DMS-100 Family

DMS VoiceMail
Voice Menus Application Guide

northern telecom

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Overview of voice services

The Voice Menus feature is an installable feature that comprises the following voice services:

- announcements
- thru-dial services
- time-of-day controllers
- voice menus

There are two additional features to help you maintain your voice services:

- voice prompt maintenance
- remote activation

If the Voice Forms feature is installed, you can include the following services in a voice menu:

- voice forms which allow callers to leave recorded answers in response to a series of questions that make up a "form"
- the transcription service which allows designated transcribers to play back, listen to and transcribe caller responses

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

Announcements

An announcement is recorded information that is played to callers. An announcement can be a stand-alone service (and is, therefore, directly dialed), or it can be indirectly accessed through a voice menu or time-of-day controller. See Figure 1 for an example of an announcement.

Figure 1xxx
An announcement

Caller dials the announcement
access DN

Announcement*
"Thank you for calling Nadir Enterprises. Our offices are closed today due to the inclement weather. Please call again tomorrow. Goodbye."

The caller hangs up

*The announcement is played twice if the caller does not hang up right away.

Thru-dial services

A thru-dial service performs basic call handling. Its primary function is to prompt a caller for an extension number and then place a phone call. Alternatively, you can create a thru-dial service that prompts a caller for a person's name, in which case the caller spells out the name using the telephone keypad. You can also give the caller the option to enter either an extension number or a name. This is useful because it allows callers who may know a person's name but not their extension to get through to the person using the thru-dial service. If a caller is only allowed to enter an extension and does not know it, he or she will have to revert to a live attendant.

A thru-dial service definition consists of a greeting which includes instructions about how to dial and a revert DN (the DN to which a caller will be transferred if he or she presses "0" for assistance). See Figure 2 for an example of a thru-dial service.

Figure 2xxx
A thru-dial service

Caller dials the thru-dial
service access DN

Thru-dial service

*"Thank you for calling Nadir Enterprises. If you
know the extension of the person with whom you
wish to speak, enter the extension number followed
by number sign. If you do not know the extension
number, press "0" to connect to an operator. If you
have a rotary phone, please wait on the line and
someone will be with you shortly."*

The caller enters a user's extension number.

DMS VoiceMail calls ext. 2338

Different types of thru-dial services can be created. For example, the three
most common types of thru-dial services are:

- a thru-dial service that allows in-house calls only

- a thru-dial service that allows in-house and local calls

- a thru-dial service that allows in-house calls and ESN calls or
  long-distance calls

These types of thru-dial services are created by specifying which dialing
codes are restricted and which codes are permitted. In the first example, "9"
would be a restricted dialing code. This would prevent callers from dialing
"9" to make local calls, "90" to make operator-assisted calls, "91" to make
long distance calls, or "9011" to make international calls.

Because of the potential for unauthorized access to the system, it is very
important that you apply the appropriate restriction codes to all of your
thru-dial services to prevent unauthorized people from placing long distance
calls using your thru-dial services. The access numbers of thru-dial services
that allow long-distance calling are generally not published to everyone, but

only to select personnel. You can also protect these thru-dial services by defining an *access password*. The thru-dial service can only be accessed if the person enters this password.

Like announcements, thru-dial services can be accessed directly or indirectly through a voice menu or time-of-day controller.

Time-of-day controllers

A time-of-day controller routes calls to a particular voice service (an announcement, a thru-dial service, a voice menu, another time-of-day controller, or a voice form) based on the day and the time-of-day that a call is received.

A time-of-day controller has three defined time periods-one for business hours, one for off-hours, and another for holidays. Each time period has a voice service associated with it. Therefore, if the time-of-day controller is active, a call will be routed to one service if it is received during business hours, another service if it is received during off-hours, or a special service that has been created to handle calls that are received during a holiday (a day that has been defined as a holiday in the system). See Figure 3 for an example of a time-of-day controller.

Figure 3xxx
A time-of-day controller
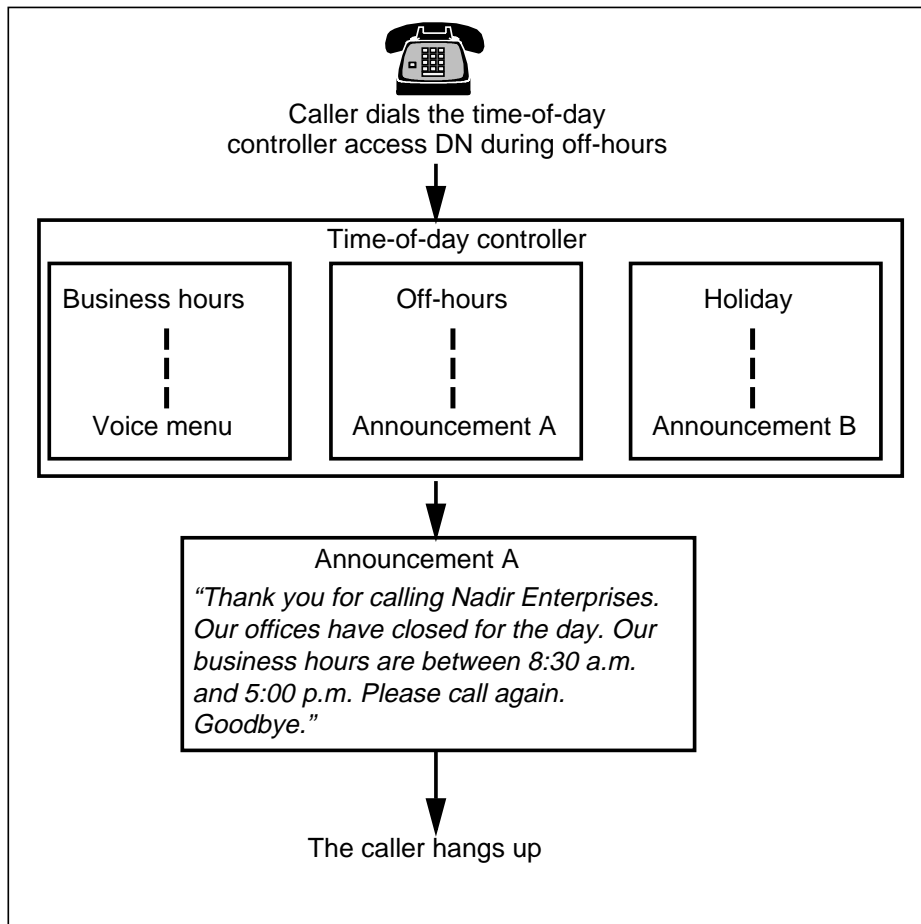
Voice menus

A voice menu presents callers with a series of choices or *menu actions*. A voice menu typically consists of a greeting, which identifies your organization to the caller, followed by a list of items from which the caller can choose by pressing one of the numeric keys on the caller's telephone keypad.

Voice menus can be comprised of only one voice menu (single-level), or can include choices that invoke other voice menus (multi-level). Each voice menu can have up to 9 choices (keys 1 to 9). The keys 1 to 9 can be programmed to do any of the following:

- play an announcement
- prompt the caller for the extension (or name) of the person with whom the caller wants to speak (thru-dial service)

- connect the caller to another voice menu (a sub-menu of the current menu)
- place a call to a specified DN (specified in the voice menu definition, not by the caller)
- transfer the caller to a specified DN, usually that of an operator or receptionist (when the caller presses "0")
- prompt the caller to enter an extension number in order to leave a message for someone (express messaging)
- play a prompt (different from an announcement)
- connect the caller to the prompt maintenance service (this is intended for administrative delegates who are responsible for maintaining voice service prompts)
- repeat the menu choices if the caller has forgotten what the choices are
- return the caller to the main menu if he or she has made a mistake
- prompt the caller, who is a DMS VoiceMail user, to log in to his or her mailbox (Voice Messaging)
- activate a time-of-day controller
- disconnect the call

If the VMUIF interface is installed on the system, the following action is also possible:

- connect the caller, who is a dial pulse user of voice messaging, to the greeting service in order to change his or her personal greeting (this service does not require any keypad input)

If the Voice Forms feature is installed, the following actions are also possible:

- connect the caller to a voice form
- connect the caller (a transcriber) to the transcription service

Figure 4xxx
A voice menu

Caller dials the voice menu
access DN

1st Level Voice Menu

"You have reached Nadir Enterprises. If you know the extension of the person with whom you want to speak, press 1. If you know the name of the person with whom you want to speak, press 2. If you would like directions to our location, press 3. If you would like in-formation about our new products, press 4. To speak to someone in customer service, press 5. If you would like to speak to an operator, press "0". If you have a rotary phone, please stay on the line. Someone will be with you shortly."

| 1 | ABC 2 | DEF 3 | GHI 4 | JKL 5 |

| Thru-dial service (extension dialing) | Thru-dial service (name dialing) | Directions announcement | New Products voice menu | Call placed to customer service department |

| 1 | ABC 2 | DEF 3 |

| Announcement for Product A | Announcement for Product B | Announcement for Product C |

Standard key functions

The following key functions are standard in all applications

0 = Attendant Revert

At any time in any voice service, a caller who presses "0" is connected to a live attendant. A different revert DN can be specified for each voice service you create. This should always be an option (at least during business hours) for callers who need to speak to a live attendant.

* = Help

In an announcement, the announcement is played again from beginning to end when star (*) is pressed.

In a voice menu, the menu choices are played when star (*) is pressed.

In a thru-dial service, the caller is given instructions on how to enter a phone number if it is the first key pressed by the caller. If it is pressed while entering a number, star is interpreted as a pause.

= Return to Previous Menu

(Voice menus only.) If the current menu was dialed directly, pressing # causes the menu choices to be repeated. The caller remains in the current menu. If the menu was accessed indirectly (through another voice menu), # returns the caller to the previous menu.

Automated attendants and information services

The four voice services that are bundled with the Voice Menus feature package-announcements, thru-dial services, time-of-day controllers, and voice menus, in addition to voice forms (if installed) are used as building blocks to create both simple and more complex applications that may involve a number of voice services. All applications that you create using these voice services can be classified as belonging to one of two categories:

- automated attendants
- information services

Automated attendants

An automated attendant is the electronic equivalent of a receptionist. It can

- answer calls within a predefined number of rings
- answer a large number of calls at the same time
- answer calls 24 hours a day
- allow callers to reach extensions without needing the assistance of a live attendant

Automated attendants improve efficiency by

- removing a significant percentage of the workload from clerical staff
- providing overflow handling during peak periods
- allowing employees to be reached after normal business hours

All automated attendants are created using one or more of the four voice services described above. The following are examples of the types of automated attendants that can be created.

Basic automated attendant

This type of automated attendant is created using the thru-dial service. When a caller reaches the basic automated attendant, the caller is prompted to enter the extension number or name of the person they want to call. The caller then enters the number or name and the call is placed. If the caller does nothing or presses "0", the call is routed to a live attendant.

This version of the automated attendant is useful for organizations whose employees have the same likelihood of being called. The value of this automated attendant depends on callers knowing the extension numbers or names of the people they want to reach.

Automated attendant with menu choices

This type of automated attendant is actually a voice menu. It allows callers to choose from a number of actions. Rather than asking callers to enter extension numbers that they may not be aware of, frequently called departments or people can be included in the voice menu. When the caller selects a department or person, the call is directly placed to the appropriate number. The caller does not have to know any extension numbers.

This type of automated attendant is useful for organizations that have people or departments receiving a high volume of calls. The directory number of such people or departments can be put in a menu so that, when a caller selects that menu choice, the call is routed directly to the appropriate number.

For example: *"Thank you for calling the University of Wallaballoo. To call the Economics department, press 1. To call the Biology department, press 2. To call the Philosophy department, press 3. To call the English department, press 4. To call the Mathematics department, press 5."*

Announcement-only automated attendant

The announcement-only automated attendant plays a recorded message to the caller. The caller's only option is to listen or hang up.

This type of automated attendant can be used by organizations that shut down completely after hours with no one there to take calls. The announcement informs callers that the premises are closed, states business hours, then disconnects.

Leave a message

This type of automated attendant is similar to the announcement-only type, except that it allows callers to leave messages for persons they are trying to reach. Like announcement-only, it is used as an after-hours attendant.

However, this type of attendant is created using a voice menu. One of the menu choices presented to the caller is to select a key in order to leave a message. This key will connect the caller to a mailbox (through express messaging). This will be a general mailbox and callers can specify for whom the message is for and then leave the message. The messages can then be forwarded to the appropriate people the next day.

Time-of-day controlled automated attendant

If one type automated attendant is required for business and another for off-hours, a time-of-day controller is required to make sure that calls are routed to the appropriate service based on the time of day at which it is received.

Mixed live and automated attendants

When an organization has a receptionist, an automated attendant is useful for handling overflow calls and for handling calls when the receptionist is unavailable (after hours, lunch breaks, and so on). This can be achieved by creating a time-of-day controller that routes callers to one automated attendant during business hours (for overflow handling) and another for after-hours treatment.

Information services

Information services are intended to provide callers with prerecorded information. Information services are useful in the following situations:

- to provide internal users or external callers with frequently requested information, thus reducing the number of interruptions imposed on employees by repeated inquiries

- to provide callers with up-to-date information, thus reducing the amount of time spent by internal users or external callers seeking frequently changing information

All information services are created using one or more of announcements, voice menus and time-of-day controllers. The following are examples of the types of information services that can be created.

Announcement-only

The simplest form of information service is the announcement. It provides a single recording of information to what might be a large number of people who want or need to hear it. Examples of announcements are daily stock quotes, weather reports, the time, train and bus schedules, equipment status, fares, store hours, daily restaurant menus, and daily or weekly specials in stores.

Information menus

Information menus can be used when there is so much information to present that it is more practical to split the information into amounts that can be managed easily. This type of application is created with voice menus that allow callers to choose what they want to hear, rather than having to listen to lengthy recordings. These services can be simple single-level voice menus, or multi-level menus with a number of sub-menus.

Voice prompt maintenance and remote activation

There are two additional services, voice prompt maintenance and remote activation, which are part of the voice menus feature package.

Voice prompt maintenance

Voice prompts (greetings, announcements, menu choices) can be recorded from the administrative terminal using the [Voice] softkey. An alternative method to recording and maintaining voice prompts is to use the voice prompt maintenance service. It allows you, or an administrative delegate, to access a voice service from a remote touch-tone telephone set in order to modify (that is, rerecord or delete) the various prompts, greetings and announcements that exist within the four types of voice services.

Remote activation

Remote activation allows you, or an administrative delegate, to enable, disable or change the voice service associated with a particular VSDN from a remote touch-tone telephone set. This is typically done from the administrative terminal (in the VSDN table). However, if, for example, there is a severe storm and the office is unexpectedly shut down, you would want to make sure that the main office number activates the appropriate service. Using remote activation, you can log in from your home phone (as long as it is a touch-tone phone) and change the service that is associated with the main number.

Choosing a speaker

Announcements, thru-dial services and voice menus all include voice recordings. Part of your responsibility is to choose an appropriate speaker to record these prompts.

Remember that no matter how well your applications are designed, if the recorded voice you use is unpleasant or difficult to understand reaction to your voice services will not be positive.

If the application is very casual (such as an announcement intended for internal users only), you may decide that you can create it and record it yourself. For more formal applications, such as those that will be presented to external callers, you should consider the choice of speaker.

Though telephone lines reproduce low-pitched voices best, a clear voice is better than one that sounds 'gravelly'. If practical, try to use only one voice or one gender, because callers may be distracted by changes in speakers. Choose a voice and accent that projects the image your organization wants to promote. The voice itself and the prompts should sound relaxed, confident, efficient, and friendly. If you have a lot of recordings that will need updating regularly, choose someone who can be available to update them. If this is difficult, select a few people with similar voice qualities who can share the responsibility.

Audition prospective speakers in a quiet room, then play back samples of their voices over the telephone. A good way to audition speakers is to have them leave messages or read sample scripts in your mailbox.

Application scenarios

This chapter is intended to provide you with some ideas about how you might be able to use voice menus and related services to solve certain communication problems in your organization.

Examples of automated attendants

Basic automated attendant

The problem

One of your centrex customers asks you to create an automated attendant for them. After asking a number of questions, you determine that they deal mainly with long-term clients who know the extension numbers of the staff with whom they want to communicate. Still, there are always a few calls from clients who do not know the extension number of the person they want to reach. The live receptionist has had to deal with every call coming into the agency with the result that there is no time to be friendly, and many clients are irritated by frequently being placed on hold. The situation is worse when the receptionist is away and a temporary receptionist tries to fill in. The staff in this department all receive a roughly equal volume of calls and no one needs special treatment.

The solution

A basic automated attendant is created. The number is communicated to long-term clients. When a client dials this number and is answered by the automated attendant, a short courteous greeting is played, followed by an invitation to enter the desired extension number. Also mentioned is the number to enter if the caller wants to talk to a live attendant. If the caller does nothing for a predetermined period of time, the call is automatically routed to a live attendant.

Automated attendant with menu choices

The problem

Another centrex customer also wants you to create an automated attendant. A number of departments receive a high volume of first-time callers from the general public. The callers are not familiar with how the agency is set up or department names and extension numbers. It is desirable to respond to each call in a polite and comprehensive manner, but taking the time to explain the function of each department leaves other callers on hold for an unacceptable length of time or unable to get through at all.

The solution

A voice menu (automated attendant with menu choices) is created. After dialing the company's publicly listed number, the caller hears a courteous greeting followed by a list of department names followed by a one-digit number to enter in order to call that department. If any clients who do know the extension number of the person they want to speak to happen to use this publicly listed number, one of the choices is set up to connect the client to a thru-dial service. These callers can still enter any extension number themselves.

For example: *"Thank you for calling Orange Computers. If you know the extension of the person you want to speak to, press 1. For customer service, press 2. To speak to a sales representative, press 3. To speak to someone in our Educational Products department, press 4. To speak to someone about consumer applications, press 5."*

Announcement-only automated attendant

The problem

One of your customers is a small local university. The cafeteria gets a lot of phone calls from students asking about the daily menu. The kitchen staff feels that they are spending too much time answering the same questions over and over.

The solution

An announcement-only automated attendant is created and a number is published to students as the Daily Menu Number. The kitchen staff are trained to use the voice prompt maintenance service so that they can update the announcement every day themselves.

For example: *"The menu specials for Monday October 18th are as follows: Menu 1 is a Salisbury steak with mashed potatoes and peas. Menu 2 is falafel on a pita and tomato soup. Menu 3 is fish and chips. Today's fish is haddock."*

Leave a message

The problem

One of your centrex customers is a personnel agency that provides temporary personnel as well as finding full-time staff for corporations. They are always looking for new people. Some of the best potential applicants may be reluctant to call from open-plan offices, or be too busy during normal business hours. Many people give up calling after finding the personnel department's line continually busy. The department would like to be sure of receiving information from all interested applicants, and in order to weed out unsuitable applicants, would like to be able to expand on the information given in the published advertisements without tying up the department's phones.

The solution

A 24-hour, seven-days-a-week number is advertised. A time-of-day controller is created. During business hours, callers are connected to a voice menu. The initial greeting played to callers contains any information the personnel department wishes to convey. (For example, when a publicly advertised position has been filled.) Callers are then prompted to press the number that corresponds to the advertisement they are interested in. After making a selection, callers are directly connected to the person responsible for the appropriate advertisement. If that person's line is busy, the caller can leave a message. During off-hours, callers are connected to another voice menu that prompts callers to leave a message by entering a certain number (1 to 9). When a caller selects this option, he or she is connected to a mailbox (through the express messaging service) and is prompted to leave a message and specify which advertised position they are interested in. The next day, messages are listened to and forwarded to the appropriate person.

Mixed live and automated attendant

The problem

One of your customer groups is for yourself, the telco. Your field technicians report in regularly by phone, but the receptionist cannot handle the extra volume of calls at peak periods. Emergency calls after hours are a particularly difficult problem to handle efficiently.

