the Express Messaging DN. These expansion digits are defined when you add these DNs to the VSDN table (see the “Voice Administration” chapter for details).

These values must be less than the system DN length or 0. Both fields default to “0”.

Example:

The following describes a DMS VoiceMail system:

- 1 The system DN length is 10.
- 2 Mailbox numbers are 10 digits on the SPM.
- 3 The local addressing length for the centrex customer group is 4.
- 4 The local addressing length for the residential customer group is 7.
- 5 The expansion digits (for Voice Messaging and Express Messaging) are specified when adding a DN to the VSDN Table in Voice Services Administration. For the centrex customer group, the expansion digits are 416267. For the residential customer group, they are 416.

When a user in the centrex customer group composes a message to another user, he will only have to enter the 4-digit mailbox number, not the full 10-digit mailbox number. A user in a residential customer group can enter the 7-digit mailbox number.

Note: The system DN length must indicate the length of mailbox numbers on the SPM.

- **Mailbox Full Warning Threshold (percentage)** - This field allows you to determine how full a user's mailbox must become before the system plays the mailbox full prompt when the user logs on. A value of "0" means that the user will never hear the mailbox full warning prompt. The valid range is 0 to 100 (percent). The default is "0".

Note 1: If you change this field to a percentage other than 0, you will not be able to change it back to 0. The new valid range will be from 1 to 100.

Note 2: 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, you can log on at the Tools level and select the menu item "Audit all volumes". This will update the real mailbox storage information that is stored on disk and prevent prematurely full mailboxes. See the *System Administration and Maintenance Tools Guide* (NTP 297-7001-305) for more information about this tool.

- **Maximum Read Message Retention (days)** - This field determines the maximum number of days that messages will be kept in the user's mailbox after being read. When the maximum is reached, read messages are deleted. The valid range is from 0 to 31 days. If this field is set to "0", messages are not deleted by the system and are retained until deleted by the user. The default is "7" days.

If you change the current value to a smaller value, you should probably inform users of this change, because from their point of view, messages will be deleted unexpectedly early. For example, if the read message retention, currently set to 7 days, is changed to 4 days, all read messages older than 4 days will be deleted. (Note that messages will be deleted during the next nightly audit, not immediately.)

Note: The read message retention limit can also be configured for each user in the Add or View/Modify Local Voice User screen (see "User Administration"). The user's limit is overridden by the limit defined here (if a non-zero value).

Figure 7-4xxx
The Voice Messaging Options screen for single language systems
(VMUIF interface)

ABC Company	Voice Administration	
Voice Messaging Options		
Voice Messaging Interface:	MMUIVMUIF	
Customized Recordings for AmericanEnglish:		
VMUIF Introductory Tutorial (Voice):	No	Type:None [Default] Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	Yes	Type:None Default [Custom]
Login Greeting (Voice):	No	Type:None [Default] Custom
Lockout Revert DN: (Blank implies no revert)	_____	
Personal Distribution List Prefix:	<u>14</u>	
Broadcast Mailbox Number:	<u>999</u> _____	
Broadcast Mailbox Personal Verification (Voice):	No	
Billing DN:	<u>2346669</u> _____	
Dialing prefix for Outgoing calls:	_____	
Customer DN Length:	<u>30</u>	
Local Addressing Lengths:	<u>0</u> <u>0</u>	
Maximum Read Message Retention (days): ("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)	<u>7</u>	
Select a softkey >		
Save	Cancel	Voice

Figure 7-5xxx
The Voice Messaging Options screen for multilingual systems
(VMUIF interface)

ABC Company	Voice Administration
Voice Messaging Options	
Default Language:	[AmericanEnglish] Swedish
Default Language Overrides User's Preferred Language:	[No] Yes
Voice Messaging Interface:	MMUIVMUIF
Customized Recordings and Recording Selections for AmericanEnglish:	
VMUIF Introductory Tutorial (Voice):	No Type:None[Default] Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	No Type:None[Default] Custom
Login Greeting (Voice):	YesType:NoneDefault [Custom]
Customized Recordings and Recording Selections for Swedish:	
VMUIF Introductory Tutorial (Voice):	No Type:None[Default] Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	YesType:NoneDefault [Custom]
Login Greeting (Voice):	No Type:None[Default] Custom
Lockout Revert DN: (Blank implies no revert)	_____
Personal Distribution List Prefix:	<u>14</u>
Broadcast Mailbox Number:	<u>999</u> _____
Broadcast Mailbox Personal Verification (Voice):	No
Billing DN:	<u>2355908</u> _____
<hr/> Select a softkey > <div style="float: right; border: 1px solid black; padding: 2px;"> MORE BE- LOW </div>	
Save	Cancel
Voice	

Figure 7-5 continued
The Voice Messaging Options screen for multilingual systems
(VMUIF interface)

ABC Company	Voice Administration	MORE ABOVE
Voice Messaging Options		
Dialing prefix for Outgoing calls:	416	
Customer DN Length:	30	
Local Addressing Lengths:	0 0	
Maximum Read Message Retention (days): ("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)	7	
Select a softkey >		
Save	Cancel	Voice

The following fields are displayed for VMUIF customer groups only. The first two fields appear only on multilingual systems.

- **Default Language** - This field lists all of the languages that have been installed on your system. The primary default language (the first language installed) is highlighted. The selection made here determines the language in which prompts are played to callers who connect to DMS VoiceMail through call answering.
- **Default Language Overrides User's Preferred Language** - If this field is set to "Yes", the language specified in the *Default Language* field overrides the user's preference which is set in the Add or View/Modify Local Voice User screen. This means that all callers will hear the default language during call answering sessions. However, it does not apply to the prompts that users hear while logged on to DMS VoiceMail. These will still be played in the user's preferred language. For example, if the default language is AmericanEnglish, and a user's preferred language is Mandarin, the user will still hear DMS VoiceMail prompts in Mandarin; however, callers that reach his or her mailbox will hear prompts in English. When this field is set to "No", callers will hear DMS VoiceMail prompts in the preferred language of the user they have called.
- **Voice Messaging Interface** - This is a read-only field. The selection shown here depends on the selection that was made in the Add Customer screen.

- **Customized Recordings for <language>** - These fields are displayed once for each language that is installed. The standard is American English.
- **VMUIF Introductory Tutorial (Voice)** - This field indicates whether or not a voice recording has been made for the introductory tutorial. The introductory tutorial is played to subscribers when they log on for the first time in order to familiarize them with the service. If a recording is made, the following field, *VMUIF Introductory Tutorial Type*, will allow you to select “Custom”.
- **VMUIF Introductory Tutorial Type** - This field identifies the type of introductory tutorial to be played the first time a subscriber logs into a new mailbox. The “Custom” option is available if there is a voice recording of the introductory tutorial. If you do not record a custom tutorial, you can select the default recording. You also have the option of not playing an introductory tutorial at all.
- **VMUIF Introductory Tutorial for Dial Pulse (Voice)** - This field indicates whether or not a voice recording has been made for the tutorial for dial pulse users. If a recording is made, the following field, *VMUIF Introductory Tutorial for Dial Pulse Type*, will allow you to select “Custom”.
- **VMUIF Introductory Tutorial for Dial Pulse Type** - This field identifies the type of introductory tutorial to be played the first time a subscriber logs into a new mailbox from a dial pulse (rotary) telephone. The “Custom” option is available if you have recorded your own custom tutorial. If you have not recorded a custom tutorial, you can choose to play the default tutorial or no tutorial at all.
- **Login Greeting (Voice)** - This field indicates whether or not a voice recording has been made for the Login Greeting. This is the greeting that is played when subscribers log onto DMS VoiceMail.
- **Login Greeting Type** - This field determines which greeting is used, if there is one. If a custom login greeting has been recorded (see the previous field), you may select “Custom”. If one hasn’t been recorded, you can use the default greeting or select “None”.
- **Lockout Revert DN** - This field specifies the DN to which subscribers are reverted when they try logging into a disabled mailbox (if, for example, a subscriber has made too many invalid logon attempts). This should be the DN of an administrator or operator who has been designated to deal with subscriber problems. This must be a network DN (for example, NPA-NXX-XXXX).

The administrator/operator can reenable a disabled mailbox by setting the *Logon Status* field in the View/Modify Local Voice User screen to “Enabled”. If the subscriber has forgotten their password, you may have to change it for them using the [Change Password] softkey in the View/Modify Local Voice User screen. This field is blank by default, indicating that there is no revert.

- **Personal Distribution List Prefix** - This prefix is used by subscribers to indicate personal distribution list addressing. This prefix informs DMS VoiceMail that the number that follows is a distribution list number. For example, if the prefix is “22” and the subscriber wants to address a message to his or her personal distribution list number 3, the subscriber would enter “22 3” when addressing the message. You may enter a value from 1 to 99. The default is null (i.e., this field is blank).
Note: This field cannot conflict with other prefixes defined in the system, such as the AMIS compose prefix and the DNU prefixes.
- **Broadcast Mailbox Number** - A broadcast message is a voice message that is delivered to all users in the customer group. In order to send a broadcast message, you (or a user) must specify a special mailbox number (the broadcast mailbox number) when composing the broadcast message. The default mailbox number is “999”. This number can be the same for all customer groups because the customer group to which a broadcast message is sent depends on the customer group to which the mailbox you log on to belongs. For example, to send a broadcast message to the users in customer group 100, log on to a phone with broadcast capability that belongs to this customer group.
If this default number conflicts with the ESN access code and causes a conflict (e.g., if “9” is used as the ESN access code), change the broadcast mailbox number. If you change the broadcast mailbox number for this reason (or any other reason), ensure that the new number does not conflict with other numbers in the system.
- **Broadcast Mailbox Personal Verification (Voice)** - This field indicates whether or not a spoken name has been recorded for the broadcast mailbox number. This verification is announced to users before the message is played. It should inform users that the message they are about to hear is a broadcast message (and who it is from, as users may need to get in touch with the sender).
- **Billing DN** - Whenever an outgoing call is made, it is charged against a DN. Typically, the mailbox number of the user that initiates the outcall is stored and used for billing purposes. However, if for some reason the mailbox number is not known (if for example, the system fails or the call is dropped), the Billing DN will be used instead. It is essentially a standby DN for those cases in which the mailbox number is unattainable. This DN can be up to 30 digits in length. This field is optional and can be left blank. The default is “null”.
- **Dialing prefix for Outgoing calls** - This prefix is used to translate DNs that are used to place outgoing calls DNs that are dialable from the DMS VoiceMail channel. This prefix is used only when the DN length is less than or equal to the DN length specified in the following field, *Customer DN Length*. This prefix can be up to 30 digits in length.

Features that place outgoing calls and that may, therefore, reference this field are call sender, thru-dial, reverts from voice messaging and call answering, remote notification voice menus and voice forms. DNU (delivery to non-user) does not reference this field since DNU target DN's are always entered in a dialable format.

Example:

The Customer DN length for a private customer is four (since subscribers normally dial 4-digit extensions). The dialing prefix in this example is "267" (this is the exchange code or NNX). In a call sender scenario, a subscriber receives a message from another subscriber at mailbox 2337 and uses the call sender feature to call back immediately. The system takes the originating subscriber's primary DN (2337) and compares it to the value in the *Customer DN Length* field. Since it equals this value (4), the prefix is added to the primary DN to create the dialing DN 267-2337 and the call is placed.

- **Customer DN length** - This is the length of local DN's (extension numbers, for example) within the current customer group. This DN can be up to 30 digits in length. For centrex customer groups, the customer DN length is typically four. For residential customer groups, the DN length is typically seven. The default is "0".

If DMS VoiceMail is trying to make an outgoing call, (a user wants to use call sender, for example) and the DN of the calling party is equal to or less than the customer DN length, the prefix specified in the previous field, *Dialing Prefix for Outgoing Calls*, is added to the customer DN to generate the full system DN. See the example that is provided in the preceding field description.

- **Local Addressing Lengths** - This field specifies the length of mailbox numbers in the current customer group. (This is different from the *Customer DN Length* field which specifies the length of DN's. Local addressing lengths refer to mailbox numbers.) For example, in the case of private customer groups, mailbox numbers are typically 4-digit extensions. By specifying the local addressing lengths (and expansion digits), message addressing and login are made more convenient to subscribers by allowing them to enter the shorter mailbox number during login and message composition rather than the full system DN length mailbox address.

Note: The *System DN Length* field (in the General Options screen at the system administration level) must be set to a non-zero value before you can enter local addressing lengths.

When a user enters a mailbox number that is the same length as the local addressing length (and, therefore, shorter than the system DN length) during either mailbox login, express messaging, or message addressing, it will be expanded to the full system DN length. The local mailbox number is padded with the digits that are defined as Expansion Digits for the Voice Messaging DN (for login) and the Express Messaging DN. These expansion digits are defined when you add these DNs to the VSDN table (see the “Voice Administration” chapter for details).

These values must be less than the system DN length or 0. Both fields default to “0”.

Example:

The following describes a DMS VoiceMail system:

- 1 The system DN length is 10.
- 2 Mailbox numbers are 10 digits on the SPM.
- 3 The local addressing length for the centrex customer group is 4.
- 4 The local addressing length for the residential customer group is 7.
- 5 The expansion digits (for Voice Messaging and Express Messaging) are specified when adding a DN to the VSDN Table in Voice Services Administration. For the centrex customer group, the expansion digits are 416267. For the residential customer group, they are 416.

When a user in the centrex customer group composes a message to another user, he will only have to enter the 4-digit mailbox number, not the full 10-digit mailbox number. A user in a residential customer group can enter the 7-digit mailbox number.

Note: The system DN length must indicate the length of mailbox numbers on the SPM.

- **Maximum Read Message Retention (days)** - This field determines the maximum number of days that messages will be kept in the user’s mailbox after being read. When the maximum is reached, read messages are deleted. The valid range is from 0 to 31 days. If this field is set to “0”, messages are not deleted by the system and are retained until deleted by the user. The default is “7” days. For Dial Pulse residential subscribers, the default is “3” days.

Note: The read message retention limit can also be configured for each subscriber in the Add or Modify Local Voice User screen (see the “User Administration” chapter). The user’s limit is overridden by the limit defined here (if a non-zero value).

Procedure 7-2xxx
Modifying Voice Messaging Parameters

Starting point: The Voice Administration menu.

- 1 Select Voice Messaging Options.
The Voice Messaging Options screen appears (Figure 7-2 through 7-5).
- 2 Move the cursor to the field you wish to modify and make the required changes.
- 3 Choose step 3a to save the changes or 3b to cancel.
 - a. Use [Save]. The changes are saved and you are returned to the Voice Administration menu.
 - b. Use [Cancel].

Changes are discarded. The Voice Administration menu reappears.

Voice Security Options

The Voice Security Options screen (Figure 7-6) allows you to control security features for each customer group. The restriction and permission codes displayed in this screen are read-only. They are configured in the Voice Security Options screen at the system administration level.

The Voice Security Options screen

For VMUIF customer groups, the only modifiable fields in the Voice Security Options screen are those used to specify the maximum invalid logon attempts permitted (per session and per mailbox). For MMUI customer groups, additional fields related to mailbox password security can also be modified. The restriction/permission codes cannot be modified in this screen. (They are modifiable only at the system administration level.)

Figure 7-6xxx
Voice Security Options screen

ABC Company		Voice Administration	
Voice Security Options			
Maximum Invalid Logon Attempts Permitted per session:			<u>3</u>
Maximum Invalid Logon Attempts Permitted per mailbox:			<u>3</u>
# Maximum Days Permitted Between Password Changes:			<u>60</u>
##* Password Expiry Warning (days):			<u>5</u>
##* Minimum Number of Password Changes before Repeats:			<u>5</u>
# Minimum Password Length:			<u>4</u>
# External Logon:			Enabled
# Call Answering/Express Messaging Thru_Dial restriction/permission codes:	None	On_switch[Local]	
		Long_Distance_1	
		Long_Distance_2	
** List Name:	On switch		
** Restriction Codes:90	60		
** Permission Codes:	90123 60245		
List Name:	Local		
Restriction Codes:91	90 60		
Permission Codes:			
List Name:	Long_Distance_1		
Restriction Codes:91	90 60		
Permission Codes:	90123 60245 91416		
List Name:	Long_Distance_2		
Restriction Codes:90	60 91		
Permission Codes:			
Select a softkey >			
Save	Cancel		

* These fields are displayed only if Maximum Days Permitted Between Password Changes is greater than 0.

These fields are not displayed for VMUIF customer groups.

** These fields are read-only.

The following fields are displayed:

- **Maximum Invalid Logon Attempts Permitted per session** - This field determines the maximum number of times that a user can make an invalid logon attempt within a single session (this limit also applies if the user tries to log on to a number of different mailboxes). When this maximum is reached within one session, the session will be terminated. You may enter a value from 1 to 99. The default is "3".

- **Maximum Invalid Logon Attempts Permitted per mailbox** - This field specifies the maximum number of unsuccessful logon attempts allowed for each mailbox (this is a cumulative number). When the limit is reached, the mailbox is disabled and the user is not able to log on. The range is from 1 to 99. The default is “9”.

For MMUI customer groups, go to the View/Modify Local Voice User screen and enable the *Logon Status* field to reenable a mailbox.

For VMUIF customer groups, a lockout duration is configured in the subscriber’s class of service. If a non-zero value is specified, the subscriber’s mailbox will automatically be reenabled after the specified time has passed. If zero is specified, the administrator will have to manually reenable the mailbox in the View/Modify Local Voice User screen by setting the *Logon Status* field to “Enabled”.

- **Maximum Days Permitted Between Password Changes** - (This field is not applicable to VMUIF customer groups.) This field determines the maximum number of days allowed between password changes. If you do not want users to have to change their passwords, set this field to “0”.

If this field is set to a non-zero value, users who do not change their password in the specified time will not be able to log on to their mailbox until they change their password. (The current password expires after the exact number of days specified in this field, including partial days.) The valid range is from 0 to 90. The default is “0”.

Note: If you change this field from “0” to a non-zero value, subscribers’ passwords will expire immediately. There will be many updates to the system as a result of users logging on and having to change their passwords. The system will slow down until updates are completed. (The system will also generate a number of 3134 DR SEERs during this update period.) It is, therefore, recommended that if you will be changing this field on a system that is already operational, you do so at a slow traffic time. If you will be changing this field so that subscribers now have to change their passwords, you should warn them of the upcoming change and inform them how often they will have to change their passwords.

- **Password Expiry Warning (Days)** - (This field is not applicable to VMUIF customer groups.) This field appears only when the field *Maximum Days Permitted Between Password Changes* is not “0”. The value you enter in this field determines the number of days advance notice given to a user before their password expires. The range is from 0 to 60. The default is “5”.

- **Minimum Number of Password Changes before Repeats** - (This field is not applicable to VMUIF customer groups.) This field appears only when the field, *Maximum Days Permitted Between Password Changes*, is not "0". This number determines the number of password changes required before the same password can be re-used. The range is from 0 to 5. The default is "5".
- **Minimum Password Length** - (This field is not applicable to VMUIF customer groups.) This field determines the minimum number of digits required in passwords that are entered from a telephone keypad. This includes mailbox passwords, the access password used to restrict access to voice services and the update password used to update voice services from a DTMF phone set. It does not include the administration password that is entered when logging on at the administration terminal.
For MMUI customer groups, the default is "4". This is also the minimum. You cannot enter a value less than "4" in this field.
- **External Logon** - This is a read-only field. It is only applicable to MMUI customer groups. When this field is "Enabled", access to Voice Messaging from an external trunk, or another customer group, is allowed. This feature can be disabled for security reasons. However, once disabled, access from external trunks is permanently revoked. The default is "Enabled".

Note: External logon can only be disabled by field service representatives. Once disabled, the feature can not be re-enabled.

- **Call Answering/Express Messaging Thru-Dial Restriction/Permission codes** - (This field is not applicable to VMUIF customer groups.) Select the restriction/permission table that will apply to call answering thru dial and express messaging thru dial. The selection made here affects all users in this customer group. (Restriction/permission codes are specified in the Voice Security Options screen at the system administration level.)

Call answering and express messaging thru dial allows callers who are connected to DMS VoiceMail during call answering or express messaging sessions to place calls by pressing "0" followed by an extension DN or an external phone number. This can become a crucial security hole if restriction codes are not put in place to prevent callers from placing calls which will be charged to the customer.

The four choices displayed in Figure 7-6 (On_switch, Local, Long distance 1, and Long distance 2) are the default names and may be different on your system.

- **List Name** - This field is read-only and is defined by the system administrator. It is the name of the restriction/permission list. These names show up in other screens in which you apply restriction/permission codes to features. The default names are “On Switch”, “Local”, “Long distance 1”, and “Long distance 2”.
- **Restriction Codes** - These are the dialing codes to which calls are not allowed to be made. Up to 10 codes can be defined. Each code can be up to 5 digits in length.
- **Permission Codes** - Any DNs that begin with a permission code are allowed. Up to 10 codes can be defined. Each code can be up to 5 digits in length.

Procedure 7-3xxx
Setting Voice Security Parameters

Starting point: The Voice Administration menu.

- 1 Select Voice Security Options.
The Voice Security Options screen appears (Figure 7-6).
- 2 Move the cursor to the field you wish to modify; make the required changes.
- 3 Choose step 3a to save the changes or 3b to cancel.
 - a. Use [Save].
The changes are saved and you are returned to the Voice Administration menu.
 - b. Use [Cancel].
Changes are discarded. The Voice Administration menu reappears.

Types of services

The following are the different types of services that you can make available to your subscribers. Some of these features are optional and may not be installed on your system (voice menus, voice forms, AMIS networking).

Voice messaging services

Voice messaging services allow you to compose and send voice messages, leave a (non-composed) message in another user’s mailbox without ringing that person’s phone first, be notified of new messages while away from your phone, or deliver a voice message to a non-user.

Voice messaging

This service provides call handling and message storage capabilities, thus allowing a user’s mailbox to function like an answering machine, taking calls when the user is away from or currently on the phone. If a caller rings a user’s phone, the caller is connected to the user’s mailbox. The caller hears a greeting (which may or may not be recorded in the user’s voice) and is prompted to leave a message after the tone. This is the call answering aspect of the voice messaging service.

In addition, voice messaging also provides facilities that permit users to compose and send voice messages. For example, a user can compose a message and then send it to a number of people, or record a message and then request that it be sent at a later date.

MMUI classes of service provide all subscribers with compose and send capability.

VMUIF classes of service contain a field called *Compose Capability*. If this field is set to “No” (the default), subscribers belonging to the COS will only have call handling and message storing capabilities. They will not be able to compose and send messages.

Furthermore, for VMUIF classes of service, Simplified Call Answering can be enabled for subscribers who do not have touch-tone phones. This is done by setting the field *Dial Pulse Support* to “Yes”. This simplified interface does not require any keypad commands unlike the standard VMUIF interface or the MMUI interface.

Express messaging

Note: This service is available only with the MMUI interface.

Express messaging allows users to directly place a message in another user’s mailbox without first ringing the destination phone. Users first dial the Express Messaging directory number to indicate they want to use this service. They are then prompted for the mailbox. A personal verification (if recorded) is played to confirm they have reached the correct user and they are prompted to leave a message. (If no personal verification is recorded, the user’s mailbox number is provided instead for confirmation.)

Outcalling (remote notification and delivery to non-users)

Remote Notification allows users to be informed of new messages at a remote phone or pager. Delivery to non-users allows users to compose and send messages to people outside of the DMS VoiceMail system. Outcalling features are described in the *Outcalling Application Guide* (NTP 297-7001-308).

Voice services

Voice services are custom call answering applications created by the administrator. They allow callers to listen to recorded information (announcements), leave messages for specific users, or place calls (thru-dialers). They can route callers to particular services based on the time of day (business hours or off-hours) and can handle calls that are received during holidays by passing callers to the appropriate service (time-of-day controllers).

The Voice Menus feature package is documented in the *Voice Menus Application Guide* (NTP 297-7001-307).

Announcements

This service allows you to record messages that can be played back within a voice menu, or as a stand-alone service that is directly dialable.

Thru-dialers

This service accesses pre-defined DNs or user-prompted DNs that can be used within a voice menu service, or as a separate service with a directory number. Thru-dialers can be created to provide a variety of dialing options to users of DMS VoiceMail. Thru-dialers can be set up to allow Name Dialing, and can have restrictions barring users from dialing unauthorized numbers (such as long-distance access codes).

Time-of-day controllers

This service allows you to control the activation of voice services based on the date and time at which a call is received. This allows you to control the availability of voice services during off-hours and holidays.

Voice menus

This service allows you to create single-layered or multi-layered menus which present callers with a series of choices about the actions they can perform. A caller selects an action by pressing the key (on the telephone keypad) that corresponds to the action.

Voice prompt maintenance

This service allows you or your delegates to modify the various prompts and greetings available in your voice menus and announcements using a telephone; see Chapter 4, "Making recordings".

Remote activation

This service allows you to enable or disable voice services while you are off-site, through a standard DTMF telephone set.

For more information, see "The voice services administration menu" later in this chapter. To determine how many voice services can be created, see the technical specifications in the *DMS VoiceMail Product Guide* (NTP 297-7001-010).

Voice forms

Voice forms administration

Administration involves the creation of applications that collect voice information from callers. An application consists of a series of questions, played in sequential order, to which callers give voice responses. It is as if callers are filling in a form over the phone.

Voice forms transcription

Transcription refers to the process of retrieving the information collected by a voice form application. Once retrieved, the data can be processed in a number of ways, depending on how the information will be used and the goal you intend to achieve by collecting the information. See the *Voice Forms Transcriber User Guide*.

AMIS networking

This service allows users to send and receive messages to or from users of other remote voice messaging systems that also use the AMIS protocol (which may include non-DMS VoiceMail systems). Users can also reply to the originator of an AMIS message. Predefined passwords or site information are not required in order to send, receive or reply to messages.

The voice services administration menu

The Voice Services Administration menu is displayed when you select item <3> from the Voice Administration Menu (see Figure 7-7). Performing voice services administration involves the following activities:

- Adding DNs to the Voice Services-DN Table (VSDN table) and keeping the VSDN table up-to-date. The VSDN table lists all of the services that are available to a customer group and the corresponding DNs for each service. These DNs are the numbers that users dial to access particular services.
- Configuring the Voice Services Profile, where you specify the broad operational parameters common to all voice services.
- Creating and maintaining voice services. These include:
 - *Announcement Definitions* - in which you define recorded announcements for playback within a voice menu, or as a stand-alone voice service.
 - *Thru-Dial Definitions* - in which you define call handling services as a stand-alone service or to allow users to place calls to permitted numbers from a voice menu.
 - *Time-of-Day Control Definitions* - in which you define the activation of voice services according to time and date. Ways in which they are differentiated are business hours, off-hours, and holidays.
 - *Voice Menu Definitions* - in which you define voice menus as sets of actions to be offered to the user. Each action corresponds to a key on the telephone keypad. Each voice menu can have a greeting that explains the purpose of the menu, and a second prompt played to users if a timeout condition is reached.

Note: The planning and configuration of these voice services is documented in the *Voice Menus Application Guide* (NTP 297-7001-307).

Because Voice Services Administration can also be performed at a Multi-Admin terminal, it is possible that a number of administrators can be logged on to the same voice service definition at the same time. If two administrators log on to the VSDN Table, Voice Services Profile or the same voice service definition (announcement, voice menu, thru-dialer, time-of-day controller) for the same customer group, the administrator who first accessed the table or definition has write access. All other administrators can only view the table/definition.

Figure 7-7xxx
The Voice Services Administration menu

ABC Company		Voice Services Administration	
1	Voice Service-DN Table		
# 2	Voice Services Profile		
* 3	Announcement Definitions		
* 4	Thru-Dial Definitions		
* 5	Time-of-Day Control Definitions		
* 6	Voice Menu Definitions		

Select an item >

Exit				Find Subset of VSDNs/Services
------	--	--	--	-------------------------------

- # This option does not appear on Multi-Admin Terminals.
- * These options only appear if the Voice Menu feature is enabled.

Each item in the Voice Services Administration menu is described in detail in the following sections.

**CAUTION****Do not perform voice services administration during nightly DR audit**

At 3:30 a.m. every day, an audit of the DR directory is performed. Do not perform any voice services administration (adding, modifying, or deleting DNs in the VSDN table or adding, modifying or deleting voice service definitions) during this audit. Depending on how unbalanced the system is, this audit can take anywhere from 10 minutes (if the system has not been modified since the last audit) to 3 hours (if there have been many changes, such as a lot of users or services being added or modified).

Finding a subset of VSDNs or services

If the VSDN table is accessed directly from the Voice Services Administration menu, all VSDN entries associated with this customer group are retrieved and displayed. If you want to view or modify a particular VSDN or a subset of VSDNs, and do not want to have to search through the entire list of VSDNs, use the [Find Subset of VSDNs/Services] softkey. By specifying your search criteria you can retrieve a particular VSDN (by specifying the exact DN) or a subset of VSDNs (by using wildcard characters to create a search pattern). Wildcard characters are explained in the following section.

If voice menus are enabled, the Find function can also be used to find a particular service definition or a subset of service definitions (such as an announcement, thru-dialer, time-of-day controller or voice menu). When you select Announcement Definitions, Thru-Dial Definitions, Time-of-Day Control Definitions, or Voice Menu Definitions from the Voice Services Administration menu, all announcements, thru-dialers, time-of-day controllers, or voice menus associated with the customer group are listed. Depending on how many services are defined, this list can be quite long. To retrieve a particular service definition or a subset of definitions, use the [Find Subset of VSDNs/Services] softkey.

To use the find functionality, you will have to remember some information about the VSDN or service you are trying to retrieve. In the case of a VSDN, you must be able to specify part or all of the DN, the service that is represented by the VSDN (announcement, voice menu, etc), or the comment that is stored as part of the DN information. In the case of a voice service, you must be able to provide the service ID or part or all of the service title.

If you leave all of the fields in the Find Subset of VSDNs/Services screen blank, a list of all VSDN entries/services will be displayed.

A [Find] softkey is also available in the VSDN table to help you retrieve a particular VSDN or a subset of VSDNs once you have accessed the VSDN table. This softkey is also available from the service definition selection menus (such as the Announcement Definitions screen). When you press the [Find] softkey, the Find Subset of VSDNs/Services screen is displayed (see Figure 7-8). This allows you to switch between different service definitions and DN definitions without having to traverse a hierarchy of menus. Since there is no restriction on the order in which objects (DNs, announcements, thru-dialers, etc.) are added to the system, you can manipulate DN information and then cross check the associated service definitions or vice versa.

Using wildcard characters

Most of the fields in the Find Subset of VSDNs/Services screen 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 *DN* field, all DNs beginning with 2 will be retrieved.

The underscore (_) matches a single character. For example, if you enter “210_” in the *DN* field, DNs in the range 2100 to 2109 will be retrieved. To retrieve all DNs numbered between 2100 and 2199, enter “21_ _”.

The question mark (?) produces a “sound match”. This is useful if, for example, you are unsure of the spelling of a customer’s name. For example, you want to retrieve all announcement definitions for a customer called Braemore. However, you cannot remember how to spell this name. If you enter “Br+”, the system will find all customer groups whose names begin with Br. If you enter “Braymore?” the system will find all names that sound like “Braymore”. This might include Braymore, Breymore, Braemer, etc.

The Find Subset of VSDNs/Services screen

The same screen is displayed regardless of how it is accessed - either from the Voice Services Administration menu using the [Find Subset of VSDNs/Services] softkey, or from the VSDN table or a service definition using the [Find] softkey.

Figure 7-8xxx
The Find Subset of VSDNs/Services screen

ABC Company	Voice Services Administration
-------------	-------------------------------

Find Subset of VSDNs/Services

Choice of Services:

AN AMIS Networking	AS Announcement Service	EM Express Messaging
GS Greetings Service	PM Prompt Maintenance	RA Remote Activation
TS Thru-Dial Service	TD Time-of-Day Controls	TR Transcription Service
VF Voice Forms Service	MS Voice Menu Service	VM Voice Messaging

#	Type:	[VSDN Entry]	Announcement	Thru-Dial/TOD_Control	Voice Menu
*	DN:	233+ _____			
*	Service:	MS			
*	Comment:	_____			
**	ID:	_____			
**	Title:	_____			

Select a softkey >

	Cancel	Find Selection	Print Selection	
--	--------	----------------	-----------------	--

- # This field is displayed if Voice Menus are installed.
 * These fields are displayed if Type is VSDN Entry.
 ** These fields are displayed if Type is not VSDN Entry.

Note: If this screen is accessed from the VSDN table or one of the service definition screens, the screen may or may not be prefilled with some information. This depends on whether or not an item was pre-selected when the [Find] softkey was pressed. If no item was selected, the fields in the form will be blank. If an item was selected (such as a DN in the VSDN table), then some of the fields will be datafilled with the information obtained from the selected item (such as the DN, Service and Comment).

The following fields appear on the Find Subset of VSDNs/Services form:

- **Choice of Services** - A list of available services and their acronyms.
- **Type** - This field is displayed only if Voice Menus are enabled. If they are not enabled, you can only retrieve VSDNs. This field specifies the type of information you wish to retrieve. Your choices are:
 - VSDN Entry
 - Announcement
 - Thru-Dialer
 - Time-of-Day Control
 - Voice Menu

The following fields are displayed only if Type is “VSDN Entry”:

- **DN** - To find a particular DN, enter the full DN in this field. To retrieve a subset of DNs, use wildcard characters to create a search pattern.
- **Service** - To retrieve all of the VSDNs for a particular service type (announcements, thru-dialers, time-of-day controllers, or voice menus), enter the acronym for that service. For example, to retrieve only announcement DNs, enter AS in this field.
- **Comment** - Any comment you enter here must match the comment that was entered in the Add or View/Modify DN Information screen. Wildcard characters are acceptable.

The following fields are displayed only if Type is not “VSDN Entry”:

- **ID** - To retrieve a particular service definition, enter the service ID in this field. You cannot use wildcard characters in this field.
- **Title** - To retrieve a specific service definition, enter the title. The title must match exactly the title that was entered when the service definition was created. If you cannot remember the exact title of the service, use wildcard characters to create a search pattern.

Once you have filled in this screen, use the [Find Selection] softkey to display the results, or the [Print Selection] softkey to print the results.

Procedure 7-4xxx

Finding or printing a subset of VSDNs or services

Starting Point: The Voice Services Administration menu

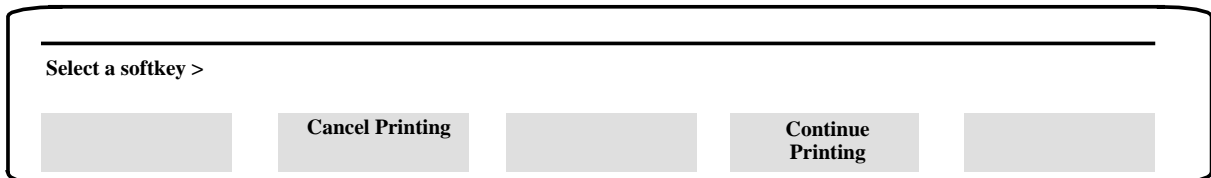
- 1 Press the [Find Subset of VSDNs/Services] softkey.
The Find Subset of VSDNs/Services screen is displayed.
- 2 Fill in the Find Subset of VSDNs/Services screen. See the field descriptions on the preceding pages.
- 3 To view the results on the screen, go to step 3a. To print the results, go to step 3b. If you do not want to continue, go to step 3c.
 - a. Press the [Find Selection] softkey.

If the data type was VSDN Entry, the VSDN Table is displayed.

If the data type was a voice service (announcement, thru-dialer, time-of-day controller, or voice menu), the list of service definitions is displayed (such as the Announcement Definitions screen).

- b. Press the [Print Selection] softkey.

You are prompted to verify that the printer is ready and the following set of softkeys are displayed:



Press [Continue Printing] to go ahead with printing.

Press [Cancel Printing] if you do not want to print at this time. You can also press this softkey once printing has begun in order to cancel a print job.

- c. Press the [Exit] softkey.

The search is not performed and the Voice Services Administration menu is displayed.

The Voice Services-DN Table

The Voice Services-DN (VSDN) Table (Figure 7-9) lists the Directory Numbers (DNs) associated with specific voice services. A DN is required for each voice service that you want users to be able to access directly by dialing a unique DN. The VSDN Table maps voice services onto DN so that when DMS VoiceMail receives an incoming call, it looks up the DN in the table to determine which service is being requested and which prompts to play.