The solution

A time-of-day controller is built to route calls to the appropriate service depending on when a call is received. An basic automated attendant (consisting of a thru-dial service) is created to handle overflow calls during business hours (if the receptionist is busy or taking a break). An automated attendant with menu choices is created for off-hours. It offers the options to dial an extension number (thru-dial service) since some people do work after hours, or to connect to a voice form in order to verbally fill in a problem ticket. If the technician selects the voice form, he or she is asked a series of

questions to which he or she responds verbally. When the voice form is transcribed, the information is passed on to the appropriate person.

Examples of information services

Announcement only

The problem

There is an upcoming Christmas party. The receptionist is being flooded with questions about the date, the time, the location and directions.

The solution

An announcement service is created. The number is published to the people in the department. That way employees can to get directions at their leisure. If necessary, they can listen to the announcement twice in order to get all of the necessary information.

Example: *"Thank you for calling for information about the Christmas party. The party will be held on Friday December 16th from 6:00 p.m. to 1:00 a.m. The party will be held in the Richelieu Ballroom at the Grand Hotel by the airport. To get there from downtown, take the 401 westbound to the Martin Grove exit. Go east on Martin Grove Road. The hotel is two blocks from the highway on your right side. You can't miss it. See you there."*

Information menu

The problem

A new release of DMS VoiceMail has just been installed. You want employees to be able to get information about new features such as Voice Forms quickly. New employees will need access to information about all features as well as information about the DMS VoiceMail system as a whole. However, the total amount of information is extensive.

The solution

You decide to present the information by means of a multi-level voice menu. When employees dial the number for DMS VoiceMail information, they will hear an initial menu of up to nine items, each one followed by a number. By entering the number of the item in which they are interested, they will hear second-level menu listing the topics related to the item they chose. After making a choice from this menu, a third-level menu allows callers to select the specific piece of information they need to access. By breaking up information into smaller amounts, new users should not be intimidated and experienced users will not be required to listen to information with which they are already familiar.

Choosing the appropriate service

This chapter is intended to help you:

- recognize the need for a voice service
- determine the type of service (or combination of voice services) required to meet a particular need

Recognizing the need for a voice service

Announcements

Announcements can be used to off load employees from answering commonly asked questions. Information such as service hours, schedules, directions, and product information can be recorded, freeing up employees' time to spend on less standard queries. Voice announcements can be made available 24 hours a day thus extending service levels beyond the staffed hours. Voice announcements can be stand-alone applications or can be organized into a voice menu application.

Examples of commonly requested types of information include:

- health plan benefits
- job openings
- stock quotes
- office closings
- announcements of product sales and specials
- announcements of new products
- equipment status

Thru-dial services

Thru-dial services are used to provide call routing to callers. A thru-dial service can be used in place of a live attendant (during off-hours, for example) or to assist a live attendant (by handling overflow calls during peak periods). A thru-dial service can prompt a caller for an extension or a name. Thru-dial services are typically found in automated attendants. A basic automated attendant consists of a single thru-dial service, whereas an automated attendant with menu choices can offer a thru-dial service among other choices.

Time-of-day controllers

Time-of-day controllers are useful when you have different requirements for different times of the day. If you want calls to be handled one way during business hours, another way during off-hours, and differently still for holidays, a time-of-day controller will meet your needs.

Voice menus

Voice menus can be used to route calls using a variety of methods (extension dialing, name dialing, call direct to an extension), provide information, or both. Many auto attendants are actually voice menus that allow callers to make a number of choices.

If you have a number of related announcements (that provide information about new products, for example) you could create a voice menu to serve as a front end. Rather than publishing 7 numbers, one for each product, you could publish one number, the "New Product Hotline" number, which is actually the number of a voice menu. Each menu item would correspond to a product, and when a caller chooses an item, an announcement describing the new product is played.

If the Voice Forms feature is installed, you could do something similar if you have a number of related voice forms (such as customer satisfaction surveys for a number of products).

A voice menu can also be used to create an automated attendant that allows callers to do a number of things: call a person by dialing an extension or name, be directly connected to the department of their choice, listen to directions on how to get to your location or information about job openings, or connect to a live attendant.

Automated attendants

Automated attendants are generally used to take the place of a live attendant, either during off-hours when there is no operator, during regular business hours to off load the attendant during peak periods, or as a front end to your organization (that is, callers are connected to an auto attendant first, and only connect to a live attendant if they request it).

An auto attendant can be a basic thru-dial service, or it can be a voice menu that offers callers a number of choices (which will probably include a thru-dial service).

The following examples show how automated attendants can be used to solve communication problems that your centrex customers may be facing:

- A fair number of people work after hours, but the secretary goes home at 5:00. Those still in the office would really like to continue getting calls in the evening.

- The receptionist leaves at a certain hour after which there is no one at the front desk to answer and transfer calls. Even if few people work after hours, it would be great if callers could get through to the extension they want and leave a message if the person isn't there.

- The switchboard tends to get very busy several times a day and the receptionist just can't answer all of the calls. Callers get frustrated waiting for someone to answer and tend to hang up.

- Each department has its own secretary. It would be ideal if callers could simply choose the department they want to get through to, and then be routed to the department secretary who can then give each caller better service.

- The clerical staff have a lot of duties, not just answering phones. Sometimes they could really use help answering phones so that they can do other work.

- A live attendant is always preferred, however, if she gets sick or takes a day off, there is really no one to take her place.

Before you begin

Before you begin designing a voice service application, consider the following points. They will play a part in deciding some of the characteristics of your services.

1   Will callers know the extension of the person they wish to speak to? In other words, are most of your callers familiar with your organization and its people?

   - If callers tend to be familiar with people's extensions, a thru-dial service that uses extension dialing is sufficient.

   - If callers are not familiar with extension numbers, are they familiar with people's names. If this is the case, a thru-dial service that allows name dialing is sufficient.

   - If a large percentage of callers are first-time callers and do not know people's extensions or names, consider a voice menu that routes callers to specific departments. Most callers should be able to determine which department will be able to help them.

     If the caller cannot determine which department he or she can choose, the caller will always have the option of pressing "0" to connect to a live attendant.

2   Should callers who are routed using a thru-dial service be allowed to make local calls or long-distance calls?

   For general purpose thru-dial services, external callers normally have access to internal numbers only. If certain internal callers need the ability to place long-distance calls, a special thru-dial service can be created

which allows long-distance calls and is password protected. The use of restriction/permission codes is described in the chapter "Creating thru-dial services".

3   Are there certain people or departments that get a large number of calls?

If this is the case, a voice menu that includes these people's and/or department's names would be appropriate.

4   Are there different requirements for business hours versus non-business hours?

For example, during business hours, you may want callers to be routed to the appropriate person using a thru-dial service, but during the evening (during off-hours), connect them to a voice menu that offers them the option of thru-dialing to an extension or leaving a message in a general mailbox (since there is no live attendant to route calls if the extension is not known).

This application requires the following services:

-   a time-of-day controller that serves as the front-end to the application and routes calls to a voice service based on the day and time at which a call is received

-   a thru-dial service which is associated with business hours

-   a voice menu which is associated with off-hours consisting of the following services:

    -    the day time thru-dial service as menu item 1

    -    the express messaging service as menu item 2 to connect callers to a general mailbox in which they can leave messages

5   Are there people in the office that remain after hours?

Whether there will be people available after hours or not determines the type of after-hours automated attendant. If no one is available to take calls, an announcement is sufficient.

If there are people in the office after hours, a basic automated attendant using the thru-dial service or an automated attendant with menu choices would be appropriate.

6   Do most of your callers have touch-tone phones?

Automated attendants are only useful for callers with touch-tone phones. The automatic revert to the revert DN on the initial timeout routes rotary-phone callers to an attendant, so the rotary-phone caller can be connected to the person wanted. If most callers have rotary-dial phones, an after-hours announcement-only automated attendant is recommended.

Setting up the voice services profile

The Voice Services Profile is where you set up basic parameters that control certain aspects of voice services, such as:

- the maximum length for announcements
- the maximum length for other recordings (thru-dial greetings, voice menu prompts)
- time-out values which determine how long the system will wait for input from a caller before carrying out some kind of action (either disconnecting the call, transferring the caller, or some other action defined by the administrator)

The voice services profile is also where holidays are defined. These holiday definitions are used by time-of-day controllers. Also used by time-of-day controllers are the default business hours that are configured in the profile.

Note 1: Changes to the default business hours after creating a time-of-day controller will not change the business hours of the time-of-day controller.

Note 2: On multicustomer systems, you must define a voice services profile for each customer group. The Voice Services Profile screen is, therefore, only accessible from the customer administration level.

Creating the voice services profile-an outline

The creation of a voice services profile involves the following steps:

1 Identify time-out values.
2 Determine maximum prompt sizes.
3 Identify business hours.
4 Identify holidays.
5 Configure the voice service profile in DMS VoiceMail.

Planning the voice services profile

On single-customer systems, there is only one voice services profile that applies to all voice services on the system. On multicustomer systems, a voice services profile must be defined for each customer group. (The Voice Services Profile screen can only be accessed from the customer administration level.) It affects all voice services that are created for that customer group.

Make a copy of the voice services profile worksheet on page 29. (There is also a copy of this worksheet in Appendix A.) As you plan the voice services profile, fill in the worksheet. Then, when you are ready to configure the profile in DMS VoiceMail, all you will have to do is copy the information into the system. You will also have a written record of the voice services profile. If you ever modify the profile, fill in a new worksheet so that you always have the most up-to-date version on file.

Identify time-out values

There are three different time-out values to define: command entry, short disconnect, and record. These time-outs determine how long the system will wait if there is no caller response before taking some sort of action (such as disconnecting the caller from a service or playing a delayed prompt).

Time-out values are used to determine how long the system waits before taking some sort of action (like disconnecting or playing a prompt) under the following circumstances.

- A caller does not provide an initial response.

  This means that after a caller connects to a voice service, he or she does not provide any keypad input. For example, in a voice menu, after the menu choices prompt is played, a caller is expected to select a menu item by pressing a key. If the caller does not press a key, this is considered an initial no response. X seconds after the greeting is played (where x is the number specified in the Command Entry field), an action will be taken by the system. (For voice menus, you can specify what action the system should take.)

  Initial no response typically means that the caller does not have a touch tone phone and cannot provide DTMF input.

- A caller delays in responding.

  This means that a caller has provided some sort of DTMF input at some point, but is now delaying in providing further input. (When a caller presses a key, this puts the system into "delayed response mode".) For example, a caller connects to a voice menu which is password protected (the caller enters the password). After the menu choices prompt has played, the caller does not respond within a certain amount of time. This is considered a delayed response.

Command entry

This time-out value is used in the following situations:

- In an announcement that is accessed directly, the system will wait this amount of time after playing the announcement, play the announcement a second time and then disconnect the call. This timeout is not used when an announcement is accessed from a voice menu. In this case, the announcement is played once and then the caller is returned to the menu and follows what is defined as the delayed response.

  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 or she 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 if the system is waiting for an initial response (such as an extension number or name after the thru-dial greeting has been played) or if the caller has provided keypad input at some point (and therefore, has a touchtone phone) but is now delaying in providing further input. If the caller has not provided any keypad input and the system times out, the caller is transferred to the revert DN that is defined for the thru-dial service. If the caller has provided keypad input, the system will play a series a prompts to help the caller. If the caller still remains on the line without providing further input, the caller is transferred to the revert DN or is disconnected.

The default is 3.5 seconds. You can choose a value between 1.0 and 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 value is used in the following situations.

- In a thru-dial service, this time-out is used for disconnecting the thru-dial service.

- In a voice menu, this time-out is used for disconnecting the voice menu.

Figures 5 and 6 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 5xxx
Initial no response in a voice menu
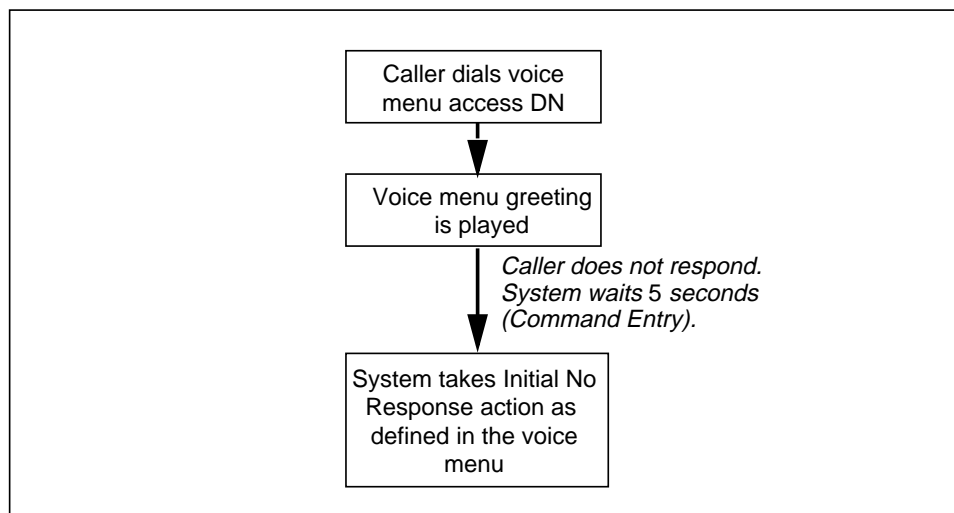
Figure 6xxx
Delayed response in a voice menu
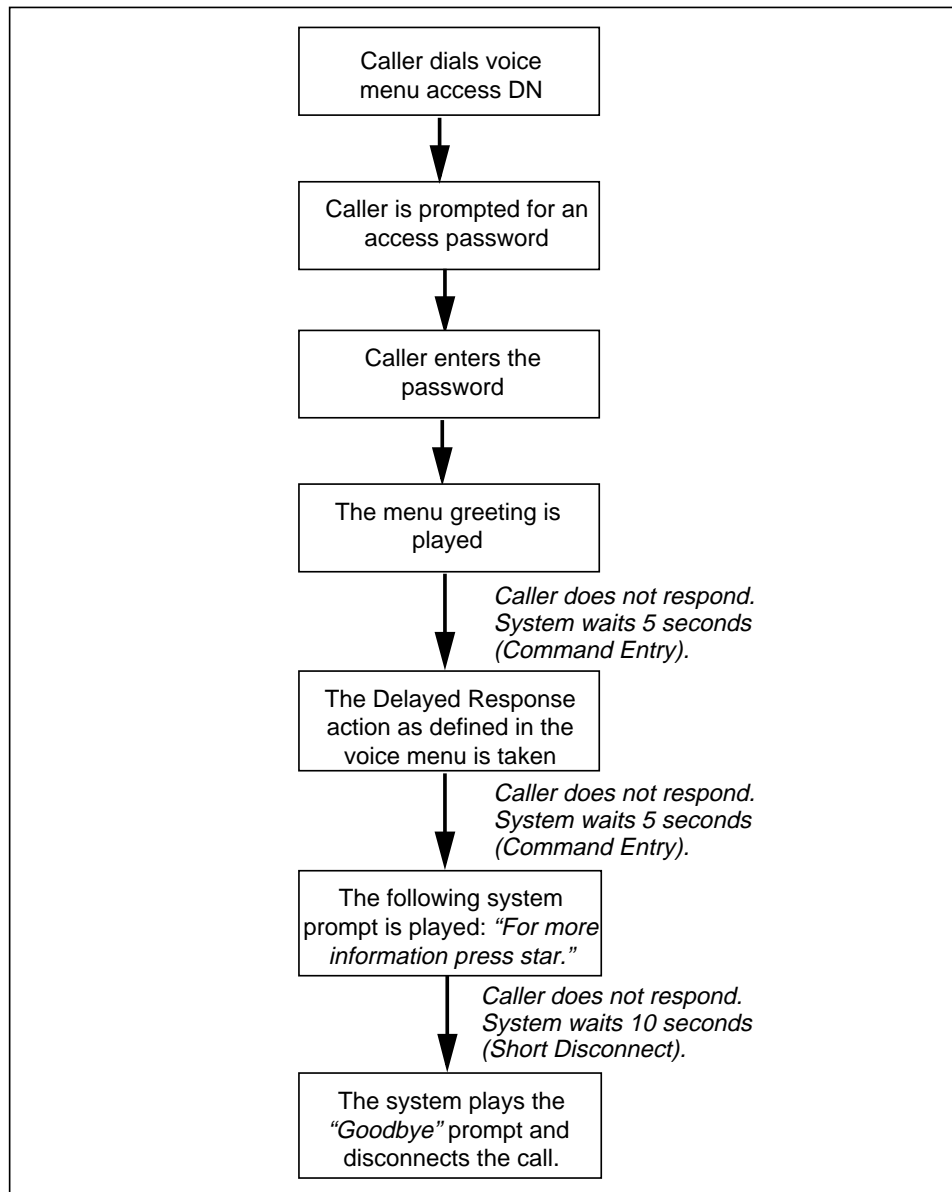
You will notice that in a voice menu, callers are given a number of chances to respond. If the caller has provided an initial response and then delays in providing further input, the system waits *x* seconds (the amount of time specified as the Command Entry time-out). The system takes the action defined for Initial No 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.

The default is 10.0 seconds. You may enter a value from 1.0 to 30.0 seconds.

Record

This time-out value applies to the recording of prompts for voice menus, announcements and thru-dial services. If during recording, *x* amount of silence is recorded *(*the amount of time specified as the record value), 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 time-out value), the system will disconnect the call.

The default is 02:00. You may enter a value from 00:06 to 05:00. This affects all voice services other than voice messaging and its associated features (login, call answering, express messaging).

Determine maximum prompt sizes

There are two separate values to define: one for announcements and one for other recordings.

Maximum prompt sizes for announcements

This parameter determines the maximum allowed recording length for announcements only. It does not affect thru-dial greetings or voice menu recordings.

Consider how long your announcements are likely to be. Plan ahead for the longest probable announcement. If the default is not adequate, change it before you create any announcements.

If 80% of the maximum prompt size has been recorded, a tone is played to warn that the maximum prompt size has nearly been reached. The following error message is displayed on the administration terminal when the maximum is reached: *"Recording stopped. The time limit was exceeded."*

The default value is "00:30". You can specify a value between 00:30 and 10:00.

Maximum prompt sizes for other recordings

This parameter determines the maximum allowed recording length for voice menu and thru-dial service recordings as well as all voice recordings other than announcements (such as personal verifications).

This value will most likely be determined by how many choices your voice menus will have. If you plan on creating voice menus with 9 menu actions,

you may need more time than the default of 2 minutes to record the menu choices prompt.

If 80% of the maximum prompt size has been recorded, a tone is played 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."*

The default value is "02:00". You can specify a value between 00:30 and 10:00.

Identify if any voice services will be used to accept AMIS networking calls

This step is applicable only if AMIS networking is installed.

Note: This is only possible for standalone SPM configurations.

Instead of creating a special VSDN for the AMIS networking service, voice menus or thru-dial services can be used to accept incoming AMIS calls. This means that rather than publishing a new number for AMIS networking, you can publish the number of an existing voice menu or thru-dial service.

However, for a voice service to accept AMIS calls, the *Act on AMIS Initiation Tone* field in the Voice Services Profile must be set to "Yes". The voice service will react to this tone and transfer the call to the appropriate AMIS agent. When this field is set to "No", the voice service will ignore the AMIS tone. In this case, a VSDN will have to be configured for the AMIS networking service.

Identify if update logging is required

When update logging is enabled, a SEER is generated whenever a VSDN entry, announcement, thru-dial service, time-of-day controller, voice menu, or voice form is added, modified or deleted. This is a method of keeping track of any changes made to DNs and services. The SEER specifies the DN or service ID and whether it was added, modified or deleted. You may or may not require this level of monitoring.

The default is "No".

Identify business hours

What are the regular business hours? The hours specified in the Voice Services Profile screen are used as defaults in time-of-day controller definitions. You will notice that in the voice services profile, there is no way to indicate "odd" hours. For example, the organization may be open on Saturdays between 10:00 and 3:00, yet you can only specify one set of business hours. These sorts of exceptions are specified in the time-of-day control definition itself.