For every service you plan to add to the VSDN table, an existing line DN (or UCD DN) must already be configured on the switch. Your system administrator should have a list of available DN. If necessary, see “Configuring services” in the “Voice Administration” chapter in the *System Administration Guide* for information about configuring UCD queues.

If a voice service is going to share the agents in the voice messaging queue, you must first ensure that there is an available DN on the DMS, or configure one if there is not. If you are going to dedicate agents to the service, you must create a UCD queue on the DMS for the service (if there are none available). Your system administrator is usually responsible for ensuring that there are DN and UCD queues available on the DMS. If necessary, see “Configuring services” in the “Voice Administration” chapter in the *System Administration Guide* for information about configuring DN and UCD queues.

At the very least you must define a DN for Voice Messaging. This is the DN that users dial to log on to DMS VoiceMail and access their mailboxes.

Note: Each customer group requires a unique voice messaging DN to ensure that the proper service and prompts are accessed (call answering versus voice messaging, for example). Each customer group’s voice messaging DN will forward to the primary voice messaging UCD queue. See the section “Configuring the DMS” in the *System Administration Guide* for more information.

The other DNs are essentially optional. However, the following DNs are commonly configured: at least one express messaging DN (if MMUI is enabled); if voice menus are installed, a DN for both remote activation and voice prompt maintenance as well as DNs for any directly dialed voice services such as announcements, thru-dialers, time-of-day controllers, voice menus and voice forms (if installed).

Figure 7-9xxx
The Voice Services-DN Table

ABC Company		Voice Services Administration	
Voice Services-DN Table			
DN	Service		Comment
2663650	EM		Express Messaging
2663651	PM		Prompt Maintenance
2663654	VM		Voice Messaging
2663661	RA		Remote Activation
2663662	TS	2000	Thru-Dial
2663663	EM		Express Messaging
2663665	AS	2001	Announcement Service

Move the cursor to the item and press the space bar to select >

Exit	Add	View/ Modify	Delete	Find
------	-----	-----------------	--------	------

Note 1: The entries in the VSDN Table are sorted by DN by default. This can be changed in the Set Display Options screen by the System Administrator so that they are sorted alphabetically according to the contents of the *Comment* field.

Note 2: If you tried accessing the VSDN table and no entries were retrieved, the following message is displayed near the bottom of the screen: “There are no DN’s associated with any service. Select Add to define one”.

The Voice Services-DN Table includes the following read-only fields:

- **DN** - (Directory Number) The DN for the voice service. For centrex customers, this is the 4-digit line DN or UCD DN. For residential/small business customers, this is usually a 7-digit number.

Note: On CO systems for which the SMDI link is set to 10-digit messaging, enter the full 10-digit DN (including the area code).

- **Service** - The service that is reached when the corresponding DN is dialed.

Voice services display a corresponding ID number.

- **Comment** - A description of the voice service.

You can use the [Find] softkey to retrieve a subset of DN’s or a particular DN. When you press the [Find] softkey, the Find Subset of VSDN’s/Services screen is displayed. See the description of this screen on page 7-33.

Procedure 7-5xxx

Adding, Modifying And Deleting Voice Service DN’s

Starting point: The Voice Services Administration menu.

- 1 Select Voice Services-DN Table.

The Voice Services-DN Table is displayed (Figure 7-9).

- 2 Choose step 2a to add a service DN; 2b to modify an existing service DN, 2c to delete an existing service DN, 2d to find a particular DN or a subset of VSDN’s, or 2e to exit the VSDN Table.

- a. Use [Add].

The Add DN Information screen appears; proceed to the next section, “Adding DN information”, for details.

- b. Use the cursor keys to move the cursor to the required voice service DN and press <Space Bar> to select it. Press the [View/Modify] softkey.

The View/Modify DN Information screen appears. Refer to the section “Viewing and modifying DN information” later in this chapter for details.

- c. Use the cursor keys to move the cursor to the required voice service DN and press <Space Bar>. Press the [Delete] softkey.

The Delete DN Information screen appears. Refer to the section “Deleting DN information” later in this chapter for details.

- d. Press the [Find] softkey.
The Find Subset of VSDNs/Services screen is displayed. If a DN was selected when you pressed [Find], the screen will be datafilled with information taken from the selected DN. If no DN was selected, all of the fields in the screen are blank. See page 7-31 for more information about the Find function.
- e. Use [Exit].
The Voice Services Administration menu is redisplayed.

Adding DN information

The Add DN Information screen (Figure 7-10) is accessed from the VSDN Table and is used to assign available DNs to voice services.

Figure 7-10 shows this screen before any information is entered. Additional fields may appear depending on the type of service that is specified. Figure 7-11 shows an example of the *Service* field for all types of services and the additional fields that are displayed (if any) for each of them.

Figure 7-10xxx
The Add DN Information screen

ABC Company	Voice Services Administration
--------------------	--------------------------------------

Add DN Information

Choice of Services:

AN AMIS Networking	AS Announcement Service	EM Express Messaging	
GS Greetings Service	PM Prompt Maintenance	RA Remote Activation	
TS Thru-Dial Service	TD Time-of-Day Controls	TR Transcription Service	
VF Voice Forms Service	MS Voice Menu Service	VM Voice Messaging	

Access DN: _____

Service: _____

Comment: _____

Select a softkey >

Save	Cancel			
------	--------	--	--	--

Figure 7-11xxx
Additional service fields in the Add DN Information screen

ABC Company		Voice Services Administration	
Add DN Information			
Choice of Services:			
AN	AMIS Networking	AS	Announcement Service
GS	Greetings Service	PM	Prompt Maintenance
TS	Thru-Dial Service	TD	Time-of-Day Controls
VF	Voice Forms Service	MS	Voice Menu Service
EM	Express Messaging	RA	Remote Activation
TR	Transcription Service	VM	Voice Messaging
Access DN: _____			
Service:	<u>AN</u>	Announcement ID:	344
Service:	<u>AS</u>	Mailbox ID:	_____
Service:	<u>EM</u>	* or Expansion digits:	_____
		Enforce Dial:	No [Yes]
Service:	<u>GS</u>	Language of Service:	[American_English]
Service:	<u>PM</u>		Canadian_French
Service:	<u>RA</u>	Password:	_____
Service:	<u>TS</u>	Thru-Dial ID:	_____
Service:	<u>TD</u>	Time-of-Day Control ID:	_____
Service:	<u>TR</u>	Voice Form ID:	_____
Service:	<u>VF</u>	Voice Form ID:	_____
Service:	<u>MS</u>	Voice Menu ID:	_____
Service:	<u>VM</u>	* Expansion digits:	_____
		Enforce Dial:	No [Yes]
Comment: _____			
Select a softkey >			
Save		Cancel	

* To enter expansion digits, both the local and system DN length must be specified.

The following fields are displayed:

- **Choice of Services** - This field lists the available voice services. The list is sorted horizontally according to the feature description, not the acronym. This can be changed in the Set Display Options screen. If a service is installed on your system but does not appear in this list, ensure that the feature has been enabled for the customer. This can be verified in the General Options screen for this customer group.

- **Access DN** - This is the DN that callers dial when accessing the voice service. This is either the line DN or UCD DN as configured on the DMS. If there are no available DNs they will have to be programmed into the switch by a technician. You must define a DN for Voice Messaging. This is the DMS VoiceMail Access Number, required by users to log on to DMS VoiceMail and access their mailboxes. The other DNs are optional.



CAUTION

Access DNs, Service IDs and Mailbox IDs

Each Access DN, Service ID and Mailbox ID must be unique. Ensure that the DNs and IDs you enter do not duplicate existing DNs/IDs.

- **Service** - This field defines which service is to be called up when the Access DN is dialed. Depending on the service selected, an extra field may be displayed. These are explained in the following descriptions.

AN AMIS Networking. This selection is possible only if AMIS networking is installed. No other fields are displayed when this service is selected.

Note: Only one AMIS DN per customer group is recommended.

AS Announcement Service. This selection is possible only if voice menus are installed. You are prompted to enter an Announcement ID. This ID is defined when you add an announcement definition. It distinguishes the announcement from all other voice services. When the access DN is dialed, the announcement associated with the ID entered in this field is played. (You do not have to define the announcement before making an entry in the VSDN table. However, if you enter an ID in this field, be sure to write it down and use it when defining the announcement.)

EM Express Messaging. When you specify Express Messaging, three additional fields - *Mailbox ID*, *Expansion Digits* and *Enforce Dial* - are displayed. You can use either the *Mailbox ID* field or the *Expansion Digits* field (or neither one), but not both.

Note: Express messaging is not available for VMUIF customer groups.

Mailbox ID - This is an optional field. If you fill in this field, you cannot enter anything in the *Expansion digits* field.

It is possible to have several Express Messaging services. Express Messaging is typically used to provide users with a service whereby they can leave messages in mailboxes without actually ringing the destination phone. Do not enter a Mailbox ID for this type of service.

You can also create Express Messaging services that connect callers to a specific mailbox. In this case you will need to enter a mailbox number in the *Mailbox ID* field. This is useful if, for example, you want to create a 'suggestion box'. You can ask users to dial the Express Messaging DN and leave their suggestions in the mailbox. You can then play the messages back. If the mailbox number you specify has not been added to the system (through User Administration), do so after adding the Express Messaging DN.

Each Express Messaging service you create will have a unique Access DN. (Make sure there are enough line DNs in the switch to accommodate a number of Express Messaging services.)

Up to 18 digits can be entered in the Mailbox ID field.

Expansion Digits - This is an optional field.

This feature allows you to make it more convenient for users to enter mailbox numbers when using express messaging by allowing them to dial a mailbox number that is shorter than the system DN length.

Note: To enter a value in this field, both the system DN length and the local addressing lengths must be specified. The system DN length is specified in the General Options screen at the system administration level. The local addressing lengths are defined in the Voice Messaging Options screen.

For example, the system DN length is 10 digits. (An example of a full 10-digit DN is 416-598-2011.) For a centrex customer group, the local DN length is typically 4. (If any residential customer groups have MMUI, the local DN length would be 7.)

If expansion digits are not used, the user would have to enter the full 10-digit DN when using express messaging. However, if expansion digits are implemented, the user need only enter the 4-digit DN (for centrex users) or the 7-digit DN (for residential users). The shortened DN is expanded out to the full system DN length using the expansion digits in this field.

Continuing with this example, you would enter six expansion digits for a centrex customer group (in this example you would enter 416598) since the local DN length is 4. For a residential customer group, you would enter 3 expansion digits (416 in this example) because the local DN length is 7. When a user belonging to a centrex customer group specifies the DN 2339, it is expanded to 4165982339.

Enforce Dial - This field is displayed only if you have entered expansion digits in the previous field.

If expansion digits are implemented, users can still enter a 10-digit DN. However, if Enforce Dial is implemented, they will not be allowed to enter a DN that conflicts with the expansion digits. For example, if Enforce Dial is set to “No”, users would be able to specify a 10-digit DN such as 416-575-2115 when using express messaging. If, however, Enforce Dial is set to “Yes”, the message would not be sent in this case since 416575 conflicts with the expansion digits (416598).

This field also affects user login from express messaging. For example, if a user dials “81” to login to his mailbox after leaving an express message, the user will not be allowed to enter a number that conflicts with the expansion digits.

GS Greeting Service. This selection is possible only if VMUIF is enabled. This service allows subscribers to update their greetings in a manner that requires no keypad input. A DN should be created for this service to allow subscribers without digitone phones (i.e., those with rotary phones) to directly connect to the Greetings Service by dialing the specified Access DN. Once connected, the service prompts the subscriber to speak at certain times and requires no keypad input. This can also be provided to subscribers with digitone phones if they desire a simplified interface for changing greetings.

The greetings service can also be included within a voice menu. However, keep in mind that rotary phone users will not be able to access voice menus, and therefore, cannot access this service through a voice menu. To service your rotary phone subscribers you need to define a DN in the VSDN table.

PM Prompt Maintenance. This selection is only possible if voice menus are installed. On multilingual systems, the *Language of Service* field is displayed. The installed languages are displayed, from which you must select one. The default language is the language that was first added to the system during installation.

RA Remote Activation. You are prompted for a password. (This is the password required by anyone dialing the remote activation DN in order to use the service to modify voice services.)

Note: If the password field is left blank, remote activation is disabled.

TS Thru-dial Service. You are prompted for the ID of the thru-dialer that is to be retrieved when the access DN is dialed. This ID is configured in the Add a Thru-Dial Definition screen.

TD Time-of-day Controller. You are prompted for the ID of the time-of-day controller that is to be retrieved when the access DN is dialed. This is the ID that is entered in the Add Time-of-Day Control Definition screen.

TR Transcription Service. This selection is possible only if voice forms are installed. You are prompted for the Voice Form ID of the voice form to be accessed by the DN. This is an optional field. If you enter an ID, that voice form will be automatically retrieved for the transcriber. If you do not enter an ID, the transcriber will have to enter the ID of the form he or she wants to transcribe. If you want to provide transcribers with automatic logon to particular voice forms, you will need several DNs for TR. You should also create a DN that does not reference a particular form, so that it can be used as a general access to the transcription service.

VF Voice Form. This selection is possible only if voice forms are installed. You are prompted for the ID of the voice form to be retrieved when the access DN is dialed.

MS Voice Menu Service. You are prompted for the ID of the voice menu to be retrieved when the access DN is dialed.

VM Voice Messaging. Two additional fields, *Expansion Digits* and *Enforce Dial*, may be displayed.

Expansion Digits - This is an optional field.

This feature allows you to make it more convenient for users to enter mailbox numbers when logging on to DMS VoiceMail by allowing them to dial a mailbox number that is shorter than the system DN length.

Note: To enter a value in this field, both the system DN length and the local addressing lengths must be specified. The system DN length is specified in the General Options screen at the system administration level. The local addressing lengths are defined in the Voice Messaging Options screen.

For example, the system DN length is 10 digits (an example of a full 10-digit DN is 416-598-2011). For a centrex customer group, the local DN length would probably be 4 and for a residential customer group, the local DN length is typically 7.

If expansion digits are not used, the user would have to enter the full 10-digit DN when logging on. However, if expansion digits are implemented, the user need only enter the 4-digit DN (for centrex users) or the 7-digit DN (for residential users). The shortened DN is expanded out to the full system DN length using the expansion digits in this field.

Continuing with this example, you would enter six expansion digits for a centrex customer group (in this example you would enter 416598) since the local DN length is 4. For a residential customer group, you would enter 3 expansion digits (416 in this example) because the local DN length is 7. When a user belonging to a centrex customer group specifies the DN 2339, it is expanded to 4165982339.

Enforce Dial - This field is displayed only if you have entered expansion digits in the previous field.

Note: Enforce dial for voice messaging applies only to log on, not message addressing.

If expansion digits are implemented, a subscriber can enter a 10-digit mailbox number to log on to his or her mailbox. However, if Enforce Dial is implemented, the subscriber will not be allowed to enter a mailbox number that conflicts with the expansion digits. For example, if Enforce Dial is set to “No”, a subscriber could specify a mailbox number of 416-575-2115 to log on. If, however, Enforce Dial is set to “Yes”, the subscriber would not be allowed to log on since 416575 conflicts with the expansion digits (416598).

- ***Comments*** - This field is optional and can be used for descriptive purposes. This field holds up to 19 alphanumeric characters. In the VSDN table, you can have entries sorted alphabetically according to the comments entered here by making the appropriate selection in the Set Display Options screen.

Procedure 7-6xxx
Adding DN Information

Starting point: The Voice Services-DN Table, [Add] entered.

- 1 The Add DN Information screen appears (Figure 7-10).
- 2 Move the cursor to each field and enter the required information.

- 3 Choose step 3a to save the changes or 3b to cancel.
 - a. Use [Save].
The addition is made and you are returned to the Voice Services-DN Table.
 - b. Use [Cancel].
The addition is not made and you are returned to the Voice Services-DN Table.

Viewing and modifying DN information

Once added to the system, voice service directory numbers can be modified by accessing the View/Modify DN Information screen (Figure 7-12). See the preceding section, “Adding DN information” for field descriptions.

Additional fields may appear depending on the type of service that is specified. Figure 7-11 shows an example of the *Service* field for all types of services and the additional fields that are displayed (if any) for each of them.

Figure 7-12xxx
The View/Modify DN Information screen

ABC Company		Voice Services Administration			
View/Modify DN Information					
Choice of Services:					
AN	AMIS Networking	AS	Announcement Service	EM	Express Messaging
GS	Greetings Service	PM	Prompt Maintenance	RA	Remote Activation
TS	Thru-Dial Service	TD	Time-of-Day Controls	TR	Transcription Service
VF	Voice Forms Service	MS	Voice Menu Service	VM	Voice Messaging
Access DN: <u>3651</u>					
Service: <u>MS</u>		Voice Menu ID: <u>6054</u>			
Comment: <u>Personnel Division</u>					
<div style="display: flex; justify-content: space-around; margin-top: 20px;"> Save Cancel </div>					

**Procedure 7-7xxx
Modifying DN Information**

Starting point: The Voice Services-DN Table.

- 1 Move the cursor to the voice service you want to view or modify and press the <Space Bar> to select it.
- 2 Use the[View/Modify] softkey.
The View/Modify DN Information screen appears (Figure 7-12).
- 3 Change the information as required.
- 4 Choose step 4a to save the changes or 4b to cancel.
 - a. Use [Save].
The changes are saved and you are returned to the Voice Services-DN Table.
 - b. Use [Cancel].
The changes are not saved and you are returned to the Voice Services-DN Table.

Deleting DN information

Use the Delete DN Information screen (Figure 7-13) to delete Directory Numbers from the Voice Services-DN Table. The fields on this screen are read-only.

**Figure 7-13xxx
The Delete DN Information screen**

ABC Company
Voice Services Administration

Delete DN Information

Choice of Services:

AN	AMIS Networking	AS	Announcement Service	EM	Express Messaging
GS	Greetings Service	PM	Prompt Maintenance	RA	Remote Activation
TS	Thru-Dial Service	TD	Time-of-Day Controls	TR	Transcription Service
VF	Voice Forms Service	MS	Voice Menu Service	VM	Voice Messaging

Access DN: 56672

Service: MS Voice Menu ID: 6054

Comment: Personnel Division

OK to delete

Cancel

Procedure 7-8xxx
Deleting DN Information

Starting point: The Voice Services-DN Table.