The default is 08:30 to 17:00.

Note: Changes made to the business hours after a time-of-day controller has been created will not change the hours defined in the time-of-day controller.

Identify holidays

This step is necessary if you will be defining and using a time-of-day controller. If this is the case, identify the holidays that are observed by your organization (that is, the holidays for which the organization closes). Up to 20 holidays can be defined. This allows different services to be used for holidays versus business hours or off-hours.

Holidays are defined in the following manner:

1   Specify the start date. The format in which the date is entered depends on format defined in the General Options screen (for the customer group).

2   Specify an (optional) end date.

   If you specify an end date, it must be later than or the same as the start date.

   If you do not specify an end date, the holiday will end on the start date. If the holiday ends on a regular business day, the holiday will end at the end of the business day (five o'clock, for example). However, if the day on which the holiday ends is a non-business day (such as Saturday or Sunday), the holiday will end at the end of the day (midnight).

3   Specify a start time. This is typically the normal start of a business day (specified using the 24-hour clock). This parameter must be defined.

4   Specify the holiday (for example, Christmas, Good Friday). (This can be entered in the *Comment* field in the Voice Services Profile screen.

Voice Services Profile Worksheet   Page 1 of 2

Timeouts

    Command Entry: _____ **seconds**

    Enter a value between 1.0 and 5.0 seconds. The default is 3.5 seconds.

    Short Disconnect: _____ **seconds**

    Enter a value between 1.0 and 30.0 seconds. The default is 10 seconds.

    Record: _____ **seconds**

    Enter a value between 00:06 and 05:00. The default is 02:00.

Maximum Prompt Sizes

    For announcements: _____ **(mm:ss)**

    Enter a value between 00:30 and 10:00. The default is 00:30.

    For other recordings: _____ **(mm:ss)**

    Enter a value between 00:30 and 10:00. The default is 02:00.

Act on AMIS Initiation Tone: No ☐ Yes ☐

Select "Yes" if a voice service will be used to accept incoming AMIS calls.

Enable Update Logging: No ☐ Yes ☐

Select "Yes" if you want a SEER to be generated every time a DN or service is added, modified or deleted.

Business Hours Default: _____ **(hh:mm) to** _____ **(hh:mm)**

Holidays

#	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Start Time (hh:mm)	Comment
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____
9	_____	_____	_____	_____
10	_____	_____	_____	_____

Voice Services Profile Worksheet Page 2 of 2

Holidays

#	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Start Time (hh:mm)	Comment
11	_____	_____	_____	_____
12	_____	_____	_____	_____
13	_____	_____	_____	_____
14	_____	_____	_____	_____
15	_____	_____	_____	_____
16	_____	_____	_____	_____
17	_____	_____	_____	_____
18	_____	_____	_____	_____
19	_____	_____	_____	_____
20	_____	_____	_____	_____

Configuring the voice services profile

Follow Procedure 1 to access and configure the Voice Services Profile. Make sure you have your worksheet on hand.

Procedure 1xxx
Configuring the voice services profile

Starting point: The main menu or the Customer Administration menu (multicustomer systems)

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Voice Services Profile.

The Voice Services Profile screen is displayed (Figure 7).

Figure 7xxx
The 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):           00:30      │
│                             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     End Date      Start Time    Comments               │
│       (mm/dd/yy)     (mm/dd/yy)    (hh:mm)                             │
│     1 09/06/93       ____          08:30         Labor Day             │
│     2 10/11/93       ____          08:30         Columbus Day          │
│     3 11/25/93       ____          08:30         Thanksgiving          │
│     4 12/23/93       01/03/94      08:30         Christmas             │
│                                                           MORE BE-      │
│  ──────────────────────────────────────────────────────  LOW          │
│  Select a Softkey >                                                     │
│   ┌──────────┐   ┌──────────┐   ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐    │
│   │   Save   │   │  Cancel  │   │     │  │     │  │     │  │     │    │
│   └──────────┘   └──────────┘   └─────┘  └─────┘  └─────┘  └─────┘    │
└─────────────────────────────────────────────────────────────────────┘
```

*   This field is read-only. It displays the volume on which voice services are stored.

\#   This field is displayed only if AMIS is installed.

4 Change the time-out values and maximum prompt sizes if necessary.

5 Set *Act on AMIS Initiation Tone* to "Yes" if you plan on using a voice service to accept incoming AMIS networking calls.

6 Enable update logging if you want a SEER to be generated whenever a DN or service is added, modified or deleted.

7 Specify the default business hours.

8 Define each holiday on which the organization is closed. Scroll the screen to access additional fields.

9 Choose step 9a to save the changes or 9b to cancel.

   a. Use [Save].

   The changes are saved and you are returned to the Voice Services Administration menu.

   b. Use [Cancel].

   Any changes are discarded and you are returned to the Voice Services Administration menu.

Setting the display options

The Set Display Options screen (Figure 8) allows you to specify how information is sorted and displayed on the Voice Services Administration screens. For example, you can choose to display the Choice of Actions list on the Add a Voice Menu Definition screen, or you can choose to hide it (if, for example, you are familiar with the service names and acronyms and don't need to be reminded of them).

> *Note:* On multicustomer systems, display options can only be set at the system administration level. The choices you make in this screen will apply to all customer groups.

Figure 8xxx
The Set Display Options screen

```
┌─────────────────────────────────────────────────────────────────────┐
│                    Voice Services Administration                     │
│                                                                       │
│  Set Display Options                                                  │
│                                                                       │
│  Default sort order for:                        by:                   │
│        VSDN Table data menu:                          [DN] Comment    │
│        Service Definition data menu:            [ID]  Title           │
│                                                                       │
│  Sort Choice of Services/Menu Actions by:       Acronym  [Description]│
│                                                                       │
│  Display Choice of Services/Menu Actions in:                          │
│        VSDN Table DN Information form:                 No     [Yes]    │
│        Voice Menu Definition form:                    No     [Yes]    │
│        Find form:                                      No     [Yes]    │
│                                                                       │
│  ──────────────────────────────────────────────────────────────────  │
│  Select a softkey >                                                   │
│   ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌──────────┐   ┌────── │
│   │  Save    │   │  Cancel  │   │          │   │          │   │       │
│   └──────────┘   └──────────┘   └──────────┘   └──────────┘   └────── │
└─────────────────────────────────────────────────────────────────────┘
```

The following sections describe the settings that are relevant to voice menus, announcements, thru-dial services and time-of-day controllers.

Default sort order for service definition data menus

The selection you make determines how entries in the various service definition data menus are sorted and displayed (these menus are the Announcement Definitions data menu, the Thru-Dial Definitions data menu, the Time-of-Day Control Definitions data menu, the Voice Menu Definitions data menu, and the Voice Form Definitions data menu). These data menus list all of the services that have been added to the system (or customer group). Entries can either be sorted by ID or by Title. In Figure 9, entries are sorted by ID.

ID

When ID is selected, entries are sorted in ascending numeric order according to the service ID first digit (within each customer group). Examples of numbers sorted in numeric order are as follows: 30 comes before 9 (3, the first digit, comes before 9), 6000 comes before 72, and so on. This is the default.

Title

When Title is selected, entries are alphabetically sorted according to the service definition (announcement, thru-dialer, voice menu, time-of-day controller, voice form) title.

Figure 9xxx
The Announcement Definitions data menu

ABC Company	Voice Services Administration

Announcement Definitions

ID	Title
210	Department Reorganization
211	Printer Status
212	System Status
213	Benefits Change
222	Club Activities
224	Overtime Policy
229	Health and Safety
234	Security Code

Move the cursor to the item and press the space bar to select.

Exit	Add	View/Modify	Delete	Find

Sort order for choice of services/menu actions

This parameter affects how the entries in the Choice of Menu Actions list are sorted. This list appears in the Add, View/Modify, and Delete a Voice Menu Definition screens. Entries can either be sorted alphabetically by acronym or by description. In Figure 10, the list is sorted by description. (The list is sorted horizontally, not vertically).

Acronym

When Acronym is selected, the Choice of Menu Actions list is sorted according to the service acronym. Acronyms do not necessarily begin with the same letter as the service name. For example, the acronym for the voice menu service is MS.

Description

When Description is selected, services are sorted alphabetically according to their full name. For example, Thru-Dial Service versus TS, or Voice Menu Service versus MS.

Figure 10xxx
Choice of menu actions sorted by description

ABC Company			Voice Services Administration		

Add a Voice Menu Definition

Choice of Menu Actions:

AS	Announcement Service	CL	Call	RV	Call Revert DN
RP	Repeat Menu Choices	MM	Return to Main Menu	TS	Thru-Dial Service
TD	Time-of-Day Control	TR	Transcription Service	VF	Voice Forms Service
MS	Voice Menu Service	VM	Voice Messaging		

Voice Menu ID: 100   Title: Main Menu

Revert DN: 0

Access Password: 3295341   Update Password: 39243221

Greeting Recorded (Voice):   Yes   Menu Choices Recorded (Voice): [Yes]

Silent Disconnect: [No]   Yes

Language for Prompts: [AmericanEnglish]
                               CanadianFrench
                               AmericanSpanish
                               French

MORE BELOW

Select a softkey >

Save	Cancel		Voice	

Display choice of services/menu actions

This field allows you to control whether or not the Choice of Menu Actions list is shown or hidden. Once you become familiar with the acronyms and/or descriptions, you may no longer need to view this list for reference. By turning the display of the list off, you will be able to view more of the fields on the Voice Menu Definition screens and will not have to do as much scrolling. The default is "Yes" (the list is displayed).

Set Voice Menu Definition form to "Yes" to display the list, or "No" to hide it. Figure 11 shows the Add a Voice Menu Definition screen with the Choice of Menu Actions hidden.

Figure 11xxx
Choice of menu actions are hidden

```
┌──────────────────────────────────────────────────────────────────────────┐
│ ABC Company                    Voice Services Administration               │
│                                                                            │
│  Add a Voice Menu Definition                                               │
│                                                                            │
│  Voice Menu ID:          100_____      Title:     Main Menu_____    │
│                                                                            │
│  Revert DN:              0_____                                        │
│                                                                            │
│  Access Password:     3295341____          Update Password: 39243221_____ │
│                                                                            │
│  Greeting Recorded (Voice):  Yes           Menu Choices Recorded (Voice): [Yes] │
│                                                                            │
│  Silent Disconnect:          [No]     Yes                                  │
│                                                                            │
│  Language for Prompts:       [AmericanEnglish]                             │
│                                  CanadianFrench                            │
│                                  AmericanSpanish                           │
│                                  French                                    │
│                                                                            │
│        Key          Action                            Comments            │
│        1            TS    Thru-Dial ID:      200__    Internal thru-dialer_│
│        2            AS    Announcement ID:    300     Weather Report_____  │
│        3            CL    Calling Number:    3900_____             │
│                                              DJ's phone_____             │
│        4            EM      Mailbox ID:        2339_____        │
│                           * or Expansion Digits: _____             │
│                           * Enforce Dial:    No [Yes]  song requests_____  │
│        5            PP    Recorded (Voice): Yes       _____          │
│        6            PP    Recorded (Voice): Yes       _____          │
│        7            PP    Recorded (Voice): Yes       _____          │
│  ─────────────────────────────────────────────────────────  MORE BELOW    │
│  Select a softkey >                                                        │
│    Save            Cancel                              Voice               │
└──────────────────────────────────────────────────────────────────────────┘
```

* Fields displayed only if system DN length is defined (greater than zero)

Procedure 2xxx
Setting the display options

Starting point: The main menu

1   Select Voice Administration.

2   Select Voice Services Administration.

   The Voice Services Administration menu is displayed (Figure 12).

Figure 12xxx
The Voice Services Administration Menu


```
                        Voice Services Administration

              1    Voice Services-DN Table

              2    Voice Services Profile

              3    Announcement Definitions

              4    Thru-Dial Definitions

              5    Time-of-Day Controls Definitions

              6    Voice Menu Definitions



   Select an item >

                                         Set Display              Find Subset of VSDNs/
      Exit                               Options                  Services
```
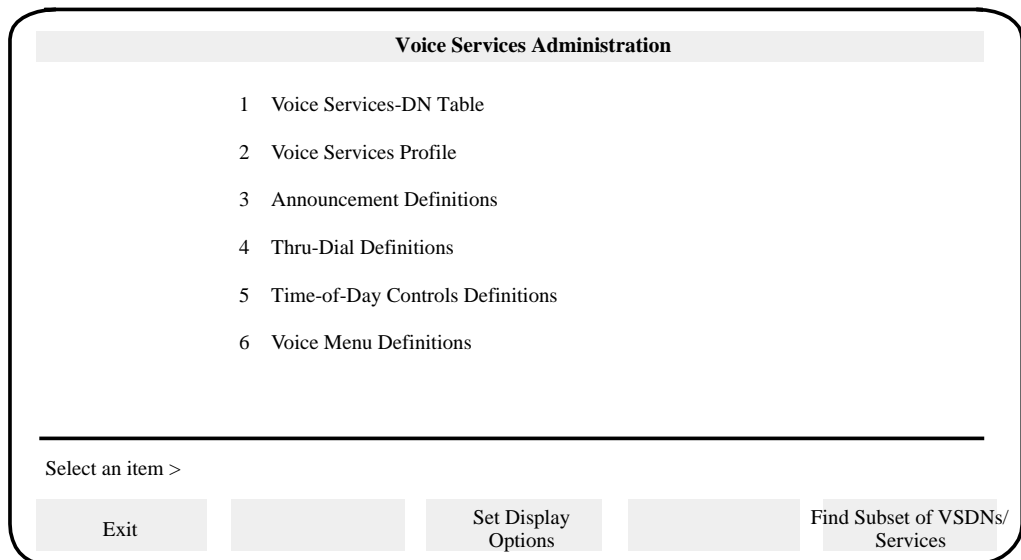
3   Select the [Set Display Options] softkey.

   The Set Display Options menu is displayed.

4   Make the desired selections to customize the way in which data is displayed
         and sorted.

5   Choose step 5a to save the changes or 5b to cancel.

   a.   Use [Save].

         *The changes are saved and you are returned to the Voice Services
         Administration menu.*

   b.   Use [Cancel].

         *Changes are discarded and you are returned to the Voice Services
         Administration menu.*

Planning and configuring announcements

An announcement is recorded information that is played to callers. It is the simplest type of voice service that you can create.

When a caller accesses an announcement directly or through a time-of-day controller, it is played twice and the call is disconnected. (Of course, the caller may hang up after hearing the announcement the first time.) The amount of time that the system waits before disconnecting is defined in the Voice Services Profile as the Command Entry timeout.

When a caller accesses an announcement through a voice menu, the announcement is played and the caller remains in the menu in order to select another menu action, if desired.

No keypad input is required of a caller during the playback of an announcement. However, the keys listed below cause the following actions if they are pressed during playback:

1-9   cause the following error message to be played: *"That selection is not recognized."*

0   calls the revert DN (if defined). If no revert DN is defined, the following message is played: *"That selection is not recognized."*

* and # cause the announcement to be repeated.

Creating an announcement-an outline

The creation of an announcement service involves the following steps:

Planning

1 Script the announcement.

2 Choose an announcement ID and title.

3 Identify the revert DN.

4 Identify necessary passwords.

5 Identify the language in which system prompts are to be played (if multiple languages are installed on the system).

6 Identify how the announcement will be accessed.

Configuring

1 Add the announcement definition in DMS VoiceMail.

2 Record the announcement.

3 Define the VSDN of the announcement or the service through which it will be accessed.

4 Test the announcement.

5 Cut the service over.

Maintaining

1 Monitor the use of the announcement using operational measurements.

2 Update the announcement when necessary, in order to keep the information current and accurate.

3 Delete the announcement when it is no longer needed.

Planning an announcement service

Make a copy of the Announcement Definition Worksheet on page 45. (There is also a copy of this worksheet in Appendix A.) As you plan your announcement, fill in the worksheet. Then, when you are ready to configure the announcement in DMS VoiceMail, all you will have to do is copy the information into the system. You will also have a written record of all of your announcements. This will make it easy for you to identify which announcements need updating without having to go into the system to listen to them. Whenever you reword an announcement, fill in a new worksheet so that you always have the most up-to-date version on file.

The elements of an announcement that need to be planned are

- the wording of the announcement
- the revert DN
- the access and update passwords
- the language in which system prompts are to be played, if multiple languages are installed on the system
- the manner in which the announcement will be accessed

Script the announcement

An announcement is a single recording. There is no separate recorded greeting that will be played before the announcement. All pertinent information (company name, business hours, and so on) needs to be included in the announcement recording.

If the announcement will be played to external callers and will either be directly accessed or accessed through a time-of-day controller, a greeting should be included. Also ensure that your organization is identified so that the caller knows he or she has dialed the correct number. If the announcement will be accessed through a voice menu, a greeting and identification are not necessary since this will have already been played to the caller as part of the voice menu greeting.

If the announcement will be played to internal callers, a greeting is optional and identification of the organization is not necessary.

If the announcement is part of a voice menu and you want to allow callers to return to the main menu after hearing the announcement, the announcement should inform callers that they can press "#" to return to the main menu.

Write the announcement down on a piece of paper. Reword it until you are satisfied with it. When you are ready to fill in the Announcement Definition Worksheet (on page 45), copy the final copy of the script into the worksheet.

Choose an announcement ID and title

The announcement ID identifies the announcement within the system. This number must be unique among all other service definitions. (The ID need only be unique within the customer group. For example ID 2334 can be used in customer groups *x* and *y*.) The ID can be up to 8 digits in length and must consist of the numeric digits 0 to 9 only.

You will use this ID when you

- need to perform voice prompt maintenance on this announcement
- want to include this announcement in a voice menu
- want to use this announcement in a time-of-day controller
- create a service DN for the announcement in the VSDN table

The announcement title should be descriptive enough so that you can easily identify the announcement. The title can be up to 29 characters in length. It cannot include the characters "+", "?", and "_".

Identify the revert DN

A revert DN is optional, though recommended. If you specify one, callers will be reverted to this number if they press "0" during playback of the announcement. If no revert DN is specified, callers will hear the following message if they press "0": *"That selection is not recognized."*

The revert DN can be up to 30 characters in length. The following characters are acceptable:

0...9	Dialed digits
#	Dialed if present in the field
*	3 second pause in dialing
$	Formatting purposes only
( )	Formatting purposes only
_	Formatting purposes only (underscore)
-	Formatting purposes only (hyphen)
spaces	Formatting purposes only

The formatting characters can be used to make the screen display easier to read. (These characters only show up in the screen, they do not generate any corresponding tones.) For example it is easier to decipher 9-(416)-555-1212 than 94165551212. Note that the first character cannot be $.

Note: Common carriers may use some of these formatting characters for other purposes. For example, number sign (#) is used by SkyPager as the numeric pager data terminator character. You may want to contact your common carrier to see if they use any of the other formatting characters.

Identify necessary passwords

Each announcement can have two passwords associated with it: an access password and an update password. Both are optional.

The access password

Use an access password to restrict caller access to an announcement. This can be used in the case of classified information to ensure that only those who are authorized to hear the announcement can gain access. If a password is defined, callers will be prompted for it before hearing the announcement. Without a valid password, they will be denied access to the announcement.

The access password must be between 4 and 16 numeric characters in length. Spaces are not allowed.

The update password

If you are planning on using the voice prompt maintenance service to update announcements, you must define an update password. If the update password is not defined, the voice prompt maintenance service cannot be used to update the announcement. You will only be able to modify the announcement from the administration screen.

The update password must be between 4 and 16 numeric characters in length. Spaces are not allowed.

Choose the language for system prompts (multilingual systems only)

This is necessary only if more than one language is installed on the system. If this is the case, select the language in which *system* prompts are to be played. (Note that this is not a translation of the announcement.)

Identify how the announcement will be accessed

Decide how the announcement will be accessed by callers. An announcement can be accessed in one of three ways:

1   Directly. The caller dials the VSDN of the announcement.

2   Indirectly, through a voice menu application. The number connects the caller to a voice menu. The caller accesses the announcement by pressing the appropriate menu key.

   If you have a number of announcements that are related in some way (for example, they all relate to a particular product line), you can create a voice menu as a front end. Publish the number of the voice menu to your customers.

3 Indirectly, through a time-of-day controller. If the announcement is to be played only at a certain time of day (for business hours or for off-hours), a time-of-day controller is needed to route calls to the right service based on the time of day that a call is received.

For example, if no one is in the office during off-hours, you can associate an announcement which announces that the office is closed and states the business hours, with off-hours in the time-of-day controller.

Announcement Definition Worksheet

Announcement ID: _____

The ID of the announcement. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____

The title of the announcement (up to 29 characters).

Revert DN: _____

(Optional) The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____

(Optional) The password required to access the announcement (to listen to it). This password can be between 4 and 16 numeric characters in length.

Update Password: _____

(Optional) The password required to access the announcement in order to update it using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Language for Prompts: _____

If multiple languages are installed, select the one in which system prompts will be played.

Announcement:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Method of access: Direct ❏ Voice Menu ❏   Time-of-day Controller ❏

VSDN: _____

Configuring announcements

Note: All announcements must be associated with a particular customer group. Therefore, they can only be added at the customer administration level. However, once created, they can be viewed, modified or deleted from the system administration level.

Announcements are added, viewed, modified and deleted from the Announcement Definitions data menu. This menu is invoked from the Voice Services Administration menu, which is accessed from the Voice Administration menu.

Note: An announcement can be added to the system without a corresponding DN having been defined in the VSDN table. This gives you greater flexibility when creating applications because you are free to create announcements first and then assign DNs, or vice versa. However, you must take great care to ensure that all announcements have a corresponding DN in the VSDN table, or are associated with another voice service (such as a voice menu or time-of-day controller). No sanity checking is performed to guard against the possibility of an orphan service definition.
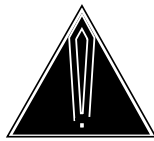
CAUTION
Do not perform voice services administration during nightly DR audit
At 3:30 a.m. every day, an audit of the DR directory is performed. Do not perform voice services administration (which includes adding, modifying and deleting announcements) during this audit. Depending on how unbalanced the 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 3xxx
Accessing the Announcement Definitions data menu

Starting point: The Customer Administration menu

1   Select Voice Administration.

The Voice Administration menu is displayed (Figure 13).

Figure 13xxx
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 | | | | |

* Indicates an option that may not be part of the base software package in
      your country. If optional and not purchased, these items will not be
      displayed.

2   Select Voice Services Administration.

The Voice Services Administration menu is displayed (Figure 14).

Figure 14xxx
The Voice Services Administration menu

ABC Company	Voice Services Administration

	1	Voice Services-DN Table
*	2	Voice Services Profile
	3	Announcement Definitions
	4	Thru-Dial Definitions
	5	Time-of-Day Controls Definitions
	6	Voice Menu Definitions

Select an item >

| Exit | | Set Display Options | | Find Subset of VSDNs/ Services |

* This item is displayed only at the customer administration level.

*__Note 1:__ The [Set Display Options] softkey is only displayed at the system
administration level. See the chapter "Setting the display options" for details.*

Note 2: For information about using the [Find Subset of VSDNs/Services] softkey, refer to the chapter "Using the find function".

3 Select Announcement Definitions.

The Announcement Definitions data menu is displayed (Figure 15).

Figure 15xxx
The Announcement Definitions data menu

ABC Company	Voice Services Administration

Announcement Definitions

ID	Title
210	Department Reorganization
211	Printer Status
212	System Status
213	Benefits Change
222	Club Activities
224	Overtime Policy
229	Health and Safety
234	Security Code

Move the cursor to the item and press the space bar to select.

Exit	Add	View/Modify	Delete	Find

Add an announcement

Announcements are defined in the Add an Announcement Definition screen.

Follow Procedure 4 to create a new announcement definition. Make sure you have your Announcement Definition Worksheet on hand.

Procedure 4xxx
Adding an announcement definition

Starting point: The Announcement Definitions data menu

1 Press the [Add] softkey.

Note: You must be logged on as customer administrator to add an announcement.

The Add an Announcement Definition screen (Figure 16) is displayed.

Figure 16xxx
The Add an Announcement Definition screen