- 1 Move the cursor to the voice service you want to delete and press the <Space Bar> to select it.
- 2 Use the [Delete] softkey.
The Delete DN Information screen appears (Figure 7-13).
- 3 Choose step 3a to delete the service or 3b to cancel.
 - a. Use [OK to Delete].
The entry is deleted and you are returned to the Voice Services-DN Table.
 - b. Use [Cancel].
You are returned to the Voice Services-DN Table without the entry being deleted.

The Voice Services Profile

The Voice Services Profile screen (Figure 7-14) allows you to set parameters that apply to all voice services (other than voice messaging services such as express messaging and call answering).

Figure 7-14xxx
Voice Services Profile screen

ABC Company		Voice Services Administration		
Voice Services Profile				
Voice Services Volume: 1				
Timeouts				
Command Entry:	3.5 seconds	Short Disconnect:	10.0 seconds	
Record (mm:ss):	02:00			
Maximum Prompt Sizes for Announcements (mm:ss):		02:00		
other voice recordings (mm:ss):		02:00		
Act on AMIS Initiation Tone:	[No]	Yes		
Enable Update Logging:	[No]	Yes		
Business Hours Default:	08:30 to 17:00			
Holidays:				
	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Start Time (hh:mm)	Comments
1	12/20/92	01/04/92	08:30	Christmas
2	01/18/92	---	08:30	M.L. King
3	02/15/92	---	08:30	Washington
4	05/30/92	---	08:30	Memorial Day
5	07/01/92	---	08:30	Independence
6	09/05/92	---	08:30	Labor Day
7	10/01/92	---	08:30	Columbus Day
Select a Softkey >			MORE BE- LOW	
Save		Cancel		

The Voice Services Profile includes the following fields:

- Voice Services Volume** - This is a read-only field which indicates which volume contains voice menus and voice forms (if any).
When performing a partial backup after changes have been made to any voice service or voice form, be sure to back up the volume indicated here in order to preserve your changes.
- Timeouts** - The values you enter in the following fields determine how long the system will wait under certain conditions before the system takes action (such as disconnecting the caller from the service or playing a delayed prompt).

-
- **Command Entry** - This time-out is used in the following situations:
 - In an announcement, if a caller does not provide an initial response or delays in responding, the system will wait this amount of time, play the announcement a second time and then disconnect the call.

Callers are not really expected to provide input in an announcement. Therefore, this time-out is intended to put a limit on how long a caller will remain connected if he stays on the line and does nothing after the announcement is played.
 - In a voice menu, this time-out is used for initial no response and delayed response. (The following time-out value, Short Disconnect, is also used for delayed responses in voice menus.)

For voice menus, you can define the action to be taken for initial no response and delayed response in the voice menu definition. Suitable actions include repeating the menu choices prompt, returning the caller to the main menu (in a multi-level menu), or disconnecting the call. (Disconnecting the call is generally not recommended for initial no response.)
 - In a thru-dial service, this time-out is used for initial no response only. If a caller does not provide input after the thru-dial greeting is played, the system will wait this amount of time and then transfer the caller to the Revert DN.

The default is 3.5 seconds. The range is from 1.0 to 5.0 seconds.

Note: If you are using a voice menu to accept AMIS networking calls, set this time-out to the maximum allowed value of 5 seconds. If this field is set to less than 5 seconds, an AMIS call may be prematurely disconnected. In addition, the initial no response action defined in the voice menu definition should be set to something other than Revert DN which is the default. Instead, it could be set to Repeat Menu choices. Otherwise, an AMIS call that connects to a voice menu may be prematurely disconnected. If the voice menu is password protected, then the voice menu will never reach the Initial No Response action and the short disconnect time out will be the time-out value that applies before the call is disconnected.

- **Short Disconnect** - This time-out is used in the following situations:
 - In a thru-dial service, this time-out is used for delayed responses.
 - In a voice menu, this time-out is used for delayed responses.
- The default is 10.0 seconds. You may enter a value from 1.0 to 30.0.

Figures 7-15 and 7-16 show how these time-out values are used in a voice menu. In these examples, the *Command Entry* time-out is set to 5 seconds and the *Short Disconnect* time-out value is 10 seconds.

Figure 7-15xxx
Initial no response in a voice menu

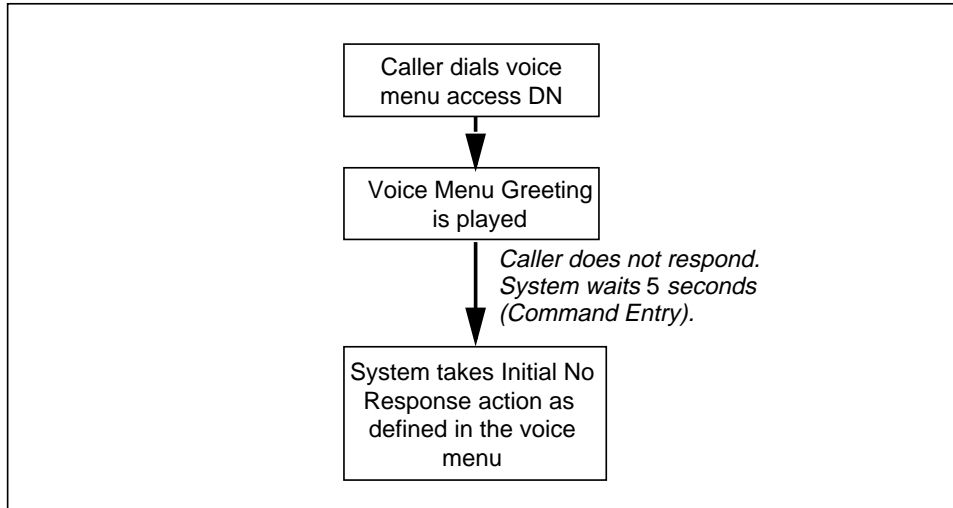
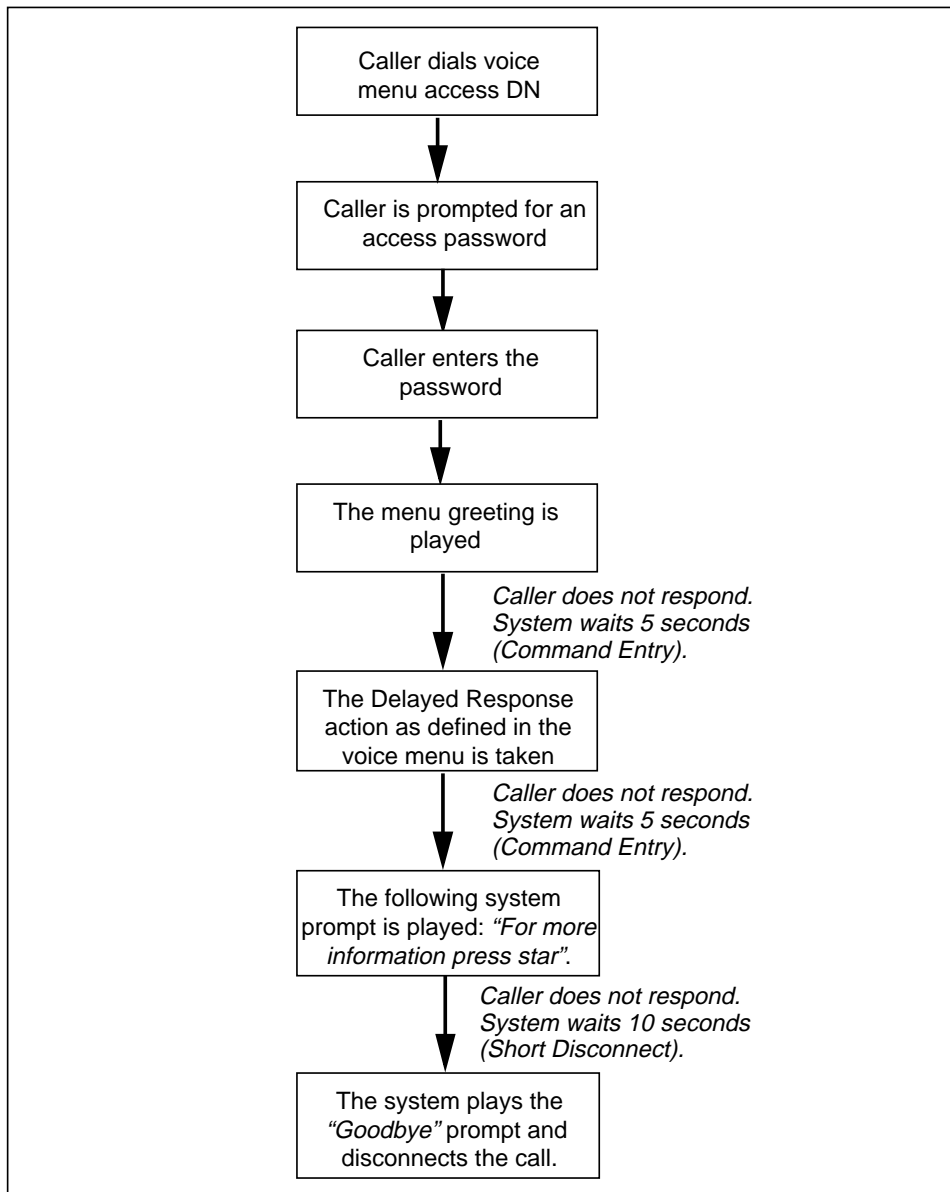


Figure 7-16xxx
Delayed response in a voice menu



You will notice that in a voice menu, callers are given a number of chances to respond. If the caller has provided an initial response and then delays in providing further input, the system waits x seconds (the amount of time specified as the Command Entry time-out). The system takes the action defined for Delayed Response in the voice menu definition. After this action, the system waits another x seconds and if the caller does not respond, the system prompts the caller to press star for information (this action is not configurable). If the caller still does not respond (by pressing star or any other key), the system waits y seconds (the amount of time specified as the Short Disconnect value), plays the system Goodbye prompt and then disconnects the call.

- **Record** - This time-out value applies to the recording of prompts for voice menus, announcements and thru-dial services. If during recording, this amount of silence is recorded, the system will disconnect the session. For example, if an administrator is updating an announcement using the voice prompt maintenance service and more than x minutes of silence are recorded (where x is the record timeout value), the system will disconnect the call.

You may enter a value from 00:06 to 05:00. The default is 02:00.

- **Maximum Prompt Sizes for Announcements** - This field controls the allowed recording length for prompts included in announcement definitions.

This field is not used for any other type of voice recording. Instead, the next field is used.

A tone is heard when 80% of the maximum prompt size has been reached to warn that the maximum prompt size has nearly been reached. The following error message is displayed when the maximum is reached: "Recording stopped. The time limit was exceeded."

Enter a value between 00:30 and 10:00. The default is "00:30".

- **Maximum Prompt Sizes for other voice recordings** - This field controls the maximum recording length for any voice recording other than announcement prompts that are recorded using either the administration terminal or the voice prompt maintenance service.

A tone is heard when 80% of the maximum prompt size has been reached to warn that the maximum prompt size has nearly been reached. The following error message is displayed when the maximum is reached: "Recording stopped. The time limit was exceeded."

Enter a value between 00:30 and 10:00. The default is "02:00".

- **Act on AMIS Initiation Tone** - If an AMIS call comes in through a voice service DN, the voice service (such as a voice menu or announcement) will either ignore (“No”) or react to the AMIS tone and transfer the call to the appropriate AMIS agent (“Yes”). If this field is set to “No”, you will have to configure a DN specifically for the AMIS service in the VSDN table. If you plan on using a voice menu or thru-dialer to accept AMIS calls, then this field must be set to “Yes”. The default is “No”.

Note: If you set this field to “Yes”, make sure that the *Command Entry* field for the customer group is set to its maximum value of 5 seconds. This value determines how long the system will wait for a response (telephone keypad entry) before disconnecting a call. Otherwise, an AMIS call that connects to a voice menu or thru-dialer may be prematurely disconnected.

- **Enable Update Logging** - When this field is set to “Yes”, a SEER is generated whenever a VSDN entry, announcement, thru-dialer, time-of-day controller or voice menu is added, modified or deleted (i.e., saved while in the View/Modify DN Information screen) to indicate which operation has been performed and on which DN. The default is “No”.
- **Business Hours Defaults** - The default business hours for the customer. These defaults are used by time-of-day controllers. See “Time-of-day Controls” later in this chapter for details. The default is “08:30 to 17:00”.
- **Holidays** - Up to 20 holidays can be defined. The holidays you specify here are used when defining time-of-day controls. See “Time-of-day controllers” earlier in this chapter for details.
 - **Start Date** - This field is mandatory. Specify the date on which the holiday begins. The date format follows that defined in the General Options screen, selectable from the General Administration menu.
 - **End Date** - Specify the date on which the holiday ends (this is optional). If you enter a date, it must be later than or the same as the start date. If no end date is specified, the holiday will end on the start date. If the holiday ends on a regular day, the holiday will end at the end of the business day (five o’clock, for example). However, if it ends on a non-business day, the holiday will end at the end of the day (midnight).
 - **Start Time** - The time at which the holiday starts on the start date. This will usually be the normal start of a business day (specified using the 24-hour clock).
 - **Comments** - This field is optional. You may enter up to 11 characters to describe the holiday you are defining.

Procedure 7-9xxx
Setting Voice Service Parameters

Starting point: The Voice Services Administration menu, <2> entered.

- 1 The Voice Services Profile screen appears (Figure 7-14).
- 2 Modify the existing information as needed.
- 3 A new holiday entry can be entered on the first available blank line; the screen can be scrolled to view additional lines.
- 4 Choose step 4a to save the changes or 4b to cancel.

- a. Use [Save].

The changes are saved and you are returned to the Voice Services Administration menu.

- b. Use [Cancel].

You are returned to the Voice Services Administration menu.

System Error and Event Reports

Overview

System Event and Error Reports (SEERs) collect statistics on every system event and error reported by DMS-100 Mail system software components. The reports provide information about the SEER class, SEER number, the date and time that the SEER was generated, and a description of the event or error that occurred at that time.

SEERs are mostly used by maintenance personnel for isolating system faults and repairing hardware and software problems. However, administrators should be able to read, interpret, and assess the severity of events and errors to determine if they are regular events (such as a system audit), errors which can be corrected by the administrator, or if it is necessary to alert support personnel. Once the administrator becomes familiar with SEERs it may also be possible to identify potential problems in their early stages before they become critical errors.

In order to help you judge how serious a system problem might be, SEERs have been classified according to various severity levels. These classifications are based on the impact of the operation that has failed. This reduces the risk of neglecting real problems that have been buried amongst a lot of minor problems or regular system events. When retrieving SEER information, you can therefore filter out all but the most severe problems in order to deal with them quickly.

Each SEER is put into one of the following severity classifications:

- **Critical** - indicates any service-affecting problem. A critical problem requires immediate attention, usually from a qualified technician. Examples of critical errors are system reboots, a major base feature not operating, hardware failure (where the system failed to recover from the failure), system capacity reduced below a threshold, software configuration problems, a full volume, a disk drive error.

- **Major** - indicates any service-threatening problem. Such problems do not require immediate attention, but will require attention from the administrator or technician to prevent it from becoming a critical problem. A major problem may be allowed to persist up to 24 hours. Examples of major errors are hardware failures from which the system has successfully recovered, unrecovered hardware problems in non-critical components such as tape drives or voice cards, malfunction of a minor feature such as the recording of spoken names or administrative functions, a nearly full volume, a disk drive error (when disks are shadowed), or excessive minor problems.
- **Minor** - indicates a problem that has no impact on the system or users of the system. No immediate attention is required on the part of the administrator or a technician. The fault can be allowed to exist for some time. However, an excessive accumulation of minor problems can in itself become a major problem.
- **Info** - indicates a normal system event. Knowledge of these events is of use to the administrator as they indicate occurrences such as invalid administrator logon attempts, system time changes, disabled user mailboxes (due to password expiry/violation), successful backups, and the forwarding of non-users to voice messaging.

Each SEER can also be one of several types.

- **Error** - Indicates an error which requires the attention of a trained technician.
- **Admin** - Indicates an error which can probably be solved by the system administrator. If the administrator is unable to solve the problem, they may call a trained technician.
- **System** - Indicates a normal event that should be logged and noted, for example, a successful audit or Operational Measurement collection. This does not sound an alarm.

For a more detailed description of SEERs and their interpretation, see *Maintenance Messages (SEER) Manual* (NTP 297-7001-510).

The System Event and Error Reports screen (Figure 8-1) allows you to set parameters for the type of report you want to generate. In this screen, you are able to specify the range of SEERs that you want included in the report by indicating the class and severity level of the SEERs you wish to monitor. You can also specify the period of time that the report should cover (by entering a start and end date and time). Once the report has been generated according to the criteria you have specified in this screen, you can either view it or print it out.

Note: DMS-100 Mail filters SEERs at different levels for printing from the SEER printer. This level can be set so that only those SEERs that the administrator considers important are displayed. SEER filtering is discussed in the *Maintenance Messages (SEER)* manual (NTP 297-7001-510). To reset the SEER filtering level, contact your Northern Telecom Support organization.

Figure 8-1
The System Event and Error Reports screen

System Status and Maintenance

System Event and Error Reports

SEER Class: 100

Severity Level: Critical Major Minor [All]
SEER Type: Error AdminSystem [All]

Report Start (mm/dd/yy hh:mm): 05/17/91 04:00 (or blank for oldest)
Report End (mm/dd/yy hh:mm): _____ (or blank for newest)

Select a softkey >

The System Event and Error Reports screen contains the following fields:

- **SEER Class** - This field allows you to specify the class of SEERs that you want to view or print. The SEER class is the code which identifies the type of event or error being reported. There are over 40 classes, each pertaining to a particular software component. Explanations for these codes are given in *Maintenance Messages (SEER) Manual* (NTP 297-7001-510). If you want to retrieve SEERs from all classes, leave the field blank.
- **Severity Level** - The selection you make in this field determines the SEERs that are displayed in the report by allowing you to selectively view SEERs according to their severity. For a description of the severity levels, see the introduction to this section on SEERs.
 - **Critical** retrieves only those SEERs classified as Critical.
 - **Major** retrieves those SEERs classified as Major and the level above, namely the Critical Severity SEERs.