```
ABC Company                    Voice Services Administration

   Add an Announcement Definition

   Announcement ID:    2009____        Title:   Office Closure___

   Revert DN:              _____

   Access Password: _____     Update Password:3459801_____

*  Announcement  Recorded (Voice):    No

** Language for Prompts:               [AmericanEnglish]
                                         CanadianFrench
                                         AmericanSpanish
                                         French

   _____

   Select a softkey >
       Save              Cancel              Voice
```

*   This is a read-only field. If an announcement has been recorded, this
     field will display "Yes".
**   This field is displayed only if more than one language is installed. The
     languages displayed here are for illustration purposes only.

2   Enter the Announcement ID, the Title, and the Revert DN of the new
         announcement.

3   Enter an Access Password and an Update Password if required.

4   Use the [Voice] softkey to record the announcement.

         See the following section, "Recording the announcement", for details.

5   Go to 5a to save the new announcement or 5b to cancel the addition.

    a.   Use [Save].

         *The system saves the new announcement and redisplays the
         Announcement Definitions data menu.*

    b.   Use [Cancel].

         *The new announcement is discarded and the Announcement Definitions
         data menu is redisplayed.*

         ***Note:** Any new voice recordings are also discarded.*

Record the announcement

Announcements can be recorded in one of two ways: from the
administration terminal using the [Voice] softkey, or from a remote DTMF
telephone set using the voice prompt maintenance service. If the
environment around your terminal is noisy, you may prefer to use the voice
prompt maintenance service to call from a phone in a quiet location. This
section describes how to use the [Voice] softkey. The voice prompt

maintenance service is described in the chapter "Using voice prompt maintenance and remote activation".

Procedure 5
Recording an announcement

Starting point: The Add an Announcement Definition screen

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.

The recording softkeys are displayed.

Return	Play	Record	Delete	Disconnect

4   Press the [Record] softkey.

At the sound of the beep, begin speaking into the handset.

Press the [Stop] softkey when you have finished.

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 Services Profile.

5   When you are satisfied with the recording and want to disconnect the call through the softkeys, use step 5a. To disconnect by hanging up, go to step 5b. To return to the original softkeys without disconnecting the extension, go to step 5c.

a. Use [Disconnect]. The line is disconnected and the original softkeys are displayed. If you press [Voice] to access the recording softkeys again, you will have to re-enter the telephone extension.

b. Place the receiver on hook.

The call is terminated and [Return] appears.

Use [Return] to return to the current screen with its original softkeys.

c. Use [Return] softkey. The line is not disconnected (unless you hang up the receiver). The original softkeys are displayed. 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.

6   Press [Save] to save the recording and the announcement definition.

Make the announcement accessible

You can make an announcement accessible to callers in one of three ways:

Direct access

Callers access the announcement by dialing a special DN that connects them directly to the announcement. Follow Procedure 6 to create a VSDN for the announcement. This procedure assumes that there are available hunt groups on the switch.

Procedure 6xxx
Creating a VSDN for an announcement

Starting point: The Customer Administration menu

1   Select Voice Administration.

The Voice Administration menu is displayed.

2   Select Voice Services Administration.

The Voice Services Administration menu is displayed.

3   Select Voice Services-DN Table.

The Voice Services-DN Table is displayed. See Figure 17.

Figure 17xxx
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

4   Press the [Add] softkey.

The Add DN Information screen is displayed. See Figure 18.

Figure 18xxx
The Add DN Information screen (announcement datafill)

```
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:        2009

       Service:          AS      Announcement ID:        201

       Comment:          _____



Select a softkey >

      Save                  Cancel
```

* **All possible services are listed in this screen for illustration purposes.**

5 Enter the access DN.

This is the number that callers will dial to access the announcement.

6 Enter "AS" in the *Service* field.

An additional field, Announcement ID, is displayed.

7 Enter the ID of the announcement that will be retrieved when callers dial the access DN.

8 Enter a comment (this is an optional step).

9 Press [Save] to save the VSDN to the VSDN table.

Indirect access through a voice menu

Callers dial the DN of a voice menu. The announcement is presented as one of the menu choices and is accessed when the caller presses the appropriate key. Figure 19 shows a datafill for a voice menu that serves as a front end to a number of announcements. For instructions on planning and creating a voice menu application, see the chapter "Creating voice menus".

You can either add an announcement to an existing voice menu, or create a new voice menu to serve as a front end to a number of announcements.

If the voice menu already exists, the VSDN will already be defined. If you are going to create a new voice menu, you will have to add the VSDN of the voice menu to the VSDN table. See the chapter "Planning and configuring voice menus" for details.

Figure 19
The Add a Voice Menu Definition screen

ABC Company	**Voice Services Administration**	

Add a Voice Menu Definition

* Choice of Menu Actions:

AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect		EM Express Messaging		PP Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: <u>100</u> Title: <u>Product Info Menu</u>

Revert DN: <u>0</u>

Access Password: <u>_____</u> Update Password: <u>39243221</u>

Greeting Recorded (Voice): Yes Menu Choices Recorded (Voice): Yes

Silent Disconnect: [No] Yes

** Language for Prompts: [AmericanEnglish]
  CanadianFrench
  AmericanSpanish
  French

Key	Action			Comments
1	<u>AS</u>	Announcement ID:	<u>201</u>	<u>Product X</u>
2	<u>AS</u>	Announcement ID:	<u>202</u>	<u>Product Y</u>
3	<u>AS</u>	Announcement ID:	<u>203</u>	<u>Product Z</u>
4	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>
5	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>
6	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>
7	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>
8	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>
9	<u>PP</u>	Recorded (Voice): Yes		<u>_____</u>

Initial No Response <u>RP</u> <u>_____</u>
Delayed Response <u>RV</u>

Select a softkey >

Save	Cancel		Voice	

* Some of these actions are feature-dependent and may not appear on your screen.
** This field is displayed only if more than one language is installed.

Indirect access through a time-of-day controller

Callers dial the DN of the active time-of-day controller and are routed to the announcement depending on the day and time of day. For instructions on planning and creating a time-of-day controller, see the chapter "Planning and configuring time-of-day controllers".

Any one of the three time periods in a time-of-day controller IDs (Business Hours, Off-Hours, or Holiday), can be associated with an announcement ID.

You can either modify an existing time-of-day controller definition or create a new time-of-day controller. If the time-of-day controller already exists, the VSDN will already be defined. If you are going to create a new time-of-day controller, you will have to add the VSDN of the time-of-day controller to the VSDN Table. See the chapter "Planning and configuring time-of-day controllers" for details.

Test the announcement

When you have finished configuring the announcement and have defined the VSDN through which it will be accessed, test it before making it available. Make sure the announcement is accessed when you dial the access DN. Verify the following:

- is the wording of the announcement satisfactory?
- is the quality of the voice acceptable?

In addition, test the following:

- If you have defined a revert DN, press "0" to see if the call is transferred to the correct DN.
- If you have defined an update password, test the voice prompt maintenance service.

Modify the announcement definition as required and save it. See the following section for details. Update your worksheet and file it for future reference.

Modifying an announcement

While an announcement is being updated, the old version of the announcement is still played to callers. The new version takes effect when the updated announcement has been saved. (Detailed field descriptions are in the section on planning and configuring announcements, beginning on page 42.)

Announcements can be modified from either the customer administration level or the system administration level.

The [Find] softkey can be used to retrieve a subset of announcements. For example, before adding an announcement, you may want to verify that a similar one does not already exist. Once you have specified your search criteria on the Find Subset of VSDNs/Services screen and performed the search, the Announcement Definitions data menu will be displayed (if Type is set to Announcement) with the subset of announcements. The [Find] softkey is described in the chapter "Using the find function".

Procedure 7xxx
Modifying announcements

Starting point: The main menu or the Customer Administration menu

1   Select Voice Administration.

2   Select Voice Services Administration.

    The Voice Services Administration menu is displayed (Figure 15).

3   Select Announcement Definitions.

    The Announcement Definitions data menu is displayed (Figure 15). With a long list of announcements, you can use the [Find] softkey as a short cut if you know the ID or part of the name.

4   Move the cursor to the announcement definition you want to view or modify.

5   Press the <Spacebar> to select it.

6   Press [View/Modify] or [Find].

    The View/Modify an Announcement Definition screen (Figure 20) is displayed.

Figure 20xxx
The View/Modify an Announcement screen

ABC Company   **Voice Services Administration**

View/Modify an Announcement Definition

Customer Number: 100   Customer Name: TIKA

Announcement ID: 2009   Title: Office Closure

Revert DN: 0

Access Password: _____   Update Password:3459801

* Announcement Recorded (V oice):   No

Language for Prompts: [AmericanEnglish]
                                        CanadianFrench
                                        AmericanSpanish
                                        French

Select a softkey >

| Save | Cancel | | Voice | |

---

* This field is displayed only if more than one language is installed. The
    languages displayed here are for illustration purposes only.

7 Modify the Announcement ID, Title, and Revert DN of the announcement, as
       required.

8 Change the Access Password and Update Password, if required.

9 Use the [Voice] softkey to re-record the announcement.

       See Procedure 5 on page 50.

10 Go to 10a to save the announcement or 10b to cancel the modifications.

   a. Use [Save].

       *The system saves the announcement and redisplays the Announcement
       Definitions data menu.*

   b. Use [Cancel].

       *Any changes are discarded and the Announcement Definitions data menu
       is redisplayed.*

       Note: *Any modifications to voice recordings are also discarded.*

Deleting an announcement

Announcements are deleted from the Delete an Announcement Definition screen (Figure 21). The fields in this screen are read-only. If the announcement is currently being modified through the voice prompt maintenance service, you cannot delete the announcement until it has been saved.

On multicustomer systems, announcements can be deleted from either the customer administration level or the system administration level.

> *Note:* If the announcement you are deleting is associated with a voice menu or time-of-day controller, be sure to modify the appropriate definitions to account for the absence of this announcement (that is, remove references to this announcement ID within the voice menu or time-of-day controller definition). If the announcement is associated with an entry in the VSDN table, be sure to delete it. VSDNs must not point to deleted services. The system does not perform a sanity check to ensure against this.

Procedure 8xxx
Deleting an announcement

Starting point: The Customer Administration menu

1   Select Voice Administration.
2   Select Voice Services Administration.
3   Select Announcement Definitions.

   The Announcement Definitions data menu is displayed.

4   Move the cursor to the announcement you want to delete, or use the [Find] softkey to locate it.
5   Press the <Spacebar> to select it.
6   Press [Delete].

   The Delete an Announcement Definition screen appears (Figure 21).

Figure 21xxx
The Delete an Announcement Definition screen

ABC Company		**Voice Services Administration**	

Delete an Announcement Definition

Customer Number: 100   Customer Name: TIKA

Announcement ID: 4553000   Title: Job Listing

Revert DN: 0

Access Password: Update Password:115077

Announcement Recorded (V oice):   No

*   Language for prompts: **AmericanEnglish**
                                                       CanadianFrench
                                                       AmericanSpanish
                                                       French

Select a softkey. >

OK to Delete	Cancel				

*   This field is displayed only if more than one language is installed. The
     languages displayed here are for illustration purposes only.

7   Go to step 7a to delete the announcement or step 7b to cancel the deletion.

   a.   Use [OK to Delete].

        *The system deletes the announcement and redisplays the Announcement
        Definitions data menu.*

   b.   Use [Cancel].

        *The announcement is not deleted and the Announcement Definitions data
        menu is redisplayed.*

8   If the announcement was associated with a DN in the VSDN table, go to the
        VSDN table and delete the DN.

        If the announcement was associated with a voice menu or time-of-day
        controller, go to the appropriate service definition, and delete references to the
        announcement.

Planning and configuring thru-dial services

Overview

A thru-dial service allows callers to dial (make their own call) from DMS VoiceMail. It is primarily used within a voice menu or automated attendant, but can be configured as a stand-alone service.

It is only necessary to define a thru-dial service once for each kind of call you'll be needing. For example, create thru-dial services to allow

- in-house calls only
- in-house calls and local calls
- in-house calls and ESN calls
- in-house calls, local and long-distance calls (available to authorized persons only)

The "type" of thru-dial service you create is dependent on the way in which you configure the restriction/permission codes. Each thru-dialing service configured can be password protected to limit access to the thru-dialer for authorized personnel.

Each thru-dial service can be used as many times as you need within different applications. For example, any time you need to allow callers to place local calls from within an automated attendant or voice menu, simply refer to the appropriate thru-dial service.

Security issues

Before configuring any thru-dial services, it is very important to identify how the thru-dial service will affect system security. It is also recommended that you obtain approval from the organization first. Before you configure a thru-dial service, carry out the following steps:

1 Identify the organization's thru-dial policies.

Make sure the organization understands the advantages and disadvantages of allowing thru-dial access, especially when that access allows outbound calling.

2   Review the Voice Security Options screen.

Four sets of restriction/permission codes are defined in the Voice Security Options screen (at the system administration level). Their default names are "On Switch", "Local", "Long Distance 1", and "Long Distance 2".

Since you must assign a restriction/permission set to every thru-dial service you create, one of the existing sets may be adequate. Review what types of calls each set allows before you begin. If none of the existing restriction/permission sets are adequate, you can create a custom set of restriction/permission codes.

The section "Identify restriction/permission sets" provides more detail.

Most thru-dial services you will use will probably only allow callers to dial extensions that are on the switch. In this case, make sure you apply the appropriate restriction/permission codes to ensure security.

If you are going to use thru-dial services that allow long-distance or international dialing, the following precautions should be followed:

- Assign an Access Password to the thru-dial service.

   Give out the access password only to authorized personnel. Without this password, a caller will not be able to gain access to the service.

   This password is described in the section "Identify necessary passwords".

- Give out the thru-dial service access number to authorized personnel only.

Creating a thru-dial service-an outline

The creation of a thru-dial service involves the following steps:

Planning

1 Choose the thru-dial service ID and name.

2 Identify the revert DN.

3 Identify necessary passwords.

4 Choose the dialing method.

5 Specify the DN length.

6 Identify if pad characters are required.

7 Script the greeting.

8 Identify the language in which system prompts are to be played (if multiple languages are installed on the system).

9 Identify the necessary restriction/permission codes.

10 Identify how the thru-dial service will be accessed.

Configuring

1 Add the thru-dial definition in DMS VoiceMail.

2 Record the greeting.

3 Define the VSDN of the thru-dial service or the service through which it will be accessed.

4 Test the thru-dial service.

5 Cut the service over.

Maintaining

1 Monitor the use of the thru-dial service using operational measurements.

2 Modify the thru-dial service when necessary.

3 Delete the thru-dial service if it is no longer needed.

Planning a thru-dial service

Make a copy of the Thru-Dial Definition Service Worksheet on page 72. (There is also a copy of this worksheet in Appendix A.) As you plan your thru-dial service, fill in the worksheet. Then, when you are ready to configure the thru-dial service in DMS VoiceMail, all you will have to do is copy the information into the system. You will also have a written record of all of your thru-dial services. Whenever you alter a thru-dial service, fill in a new worksheet so that you always have the most up-to-date version on file.

Choose a thru-dial ID and title

The thru-dial ID identifies the thru-dial service within the system. This number must be unique among all other service definitions within the customer group. For example ID 2334 can be used in customer groups *x* and *y*. The ID can be up to 8 digits in length and must consist of the numeric digits 0 to 9 only.

You will use this ID when you

- need to perform remote voice prompt maintenance on thru-dial greeting
- want to include this thru-dial service in a voice menu
- want to include this thru-dial service in a time-of-day controller
- create a service DN for the thru-dial service in the VSDN table

The thru-dial service title should be descriptive enough so that you can easily identify the service. The title can be up to 29 characters in length. It cannot include the characters "+", "?", and "_".

Identify the revert DN

A revert DN is mandatory. Callers will be transferred to this number if they press "0" while connected to the thru-dial service.

Note: Be sure to specify in the greeting that "0" can be pressed to transfer to an operator.

The revert DN can be up to 30 characters in length. The following characters are acceptable:

0...9   Dialed digits

Dialed if present in the field

*   3 second pause in dialing

$ Formatting purposes only. Note that the first character cannot be $.

( )   Formatting purposes only

_   Formatting purposes only (underscore)

-         Formatting purposes only (hyphen)

spaces   Formatting purposes only

The formatting characters can be used to make the screen display easier to read. (These characters only show up in the screen, they do not generate any corresponding tones.) For example it is easier to decipher 9-(416)-555-1212 than 94165551212. Note that the first character cannot be $.

Note: Common carriers may use some of these formatting characters for other purposes. For example, number sign (#) is used by SkyPager as the numeric pager data terminator character. You may want to contact your common carrier to see if they use any of the other formatting characters.

Identify necessary passwords

Each thru-dial service can have two passwords: an access password and an update password. Both are optional.

The access password

Use an access password to restrict caller access to the thru-dial service. For thru-dial services that allow on-switch (or local) dialing only, an access password is probably not necessary. However, for those thru-dial services that allow long-distance or international dialing, an access password will guarantee that only authorized personnel are able to gain access to the service. You will have to provide authorized personnel with this password and inform them whenever it is changed. Without a valid password, callers will not be allowed access to the service.

The access password must be between 4 and 16 numeric characters in length. Spaces are not allowed.

The update password

If you are planning on using the voice prompt maintenance service to update the thru-dial greeting, you must define an update password. If the update password is not defined, the voice prompt maintenance service cannot be used to update the greeting. You will only be able to modify the greeting from the administration terminal.

The update password must be between 4 and 16 numeric characters in length. Spaces are not allowed.

Choose the dialing method

Depending on how you have configured the thru-dial service, callers can be given the option to dial the following:

- the extension number of the person they want to reach
- the name of the person they want to reach
- the name or number of the person they want to reach

The dialing method you choose will affect the greeting that you record because the greeting must include instructions on how to place a call. If you do not record a custom greeting, a system greeting will be played. There are several system greetings. The one that is played depends on the dialing method that is selected. See the section "System greetings" on page 68.

Dial by number

If the dialing method is dial by number only, callers must enter the extension number of the person.

If this dialing method is selected, you will also have to specify whether the DN length is fixed or variable. For variable DN length, you must use a pound sign (#) after the number.

Dial by name

If the dialing method is dial by name only, callers must enter the person's name by spelling out the last name first, followed by the first name using the numeric keys on the telephone pad. (If this method is selected, the DN length is automatically set to variable.)

For example, to spell out the name "Fred Frith", a caller would enter the following:
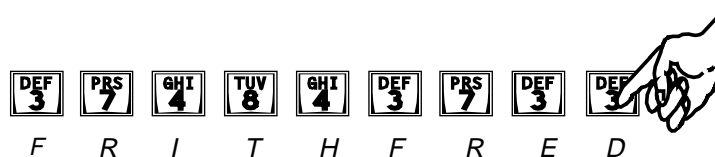
As soon as a match is made (this will likely occur before the caller has finished entering the name), the system will play the message *"Calling <personal verification>"* and then place the call. If no personal verification is recorded, the extension will be played. If more than one person has been found, DMS VoiceMail will prompt the caller to enter more of the name if they know it. (For example, if the caller has entered "j-o-n-e-s-s", there may be more than one person matching this pattern. The caller will therefore have to specify more of the first name until a unique match is found.) If DMS VoiceMail finds more than one occurrence of the full name, the caller will be asked to press 1 or 2, and so on, for each occurrence found. This will

play the person's personal verification (if recorded). The caller can then choose which person they want to speak to and press the appropriate key to place the call.

> *Note:* To choose dial by name, name dialing and name addressing must be enabled. Check the Voice Messaging Options screen (for the customer group) to verify that this feature is enabled if you want to allow callers to dial by name.

Dial by number or by name (caller choice)

The caller is given the choice of dialing by number or by name. This dialing method provides the most flexibility since some callers may know extension numbers (which are quicker and easier to enter), and others will only know the name of the person to whom they want to speak.

If a caller wants to dial by number, he or she simply enters the extension number followed by number sign. If the caller wants to dial by name, he or she must enter the name dialing prefix first, followed by the last name and then the first name. The name dialing prefix "warns" the system that the digits that are about to be entered are to be interpreted as alphabetic characters. The name dialing prefix is configured in the Voice Messaging Options screen. (This prefix is also used when users perform name addressing when composing messages.) The default is "11".

> *Note:* To choose dial by number or name, name dialing and name addressing must be enabled. Check the Voice Messaging Options screen (for the customer group) to verify that this feature is enabled if you want to allow callers to dial by name.

Specify the DN length

If the dialing method is dial by number only, you must specify whether DNs are of a fixed length (that is, all DNs in the numbering plan are of the same length), or variable.

If, for example, DNs are fixed at 4 digits, anyone trying to dial a shorter DN will not get through. If a caller tries to dial a longer DN, only the first 4 numbers dialed will be used and the wrong person may be reached.

If all of the DNs on the switch are the same length, specify the length as fixed. If the DN length is fixed, you must set the number of digits in all DNs and the left pad character(s) (if any). With a fixed DN length, callers will not have to press the number sign (#) after the number they are calling.

If the DNs that are configured on the switch are of different lengths (such as 2334 and 54412), the DN length must be set to variable, otherwise callers may not be able to complete DN entry. When the DN length is set to variable, callers must enter "#" (number sign) when they have finished

entering the number. This must, therefore, be communicated in the thru-dial greeting.

Identify if pad characters are required

If the dialing method is by number only and the DN length is fixed, you can use left pad characters if necessary or desirable. Left pad characters allow callers to dial less numbers than the actual DN requires. (If you are not going to use left pad characters, simply leave the *Left Pad* field blank in DMS VoiceMail.) The following examples will give you an idea of how left pad characters can be used for convenience in dialing.

Example 1

Your site and another site in the organization are on the ESN network. Employees at your site communicate with the employees at the remote site frequently. The ESN access code is "6" and the ESN prefix of the remote site is "775". (Therefore, local users enter numbers in the format "6775XXXX".) To make it more convenient for employees to call this other site, you create a thru-dial service using pad characters.

The DN length is fixed at 8 characters. The left pad characters are "6775". Local users can access the thru-dial service and enter the extension of the user at the remote site (XXXX).

Example 2

Callers who frequently use a thru-dial service that is accessed through a voice menu do not want to have to touch a key to access the thru-dial feature first. They just want to start dialing the extension. For example: *"If you know your party's extension, start dialing now."*

To create this service

1 Identify all of the extensions that need to be dialed using the thru-dial service (that is, all 2XXX, 3XXX and 4XXX).

2 Build the voice menu and assign each thru-dial service to the key on which the lead digit of the extension begins.

1	...
2	Thru-dial service
3	Thru-dial service
4	Thru-dial service
5	...
6	...
7	...
8	...
9	...

3   Create three thru-dial services.

a.   For the service assigned to key 2 in the menu, fix the DN length (to 4 in this example). The left pad character is "2".

b.   For the service assigned to key 3 in the menu, fix the DN length (to 4). The left pad character is "3".

c.   For the service assigned to key 4, fix the DN length (to 4). The left pad character is "4".

d.   For each of the thru-dialers configured, do not record a greeting. This will ensure that the caller is not interrupted with repeated instructions.

When a caller starts dialing "2339" for example, the "2" selects the thru-dial service assigned to key 2, and the left pad character "2" is inserted in front of "339" to generate "2339". The caller is not even aware that he accessed a thru-dial service.

Script the thru-dial greeting

This greeting is played when a caller connects to the thru-dial service. If no custom greeting is recorded, a system greeting is played. The wording of the system greeting depends on the dialing method chosen. Examples are given on the following page in the section called "System greetings".

Take the following points into consideration when scripting the greeting:

- If the thru-dial service is intended for external callers and is accessed directly or through a time-of-day controller, include a courteous introductory greeting that identifies your organization to the caller.

- If the thru-dial service is intended for external callers and is accessed through a voice menu, an introductory greeting is not required since the voice menu greeting will have already been played to the caller. The thru-dial greeting will consist of instructions only.

- If the thru-dial service is intended for internal callers, an introductory greeting is not required. The greeting will consist of instructions only.

ll custom thru-dial greetings should do the following:

- Instruct the caller how to dial.
  - Inform the caller if he or she must enter an extension number or a name, or if the caller has the choice.
    - If the caller must enter the extension number (and the DN length is fixed), the caller only needs to enter the extension number.

- If the caller must enter the extension number and the DN length is variable, the caller must enter number sign (#) after entering the number.

- If the caller must enter a name, the caller must begin with the last name, followed by the first name.

- If the caller is given the choice, include instructions about using the name dialing prefix. For example, the system greeting says: *"Please enter the number or the name of the person you wish to reach, followed by number sign. To enter a name, press one one, spell the last name and then spell the first name."* If you have changed the name dialing prefix from the default of "1-1", be sure to include the correct prefix in the greeting.

- Instruct the caller how to transfer to a live attendant.

- Include special instructions for rotary phone users, if necessary.

  Because rotary phone users will not be able to use the thru-dial service, inform them of the action they should take. For example, you could ask them to stay on the line for operator assistance. If the thru-dial service is active during off-hours when there is no operator on duty, you might inform callers of your business hours and ask them to call back the following business day.

System greetings

If you do not record a custom thru-dial greeting, one of the following system greetings will be played, depending on the dialing method.

Dial by number only, fixed DN length

"Please enter the number of the extension you wish to dial. If you need assistance, just press zero."

Dial by number only, variable DN length

"Please enter the number of the extension you wish to dial, followed by number sign. If you need assistance, just press zero."

Dial by name only

"Please enter the name of the person you wish to reach, followed by number sign. To enter a name, spell the last name and then spell the first name."

Dial by number or name

"Please enter number or the name of the person you wish to reach, followed by number sign. To enter a name, press one one, spell the last name and then spell the first name." (Where 1-1 is the name dialing prefix, which is the default and can be changed.).

Choose the language for system prompts (multilingual systems only)

This is necessary only if more than one language is installed on the system. If this is the case, select the language in which all *system* prompts are to be played. (Note that this is not a translation of a custom thru-dial greeting.)

Identify the necessary restriction/permission codes

As system administrator, it is your responsibility to take all necessary precautions to prevent security breaches. Thru-dial services, if not adequately protected, are a potential target for unauthorized persons to abuse the DMS VoiceMail system.

Restriction/permission codes allow you specify which extension/phone numbers are restricted and which numbers are allowed. Any dialing code can be entered as a restriction or permission code. A dialing code can be an extension number (on the switch) or any dialing prefix that is used for dialing out of the switch (such as "9" for local calls, "91" for long distance calls, "6" for ESN calls, and so on).

DMS VoiceMail allows you to define four restriction/permission sets for the system. These are defined in the Voice Security Options screen (at the system administration level). Once defined, these sets can be applied to a number of different features, including thru-dial services. You can either assign one of these four restriction/permission sets to the thru-dial services you create, or you can create a custom set to meet any specific requirements.

Each restriction/permission set can contain up to 10 restriction codes and 10 permission codes. Each code can be up to five digits in length. Restriction codes are used to describe the general rule and permission codes are used to describe the exceptions.

For example, you might want to create a restriction/permission set that allows only on-switch calls (local calls, long-distance calls and international calls are restricted). The exception is that you want this set to allow certain local calls, such as "911", in case of emergency.

The restriction/permission set would look as follows for this example:

Restriction codes: __ 1   2   __ 4   5   6   7   8   9

Permission codes: 9911

Where:

9   is the access code for local calls.

3   is the extension prefix.

0   is the attendant.

You will notice that you do not have to enter "9", "91" and "9011" as restriction codes. You only need to enter "9". This will restrict all dialing codes beginning with "9". All ESN calls are also restricted in this example, since "6" is the ESN access code. However, because you want to allow "911" which begins with "9", it must be included as a permission code since it is an exception to the rule that "numbers beginning with '9' are not allowed".

The following are examples of three types of thru-dial services you could create and the corresponding restriction/permission codes.

On-switch

To create a thru-dial service that allows calls to extensions on the switch only, you can take one of two approaches:

- Enter the trunk access code (that is, the number used to dial out of the switch, commonly "9") as a restriction code. (If your site is part of an ESN network, you would also include the ESN access code as a restriction code.) Any exceptions would be entered as permission codes.

  Restriction Codes: 9__ 6__

- From the restriction list, remove those numbers with which internal extensions begin. For example, if all on switch extensions start with either 2 or 3, your restriction set would be as follows:

  Restriction codes: 0__ 1__ 4__ 5__ 6__ 7__ 8__ 9__

  Note: If the table is used for a customer divert, the 0 would be removed. You may want to revert to an attendant.

Local calls

To create a thru-dial service that allows calls to extensions on the switch as well as local calls, you would enter the long distance dialing code and the international dialing code as the restriction codes. Block 90 as well to prevent long distance calling through the operator.

Restriction codes: 91__ 9011__   90

Long distance

To create a thru-dial service that allows long distance calls, but not international calls, you would enter the international dialing code as the restriction code.

Restriction Codes: 9011_

Identify how the thru-dial service will be accessed

Decide how the thru-dial service will be accessed by callers. A thru-dial service can be accessed in one of three ways:

1   Directly. The caller dials the VSDN of the thru-dial service and is immediately connected to the thru-dial service. The VSDN of the thru-dial service is the published number.

2   Indirectly, through a voice menu application. The published number connects the caller to a voice menu. The caller accesses the thru-dial service by pressing the appropriate menu key.

   If you want callers to have the option of dialing by name or by number but don't want them to have to enter a name dialing prefix, you can create two thru-dial services: one that allows dialing by number only and one that allows dialing by name only. You can then create a voice menu as a front end to the two services. When a caller connects to the voice menu he would hear something like: *"To dial the extension of the person you want to talk to, press 1". To enter the person's name, press 2."*

3   Indirectly, through a time-of-day controller. A thru-dial service can be activated depending on the day and time of day at which a call is received (either business hours, off-hours or holidays).

   For example, during off-hours you can have a thru-dial service be activated to route calls (if a number of employees do work after normal business hours).

Thru-Dial Definition Worksheet   Page 1 of 2

Thru-Dial ID: _____
The ID of the thru-dial service. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____
The title of the thru-dial service (up to 29 characters).

Revert DN: _____
(Mandatory) The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____
(Optional) The password required to use the thru-dial service. This password can be between 4 and 16 numeric characters in length.

Update Password: _____
(Optional) The password required to update the thru-dial greeting using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Thru-dial greeting:
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Language for Prompts: _____
If multiple languages are installed, select the language in which system prompts will be played.

Thru-Dial Definition Worksheet   Page 2 of 2

Dial by: Number❏   **Name**❏   **Both** ❏
The method by which callers can dial.

        (If Dial by Number) DN Length: Fixed❏   **Variable**❏
        Choose fixed if all DNs are of the same length, or Variable if they are of varying lengths.

        (If Fixed) Digits: _____   **Left Pad:** _____
        Digits is the number at which the DN length is fixed.

Restriction/Permission Set: **Custom**❏   **OnSwitch**❏   **Local** ❏
                          LongDistance 1❏ **LongDistance 2** ❏

If the restriction/permission set is Custom, specify the restricted and permitted dialing codes
for this thru-dial service in the following fields.

Custom Restriction Codes:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Custom Permission Codes:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Method of access: Direct ❏ **Voice Menu** ❏   **Time-of-day Controller**❏

VSDN: _____

Configuring a thru-dial service in DMS VoiceMail

Note 1: All thru-dial services must be associated with a particular customer group. Therefore, they can only be created at the customer administration level. However, once created, they can be viewed, modified or deleted from the system administration level.

Note 2: A thru-dial service can be added to the system without a corresponding DN having been defined in the VSDN table. This gives you greater flexibility when creating applications because you are free to create voice services first and then assign DNs, or vice versa. However, you must take great care to ensure that all thru-dial services have a corresponding DN in the VSDN table, or are associated with another voice service (such as a voice menu or time-of-day controller). When you do have a DN in the VSDN table, make sure you have a corresponding DN set up on the switch. No sanity checking is performed to guard against the possibility of an orphan service definition.

Thru-dial services are added, viewed, modified and deleted from the Thru-Dial Definitions data menu. This menu is invoked from the Voice Services Administration menu, which is accessed from the Voice Administration menu.

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 voice services administration (which includes adding, modifying and deleting thru-dial services) 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). For information on performing audits, see the section "Audit all volumes" in *System Administration Tools*.

Procedure 9xxx
Accessing the Thru-Dial Definitions data menu

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

The Voice Administration menu is displayed (Figure 22).

Figure 22xxx
The Voice Administration Menu
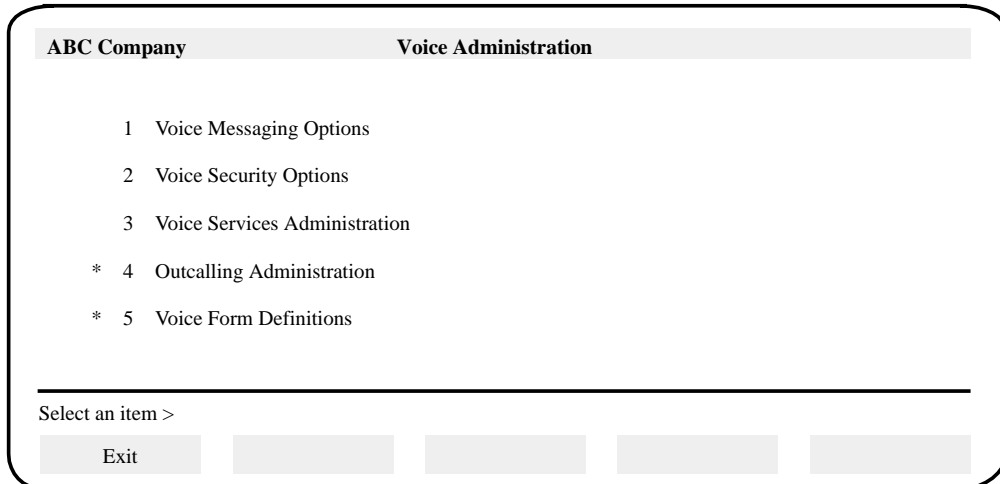
ABC Company	Voice Administration
1 Voice Messaging Options	
2 Voice Security Options	
3 Voice Services Administration	
* 4 Outcalling Administration	
* 5 Voice Form Definitions	

Select an item >

| Exit | | | | |

* Indicates an option that may not be part of the base software package
   in your country. If optional and not purchased, these items will not
   be displayed.

2 Select Voice Services Administration.

The Voice Services Administration menu is displayed (Figure 23).

Figure 23xxx
The Voice Services Administration Menu

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

Select an item >

Exit		Set Display Options		Find Subset of VSDNs/ Services
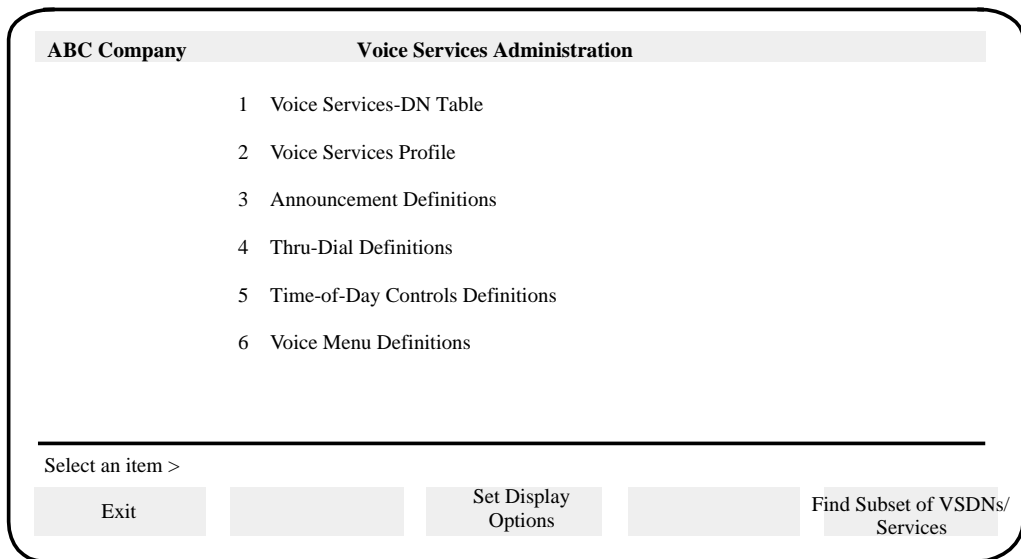
3   Select Thru-Dial Definitions.

The Thru-Dial Definitions data menu is displayed (Figure 24).

Figure 24
The Thru-Dial Definitions data menu

ABC Company	Voice Services Administration
ID	Title
1000	Automated Attendant
1001	Access to ESN
1002	Access to all numbers
1223	Automated Attendant
2555	Access to Local Calls
4356	Access to Long-distance Calls
4360	Access to ESN
5001	Access to all numbers

Move the cursor to the item and press the space bar to select. >

Exit	Add	View/Modify	Delete	Find
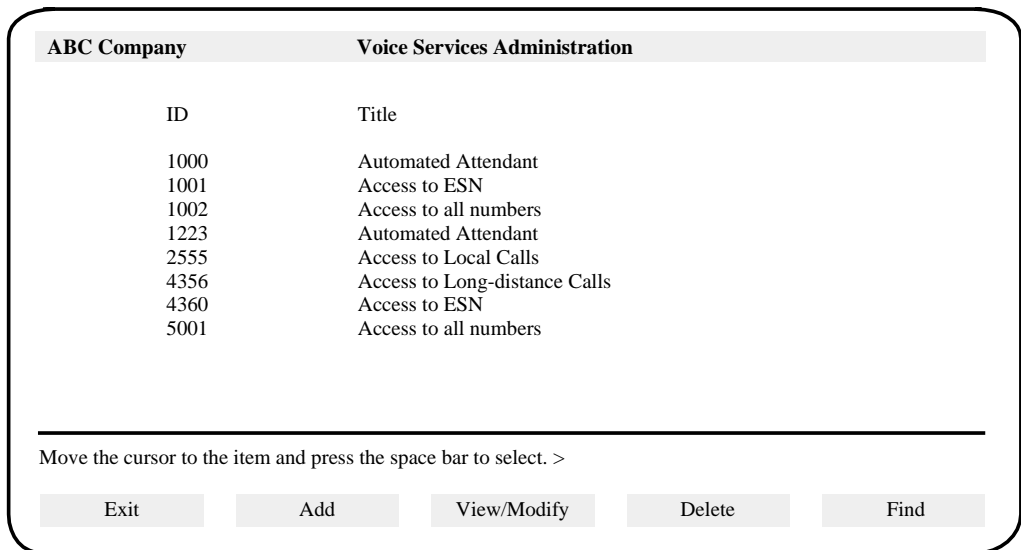
Note: If this menu is accessed at the system administration level it appears as shown in Figure 25. (The Customer # is displayed.)

Figure 25
The Thru-Dial Definitions data menu (system administration level)