- **Minor** retrieves those SEERs classified as Minor and the ones in the levels above, i.e., Major and Critical.
- **All** causes SEERs at all levels of severity to be displayed in the report. This includes the Info level Seers.
- **SEER Type** - This field allows you to specify the type of SEERs that you want to view or print. The types are:
 - **Error** - Error-level SEERs are those which may indicate a system problem, to be corrected by the administrator, possibly with the assistance of technical support. Examples of Error-level SEERs include: hardware errors; software errors; indications that a hardware error may develop.
 - **Admin** - Administration-level SEERs are those which indicate system problems or configuration difficulties that are likely to be handled by the system administrator without external assistance (for example, a non-DMS-100 Mail user whose calls are forwarded to the DMS-100 Mail system). When the filtering level is set to Admin, the Error-level SEERs are also printed.
 - **System** - System-level SEERs are those which indicate normal system behaviour, and others which do not require action (for example, nightly audits by the various sub-systems of DMS-100 Mail). When the filtering level is set to System, the Error- and Admin-level SEERs are also printed.
 - **All** - When All is selected, all SEER types are printed.
- **Report Start** - determines the day and time at which the report starts. If this field is left blank, the report starts with the oldest SEER data currently stored in the buffer.
- **Report End** - determines the day and time at which the report ends. If this field is left blank, the report will include SEER data up to the last (most recent) entry currently stored in the buffer. If neither the start or end day and time are specified, all SEER data currently stored in the buffer will be included in the report.

Viewing SEER reports

Once you have filled in the System Event and Error Reports screen, you can either view the report on screen or print it. If you choose to view the report, the screen illustrated in Figure 8-2 is displayed.

Figure 8-2
The Report screen

ABC Company Limited		System Status and Maintenance	
SEER Period from 5/17/91 04:00 to End of SEER data.			
Error	Date	Time	Type/Severity, Description
35-0	5/17	04:30	SysInf SEER registered and active
26-0	5/17	04:32	SysInf PP_Base:Number of mappable DSPs on the node is 6
0001 0	2030	405	
60-0	5/17	04:35	SysInf Program Completed: VPDMASTER on Node 1
25-5	5/17	04:50	SysInf CSL Link is up
...
90-5	5/17	04:50	ErrMin OCS:Start:Problem Creating New Audit Trail File.
1224			
90-5	5/17	04:50	ErrMin OCS:Audit trail disabled due to a file access error, to retry enable in OutCalling Options Screen. 1224
Select a softkey>			
Exit			Next Page*

*Appears when the information fills more than one screen.

SEER reports contain the following read-only fields:

- **SEER Period** - reflects the time period that the report covers. This is determined by the entries that were made in the System Event and Error Reports screen. If no start and end date were entered there, the report will display all SEER data that is currently stored in the buffer.
- **Error** - identifies the SEER. The first number indicates the report class (which identifies a particular software component). The second number indicates the report number (which specifies the report within the class, numbered from 0 to 99). This classification system is described in the introduction to the *Maintenance Messages (SEER) Manual* (NTP 297-7001-510). If no class was specified in the System Event and Error Reports screen, SEERs from all classes will be included in the report.
- **Date & Time** - indicates the date and time at which the event or error occurred in the system.
- **Type/Severity** - indicates the SEER type (Error, Admin or System) and its severity level (Critical, Major, Minor, or Info).

- **Description** - gives a brief explanation of the event or the cause for the error.

An alternative method of obtaining SEER information is to monitor the DMS-100 Mail SEER printer, if there is one, thus allowing you to view SEERs as they occur. To do so, SEER printing must be enabled in the General Options screen (it is, by default). Although the format of the report is different from that used by the administration terminal, most of the information is the same (such as the class, number, description, and date and time). In some instances you may also see additional information at the end of the message such as:

RC xxxx

where xxxx is a number signifying a Return Code. These codes provide further information about the SEER and can be found at the back of *Maintenance Messages (SEER) Manual* (NTP 297-7001-510).

Serv. File <filename>

where the filename refers to a voice service ID.

Procedure 8-1 **Viewing and printing SEERs**

Starting point: The Customer Administration main menu.

- 1 Select System Event and Error Reports.
The System Events and Error Reports screen appears (Figure 8-1).
- 2 Enter the class of SEERs that you want to retrieve. If you want to retrieve all SEER classes, leave the *Class* field blank.
- 3 Select a severity level. (To view SEERs at all severity levels, select "ALL".)
- 4 Select an error type.
- 5 If you wish to specify a start and end time for the reporting period, enter the required values in the *Report Start* and *Report End* fields.
- 6 Choose step 6a to view the report on the terminal, 6b to print the report, or 6c to cancel.
 - a. Use [View Reports].
The report is displayed (Figure 8-2).
Use [Next Page] to view subsequent pages of the report.
 - b. Use [Print Reports].
You are prompted to make sure your printer is ready and on-line.
Use [Continue Printing] to continue printing, or use [Cancel Printing] at any time to stop printing. There may be some delay before control is returned to the terminal because the system waits for the printer to stop printing.
 - c. Use [Cancel].
The System Status and Maintenance screen appears.

Operational Measurements

Introduction

The Operational Measurement (OM) reports allow administrators to study how a DMS VoiceMail system is being used. These reports may be used to determine if a change in the system is required to improve the level of service provided by DMS VoiceMail.

OM user usage reports

The OM user usage reports are used to monitor how specific users are making use of voice messaging and AMIS networking (if installed). Data is broken down to show activity on a daily basis. User usage reports display the following information about each user:

- the number of times a user has logged on
- the number of times callers have connected to a user's mailbox through the express messaging and call answering services
- the total connect time for all user logons
- the number of messages created during logon
- the number of messages received through the express messaging and call answering services
- the total message length (for all messages created and received by a user)
- the disk space used by the user's messages and greetings

Using OM as a Billing Tool

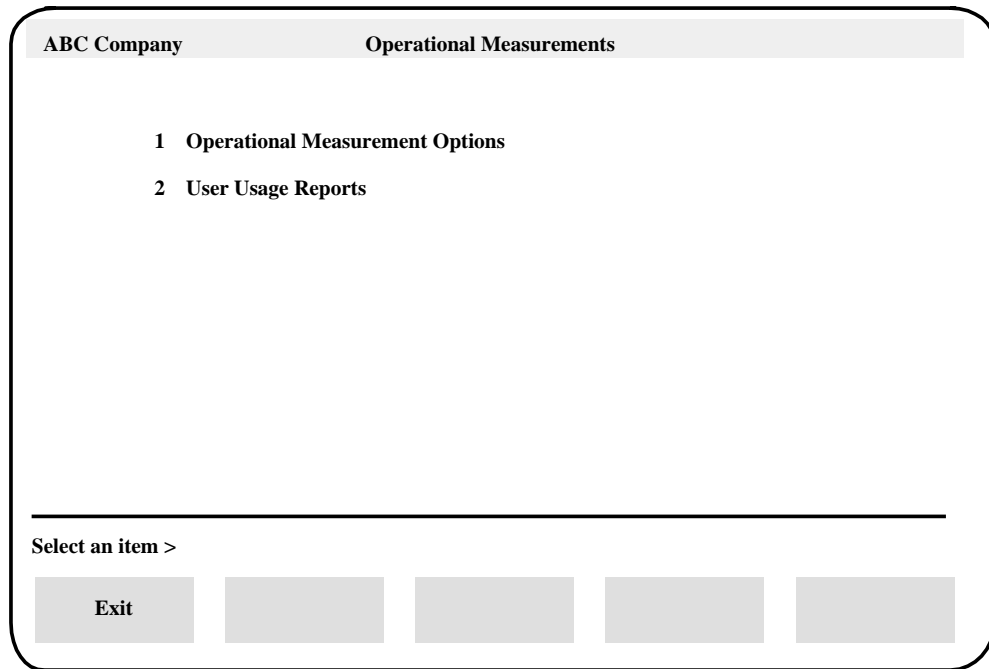
As an accounting and billing tool, operational measurements are used to generate the daily user billing files (for local activity). Use the User Usage reports to compile data for billing.

If your organization does not bill users of DMS VoiceMail, you may not need to use the User Usage component of operational measurements. It however can also be used for tracking problems/history or for security reasons (e.g., who called whom, when, and for how long).

The Operational Measurements menu

The items listed in the Operational Measurements menu (Figure 9-1) allow you to access screens that are used to view parameters related to the collection and storage of data and to view and print user usage reports.

Figure 9-1xxx
The Operational Measurements menu



Procedure 9-1xxx

Using the Operational Measurements menu

Starting point: The Main Menu, <5> entered.

The Operational Measurements menu appears (Figure 9-1).

- 1 To choose an item, enter its number and press <Return>.

The menu corresponding to your selection appears. See the following sections later in this chapter for details:

<1> "Operational Measurement Options" (collection parameters)

<2> "User Usage Reports" (for viewing and printing reports)

- 2 Use [Exit] to return to the Main Menu.

Operational Measurement Options

The Operational Measurement Options screen (Figure 9-2) is read-only for customer administrators. The parameters can only be changed by system administrators. As customer administrator, you can view user usage reports because these are specific to each customer group (traffic reports present system-wide data and can only be viewed by the system administrator). Two fields on this screen pertain to user usage reports: *Collect User Usage Data* and *Number of days of User Usage Data stored*.

Note: Because operational measurements are kept on hard disk, they are periodically overwritten (as determined by the number of days they have been specified to be kept on disk), and it is important that you view or print these reports before the system overwrites them with new information. The Operational Measurement Options screen determines how long data is stored before it is overwritten with new data.

Figure 9-2xxx
The Operational Measurement Options screen

ABC Company	Operational Measurements
Operational Measurement Options	
Collect Traffic Data:	Disabled Enabled
Traffic Period Start (hh:mm)	01:00
Traffic Period End (hh:mm):	01:00
Traffic Commit Interval (hh:mm):	01:00
Number of days of Traffic Data stored:	8
Collect User Usage Data:	Disabled Enabled
Number of days of User Usage Data stored:	31
<hr/>	
Exit	

The following read-only fields are displayed:

- **Collect Traffic Data** - When this field is “Enabled” a statistical record of voice messaging and other voice services, voice channel traffic, networking message traffic (AMIS networking), and disk space usage will be collected and stored on disk. The default is “Enabled”. For more information, see the *System Administration Guide* (NTP 297-7001-300).

- **Traffic Period Start (hh:mm)** - The time at which data begins to be collected, based on the 24-hour clock. The default is "01:00".
- **Traffic Period End (hh:mm)** - The time at which data stops being collected, based on the 24-hour clock. The default is "01:00".
- **Traffic Commit Interval (hh:mm)** - The value entered in this field determines how often the collected traffic statistics are written to the hard disk within the defined traffic period. The default is "01:00".
- **Number of days of Traffic Data Stored** - This field determines the number of days that traffic data is maintained before being overwritten by new traffic data. The default is "8". The old traffic data is removed from the disk at 1:20 am each day.
- **Collect User Usage Data** - This field controls the collection of daily user usage data and may be "Disabled" or "Enabled". The default is "Disabled".
- **Number of days of User Usage Data Stored** - This field determines the number of days that information about user activity is kept on the hard disk before it is overwritten. The range is from 1 to 63. The default is "31".

User Usage Reports

The User Usage Report provides statistics for local voice messaging usage on a per-user basis. If AMIS network is installed, then the report also displays users' daily networking activity. Fill in the User Usage Report screen (Figure 9-3) to specify the criteria by which data is to be retrieved in the report.

Note: Check the Operational Measurement Options screen to make sure that the collection of user usage data is enabled. If it is disabled, ask your system administrator to enable it.

Figure 9-3xxx
The User Usage Reports screen

ABC Company		Operational Measurements	
User Usage Reports			
Selection Criteria:		[All]	Last_Name Mailbox Department
Sorted:		[Alphabetically]	By_Department
Include Local Usage:		No	[Yes]
* Include AMIS Network Usage:		[No]	Yes
Report start	(dd/mm/yy): _____	(or blank for oldest)	
Report end	(dd/mm/yy): _____	(or blank for newest)	
Select a softkey >			
Exit		View Reports	Print Reports

* Appears when AMIS Networking is installed.

The following fields are displayed:

- **Selection Criteria** - The options that are offered represent search parameters. Any statistics matching your selection will be displayed in the report. Your choices are:
 - **All Users** - User usage data for all local users will be displayed in the report.
 - **Last_Name** - When selected, you are prompted for the last name of the subscriber whose data you want to view. If the last name is not found, use the Find Users feature in User Administration to verify that the name exists in the system.
 - **Department** - When selected, you are prompted for a department name. All users associated with that department will be displayed in the report. The entry you make must correspond to an existing entry in the system. You may use wildcard characters (“+”, “?” or “_”) to retrieve a group of departments.

Note: When searching by department, users with blank department fields will not be displayed.

- **Mailbox** - When selected, you are prompted for the mailbox number of the user whose data you want to view. You may use wildcard characters (“+”, “?” or “_”) to retrieve a range of mailboxes. If the mailbox number is not found, use the Find Users feature in User Administration to verify that the mailbox number exists in the system.
- **Sorted** - If your selection criteria is “All Users”, you can choose to sort the user data alphabetically according to user names, or according to department names.
Note: When sorting by department, users with blank department fields will not be displayed.
- **Include Local Usage** - When this field is set to “Yes”, the report will include user usage data for local voice messaging. The default is “Yes”.
- **Include AMIS Network Usage** - When this field is set to “Yes”, the report will include user usage data for AMIS network activity. The default is “No”.
- **Report Start (dd/mm/yy)** - The date on which the selected reports are to start. If *Report Start* predates the earliest available date, the report starts with the earliest available date. Leave the field blank to retrieve reports for the earliest available data.
- **Report End (dd/mm/yy)** - The date on which the selected reports are to end. If *Report End* exceeds the latest available period, the report ends with the last available period. Leave the field blank to report on the most recent data.

Procedure 9-2xxx

Viewing User Usage Reports

Starting point: The Operational Measurements menu, <2> entered.

The User Usage Reports screen is displayed (Figure 9-3).

- 1 Choose the selection criteria by which you want to retrieve data.
- 2 If the selection criteria is “All Users” select how you want the data to be sorted: alphabetically (by user name) or by department name.
- 3 Select the type of data you want to view: local usage or AMIS network usage. You can select both if required.
- 4 If you wish to specify a start and stop time for the reporting period, enter the required values in the *Report Start* and *Report End* fields.
- 5 Choose step 5a to view the reports, 5b to print the reports, or 5c to exit or cancel.
 - a. Use [View Reports].

The selected report screens are displayed (see the following pages for descriptions of each report).

Use [Next Page] to view subsequent pages of the report; use [Exit] to return to the User Usage Reports screen.

- b. Use [Print Reports].

You are prompted to make sure your printer is ready and on-line.

Use [Continue Printing] to print the reports, or use [Cancel Printing] at any time to cancel printing (there may be some delay before control is returned to the screen because it waits for the printer to stop printing).

- c. Use [Exit].

The Operational Measurements menu is redisplayed.

Viewing user usage reports

When you view the report on the terminal or from a printout, the data is arranged as shown in Figure 9-4. This figure shows both types of user usage data (local and AMIS networking).

Figure 9-4xxx
The Voice Messaging User Usage report

ABC Company		User Usage Reports					
Last Name	First Name	Department	Mailbox	COS			
Smith	David	T20	2255	1			
Local Usage:							
Date	Number of Sessions EM/Ans Logon	Connect Time (mm:ss)	Number of Messages EM/Ans Logon	Message Length (mm:ss)	Disk Used (mm:ss)		
02/12/90	10 4	4:00	9 2	6:30	4:30		
02/13/90	8 3	3:12	8 3	12:35	5:30		

Total	18 7	7:12	17 5	19:05	10:00		
AMIS network Usage:							
Date	Number of Economy Messages	Total Length (mm:ss)	Number of Standard Messages	Total Length (mm:ss)	Number of Urgent Messages	Total Length (mm:ss)	
02/12/90	10	3:10	1	1:30	0	0:00	
02/13/90	10	1:20	7	5:10	0	0:00	

Total	20	4:30	8	6:40	0	0:00	

Last Name	First Name	Department	Mailbox	COS			
Roeg	Nick	Marketing	2929	2			
Local Usage:							
Date	Number of Sessions EM/Ans Logon	Connect Time (mm:ss)	Number of Messages EM/Ans Logon	Message Length (mm:ss)	Disk Used (mm:ss)		

Select a softkey >							
Exit			Next Page*				

* The "Next Page" softkey appears when the information fills more than one screen.

The following fields appear:

- **Last Name** - The user's last name.
- **First Name** - The user's first name.
- **Department** - The user's department name.
- **Mailbox** - The user's mailbox number.
- **COS** - The class of service to which the user belongs.

The following fields appear for Local Usage:

- **Date** - The date of the reporting interval.
- **Number of Sessions (EM/Ans and Log)** - The number of express messaging, call answering and logon sessions that occurred during the interval. To check the number of messages that were actually received or created during these sessions, check the *Number of Messages* field.

If the number of logons is zero, you might want to check the *Time of Last Logon* field in the View/Modify Local Voice User screen. If a considerable amount of time has passed since the last successful logon, you may want to contact the user to see if he or she is having any problems logging on. For example, the user may not know how to log on and retrieve messages (especially if this is a new user) or the user may have forgotten the mailbox password and has stopped trying to log on.

- **Connect Time** - The length of time that the user was connected to the voice messaging service on the given date.
- **Number of Messages** - The number of messages that the user received and created on the given date.
 - **EM/Ans** refers to the number of messages left in the user's mailbox by both the express messaging and call answering services. The number of abandoned calls (where no message is left) can be calculated by subtracting the Number of EM/Ans Messages from the Number of EM/Ans Sessions.
 - **Logon** refers to the number of messages that the user created on the report date.
- **Message Length** - The total time (in minutes and seconds) of all call answering messages received and messages created by the user on the given date.
- **Disk Used** - The amount of storage used by the user (measured in minutes and seconds) on the given date.

The following fields appear for AMIS network usage:

- **Date** - The date of the reporting interval.
- **Number of Economy Messages** - The number of economy messages that the user created on the given date.

- **Total Length** - The total length (in minutes and seconds) of all AMIS networking messages created by the user on the given date and tagged as economy.
- **Number of Standard Messages** - The number of standard messages that the user created on the given date.
- **Total Length** - The total length (in minutes and seconds) of all AMIS networking messages created by the user on the given date and tagged as standard.
- **Number of Urgent Messages** - The number of urgent messages that the user created on the given date.
- **Total Length** - The total length (in minutes and seconds) of all AMIS networking messages created by the user on the given date and tagged as urgent.

Report Analysis

If the EM/Ans numbers are high and the logon count is low, the user may be accumulating too many messages before checking the mailbox and thereby contributing to a low disk space problem. If disk space is already low (ask your system administrator to check the Disk Usage Detail report), you may need to make the user more aware of the importance of not accumulating messages.

If disk space is low, also monitor the length of messages closely. If messages are too long for some users, you may wish to assign a Class of Service (COS) with a shorter storage limit to encourage the users to empty their mailboxes more frequently (see the “User Administration” chapter). You can also ask the system administrator to alter the maximum message length parameter (see the “Class of Service Administration” chapter) to deter callers from leaving long messages.

Another method for reducing the disk space used without compromising service is to configure individual mailboxes (including storage time allowed) on a needs basis. Consult your system administrator regarding setting up a Personal COS for the specific individuals. If none of the above actions effectively reduce the disk space used, you may need to expand your system.

AMIS Networking

Overview

This chapter describes the AMIS (Audio Messaging Interchange Specification) networking protocol and its administration in DMS VoiceMail.

The AMIS protocol is an industry standard which allows users of different vendors' voice messaging products to exchange voice messages. DMS VoiceMail users can send voice messages to users of other voice messaging systems (as long as they support the AMIS protocol), receive messages from other AMIS sites and reply to these messages using standard DMS VoiceMail functionality. The AMIS open access design allows anyone who has access to AMIS to send messages without the need for pre-arranged passwords, site definitions or specialized hardware.

Most AMIS parameters are configured at the system administration level and are described in the *System Administration Guide* (NTP 297-7001-300). The only parameters configured at the customer level are:

- the AMIS compose prefix
- disabling/enabling incoming and outgoing AMIS messages
- the local number in the System Access Number

These are all configured in one screen: the View/Modify AMIS Networking Information screen (Figure 10-2).

Detailed information about the AMIS service and instructions for configuring AMIS networking are provided in the "AMIS Networking" chapter in the *System Administration Guide*.

Configuring the AMIS service

Most of the configuration required for AMIS networking is done at the system administration level.

The following is a checklist of the tasks that have to be carried out for each customer group for which AMIS networking is to be enabled. The first four actions are carried out in the View/Modify AMIS Networking Information screen.

Identify the AMIS compose prefix

This is the number that is used by users at the local site to send AMIS messages to remote sites. It is entered during message composition to indicate that the address the user is entering is an AMIS address. You will have to inform the users at the local site of this prefix.

Identify the system access number (local number)

The system access number identifies the local site within an AMIS network. This is the DN to which messages will be addressed by users at remote AMIS sites. It is also the number that is inserted into the message header by the originating site so that users at the receiving site can use the reply to feature if desired.

This number consists of a country code, an area code and a local number. The country code is configured by the system administrator and is the same for all customer groups. The local number will be different for each customer group. The system access number is the number that is published as your site's AMIS number.

The local number must terminate on the DN that has been defined in the VSDN table. This can be an AMIS DN, a voice menu DN or a thru-dial service DN.

If the access DN is the VSDN for the AMIS service, it is recommended that only one AMIS DN be created per customer group.

Make sure incoming and outgoing messages are enabled

AMIS send and receive must be explicitly enabled to allow AMIS messages to be sent by the originating system and to be received by the receiving system. All systems that will be receiving AMIS messages from your system must also have AMIS receive enabled.

You can disable AMIS send and receive temporarily if, for example, you need to clear the system of messages that cannot be delivered and are tying up resources. Check the Networking Status screen to see if a large number of AMIS messages remain queued for an extended period of time. This indicates that DMS VoiceMail is unable to send messages due to a local or remote problem. If this is the case, you may have to disable AMIS until the

problem has been resolved. AMIS can be disabled at both the system level and the customer level. If AMIS is enabled for a particular customer, yet disabled at the system level, the system setting will override the customer setting.

Identify the number of messages to transmit per session

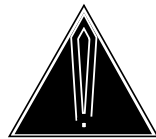
It is recommended that this be set to “1” (although you can choose to transmit up to 9 messages per session). If no billing DN is defined, then the system will limit the transmission to one message per session.

Define the AMIS access DN in the VSDN table

Add a DN to the VSDN table for the AMIS service (AN). This can only be done from the customer administration level.

The Network Administration Menu

Network Administration allows you to perform administrative and maintenance tasks for the AMIS networking service. The Network Administration menu is displayed when the Network Administration item is selected from the Customer Administration Menu.



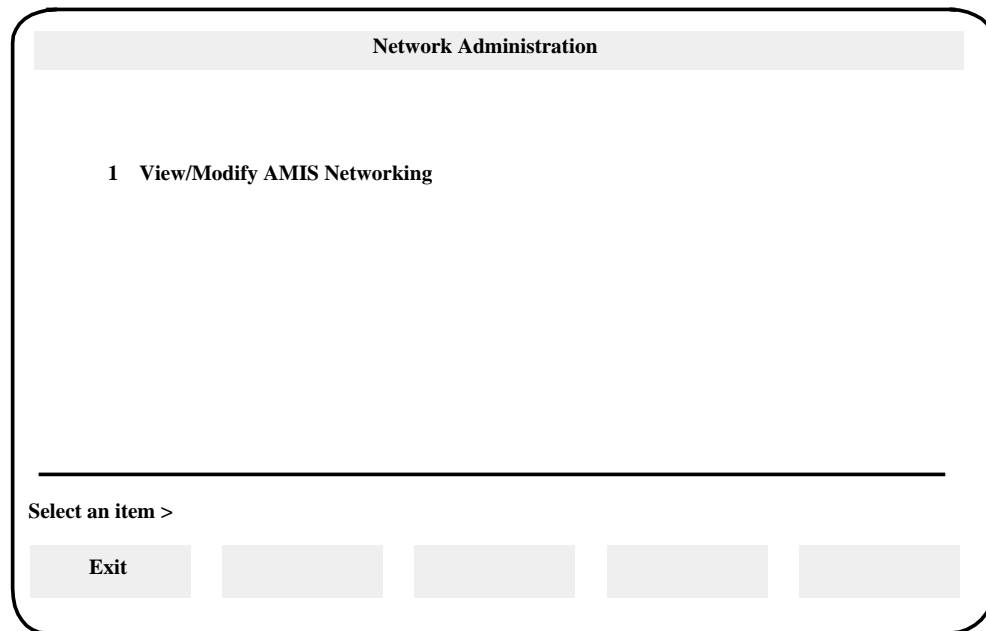
CAUTION

Overnight system audits

You should not leave the administrative terminal in any Network Administration menu overnight or important system audits may fail due to a lack of available memory.

Figure 10-1 shows the Network Administration menu.

Figure 10-1xxx
The Network Administration menu



Procedure 10-1xxx
Using the Network Administration menu

Starting point: The Customer Administration Menu.

- 1 Select Network Administration.
The Network Administration menu is displayed.
- 2 If you want to view or modify AMIS networking information, select View/Modify AMIS Networking.
- 3 Select [Exit] when you are ready to exit Network Administration.
The Customer Administration Menu is displayed.

Modifying AMIS Networking Information

Parameters that control the AMIS networking service are configured in the View/Modify AMIS Networking Information screen (see Figure 10-2).

Figure 10-2xxx
The View/Modify AMIS Networking Information screen

ABC Company Network Administration

View/Modify AMIS Networking Information

AMIS Compose Prefix: ___

Outgoing Messages	Disabled	[Enabled]
Incoming Messages	Disabled	[Enabled]

System Access Number
Local Number: _____

Number of Messages to Transmit per Session: ____

Select an item >

Save Cancel [] [] []

The following fields are displayed:

- **AMIS Compose Prefix** - This is the number that users dial to gain access to the AMIS networking service. Make sure that this prefix does not conflict with other network data such as ESN or CDP dialing codes. (There is a conflict if the first two digits of a DN match this prefix.)
- **Outgoing Messages** - This field allows you to temporarily prohibit DMS VoiceMail users in this customer group from sending AMIS messages. Users who have originated messages while transmission is disabled will immediately receive a non-delivery notification. The default is “Enabled”.
- **Incoming Messages** - This field allows you to temporarily prohibit incoming AMIS messages from being delivered to users associated with this customer group. The default is “Enabled”.

Note: Incoming and outgoing messages can also be disabled by the system administrator. If the system administrator has temporarily disabled the AMIS networking service, this will override the above fields if they are enabled.

- **System Access Number** - This is the number used by voice messaging users at remote AMIS sites when addressing AMIS messages to this site. This number is also sent with messages originated at this site and is used when a message is replied to (using a Reply command) by the recipient.
 - **Local Number** - This is the number that is published to the public as the AMIS number for this customer.

One of the following conditions must be met:

 - This number is defined in the VSDN table.
 - The area code followed by this number is defined in the VSDN table.
 - This number terminates on the extension defined for AMIS in the VSDN table.
- **Number of Messages to Transmit per Session** - This field controls the number of AMIS messages that DMS VoiceMail will deliver to the remote AMIS site during an AMIS session. The valid range is from 1 to 9.

If no Billing DN has been defined for the system, the number of messages that can be transmitted per session will be limited to 1 regardless of the value entered in this field. The Billing DN is configured in the Voice Messaging Options screen in Voice Administration.

It is recommended that this field be set to "1".

Procedure 10-2xxx
Configuring AMIS networking information

Starting point: The Customer Administration Menu.

- 1 Select Network Administration.
The Network Administration menu is displayed.
- 2 Select View/Modify AMIS Networking.
The View/Modify AMIS Networking Information screen is displayed (Figure 10-2).
- 3 Modify the necessary fields.
- 4 To save the configuration, go to step 4a. To exit the screen without saving your changes, go to step 4b.
 - a. Press [Save].
The data entered in the screen, provided all mandatory fields have been filled in, is saved. The Network Administration menu is displayed.
 - b. Press [Cancel].
Any changes that you have made are not saved and the Network Administration menu is displayed.

Class of Service Administration

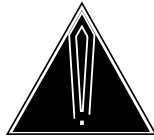
Overview

A Class of Service (COS) is a template that contains information about the capabilities that a subscriber has and the values that are assigned to specific parameters. It is essentially a method of classifying subscribers according to their needs. When you add a subscriber to a customer group, you must specify the Class of Service to which he or she belongs.

Before adding subscribers to the system, you should therefore carefully consider the subscriber types which you need to represent with COSs. For example, for a centrex customer, you might need to create one COS for secretaries, one for executives, and a standard one for all other employees. If employees in certain departments are found to have different needs, you could create one for Accounting, Engineering, Administration and so on. For your residential (VMUIF) customer groups you might need a Standard COS with only basic call answering features enabled, a Deluxe COS that provides additional chargeable features or a larger mailbox (in terms of storage space), a Family COS that provides subscribers with the Family Mailbox feature and a DialPulse COS for those subscribers that do not have touch-tone phones. The COSs that you end up creating will depend entirely on the types of subscribers that you will be adding to the system.

If, once you have created your COSs and added subscribers, you realize that you need to give a particular group of subscribers some additional capabilities, you only need to change the values in the COS and all of the subscribers that belong to that COS will automatically have their user profiles updated. You don't have to change each individual user profile.

If, at some point in the future, a subscriber requests additional functionality (or even reduced functionality) or greater mailbox storage capacity, you can do one of two things: reassign the subscriber to another COS that meets his or her needs, or create a personal COS for that subscriber (if no existing COSs are adequate). Personal COSs are described in more detail in the following section.



CAUTION

Do not perform class of service administration during nightly DR audit

At 3:30 a.m. every day, an audit of the DR directory is performed. Do not perform any class of service administration during this audit. Depending on how unbalanced the system is, this audit can take anywhere from 10 minutes (if the system has not been modified since the last audit) to 3 hours (if there have been many changes, such as a lot of users or services being added or modified).

COS types

There are two different types of COS: the system COS and the personal COS.

The system COS

System COSs are defined at the system administration level. Up to 127 COSs can be defined for the entire system. For each customer group, you can assign up to 15 of the 127 COSs that are defined at the system level.

A multi-customer system can potentially have up to 2000 customer groups. As a result, some, if not all, of the 127 system COSs will be shared among some of these customer groups. Because system COSs can be shared by customer groups, they are not modifiable at the customer administration level. Customizing a COS to suit the needs of one customer group may adversely affect the subscribers of another customer group. System COSs are, therefore, modifiable by the system administrator only and the Class of Service Administration screens at the customer administration level are read-only.

The personal COS

The personal COS is a special class. This class allows you to deal with those subscribers whose required capabilities do not fit in with any existing COS. These subscribers require a special COS that is unique to their needs.

In addition to the 15 COSs assignable to each customer group, the personal COS will always be available to a subscriber.

Keep in mind, however, that as the number of personal COSs increases, the task of maintaining your classes of service and subscriber profiles will become more difficult since all system COSs and personal COSs will have to be maintained.

Administrator responsibility

It is up to the system administrator to define Classes of Service for the entire system. Once created, the customer administrator is ready to add customer groups, assign up to 15 COSs to each customer group and then add subscribers. Each subscriber that is added to the system must be assigned to an already defined class of service.

Once the classes of service have been defined for the system, the customer administrator is ready to:

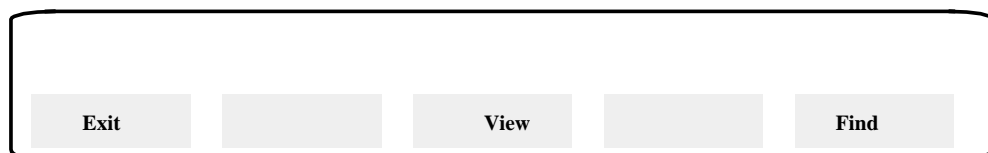
- 1 Add customer groups to the system (if they have not yet been added). This is described in the chapter “Administrator logon”.
- 2 Assign up to 15 COSs for each customer group. This is done in the General Options screen in General Administration.
- 3 Select User Administration to add subscribers to customer groups. Each subscriber must be assigned to one of the system COSs (or a personal COS can be created for users). This is described in the chapter “User Administration”.

For information about creating classes of service, see the “Class of Service Administration” chapter in the *System Administration Guide*.

Finding a class of service

The first step in viewing an existing class of service is retrieving it. You can use the find functionality to narrow down your search for the COS you want to view (i.e., display a subset of COSs), or retrieve a particular COS (if you know the exact COS number or name). Since you can have up to 127 COSs, it is recommended that you either retrieve the specific COS you want to view, or at least a subset of COSs. Otherwise, you will have to search through a long list of existing COSs.

When you select Class of Service Administration from the Customer Administration Menu, the following softkeys are displayed:



Use the [View] softkey if you know the number of the COS you want to view. (When you press [View], you are prompted to enter the class of service number. See the section “Viewing a class of service definition” on page 11-7 for more information.)

If you do not know the number of the class of service you want to view (but know its name, for example), use the [Find] softkey instead. The remainder of this section describes how to use the Find function.

When you press the [Find] softkey, the Find Class of Service screen (Figure 11-1) is displayed. This screen allows you to find:

- a specific COS by number
- a subset of COSs by name - this is achieved by using wildcard character matching
- a subset of COSs according to interface type (MMUI or VMUIF)

Figure 11-1xxx
The Find Class of Service screen

ABC CompanyClass of Service Administration

Find Class of Service

Class of Service Number: —

Class of Service Name: _____

Voice Messaging Interface: [Any] MMUI VMUIF

Save List Print

If you do not fill in any of the fields, the resulting list will be the complete set of defined COSs.

On systems on which COSs have been defined, you can either view the list of existing COSs on screen or print it out.

Procedure 11-1xxx
Printing a list of existing COSs

Starting point: The Customer Administration Menu.

- 1 Select Class of Service Administration.
The Find Class of Service screen is displayed.
- 2 Specify the search criteria.
To find and print a particular COS, enter the COS number in the *Class of Service Number* field.

To find and print a subset of COSs according to name, enter the appropriate search pattern. (This pattern will consist of the letters and wildcard characters to indicate the pattern that the found COSs must match.)

To find and print those COSs for a particular interface, specify either "MMUI" or "VMUIF". If the interface is not important (i.e., you want to retrieve COSs regardless of interface type), specify "Any".

- 3 Press [Print].

A list of existing COSs that meet the specified search criteria is printed.

Procedure 11-2xxx

Listing COSs

Starting point: The Customer Administration Menu.

- 1 Select Class of Service Administration.

The Find Class of Service screen is displayed.

- 2 Specify the search criteria.

To find a particular COS, enter the COS number in the *Class of Service Number* field.

To find a subset of COSs according to name, enter the appropriate search pattern. (This pattern will consist of the letters and wildcard characters to indicate the pattern that the found COSs must match.)

To find those COSs for a particular interface, specify either MMUI or VMUIF. If the interface is not important (i.e., you want to retrieve COSs regardless of interface type), specify "Any".

- 3 Press [List].

The List of Classes of Service screen is displayed (Figure 11-2).

Figure 11-2xxx
The List of Classes of Service screen

ABC Company		Class of Service Administration									
List of Classes of Service											
COS Num	COS Name	VceMsg I/F	Storage (Mins.)	Retain ReadMsg	Compose Msgs	DNU /RN	Receive/Send	AMIS Prompt	DualLang		
1	Standard	MMUI	3	0			N/N	No	No	No	No
2	Executive	MMUI	20	2			Y/Y	Yes	Yes	Yes	Yes
3	Secretary	MMUI	10	0			N/Y	Yes	No	No	No
10	Outcalling	MMUI	5	0			Y/Y	No	No	No	No
11	DNU only	MMUI	5	0			Y/N	No	No	No	No
12	RN only	MMUI	5	0			N/Y	No	No	No	No
16	VMUIF Res	VMUIF	10	0	No		N/N	No	No	No	No
17	VMUIF Priv	VMUIF	10	0	Yes		N/N	No	No	No	No

Exit		View		
------	--	------	--	--

The List of Classes of Service screen displays the COS number and name along with a brief summary of the class of service definition. This summary includes the following information.