```
┌─────────────────────────────────────────────────────────────────────────┐
│                      Voice Services Administration                        │
│                                                                           │
│   Thru-Dial Definitions                                                   │
│                                                                           │
│                                                                           │
│   Customer #    ID               Title                                    │
│                                                                           │
│   100           1223             Automated Attendant                      │
│   100           2555             Access to Local Calls                    │
│   100           4356             Access to Long-distance Calls            │
│   100           4360             Access to ESN                            │
│   100           5001             Access to all numbers                    │
│   125           1000             Automated Attendant                      │
│   125           1001             Access to ESN                            │
│   125           1002             Access to all numbers                    │
│                                                                           │
│   Move the cursor to the item and press the space bar to select.  >       │
│                                                                           │
│     Exit              Add           View/Modify        Delete       Find  │
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
```

Add a thru-dial definition

Thru-dial definitions are defined in the Add a Thru-Dial Definition screen. Follow Procedure 10 to create a new thru-dial service. Make sure you have your worksheet on hand.

Procedure 10xxx
Adding a thru-dial definition

Starting point: The Thru-Dial Definitions data menu

1   Press the [Add] softkey.

Note: You must be logged on as customer administrator to add an announcement.

The Add a Thru-Dial Definition screen (Figure 26) is displayed.

Figure 26xxx
The Add a Thru-Dial Definition screen

ABC Company   **Voice Services Administration**

Add a Thru-Dial Definition

Thru-Dial ID: _____   Title: _____

Revert DN: _____

Access Password: _____   Update Password: _____

Greeting Recorded (Voice):   No

\# Language for Prompts: [AmericanEnglish]
                                          CanadianFrench
                                          AmericanSpanish

* Dial by: [Number] Name Both

** DN Length: Variable [Fixed] + Digits:____ Left Pad:_____

++ Restriction/Permission Set: [Custom] OnSwitch Local LongDistance1
                                          LongDistance2

\#\# Restriction Codes:0__ 1__ 2__ 3__ 4__ 5__ 6__ 7__ 8__ 9__

\#\# Permission Codes: __ __ __ __ __ __ __ __ __ __

Select a softkey >

| Save | Cancel | | Voice | |

\#   This field is displayed if multiple languages are installed.
*   "Name" and "Both" are displayed only if Name Dialing is enabled.
**   "DN Length" is displayed only if Dial by is set to "Number".
\+   "Digits" and "Left Pad" are displayed only if "Fixed" is selected.
++   The set names displayed in this field are defaults and may be different on your system.
\#\#   These fields are displayed only if the Restriction/Permission set is Custom.

2   Enter the Thru-Dial ID, the Title, and the Revert DN.

3   Enter an Access Password and an Update Password if required.

4   Use the [Voice] softkey to record the greeting.

See the following section, "Recording the thru-dial greeting", for details.

5   If more than one language is installed on the system, specify the language in which system prompts are to be played.

6   Choose the dialing method (one of Number, Name or Both).

   a.   If the dialing method is Number, specify the DN Length (Variable or Fixed).

   b.   If the DN Length is Fixed, specify the Digits and Left Pad.

7   Select the appropriate restriction/permission set.

If you select Custom, specify up to 10 restriction codes and permission codes.

8   Go to 8a to save the thru-dial service or 8b to cancel the addition.

   a.   Use [Save].

The system saves the thru-dial service and redisplays the Thru-Dial Definitions data menu.

b. Use [Cancel].

The thru-dial definition is discarded and the Thru-Dial Definitions data menu is redisplayed.

Note: *Any new voice recordings are also discarded.*

Record the thru-dial greeting

Thru-dial greetings can be recorded in one of two ways: from the administration terminal using the [Voice] softkey, or from a remote DTMF telephone set using the voice prompt maintenance service. If the environment around your terminal is noisy, you may prefer to use the voice prompt maintenance service to call from a phone in a quiet location. This section describes how to use the [Voice] softkey. The voice prompt maintenance service is described in the chapter "Using voice prompt maintenance and remote activation".

Procedure 11
Recording the thru-dial greeting

Starting point: The Add a Thru-Dial Definition screen

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.

The recording softkeys are displayed.

Return	Play	Record	Delete	Disconnect

4   Press the [Record] softkey.

At the sound of the beep, begin speaking into the handset.

Press the [Stop] softkey when you have finished.

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 Services Profile.

5   When you are satisfied with the recording and want to disconnect the call through the softkeys, use step 5a. To disconnect by hanging up, go to step 5b. To return to the original softkeys without disconnecting the extension, go to step 5c.

    a. Use [Disconnect]. The line is disconnected and the original softkeys are displayed. If you press [Voice] to access the recording softkeys again, you will have to re-enter the telephone extension.

    b. Place the receiver on hook.

       The call is terminated and [Return] appears.

       Use [Return] to return to the current screen with its original softkeys.

    c. Use [Return] softkey. The line is not disconnected (unless you hang up the receiver). The original softkeys are displayed. 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.

6 Press [Save] to save the recording and the thru-dial definition.

Make the thru-dial service accessible

You can make an announcement accessible to callers in one of three ways:

Direct Access

Callers access the thru-dial service by dialing the VSDN of the thru-dial service. Follow Procedure 12 to create a VSDN for the thru-dial service. This procedure assumes that there are available hunt groups on the switch.

Procedure 12xxx
Creating a VSDN for an announcement

Starting point: The Customer Administration menu

1 Select Voice Administration.

The Voice Administration menu is displayed.

2 Select Voice Services Administration.

The Voice Services Administration menu is displayed.

3 Select Voice Services-DN Table.

The Voice Services-DN Table is displayed. See Figure 27.

Figure 27xxx
The Voice Services-DN Table

```
ABC Company                    Voice Services Administration

Voice Services-DN Table


   DN                 Service      ID         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/        Delete        Find
                               Modify
```

4 Press the [Add] softkey.

The Add DN Information screen is displayed. See Figure 28.

Figure 28xxx
The Add DN Information screen (thru-dial service datafill)

```
 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:        3009

     Service:      TS   Thru-Dial ID:    399

     Comment:          _____


Select a Softkey >

   Save            Cancel
```

* All possible services are listed in this screen for illustration purposes.

5 Enter the access DN.

This is the number that callers will dial to access the announcement.

> **6** Enter "TS" in the *Service* field.
>
> *An additional field, Thru-Dial ID, is displayed.*
>
> **7** Enter the ID of the thru-dial service that will be retrieved when callers dial the access DN.
>
> **8** Enter a comment (this is an optional step).

Indirect access through a voice menu

Callers dial the DN of a voice menu. The thru-dial service is presented as one of the menu choices and is accessed when the caller presses the appropriate key. For instructions on planning and creating a voice menu application, see the chapter "Planning and configuring voice menus".

If you are adding the thru-dial service to an existing voice menu, the VSDN will already be defined. If you are going to create a new voice menu, you will have to add the VSDN of the voice menu to the VSDN table. See the chapter "Planning and configuring voice menus" for details.

Indirect access through a time-of-day controller

Callers dial the DN of the active time-of-day controller and are routed to the thru-dial service depending on the day and time of day. For instructions on planning and creating a time-of-day controller, see the chapter "Planning and configuring time-of-day controllers".

Any one of the three time periods in a time-of-day controller IDs (Business Hours, Off-Hours, or Holiday), can be associated with a thru-dial service ID.

You can either modify an existing time-of-day controller definition or create a new time-of-day controller. If the time-of-day controller already exists, the VSDN will already be defined. If you are going to create a new time-of-day controller, you will have to add the VSDN of the time-of-day controller to the VSDN Table. See the chapter "Planning and configuring time-of-day controllers" for details.

Test the thru-dial service

Do the following:

- Dial the DN that accesses the thru-dial service.

  - If you hear "This service is not currently available", check the VSDN table to ensure that you have defined the VSDN of the service.

  - If you hear a fast busy signal, make sure there is a corresponding queue (or hunt group) on the switch. Make sure the queue (or hunt group) forwards to the primary voice messaging queue.

- Listen to the custom greeting. Does it adequately explain how to use the thru-dial service?

- Try dialing a number of extensions to see if you get through successfully (or dial a number of names if that is how the service is set up).

Modify the thru-dial service definition if necessary and save it. Test the service again to make sure the changes you made have solved the problem. Update your worksheet and file it for future reference.

Modifying a thru-dial service

While a thru-dial service is being updated, the old version of the thru-dial service is still played to callers. The new version takes effect when the updated thru-dial service has been saved. (Detailed field descriptions are in the section on planning, beginning on page 62.)

Thru-dial services can be modified from either the customer administration level or the system administration level.

Procedure 13xxx
Modifying thru-dial services

Starting point: The main menu or the Customer Administration menu

1   Select Voice Administration.
2   Select Voice Services Administration.
3   Select Thru-Dial Definitions.

   The Thru-Dial Definitions data menu is displayed.

4   Move the cursor to the thru-dial definition you want to view or modify.
5   Press the <Spacebar> to select it.
6   Press [View/Modify].

   The View/Modify a Thru-Dial Definition screen (Figure 29) is displayed.

Figure 29xxx
The View/Modify a Thru-Dial Definition screen

ABC Company	Voice Services Administration

View/Modify a Thru-Dial Definition

Customer Number: 100   Customer Name: TIKA

Thru-Dial ID: _____   Title: _____

Revert DN: _____

Access Password: _____   Update Password: _____

Greeting Recorded (Voice):   No

*   Language for Prompts: [AmericanEnglish]
                                                    CanadianFrench
                                                    AmericanSpanish

** Dial by: [Number] Name Both

\#   DN Length: Variable [Fixed] \#\# Digits:____ Left Pad:_____

\+   Restriction/Permission Set: [Custom] OnSwitch Local LongDistance1
                                                    LongDistance2

\+\+ Restriction Codes:0__   1__ 2__   3__ 4__ 5__ 6__ 7__ 8__ 9__

\+\+ Permission Codes: __ __ __ __ __ __ __ __ __ __

Select a softkey >

Save	Cancel		Voice	

*   This field is displayed only if more than one language is installed.
** "Name" and "Both" are displayed only if Name Dialing is enabled.
\#   "DN Length" is displayed only if Dial by is set to "Number".
\#\# "Digits" and "Left Pad" are displayed only if "Fixed" is selected.
\+   The set names displayed in this field are defaults and may be different on your system.
\+\+ These fields are displayed only if the Restriction/Permission set is Custom.

7   Modify any of the fields as required.

8   Re-record the custom greeting if necessary.

9   Go to 9a to save the thru-dial definition or 9b to cancel the modifications.

   a. Use [Save].

      The system saves any changes and redisplays the Thru-Dial Definitions data menu.

   b. Use [Cancel].

      Any changes are discarded and the Thru-Dial Definitions data menu is redisplayed.

      Note: *Any modifications to voice recordings are also discarded.*

Deleting a thru-dial service

Thru-dial definitions are deleted from the Delete a Thru-Dial Definition screen (Figure 30). The fields in this screen are read-only. If the thru-dial greeting is currently being modified through the voice prompt maintenance service, you cannot delete the service until it has been saved.

Thru-dial definitions can be deleted from either the customer administration level or the system administration level.

Note: If the thru-dial service you are deleting is associated with a voice menu or time-of-day controller, be sure to modify the appropriate definitions to account for the absence of this thru-dial service (that is, remove references to this thru-dial ID within the voice menu or time-of-day controller definition). If the thru-dial service is associated with an entry in the VSDN table, be sure to delete it. VSDNs must not point to deleted services. The system does not perform a sanity check to ensure against this.

Procedure 14xxx
Deleting a thru-dial service

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Thru-Dial Definitions.

The Thru-Dial Definitions data menu is displayed.

4 Move the cursor to the thru-dial definition you want to delete.

5 Press the <Spacebar> to select it.

6 Press [Delete].

The Delete a Thru-Dial Definition screen appears (Figure 30).

Figure 30xxx
The Delete a Thru-Dial Definition screen