- the voice messaging interface (MMUI or VMUIF);
- the maximum amount of storage available;
- the number of days that read messages are retained;
- whether or not the subscriber is able to compose messages (this is an option only if the interface is VMUIF);
- whether or not DNU and/or RN are enabled;
- whether or not AMIS messages are allowed to be received and/or sent;
- whether or not dual language prompting is enabled (MMUI only).

Viewing a class of service definition

From the List Classes of Service screen, you can select a particular COS and press the [View] softkey to bring up the entire COS definition on screen.

Procedure 11-3xxx

Viewing a class of service definition

Starting point: The Customer Administration Menu.

- 1 Select Class of Service Administration.
The Find Class of Service screen is displayed.
- 2 Specify the search criteria.
To find a particular COS, enter the COS number in the *Class of Service Number* field.

To find a subset of COSs according to name, enter the appropriate search pattern. (This pattern will consist of the letters and wildcard characters to indicate the pattern that the found COSs must match.)

To find those COSs for a particular interface, specify either MMUI or VMUIF. If the interface is not important (i.e., you want to retrieve COSs regardless of interface type), specify "Any".
- 3 Press [List].
The List of Classes of Service screen is displayed (Figure 11-2).
- 4 Move the cursor to the definition you want to view.
- 5 Press spacebar to select it.
- 6 Press [View].
The View Class of Service screen is displayed.
- 7 Press [Cancel] to leave this COS definition.

Figure 11-3xxx
The View Class of Service screen (MMUI)

ABC Company		Class of Service Administration	
View Class of Service			
Class of Service Number:		1	
Class of Service Name:		Secretary	
Voice Messaging Interface Type:		MMUI VMUIF	
Personal Verification Changeable by User:	No	Yes	
Voice Storage Limit (minutes):		3	
Maximum Message Length (mm:ss):		03:00	
Delayed Prompts:	No	Yes	
*Dual Language Prompting:	No	Yes	
Auto Logon:	No	Yes	
Administrator Capability:	No	Yes	
Auto Play:	No	Yes	
Callers Notified of Busy Line:	No	Yes	
Maximum Call Answering Message Length (mm:ss)		01:00	
Receive Composed Messages:	No	Yes	
Receive External Messages:	No	Yes	
Message Waiting Indicating Options:	None	Any Urgent	
External Call-Sender Restriction Permission Codes:		None On_Switch Local Long_Distance_1 Long_Distance_2	
Read Message Retention (days): ("0" implies that read messages are retained until the user deletes them manually.) (Subject to the organization's maximum retention of 99 days.)		10	
			MORE BE- LOW
Save		Cancel	

* This field is displayed only on multilingual systems.

Figure 11-3xxx continued
The View Class of Service screen (MMUI)

ABC Company	Class of Service Administration	MORE ABOVE
View Class of Service		
Broadcast Capability:	No	Yes
Send Messages to External Users:	No	Yes
Retain Copy of Sent Messages:	No	Yes
* Delivery to Non-Users Capability:	No	Yes
*# Delivery to Non-User Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
*# Send Message via DNU if Mailbox Not Found:	No	Yes
*# DNU DTMF Confirmation Required:	No	Yes
* Remote Notification Capability:	No	Yes
###Remote Notification Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
###Remote Notification Keypad Interface:	No	Yes
###Remote Notification Retry Limits and Frequency:		
Busy	Retry Limit: 3	Retry Interval (hh:mm): 00:05
No Answer	Retry Limit: 10	Retry Interval (hh:mm): 00:15
Answered	Retry Limit: 1	Retry Interval (hh:mm): 00:05
###RN Business Days:		
Sunday	No	Yes
Monday	No	Yes
Tuesday	No	Yes
Wednesday	No	Yes
Thursday	No	Yes
Friday	No	Yes
Saturday	No	Yes
** Receive AMIS messages:	No	Yes
** Compose/send AMIS messages:	No	Yes
**!AMIS Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
Extension Dialing Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
Custom Revert Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2

Save
Cancel

* These fields are displayed only if Outcalling is enabled.
 ** These fields are displayed only if AMIS Networking is enabled.
 # These fields are displayed only if Delivery to Non-Users Capability is Yes.
 ## These fields are displayed only if Remote Notification Capability is Yes.
 ! This field is displayed only if Compose/Send AMIS Messages is Yes.

Figure 11-4xxx
The View Class of Service screen (Change Defaults for VMUIF)

ABC Company		Class of Service Administration	
View Class of Service			
Class of Service Number:	50		
Class of Service Name:	DTMF		
Voice Messaging Interface Type:	MMUI	VMUIF	
Maximum Number of SubMailboxes:	0		
Voice Storage Limit (minutes):	3		
Maximum Message Length (mm:ss):	03:00		
Maximum Personal Greeting Length (mm:ss):	01:00		
Delayed Prompts:	No	Yes	
Dial Pulse Support:	No	Yes	
Auto Logon:	No	Yes	
Login from Call Answering:	No	Owner	Group
Lockout Duration (hh:mm): (00:00 implies no mailbox reset)	00:00		
Callers Notified of Busy Line:	No	Yes	
Receive Messages for Call Answering:	No	Yes	
Maximum Call Answering Message Length (mm:ss)	01:00		
Receive Composed Messages:	No	Yes	
Receive External Messages:	No	Yes	
Message Waiting Indication Options:	None	Any	Urgent
Skip to First New Message:	No	Yes	
Announce Caller:	No	Yes	
Replay Header with Message:	No	Yes	
Call Sender:	No	Yes	
External Call-Sender Restriction Permission Codes:	None	On_Switch	Local Long_Distance_1 Long_Distance_2
			MORE BE- LOW
Save	Cancel		

Figure 11-4xxx continued
The View Class of Service screen (Change Defaults for VMUIF)

ABC Company	Class of Service Administration	MORE ABOVE
View Class of Service		
Read Message Retention (days): ("0" implies that read messages are retained until the user deletes them manually.) (Subject to the organization's maximum retention of 99 days.)	10	
Broadcast Capability:	No	Yes
Compose Capability:	No	Yes
Send Messages to External Users:	No	Yes
Treatment for Unsent Messages if the User Disconnects during Compose:	Send	Delete
* Delivery to Non-Users Capability:	No	Yes
*# Delivery to Non-User Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
*# Send Message via DNU if Mailbox Not Found:	No	Yes
*# DNU DTMF Confirmation Required:	No	Yes
* Remote Notification Capability:	No	Yes
###Remote Notification Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
###Remote Notification Retry Limits and Frequency:		
Busy Retry Limit: 3		Retry Interval (hh:mm): 00:05
No Answer Retry Limit: 10		Retry Interval (hh:mm): 00:15
Answered Retry Limit: 1		Retry Interval (hh:mm): 00:05
*##RN Business Days:		
Sunday	No	Yes
Monday	No	Yes
Tuesday	No	Yes
Wednesday	No	Yes
Thursday	No	Yes
Friday	No	Yes
Saturday	No	Yes
** Receive AMIS messages:	No	Yes
** Compose/send AMIS messages:	No	Yes
**!AMIS Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2
Custom Revert Restriction/Permission Codes:	None On_Switch	Local Long_Distance_1 Long_Distance_2

Save
Cancel

- * These fields are displayed only if Outcalling is enabled.
- ** These fields are displayed only if AMIS networking is enabled.
- # These fields are displayed only if Delivery to Non-Users Capability is Yes.
- ## These fields are displayed only if Remote Notification Capability is Yes.
- ! This field is displayed only if Compose/Send AMIS Messages is Yes.

The following read-only fields are displayed:

- ***Class of Service Number*** - The class of service number. This number is used to uniquely identify this class of service and distinguish it from all others. This number will be in the range of 1 to 127.
- ***Class of Service Name*** - The name assigned to the class of service.
- ***Voice Messaging Interface*** - The interface that subscribers assigned to this class of service will have access to. This must match the interface that is selected for the customer group.
- ***Personal Verification Changeable by User*** - (MMUI only.) If this field is set to “No”, only the administrator is allowed to record personal verifications for subscribers belonging to the COS. If this field is set to “Yes”, subscribers can record their own personal verifications from their telephone sets. The latter option is generally desirable since callers prefer to hear the voice of the person they are calling. The default is “No”.
- ***Maximum Number of SubMailboxes*** - (VMUIF only.) A non-zero value in this field means that Family Mailbox capability is enabled for this COS. Family mailboxes allow each member of a household to have their own personal mailbox all of which are accessible from a single DN. “0” implies that Family Mailbox is disabled. If enabled, between 1 and 8 submailboxes are permitted.
- ***Voice Storage Limit (minutes)*** - The maximum amount of storage available to the subscriber. This value will be between 1 and 360 (minutes). The default is 3 minutes.

Note: If Family Mailbox is enabled for this COS, all submailboxes contend for the same storage space.

If a subscriber surpasses this limit his calls are not cut off. The subscriber hears a message indicating that his mailbox is full and he is restricted in what he can do. For example, he can only read and delete messages and is not allowed to record a personal greeting, compose, send or forward messages. Once the subscriber has deleted some of his messages, he won't be able to reply to messages until he has logged off DMS VoiceMail and logged back on.

Note: Subscribers with more than 40 messages in their mailbox may experience a slight delay when attempting to play the first new message.

- ***Maximum Message Length*** - This value determines the longest possible composed message or greeting that a subscriber is allowed to record. This value will be between 00:30 and 99:00. The default is “03:00”.

Note: This value cannot be greater than the Voice Storage Limit.

- **Maximum Personal Greeting Length** - (VMUIF only.) This value determines the longest possible personal greeting that a subscriber is allowed to record. This value will be between 00:30 and 05:00. The default is "01:00".

Note: This value cannot be greater than the Voice Storage Limit.

- **Delayed Prompts** - When this field is set to "Yes", the system will prompt the subscriber for an action if the subscriber does not initiate any action for 3.5 seconds. The default is "Yes".
- **Dual Language Prompting** - (MMUI only.) This field is displayed on multilingual systems only. The selection made here affects the prompts played to people calling from external phones. (It does not apply to the prompts played to DMS VoiceMail subscribers. The language in which prompts are played to subscribers who are logged on to DMS VoiceMail is determined by the *Preferred Language* field in the user's profile. See the section "Adding local voice users" in the "User Administration" chapter for more details.)

If this field is set to "Yes", callers hear prompts in the subscriber's preferred language (as specified in the user's profile), followed by the primary default language. If the primary default language is the same as the subscriber's preferred language, prompts are first played in the preferred language followed by the secondary default language. Both the primary default language and the secondary default language are specified in the Voice Messaging Options screen for the customer group.

- **Dial Pulse Support** - (VMUIF only.) This option allows subscribers to log on to their mailboxes without having to enter a mailbox number, password or any other key presses. The default is "No".

Note: If this field is set to "Yes", Auto Logon (the next field) must also be set to "Yes".

- **Auto Logon** - When this field is set to "Yes", subscribers do not need to enter a mailbox number or password to gain access to DMS VoiceMail. When set to "No" subscribers must enter a mailbox number and password. "Yes" should be used only for voice messaging subscribers with telephones in secure locations or for call answering subscribers that require dial pulse support. The default is "No".
- **Administrator Capability** - (MMUI only.) If this field is set to "Yes", the subscriber is able to record a custom call answering greeting and personal verifications for all other subscribers. The default is "No".
- **Auto Play** - (MMUI only.) When this field is set to "Yes", the messages in the subscriber's mailbox are automatically played when the subscriber logs on, starting from the first new message. Once all new messages are played, old (read) messages are then played back (if there are any), starting with the oldest read message.

When this field is set to “No”, the subscriber must explicitly request that each message be played by pressing “2” on the telephone keypad.

Auto Play can be used in combination with Auto Logon to allow totally “handsfree” message retrieval. The default is “No”.

- ***Login from Call Answering*** - (VMUIF only.) This field determines whether or not subscribers can log into their mailbox during or after a call answering session. When this feature is enabled, subscribers have an alternative method of logging in which does not require that they dial a special access DN. Subscribers can access their mailbox from a phone other than their “home phone” by dialing their telephone number and then pressing *.

When this field is set to “Owner”, subscribers are allowed to log into their mailbox only if the destination mailbox is their own. After pressing *, the subscriber is prompted to enter his or her password.

When this field is set to “Group”, the subscriber will be allowed to log in to his or her mailbox if it belongs to the same customer group as the destination mailbox. After pressing *, the subscriber is prompted to enter the mailbox number followed by the password. For example, a subscriber who is away from home can call a friend who is a subscriber in the same customer group, leave a message and then log on to their own mailbox.

When this field is set to “None”, the subscriber will not be allowed to log in from call answering.

The default is “Owner”.

- ***Lockout Duration (hh:mm)*** - (VMUIF only.) When a subscriber’s mailbox is disabled due to password violation, this field determines how long the subscriber is locked out before he can log on again. This value will be between 00:00 and 23:59. 00:00 means that the subscriber will be locked out until you (the administrator) re-enable the mailbox. The default is “00:00”.
- ***Callers Notified of Busy Line*** - If this field is set to “Yes”, a special prompt is played to inform callers that the called line is busy. After being so informed, the caller is connected to DMS VoiceMail. If the field is set to “No”, the caller is simply connected to DMS VoiceMail and given the chance to leave a message. The default is “Yes”.

Note: If the subscriber’s mailbox is associated with two (or three) DNs, they must all be busy for this prompt to be played.

- ***Receive Messages for Call Answering*** - (VMUIF only.) This field determines if the subscriber’s mailbox will take call answering messages. The default is “Yes”.

- **Maximum Call Answering Message Length (mm:ss)** - This value determines the longest possible call answering message that a caller can record. This value will be between 00:30 and 99:00. The default is "01:00".
Note: This value cannot be greater than the Voice Storage Limit.
- **Receive Composed Messages** - If this field is set to "No", the subscriber's mailbox will not accept composed messages. Furthermore, callers will not be allowed to receive external messages or AMIS messages. The default is "Yes". Setting the *Receive External Messages* and *Receive AMIS Messages* fields to "No" automatically sets this field to "No".
- **Receive External Messages** - If this field is set to "Yes", a subscriber can receive composed messages from subscribers outside the customer group to which the subscriber belongs. To set this field to "Yes", the *Receive Composed Messages* field must be set to "Yes". If this field is set to "No", the subscriber will only be able to receive messages from subscribers belonging to the same customer group. The default is "Yes".
- **Message Waiting Indication Options** - The chosen setting determines the type of messages that will cause a message waiting indication (a flashing light or an interrupted dial tone) on the subscriber's telephone set. If "Any" is selected, subscribers are notified of all new messages. If "Urgent" is selected, subscribers are notified of only those messages that are tagged as urgent. If "None" is selected, subscribers are not notified at all. (None may be selected if, for example, mailboxes belonging to the COS do not have telephone sets associated with them). The default is "Any".
- **Skip to First New Message** - (VMUIF only.) This field determines what happens when a subscriber logs on to listen to new messages. If this field is set to "Yes", the first new message is automatically played when the subscriber successfully logs on. If this field is set to "No", subscribers must use the Play command to listen to new messages. The default is "No".
- **Announce Caller** - (VMUIF only.) If this field is set to "Yes", the prompt "From <caller>" will be announced in the header/envelope for call answering messages left by callers from outside the subscriber's customer group. The default is "No".
- **Replay Header with Message** - (VMUIF only.) If "Yes" is selected, the header will be played whenever a subscriber selects the Play command to listen to messages that have been left in the mailbox.
- **Call Sender** - (VMUIF only.) When this field is set to "Yes", subscribers can immediately call back the originator of a message using the voice messaging system. After listening to a message, a subscriber presses "42" to dial the caller's number. The default is "No".

- **External Call Sender Restriction/Permission Codes** - Apply one of the four restriction/permission sets to restrict the DNs to which external calls can be placed using the call sender feature. The actual restriction/permission codes are defined in the Voice Security Options screen by the system administrator. The default is the third option (“Local”, if the default names have not been modified).
- **Read Message Retention** - This field specifies the number of days that messages are kept in subscribers’ mailboxes after they have been read. The value in this field is limited by the customer-wide value set in the *Max Read Message Retention* field in the Voice Messaging Options screen. (See “Voice Messaging Options” in the chapter “Voice Administration”.)
Once the lesser of these two values is reached, read messages are automatically deleted. If “0” is entered in both fields, read messages are not automatically deleted by the system, but can only be deleted by the subscriber. The value will be between 0 and 99. The default is “0”.
- **Broadcast Capability** - If this field is set to “Yes”, subscribers are able to compose and send broadcast messages. A broadcast message is sent to all subscribers in the same customer group. The default is “No”.
- **Compose Capability** - (VMUIF only.) If this field is set to “Yes”, subscribers can compose and send voice messages. The default is “No”.
- **Send Messages to External Users** - If this field is set to “Yes”, subscribers can compose and send messages to subscribers outside of the subscriber’s own customer group. The default is “No”.
- **Treatment for Unsent Messages if the User Disconnects during Compose** - (VMUIF only.) The selection made in this field determines what happens to an unsent message if the subscriber disconnects while composing the message. If this field is set to “Delete”, the unsent message is deleted. If this field is set to “Send”, the (possibly incomplete) message is sent. The default is “Delete”.
- **Retain Copy of Sent Messages** - (MMUI only.) When this field is set to “Yes”, copies of sent messages are not deleted from the subscriber’s mailbox. When it is set to “No”, messages are deleted as soon as they are sent. Carefully consider how many subscribers you can allow to have this capability, since the more subscribers that have this ability, the faster your available storage space will be used up. The default is “No”.
- **Delivery to Non-Users Capability** - This field is displayed only if Outcalling is installed. This field determines whether or not subscribers belonging to this COS can compose and send messages to people who are not DMS VoiceMail subscribers. The default is “No”.
- **Delivery to Non-User Restriction/Permission Codes** - This field is displayed only if Outcalling is installed and *Delivery to Non-Users Capability* is set to “Yes”.