```
┌─────────────────────────────────────────────────────────────────────────────┐
│  ABC Company            Voice Services Administration                         │
│                                                                               │
│   Delete a Thru-Dial Definition                                               │
│                                                                               │
│   Customer Number:       100              Customer Name: TIKA                  │
│                                                                               │
│   Thru-Dial ID:       309          Title:  LongDist                           │
│                                                                               │
│   Revert DN:             0                                                     │
│                                                                               │
│   Access Password:    7788991         Update Password: 234987                 │
│                                                                               │
│   Greeting Recorded (Voice):        No                                        │
│                                                                               │
│ *  Language for Prompts:             AmericanEnglish                          │
│                                      Canadian French                          │
│                                                                               │
│ ** Dial by:                          Number  Name  Both                       │
│                                                                               │
│ #  Restriction/Permission Set:    Custom  On_Switch  Local                    │
│                                       LongDistance_1 LongDistance_2            │
│                                                                               │
│ ## Restriction Codes:     9011                                                │
│                                                                               │
│ ## Permission Codes:                                                          │
│  ─────────────────────────────────────────────────────────────────────       │
│  Select a softkey >                                                           │
│                                                                               │
│    OK To Delete            Cancel                                             │
└─────────────────────────────────────────────────────────────────────────────┘
```

* This field is displayed only if more than one language is installed.
** "Name" and "Both" are displayed only if Name Dialing is enabled.
\# The set names displayed in this field are defaults and may be different on your system.
\#\# These fields are displayed only if the Restriction/Permission set is Custom.

7 Go to step 7a to delete the thru-dial definition or step 7b to cancel the deletion.

    a. Use [OK to Delete].

       The system deletes the thru-dial definition and redisplays the Thru-Dial Definitions data menu.

    b. Use [Cancel].

       The thru-dial definition is not deleted and the Thru-Dial Definitions data menu is redisplayed.

8 If the thru-dial service was associated with a DN in the VSDN table, go to the VSDN table and delete the DN.

If the thru-dial service was associated with a voice menu or time-of-day controller, go to the appropriate service definition, and delete references to the thru-dial service.

Planning and configuring time-of-day controllers

Overview

A time-of-day controller activates a particular service depending on the day (regular business day or holiday) and time of day (business hours or off-hours) at which a call is received.

A time-of-day control definition has three time periods: business hours, off-hours, and holidays. When you create a new time-of-day control definition, Monday to Friday are defined as business days by default and Saturday and Sunday are defined as non-business days. The default business hours are taken from the Voice Services Profile. The Voice Services Profile must be set up properly for a time-of-day controller to work since, in addition to containing the default business hours, the profile also defines the holidays for which the organization closes. See the chapter "Setting up the voice services profile".

If a time-of-day controller is active when a call is received, the system first checks the Voice Services Profile to see if it is a holiday. If it is a holiday, the holiday service ID is looked up in the time-of-day control definition and the associated voice service is activated. If it is not a holiday, the time-of-day controller checks the defined business hours. If the call has arrived during business hours, the service associated with business hours is activated. If the call has arrived outside of the defined business hours, the service associated with the off-hours is activated.

This sequence is illustrated in Figure 31. (In this example, the time-of-day controller is accessed through a voice menu when a caller presses "1").

Figure 31xxx
Time-of-day control flowchart
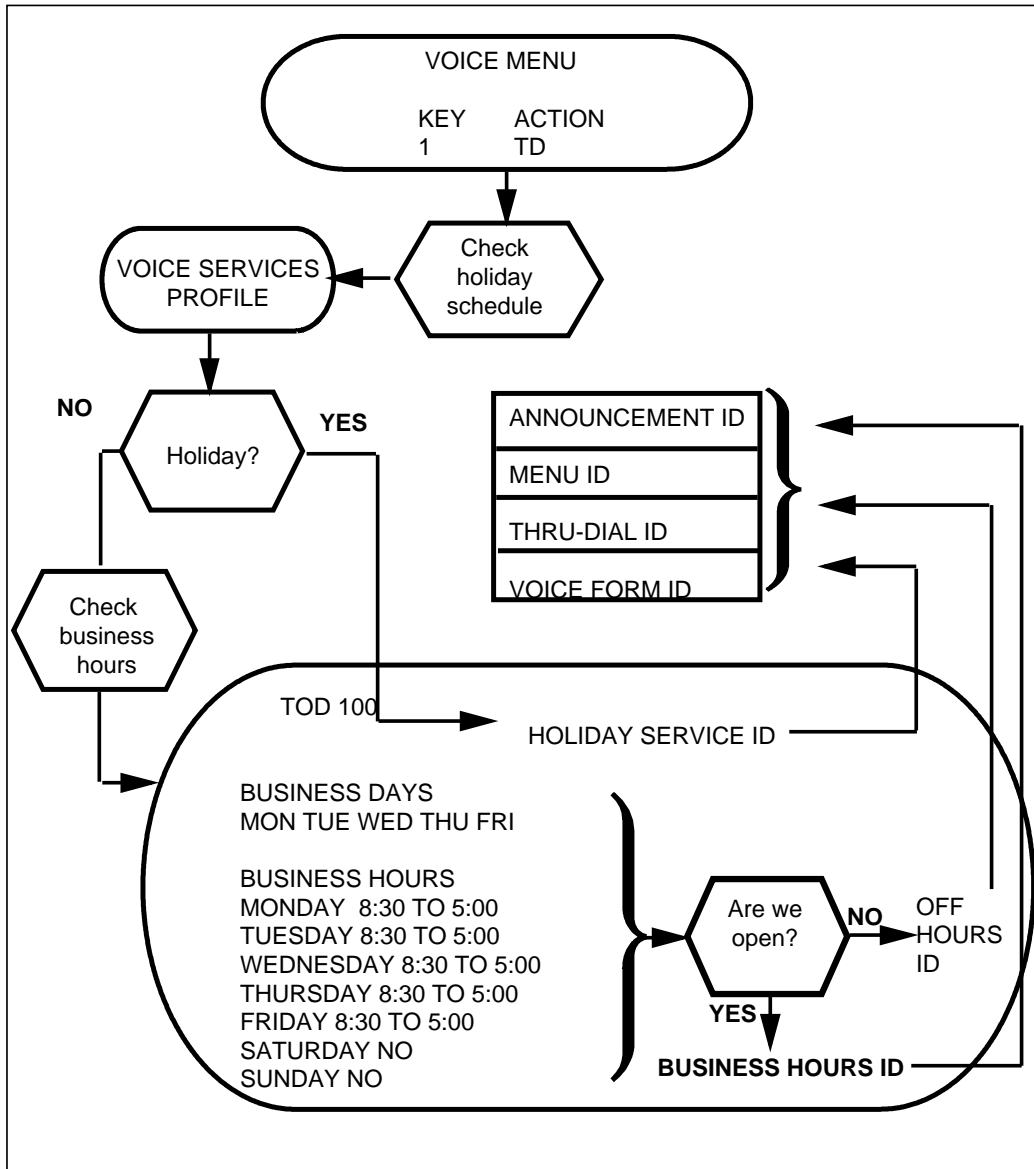
Creating a time-of-day controller-an outline

Before planning and configuring any time-of-day controllers, make sure that all holidays have been defined in the Voice Services Profile screen. See the chapter, "Setting up the voice services profile" for details.

Planning

1   Identify regular hours, off-hours and holidays.

2   Identify and configure the services that are needed.

3   Identify the time-of-day control ID.

4   Modify the default business hours (if necessary).

5   Identify how the time-of-day controller will be accessed.

Configuring

1   Add the time-of-day control definition in DMS VoiceMail.

2   Confirm that all of the voice services connected to the time-of-day controller are configured properly.

3   Make the time-of-day controller accessible through direct access, a voice menu, or another time-of-day controller. Confirm that all the voice services are built, and working.

4   Test the time-of-day controller.

5   Cut the service over.

Maintaining

1   Change the services associated with the three time periods when necessary.

2   Keep holiday definitions up-to-date in the Voice Services Profile.

Planning a time-of-day controller

Make a copy of the Time-of-Day Control Worksheet on page 92. (There is also a copy of this worksheet in Appendix A.) (You may also want to have a copy of the Voice Services Profile worksheet on hand, which defines default business hours and holidays.) As you plan your time-of-day controller, fill in the worksheet. Then, when you are ready to configure the time-of-day control definition in DMS VoiceMail, all you will have to do is copy the information into the system. You will also have a written record of all of your time-of-day controllers. Whenever you alter the time-of-day controller, fill in a new worksheet so that you always have the most up-to-date version on file.

Note that using a time-of-day controller will involve the planning and creation of other services. The time-of-of day controller doesn't do anything itself except pass calls to other existing voice services. You can either create the services that will be activated by the time-of-day controller first and then

define the time-of-day controller, or create the time-of-day controller and
then go back and create the services that will be activated.

Identify regular hours, off-hours and holidays

Default business hours and holidays are defined in the Voice Services
Profile. The Voice Services Profile should be set up before you configure
any voice services, as there are parameters in this profile that also apply to
announcements, thru-dial services and voice menus. However, there are
additional fields in this profile that pertain only to time-of-day controllers;
namely the default business hours and holidays. These default business
hours are used whenever you create a new time-of-day control definition, so
that you don't have to define them for every time-of-day controller you
create.

However, within a time-of-day control definition, you can change the default
business hours that are taken from the Voice Services Profile. In the profile,
all you can define is one range (08:30 to 17:00, for example). In the actual
time-of-day control definition, you can do some fine-tuning (such as
defining different business hours for different days). For example, on
Saturdays, business hours may be from 10:00 to 16:00.

Off-hours are not explicitly defined. Instead, you specify non-business days
in the time-of-day control definition. Off-hours implicitly include:

- non-business days that are not holidays

- hours that fall outside of business hours on business days (that are not
  holidays)

If you have not yet defined the Voice Services Profile (for each customer
group), refer to the chapter "Setting up the voice services profile" now.

Identify and configure the voice services that are needed

Identify the type of service that will be activated during

- business hours

- off-hours

- holidays

Will it be a voice menu, an announcement, a thru-dial service, or a voice
form? If the service already exists, find its corresponding service ID. If it
does not yet exist, design it, create it and assign an ID to it. This ID will be
referenced in the time-of-day controller. Refer to the appropriate chapter for
instructions on planning and configuring other types of voice services.
(Announcements, voice menus and thru-dial services are described in this
guide. Voice forms are described in the *Voice Forms Application Guide*.)

Identify the time-of-day control ID

The time-of-day control ID identifies the time-of-day controller within the system. This number must be unique among all other service definitions within the customer group. For example ID 2334 can be used in customer groups *x* and *y*. The ID can be up to 8 digits in length and must consist of the numeric digits 0 to 9 only.

You will use this ID when you

- want to include the time-of-day controller in a voice menu
- want to include the time-of-day controller in another time-of-day controller to create nested time-of-day controllers
- create a VSDN for the time-of-day controller

Modify the default business hours

This step is necessary only if the default business hours, as defined in the Voice Services Profile, are not accurate for the time-of-day controller you are creating, or need to be fine-tuned. For example, if during the summer, you close an hour early on Fridays, you would have to modify the business hours for Fridays (08:30 to 16:00 instead of the default 08:30 to 17:00).

Time-of-Day Control Definition Worksheet

Time-of-Day Control ID: _____

The ID of the time-of-day controller. This number can be up to 8 digits long and must be unique among service IDs.

Business Hours Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during business hours.

Off Hours Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during off-hours.

Holiday Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during holidays.

Business Days			**Business Hours**
Sunday	**No** ❏	**Yes** ❏	_____ to _____
Monday	**No** ❏	**Yes** ❏	_____ to _____
Tuesday	**No** ❏	**Yes** ❏	_____ to _____
Wednesday	**No** ❏	**Yes** ❏	_____ to _____
Thursday	**No** ❏	**Yes** ❏	_____ to _____
Friday	**No** ❏	**Yes** ❏	_____ to _____
Saturday	**No** ❏	**Yes** ❏	_____ to _____

Method of access: Direct ❏   **Voice Menu** ❏   **Time-of-day Controller** ❏

VSDN: _____

Configuring time-of-day controllers

Note: All time-of-day controllers must be associated with a particular customer group. Therefore, they can only be created at the customer administration level. However, once created, they can be viewed, modified or deleted from the system administration level.

Time-of-day controllers are added, viewed, modified and deleted from the Time-of-Day Control Definitions data menu. This menu is invoked from the Voice Services Administration menu, which is accessed from the Voice Administration menu.
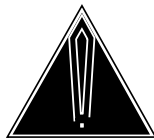
CAUTION
Do not perform voice services administration during nightly DR audit
At 3:30 a.m. every day, an audit of the DR directory is performed. Do not perform voice services administration (which includes adding, modifying and deleting time-of-day controllers) during this audit. Depending on how unbalanced 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 15xxx
Accessing the Time-of-Day Control Definitions data menu

Starting point: The Customer Administration menu

1   Select Voice Administration.

The Voice Administration menu is displayed (Figure 32).

Figure 32xxx
The Voice Administration menu
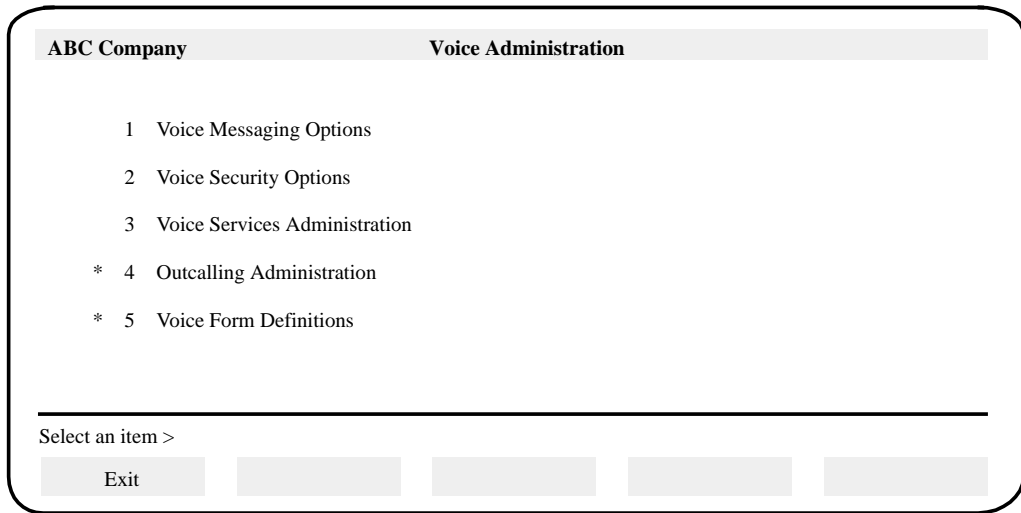
ABC Company	Voice Administration

         1   Voice Messaging Options

         2   Voice Security Options

         3   Voice Services Administration

   *   4   Outcalling Administration

   *   5   Voice Form Definitions

Select an item >

Exit				

* Indicates an option that may not be part of the base software package in
    your country. If optional and not purchased, these items will not be
    displayed.

2   Select Voice Services Administration.

The Voice Services Administration menu is displayed (Figure 33).

Figure 33xxx
The Voice Services Administration menu

ABC Company	Voice Services Administration

           1   Voice Services-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
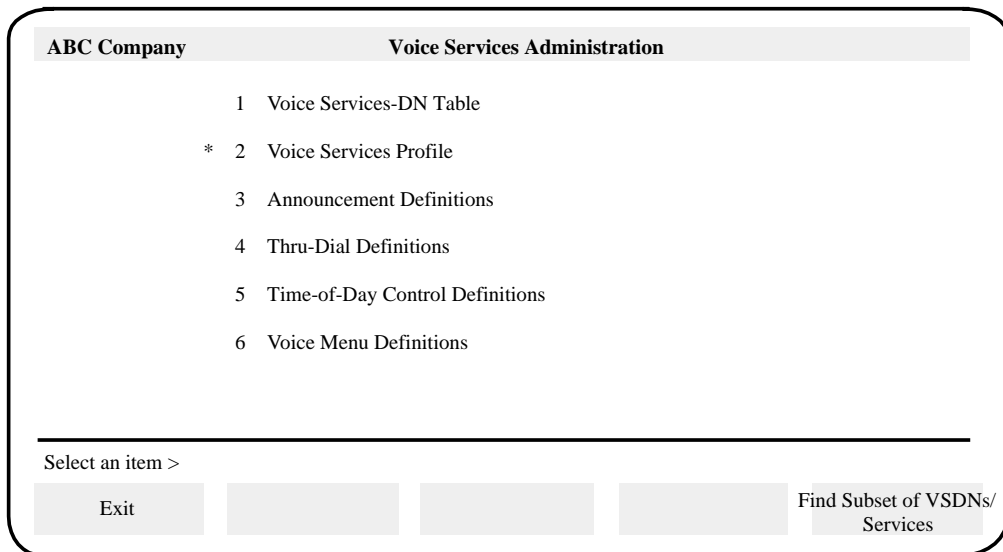
*   This item is displayed only at the customer administration level.

3   Select Time-of-Day Control Definitions.

The Time-of-Day Control Definitions data menu is displayed (Figure 34).

Figure 34xxx
The Time-of-Day Control Definitions data menu

ABC Company		Voice Services Administration		

Time-of-Day Control Definitions

Time-of-Day Control ID	Business Hours Service ID	Off-Hours Service ID	Holiday Service ID	
5550	001	67782	67960	
5551	501	67783	67954	
55632	101	5779	67976	
55636	601	5781	67980	

Move the cursor to the item and press the space bar to select >

Exit	Add	View/Modify	Delete	Find

Add a time-of-day controller

Time-of-day controllers are defined in the Add a Time-of-Day Control
Definition screen.

Follow Procedure 16 to create a new time-of-day control definition. Make
sure you have your worksheet on hand.

Procedure 16xxx
Adding a time-of-day control definition

Starting point: The Time-of-Day Control Definitions data menu

1 Press the [Add] softkey.

*Note: You must be logged on as customer administrator to add a time-of-day
control definition.*

The Add a Time-of-Day Control Definition screen (Figure 35) is displayed.

Figure 35xxx
The Add a Time-of-Day Control Definition screen

ABC Company	Voice Services Administration

Add a Time-of-Day Control Definition

Time-of-Day Control ID: _____   Business Hours Service ID: __

Off-Hours Service ID: _____   Holiday Service ID: __

```
      Business Days              Business Hours
      Sunday          [No]   Yes
      Monday          No     [Yes]   08:30 to 17:00
      Tuesday         No     [Yes]   08:30 to 17:00
      Wednesday       No     [Yes]   08:30 to 17:00
      Thursday    No     [Yes]   08:30 to 17:00
      Friday      No     [Yes]   08:30 to 17:00
      Saturday        [No]   Yes
```

Select a softkey >

Save	Cancel				

2 Enter the time-of-day control ID, the business hours service ID, the off-hours service ID and the holiday service ID.

3 Modify the business days and business hours, if necessary.

4 Press the [Save] softkey.

The system saves the definition and redisplays the Time-of-Day Control Definitions data menu.

Make the time-of-day controller accessible

You can make an announcement accessible to callers in one of three ways:

Direct Access

Callers access the time-of-day controller by dialing the VSDN of the time-of-day controller. Follow Procedure 17 to create a VSDN for the time-of-day controller. This procedure assumes that there are available hunt groups on the switch.

Procedure 17xxx
Creating a VSDN for a time-of-day controller

Starting point: The Customer Administration menu

1 Select Voice Administration.

The Voice Administration menu is displayed.

2 Select Voice Services Administration.

The Voice Services Administration menu is displayed.

3 Select Voice Services-DN Table.

The Voice Services-DN Table is displayed. See Figure 36.

Figure 36xxx
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

4   Press the [Add] softkey.

The Add DN Information screen is displayed. See Figure 37.

Figure 37xxx
The Add DN Information screen (time-of-day controller datafill)

ABC Company	Voice Services Administration

Add DN Information

*Choice of Services:

AN AMIS Networking	AS Announcement Service	EM Express Messaging
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: 7000

Service: TD   Time-of-Day Control ID: 799

Comment:

Select a Softkey >

Save	Cancel			

*   **All possible services are listed in this screen for illustration purposes.**

5   Enter the access DN.

This is the number that callers will dial to access the time-of-day controller.

6   Enter "TD" in the *Service* field.

An additional field, Time-of-Day Control ID, is displayed.

7   Enter the ID of the time-of-day controller that will be retrieved when callers dial the access DN.

8   Enter a comment (this is an optional step).

9   Go to step 9a to save the new VSDN or step 9b to cancel the addition.

   a.   Use [Save].

      The system saves the VSDN and redisplays the Voice Services Administration screen.

   b.   Use [Cancel].

      The modifications to the VSDN are discarded and the Voice Services Administration screen is redisplayed.

Indirect access through a voice menu

Callers dial the DN of a voice menu. The time-of-day controller is accessed when the caller presses the appropriate key. For instructions on planning and creating a voice menu application, see the chapter "Planning and configuring voice menus".

If the voice menu already exists, the VSDN will already be defined. If you are going to create a new voice menu, you will have to add the VSDN of the voice menu to the VSDN table. See the chapter "Planning and configuring voice menus" for details.

Indirect access through another time-of-day controller (nested time-of-day controllers)

Time-of-day controllers can be nested by including one time-of-day controller inside of another.

For example, if you have a single facility (for example, a single DID queue) serving multiple departments with different business hours, you can nest several time-of-day controllers in order to meet the needs of all departments. See the chapter "Automated attendants" for an example.

You can either modify an existing time-of-day controller definition or create a new time-of-day controller. If the time-of-day controller already exists, the VSDN will already be defined. If you are going to create a new time-of-day controller, you will have to add the VSDN of the time-of-day controller to the VSDN table.

Test the time-of-day controller

When you have finished configuring the time-of-day controller and have defined the VSDN through which it will be accessed, test it before making it available.

Dial the DN which accesses the time-of-day controller during business hours. Are you connected to the right service? If not, check the service ID that is associated with business hours.

To test off-hours routing on a new system, you can change the time on the switch (by setting it ahead or behind by a few hours-the fewer the better; see the following caution). Be sure to set the time back when you are done testing.

If you are testing a live system during business hours, change the off-hours for the time-of-day controller. Changing the time on the switch can result in a loss of data, as described in the caution.
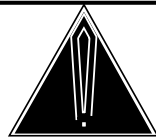
> **CAUTION**
> **Do not reset system time**
> To test a time of day controller, do not reset the system time by a few days to "fool" the system into thinking it is the weekend. If you set the time ahead by a number of days, all read messages that meet the Read Message Retention Value (set in the User Administration 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 72 hours. Any messages that are 4, 5 or 6 days old will be deleted before they are supposed to be according to the read message retention maximum.

To test holiday routing, create a holiday with today's date and call access DN of the time-of-day controller.

Modify the time-of-day control definition, if necessary, and save it. See the following section for details. Update your worksheet and file it for future reference.

Modifying a time-of-day controller

To view or modify an existing time-of-day controller, access the View/Modify a Time-of-Day Control definition screen (Figure 38). (This screen can be accessed from either the customer or system administration level.) The new version of the time-of-day controller takes effect when the updated time-of-day controller has been saved. See "Add a time-of-day controller" earlier in this chapter for field descriptions.

Procedure 18xxx
Modifying a time-of-day controller

Starting point: The main menu or the Customer Administration menu

1   Select Voice Administration.
2   Select Voice Services Administration.
3   Select Time-of-Day Control Definitions.

    The Time-of-Day Control Definitions data menu is displayed.

4   Move the cursor to the time-of-day control you want to view or modify.
5   Press <Spacebar> to select it.
6   Press [View/Modify].

    The Modify a Time-of-Day Control Definition screen is displayed (Figure 38).

Figure 38xxx
The View/Modify a Time-of-Day Control Definition screen