The selected option determines which dialing codes can and cannot be dialed when a subscriber attempts to send a message to a non-user. The actual dialing codes are defined in the Voice Security Options screen, accessible through the Voice Administration menu. The default is the third set in the list (“Local”, if the default names have not been modified).

- **Send Messages via DNU if Mailbox Not Found** - This field is displayed only if *Delivery to Non-Users Capability* is set to “Yes”. This feature is primarily intended for residential markets. If this field is set to “Yes”, subscribers don’t have to know who has mailboxes and who doesn’t when composing messages. They simply enter the person’s phone number when addressing messages. If the entered number is not defined as a mailbox number, the message is sent using delivery to non-user. The default is “No”.

Note: This feature will not work properly if subscribers’ mailbox numbers do not match their DNs as configured on the switch. For example, if a subscriber addresses a message to “2348050”, but the recipient’s mailbox number is defined as “8050”, the number won’t be found. Therefore, if mailbox numbers do not equal DNs, this field should be set to “No”.

- **DNU DTMF Confirmation Required** - This field is displayed only if Outcalling is installed and *Delivery to Non-Users Capability* is set to “Yes”. This field indicates whether or not a recipient of a Delivery to Non-user (DNU) message is required to confirm that they want to hear the message by pressing **2**. This can help avoid messages being delivered to an answering machine or to the wrong person. When disabled, the message is played upon voice detection. The default is “No”.
- **Remote Notification Capability** - This field is displayed only if Outcalling is installed. This field determines whether or not this subscriber can be notified at a remote telephone or pager of messages waiting in his or her mailbox. The default is “No”.
- **Remote Notification Restriction/Permission Codes** - This field is displayed only if Outcalling is installed and *Remote Notification Capability* is set to “Yes”.

The selection made in this field determines the restricted/permitted dialing codes that apply when the target DNs at which the subscriber is to be notified are specified in the business day schedule, non-business day schedule and temporary schedule. The actual dialing codes are defined in the Voice Security Options screen, accessible from the Voice Administration menu. The default is the third set in the list (“Local”, if the default names have not been modified).

- **Remote Notification Keypad Interface** - (MMUI only.) This field is displayed only if Outcalling is installed and *Remote Notification Capability* is set to “Yes”. When this field is “Enabled”, subscribers are able to change their schedules, periods, and targets from a telephone keypad. The default is “Enabled”.
- **Remote Notification Retry Limits and Frequency** - The following fields are displayed only if Outcalling is installed and *Remote Notification Capability* is set to “Yes”.
 - **Busy Retry Limit** - The number of times notification is retried at a remote phone, pager, or paging service if the destination number is busy. You value will be between 0 and 10. The default is “3”.
 - **Busy Retry Interval (hh:mm)** - This field determines how long DMS VoiceMail will wait before retrying remote notification if the destination number is busy. The valid range is from 00:00 to 23:59. The default is 00:05.
 - **No Answer Retry Limit** - The number of times notification is retried at a remote phone, pager, or paging service if the destination number is not answered. The value will be between 0 and 10. The default is “10”.
 - **No Answer Interval (hh:mm)** - This field determines how long DMS VoiceMail will wait before retrying remote notification if the destination number is not answered. The valid range is from 00:00 to 23:59. The default is 00:15.
 - **Answered Retry Limit** - The number of times DMS VoiceMail will retry a remote number when the number is answered but the subscriber does not log in (by pressing “1”) or turn off further remote notification (by pressing “3”). The valid range is from 0 to 10. The default is 1.

This number should be relatively low (the default is usually sufficient). If an answering machine answers the call, you do not want the RN service to keep calling back since RN can not be turned off. However, if DMS VoiceMail is calling a pager you would like the pager to go off periodically to remind the subscriber of calls.
 - **Answered Retry Interval (hh:mm)** - The length of time the system will wait before retrying a remote number when the destination number is answered but no messages are retrieved. The valid range is from 00:00 to 23:59. The default is 00:05.

Note: For a detailed description of retry limits and intervals refer to the section “Defining Outcalling parameters (remote notification and delivery to non-users)” in the “Class of Service Administration” chapter in the *System Administration Guide*.

- ***RN Business Days*** - This field is displayed only if Outcalling is installed and *Remote Notification Capability* is set to “Yes”. “Yes” indicates a business day. “No” indicates a non-business day. This information is used when creating remote notification schedules. By default, Monday to Friday are set to “Yes” and Saturday and Sunday are set to “No”.
- ***Receive AMIS Messages*** - This field is displayed only if AMIS is installed. If this field is set to “Yes”, subscribers can receive messages that are sent from remote AMIS sites. (To set this field to “Yes”, the *Receive Composed Messages* field must also be set to “Yes”.) The default is “No”.
- ***Compose/send AMIS Messages*** - This field is displayed only if AMIS is installed. If this field is set to “Yes”, subscribers belonging to this COS can compose and send messages to remote AMIS sites. (*Compose Capability* must also be set to “Yes”.) The default is “No”.
- ***AMIS Restriction/Permission Codes*** - This field is displayed only if AMIS is installed and the previous field, *Compose/send AMIS messages*, is set to “Yes”.

When a subscriber composes a message to an AMIS site, the system checks to see if the address is restricted. If it is restricted, the subscriber gets a non-delivery notification (NDN). The default is the third option (“Local”, if the default names have not been modified).

- ***Extension Dialing Restriction/Permission Codes*** - (MMUI only.) This field indicates which restricted/permitted dialing codes apply when a subscriber dials a phone number while logged on to his mailbox (known as mailbox thru-dialing).

For example, a subscriber may dial into the office from an external trunk in order to listen to messages. While listening to messages he realizes he would like to speak to someone at the office. Instead of logging out and calling back, the subscriber can press “0” followed by the extension number. The four choices displayed in this screen reflect the four sets of dialing codes that have been defined at the system level in the Voice Security Options screen (described in the chapter “Voice Administration” in the *System Administration Guide*). Each set contains up to 10 permission and 10 restriction codes. The default is the third option (“Local”, if the default names have not been modified).

- ***Custom Revert Restriction/Permission Codes*** - The custom revert DN is the extension to which a caller is passed when the caller presses 0 during a call answering session.

The actual restriction/permission tables are defined at the system administration level in the Voice Security Options screen (described in the “Voice Administration” chapter in the *System Administration Guide*). Up to 10 restriction and 10 permission codes can be defined for each option. The default is the third option (“Local”, if the default names have not been modified).

List of terms

68K card

68010 Processor card. Card with a 12Mhz 68010 processor, SCSI interface, serial port and the capability of addressing either 8 or 16 Mb of accessible RAM.

A

Analog

Pertains to representation by means of continuously variable physical quantities.

B

Batch Change Supplement (BCS)

A DMS-100 Family software release.

C

Call

In DMS, any demand to set up a connection through the switch. Also used as a unit of telephone traffic. Synonymous with cue.

Call Processing

The software system that handles the processes involved in setting up connections through the DMS-100 Family network between calling and called party.

Card

A plug-in circuit pack containing components. In DMS, "card" is the preferred term for a printed circuit pack or printed circuit board.

Central office (CO)

A switching office arranged for terminating subscriber lines and provided with switching equipment and trunks for establishing connections to and from other switching offices. Synonymous with class 5 office; end office; local office. See *office classification*.

Central processing unit (CPU)

A hardware entity, located in the central control complex frame, that contains the central data processor for the DMS-100 Family,

Centrex

Centralized PBX. A service that provides a Business telephone subscriber with direct inward dialing to extensions on the same system and direct outward dialing from all extensions. Centrex switching equipment is normally located at the central office, but may be located on the operating company client's premises.

Channel capacity

A measure of the maximum possible information rate through a channel, subject to specified constraints.

Circuit pack (CP)

In DMS-Supernode, consists of multi-layer PCB, through-hole electronic components, back-panel connector, faceplate, lock latches, and stiffeners.

CO

Central office

CPE

Customer Premises equipment.

Customer Premises Equipment (CPE)

Refers to equipment, such as ISDN terminals, that is located on the customer's premises.

D

Data

In translations, tables contain data. Each field or subfield has specific data values which are valid for that field. For example, a field called SECONDS may accept integer values from 0 through 60. A field called DAY may accept values of SUNDAY, MONDAY, TUESDAY. The set of all possible data values for a field is known as the *range* of the field.

Datafill

In translations, datafill is the process of entering data into a table, for example, "I am going to datafill the table now". Datafill is also used as a synonym for data, for example, "The datafill in that table is incorrect".

Dialable DN

A dialable DN (directory number) is a number that can be dialed from a telephone set (or voice service). Examples: extension 2334, 555-7711, 1-416-222-9110, ESN 6-337-0091. This number may or may not be the same as the *Network DN*.

DID

Direct inward dialing

Directory

In DMS, a software structure that may be used to look up, store, and delete symbols.

Directory number (DN)

The full complement of digits required to designate a subscriber's station within one NPA - usually a three-digit central office code followed by a four-digit station number.

Disk drive unit

Consists of a disk drive and a power-converter card installed in an input/output equipment frame.

DMS

Digital Multiplex System

DMS-Supernode

A central control complex for the DMS-100. The two major components of DMS-Supernode are the computing module and the message switch. Both are compatible with the current network module, the input/out controller, and the XMS-based peripheral modules.

DMS-100 family of switches

A family of digital multiplexed switch systems, which includes the following:

DMS*-100

Local switch

DMS*-200

Toll switch

DMS*-100/200

Switch of mixed function, in this case a combined local/toll switch. Other combinations are possible.

DMS*-250

Toll switch designed for private toll networks.

DMS*-300

Gateway switch

DMS-100* switching cluster

A DMS-100 host, up to eight large business remotes, and a centralized operation, administration, and maintenance application. Together these components operate and are maintained as a single switching center.

DMS-100* switching network

Multiple DMS-100 Family products that are maintained from a centralized operation, administration and maintenance application.

DN

Directory number

E

Error

In telephony, a detectable trouble condition that cannot be reproduced at will by the system or by external means; a transient or intermittent fault that does not yield consistent diagnostic test results. Compare with fault.

Error message

An indication that an error has been detected.

* Trademarks of Northern Telecom.

F

Function

In DMS call processing, refers to one of several procedure-type capable of accomplishing a specific task.

G-H

Ground start line

A line circuit arrangement in which dial-tone is sent in response to a ground signal on the ring conductor applied by the calling station or PBX. This differs from the more common loop start configuration, in which seizure is accomplished by bridging the tip and ring conductors.

Hundred call seconds (CCS)

Calculated by multiplying the average number of calls during busy hour by the average holding time in seconds, divided by 100. Thirty-six CCS=1 Erlang.

I

IBN

Integrated Business Network

IF

Interface (card)

Input/output (I/O)

Refers to a device or medium that is used to achieve a bi-directional exchange of data. Data exchange in the DMS-100 Family system is performed in accordance with the input/output message system.

Input/output device (IOD)

A hardware device that interprets input and formats output for human users or remote computes.

Integrated Business Network (IBN)

Now known as Meridian Digital Centrex. A special DMS business services package that utilizes the data-handling capabilities of a DMS-100 Family office to provide a centralized telephone exchange service. Many optional features are also available.

Integrated Services Digital Network (ISDN)

A set of standards proposed by the International Telegraph and Telephone Consultative Committee (CCITT) to establish compatibility between the telephone network and various data terminals and devices. ISDN provides a path for transmission of voice, data, and images.

I/O

Input/output

IOD

Input/output device

ISDN

Integrated Services Digital Network

L

Line hunting

Procedure for searching a number of lines to find one that is idle. See *Multi-line Hunt*.

Link

- In DMS, a connection between any two nodes. See *node*.
- A four wire group of conductors providing transmit and receive paths for the serial speech or message data between components of DMS-100 Family systems. Speech links connect peripheral modules to the network modules. Message links connect network message controllers or input/output controllers to the central message controller.

Link protocol

A set of rules for data communication over a data link. Link protocols exist for transmission codes, transmission nodes, and for data control and recovery procedures.

M

MAT

Multiple Administration Terminal. This is a secondary administration terminal that can be used to perform a subset of administrative tasks (namely user administration, voice services administration and class of service administration (in read-only mode)). Up to three MATs can be supported in addition to the main administration terminal.

Modem

Contraction of modulator/demodulator; a device that modulates and demodulates signals for transmission and reception, respectively, over communication facilities. A modem is used to permit digital signals to be sent out over analog lines. Synonymous with data set.

Module

- The basic building block of software structure. A module consists of interface and implementation sections.
- A discrete hardware package, designed for use in conjunction with other components.

MPC

Multi-protocol controller

MSP

Multi-server Processor

Multi-line Hunt

A service-related telephony feature that permits calls to a busy line to be routed to other specified lines without assigning a directory number to each line. Refer to line hunting.

Multi-protocol controller (MPC)

A general-purpose data communications card that allows data communications between a DMS-100 Family switch and an external computer (between a central office billing computer and a DMS-100 Family switch, for example). The MPC card resides on the input/output controller shelf. The MPC card's protocol software is downloaded from the DMS-100 central processing unit and then supports software routines for data packet network communication.

Multi-server Processor

A node running multi-server programs in a multi-node environment, (i.e., on the Service Peripheral Module).

N

Network

- An organization of stations capable of intercommunication but not necessarily on the same channel.
- Two or more interrelated circuits.
- A combination of terminals and circuits in which transmission facilities interconnect user stations directly.
- A combination of circuits and terminals serviced by a single switching or processing center.
- An interconnected group of computers or terminals.
- (NET) The network module frame of the DMS-100 Family system.

Network administration system

A stand-alone computer that is involved in operation, administration and maintenance of ISDN services. The NAS uses data on service and system operation to generate files that contain information on alarms, accounting, billing, and network operation.

Network DN

This is the directory number (DN) that is configured on the switch. This is a unique identifier across the network. This may or may not be the same as the *Dialable DN*.

Network module

The basic building-block of the DMS-100 Family switching network. The NM accepts incoming calls and, using connection instructions from the central control complex, connects them to the appropriate outgoing channels. Activities in the NM are controlled by the network message controllers.

NM

Network module

Node

The terminating point of a link. Node is a relative term; its meaning depends entirely on the context within which it is used. For example, a circuit may be a node in the context of another circuit within a module; the module itself may be a node in the context of another component of the network, and so forth.

Northern Telecom (NT)

Part of the tri-corporate structure consisting of Bell-Northern Research, Bell Canada, and Northern Telecom Ltd.

Northern Telecom practice

A document that contains descriptive information about the DMS-100 Family hardware and software modules, and performance oriented practices for testing and maintaining the system. NTPs are supplied as part of the standard documentation package provided to an operating company.

NT

Northern Telecom

NTP

Northern Telecom practice

O

Operating company

The owner/operator of a DMS switch.

P-Q

PBX

Private branch exchange

Peripheral Equipment (PE)

Equipment which works in conjunction with a communication system or a computer but is not part of it. In the DMS-100 Family of switches, it is a general term applied to peripheral modules.

Peripheral Module (PM)

A generic term referring to all hardware modules of the DMS-100 family systems that provide interfaces with external lines, trunk, or service facilities. PM contains peripheral processors which perform local routines, thus relieving the load on the central processor unit.

Plain ordinary telephone system (POTS)

POTS is an acronym used in the telephone industry to denote basic, conventional telephone services.

Port

In DMS, the point at which a speech or message link is connected to a peripheral module, network module, input/output controller, or central message controller.

Private branch exchange (PBX)

A private telephone exchange, either automatic or attendant-operated, serving extensions in an organization and providing access to the public network.

S

Service Order System (SERVORD)

A user interface used to change, add, or delete a subscriber line. Standard telephone industry command-format is used.

Service Peripheral Module (SPM)

A voice processing server used to provide voice messaging and related services for residential and business subscribers of DMS-100 or other central office switches.

SERVORD

Service Order System

Shelf

A container for drawers, cards, or both.

Signal Processing Node (SPN)

A node on the Service Peripheral Module that is used for signal processing.

Simplified message desk interface (SMDI)

An interface feature that enables a DMS-100 switch to communicate with a message desk. It provides the directory number of the called station, the calling station number (if available), and the reason for the call being forwarded to a message desk. In addition, it provides the message desk with the ability to activate or deactivate the message waiting indication for any station able to forward calls to the desk.

SMDI

Simplified message desk interface

SPM

Service Peripheral Module

SPN

Signal Processing Node

Subscriber

An individual user of a telephone station set that is connected to a DMS switch. Also known as end user.

T**Table**

Two-dimensional entities in which data associated with the hardware and software systems of the DMS-100 Family are stored.

Telephony Interface Node (TIFN)

A node that is used to interface between incoming telephony lines and place the communications on the MM bus of the Service Peripheral Module.

Terminal

- The point of origination or termination in a communications network.
- Any device capable of sending and/or receiving information over a communication channel.
- Also, in DMS, the smallest unit of address space within the input/output system.

Three-Way Calling

A service-related telephony feature that permits a subscriber in the talking state to add a third party to the call without operator assistance.

TIFN

Telephony Interface Node

Transition Module (TM)

A short circuit pack, based on the standard circuit pack. The TM carries the cable interfaces and/or local service functions such as local clock sources and bus terminations, located on the back of DMS-Supernode shelf.

Translations

Translations is the process the DMS-100 family of switches uses to determine the destination of a call based on the digits the caller dials and the capabilities available to the caller. It also allows the DMS software to recognize the hardware components of the system.

T1

The standard 24-channel, 1.544 Mb/s pulse code modulation system as used in North America. This digital carrier carries a signal whose designation is DS1.

U-V

UCD

Uniform Call Distribution

Uniform Call Distribution (UCD)

A Meridian Digital Centrex feature which allows calls to be evenly distributed to a number of pre-designated stations known as UCD stations, UCD positions or UCD agents. This feature is used to queue incoming calls to the message desk.

Voice Processor-12 card

A twelve port card that is used in the Service Peripheral Module for voice processing.

VP12

Voice Processor-12 card

DMS-100

DMS VoiceMail

Customer Administration Guide

© 1994 Northern Telecom
All rights reserved.

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

DMS, DMS SuperNode, MAP, Meridian, Meridian Mail, SL-100, and NT are trademarks of Northern Telecom. SkyPager is a trademark of SkyTel. Touch Tone is a trademark of Bell Canada.

Publication number: 297-7001-301
Product release: SPM 02
Document release: Standard 02.02
Date: March 1994

Printed in the United States of America.