```
 ┌──────────────────────────────────────────────────────────────────────────┐
 │   ABC Company                      Voice Services Administration            │
 │                                                                            │
 │   View/Modify a Time-of-Day Control Definition                             │
 │                                                                            │
 │ * Customer Number:              100              Customer Name: TIKA       │
 │                                                                            │
 │   Time-of-Day Control ID: 207      Business Hours Service ID:   309        │
 │                                                                            │
 │   Off-Hours Service ID:         315      Holiday Service ID:        405    │
 │                                                                            │
 │     Business Days              Business Hours                              │
 │     Sunday          [No]   Yes                                            │
 │     Monday          No     [Yes]  08:30 to 17:00                          │
 │     Tuesday         No     [Yes]  08:30 to 17:00                          │
 │     Wednesday       No     [Yes]  08:30 to 17:00                          │
 │     Thursday    No    [Yes]  08:30 to 17:00                               │
 │     Friday      No    [Yes]  08:30 to 17:00                               │
 │     Saturday        [No]   Yes                                            │
 │                                                                            │
 │   ────────────────────────────────────────────────────────────           │
 │   Select a softkey >                                                       │
 │      Save              Cancel                                             │
 └──────────────────────────────────────────────────────────────────────────┘
```

*   This row is displayed if this screen is accessed from the system
    administration level on a multicustomer system.

7   Modify the fields as required.

8 Go to step 8a to save the new time-of-day controller or step 8b to cancel the addition.

    a. Use [Save].

       The system saves the time-of-day controller and redisplays the Time-of-Day Controllers data menu.

    b. Use [Cancel].

       The modifications to the time-of-day controller are discarded and the Time-of-Day Controllers data menu is redisplayed.

Deleting a time-of-day controller

To delete an existing time-of-day controller, access the Delete a Time-of-Day Control Definition screen (Figure 39). (This screen can be accessed from either the customer or system administration level.) This screen is read-only.

Note: If the time-of-day controller you are deleting is associated with a voice menu or another time-of-day controller, be sure to modify the appropriate definitions to account for the absence of this time-of-day controller (that is, remove references to this time-of-day control ID within the voice menu or time-of-day controller definition). If the time-of-day controller is associated with an entry in the VSDN table, be sure to delete the DN entry in the VSDN table. VSDNs must not point to deleted services. The system does not perform a sanity check to ensure against this.

Procedure 19xxx
Deleting a time-of-day controller

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Time-of-Day Control Definitions.

The Time-of-Day Control Definitions data menu is displayed.

4 Move the cursor to the time-of-day control definition you want to delete.

5 Press <Spacebar> to select it.

6 Press [Delete].

The Delete a Time-of-Day Control Definition screen is displayed (Figure 39).

Figure 39xxx
The Delete a Time-of-Day Control Definition screen

```
┌─────────────────────────────────────────────────────────────────────┐
│  ABC Company                    Voice Services Administration         │
│                                                                       │
│     Delete a Time-of-Day Control Definition                           │
│                                                                       │
│ *   Customer Number:            100              Customer Name: TIKA  │
│                                                                       │
│     Time-of-Day Control ID: 45322       Business Hours Service ID:    45999 │
│                                                                       │
│     Off-Hours Service ID:       45988       Holiday Service ID:       45877 │
│                                                                       │
│       Business Days            Business Hours                         │
│       Sunday          No     Yes                                      │
│       Monday          No     Yes     08:30 to 17:00                   │
│       Tuesday         No     Yes     08:30 to 17:00                   │
│       Wednesday       No     Yes     08:30 to 17:00                   │
│       Thursday     No    Yes    08:30 to 17:00                        │
│       Friday       No    Yes    08:30 to 17:00                        │
│       Saturday        No     Yes                                      │
│                                                                       │
│  ───────────────────────────────────────────────────────────────     │
│     Select a softkey >                                                │
│                                                                       │
│     OK to Delete         Cancel                                       │
└─────────────────────────────────────────────────────────────────────┘
```

* This row is displayed if this screen is accessed from the system administration level.

7 Go to step 7a to delete the time-of-day controller or step 7b to cancel the deletion.

    a. Use [OK to Delete].

       The system deletes the time-of-day controller and redisplays the Time-of-Day Controllers data menu.

    b. Use [Cancel].

       The time-of-day controller is kept and the Time-of-Day Controllers data menu is redisplayed.

8 If the time-of-day controller was associated with a DN in the VSDN table, go to the VSDN table and delete the DN.

If the time-of-day controller was associated with a voice menu or another time-of-day controller, go to the appropriate service definition, and delete references to the time-of-day controller.

Maintaining time-of-day controllers

Maintaining a time-of-day controller essentially involves:

- monitoring its use (see the chapter "Monitoring voice services")
- changing the services associated with the three time periods when necessary
- keeping holiday definitions up-to-date in the Voice Services Profile

Changing the service associated with a time-of-day control time period is very simple. Just change the service ID that is associated with business hours, off-hours or holidays. This is described in the section "Modifying a time-of-day controller" earlier in this chapter.

You will have to change the holiday definitions in the Voice Services Profile at least once a year. For example, one year your office may be closed for Christmas and New Years between December 22nd and January 2nd and the next year, you may be closed between December 23rd and January 3rd. To make sure that the holiday service is activated for the appropriate days, holiday definitions must be kept up-to-date.

You may also have to modify the holiday service up-to-date between holidays. For example, you have created the following announcement for Labor Day: *"Thank you for calling the Orlando Trust Company. Our office is closed for this Labor Day Monday. We will be open again tomorrow at 8:30. Please call back then and have a good Labor Day."* Its ID (2009) is entered as the Holiday Service ID in the time-of-day control definition.

The next holiday that is defined in your Voice Services Profile is Columbus Day. Obviously, you don't want the Labor Day announcement to play on Columbus Day. Rather than defining a new announcement for this holiday, you can simply update Announcement 2009 to something like: *"Thank you for calling the Orlando Trust Company. Our office is closed for Columbus Day. We will be open again tomorrow at 8:30. Please call back then and enjoy this holiday."*

In this manner, one announcement (Announcement ID 2009) will always be your holiday service. Rather than updating the time-of-day controller, you will update the announcement. Immediately after one holiday (Labor Day) is over, you would update Announcement 2009 so that it will be appropriate for the next upcoming holiday that is defined in the Voice Services Profile (Columbus Day).

Planning and configuring voice menus

Overview

A voice menu offers callers choices. When a caller activates a voice menu, a courteous greeting is played followed by a list of options and the corresponding key that the caller must press to make a selection.

For example: *"Thank you for calling the University of Wallaballoo. To find out how to register for classes, press 1. To find out about our part-time programs, press 2. To speak with the student registrar, press 3. If you have any inquiries regarding your student records, press 4. To speak with the operator, press 0. If you do not have a touchtone phone, please wait on the line and an operator will be with you shortly."* Callers make a choice by pressing the appropriate number on their telephone keypads. This means, of course, that callers require a DTMF (touch-tone) phone to use a voice menu.

A simple voice menu consists of only one voice menu (one layer). More complex applications involve creating several layers of voice menus and linking them together to create multi-level menus. Each voice menu service can have up to 20 sub-menus. With this capability, voice menu applications can become very complex, branching off in many directions. However, more common voice menu applications typically involve three layers or less. See Figure 40 for an example of a layered voice menu application.

Figure 40xxx
Sample (multi-level) menu structure
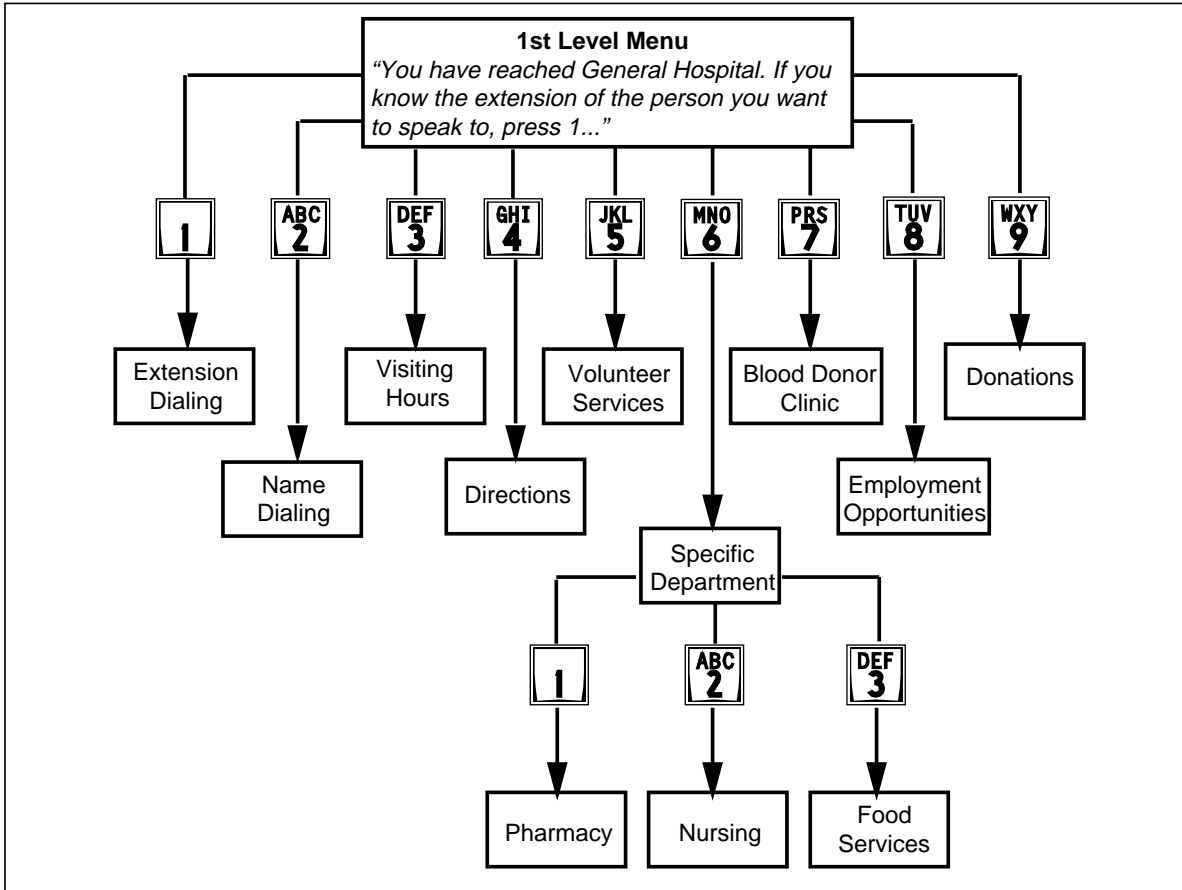
A voice menu offers a maximum of 12 actions to the caller (one for each key on the telephone keypad). There are three standard menu functions and nine customizable functions.

Standard menu functions

The following function keys are standard for all voice menu services.

0   ***Operator Revert.*** The caller is transferred to the revert DN that has been defined in the voice menu definition. This revert DN can be different for each voice menu if necessary. If the revert DN is not defined, the following message is played when a caller presses "0": *"That selection is not recognized, please make another choice."*

\#   ***Return to Previous Menu.*** The caller who presses "#" is returned to the previous menu. If the current voice menu is the first level menu, the first level menu choices are repeated.

*   *Help.* When a caller presses "*", the menu choices are played. If no menu prompt exists, the greeting is played.

Custom menu functions

1-9   *Custom Keys.* You can assign one of the following actions to the numeric keys 1 to 9.

- play an announcement
- prompt the caller for an extension or name (thru-dial service)
- connect the caller to another voice menu
- play a prompt
- play the menu choices prompt
- return to the main menu (from a sub-menu)
- call a DN (no number is requested from the caller since this DN is defined in the voice menu)
- request a mailbox number so that the caller can leave a message (express messaging)
- transfer the caller to a mailbox (as specified in the voice menu) to leave a message (also express messaging)
- prompt the caller to log on to Voice Messaging
- activate a time-of-day controller
- disconnect the call
- transfer the caller to the revert DN
- activate the voice prompt maintenance service

If the VMUIF interface is installed:

- connect the caller to the greetings service so that the caller can update his or her personal greeting (intended for dial pulse users since this service requires no keypad input)

If Voice Forms are installed:

- activate a voice form
- prompt the caller for a voice form ID in order to transcribe the voice form (transcription service)

Creating a voice menu-an outline

The creation of a voice menu service involves the following steps:

Planning

1   Identify and rank order the menu actions.

2   Create a diagram of the voice menu application.

3   Identify and configure the services that will be included in the voice menu.

4   Choose a voice menu ID and title.

5   Identify the revert DN.

6   Identify necessary passwords.

7   Script the voice menu greeting.

8   Script the menu choices prompt.

9   Identify if silent disconnect is desirable.

10 Identify the language in which system prompts are to be played (if multiple languages are installed on the system).

11 Assign an action to each of the menu keys from 1 to 9.

12 Identify the initial no response action.

13 Identify the delayed response action.

14 Identify how the voice menu will be accessed.

Configuring

1   Configure the voice menu definition in DMS VoiceMail.

2   Record the voice menu greeting and menu choices prompt.

3   Define the VSDN of the voice menu or the service through which it will be accessed.

4   Test the voice menu.

5   Cut the service over.

Maintaining

1   Monitor the use of the voice menu using operational measurements.

2   Update the voice menu when necessary.

3   Delete the voice menu when it is no longer needed.

Identify and rank order the menu options

1 Identify the choices that will be made available to callers.

2 Assign a number to each menu option. This will be the number that callers press to select an action. Order the menu choices in the following manner: rank the menu actions from the most popular (or most used) option to least used option. This will help callers to get through a menu more quickly and will lead to more satisfied callers. Of course, at this stage all you can do is make your best guess.

Once a voice menu has been put into use, it should be monitored on regular basis to determine which menu actions are in fact the most popular. If you discover that your original estimations missed the mark, you should modify your voice menu to reflect the manner in which it is actually used.

For example, you want to create a voice menu to serve as an automated attendant during business hours. You want callers to be able to

- call the customer support line directly
- dial a person by extension number
- dial a person by name
- connect the caller to a customer satisfaction survey
- connect the caller to a voice menu which provides new product information
- find out your full address and fax number

The menu choices should now be ranked, starting with the most used service and ending with the least used service. For example, the above list of actions is ranked as follows:

1 dial by extension

2 dial by name

3 connect to customer support line

4 full address and fax number

5 new product information

6 customer satisfaction survey

Create a diagram of the voice menu application

Once you have decided what the caller options are going to be, it is a good idea to draw a diagram of the voice menu application. Since voice menus can get quite complex, it is important that you have "the big picture". This step is even recommended for even the simplest of voice menus. In this manner you will have a record of the structure of each voice menu on your system.

To continue with example on the preceding page, you would end up with a diagram as shown in Figure 41. In this example, another voice menu, for new product will have to be planned. All sub-menus should also be planned separately, complete with diagrams and worksheets. The main menu diagram will show how all of the sub-menus (and other services) are organized at the highest level. In Appendix A, there is a blank copy of a voice menu tree that you can use for planning your voice menus.

Figure 41xxx
Voice menu diagram
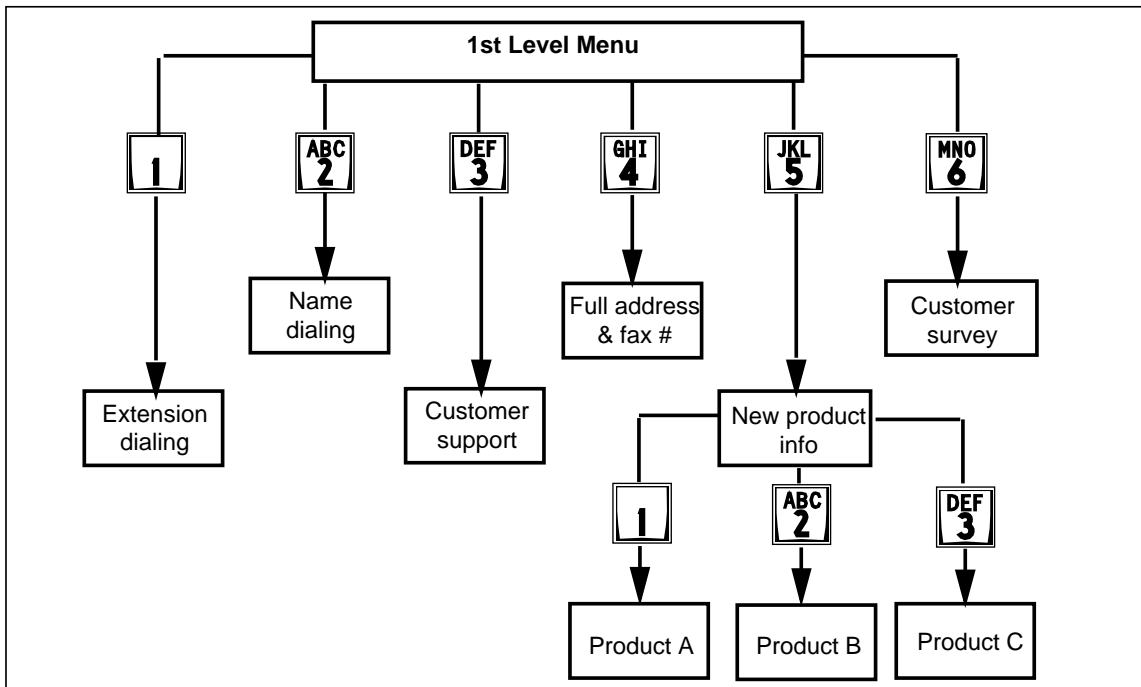
Identify and configure the services that will be included in the voice menu

Identify which actions invoke other services. The following services have to be designed and built before they can be incorporated in a voice menu:

- announcements
- thru-dial services
- time-of-day controllers
- other voice menus
- voice forms
- voice form transcription services

If your voice menu will contain any one of these types of services, refer to the appropriate chapter in this guide (for announcements, thru-dial services and time-of-day controllers), the *Voice Forms Application Guide* (for voice forms and voice form transcription services).

For each service that will be included in the voice menu, fill out a worksheet and configure the service in DMS VoiceMail. You can either create each of the individual services first and then return to complete the voice menu, or build the voice menu first and then create the services that are required.

For each voice menu application that you create, you should end up with a package of worksheets: one for each service within the voice menu as well as a worksheet for the voice menu itself. Keep all of these worksheets on hand as a written record of your voice menu application. This will make it much easier for to maintain and keep your voice menu applications up-to-date. If you do not have a written record and an overall picture of the application, the only way you will have of telling what the voice menu does will be to run through the entire application.

Obtain a copy of the Voice Menu Definition Worksheet so that you can fill it in as you go along. See page 126 or Appendix A.

Choose a voice menu ID and title

The voice menu ID identifies the voice menu within the system. This number must be unique among all other service definitions within the customer group. For example ID 2334 can be used in customer groups *x* and *y*. The ID can be up to 8 digits in length and must consist of the numeric digits 0 to 9 only.

You will use this ID when you

- need to perform remote maintenance on voice prompts
- want to include this voice menu in another voice menu
- want to include this voice menu in a time-of-day controller
- create a service DN for the voice menu in the VSDN table

The voice menu title should be descriptive enough so that you can easily identify the it (when looking at operational measurement reports, for example). The title can be up to 29 characters in length. It cannot include the characters "+", "?", and "_".

Identify the revert DN

A revert DN is optional, but recommended. If you specify one, callers will be reverted to this number if they press "0". If no revert DN is specified, callers will hear the following message if they press "0": *"That selection is not recognized."*

This must be a network DN (that is, the DN that is configured on the DMS, such as a public network DN in the format NPA-NXX-XXXX).

Note: This revert DN only applies as long as the caller is in the voice menu. If, for example, the caller chooses a menu action that connects him to a thru-dial service and he then presses "0", the revert DN of the thru-dial service will be used.

The revert DN can be up to 30 characters in length. The following characters are acceptable:

0...9	Dialed digits
#	Dialed if present in the field
*	3 second pause in dialing
$	Formatting purposes only
( )	Formatting purposes only
_	Formatting purposes only (underscore)
-	Formatting purposes only (hyphen)
spaces	Formatting purposes only

The formatting characters can be used to make the screen display easier to read. (These characters only show up in the screen, they do not generate any corresponding tones.) For example it is easier to decipher 9-(416)-555-1212 than 94165551212. Note that the first character cannot be $.

Note: Common carriers may use some of these formatting characters for other purposes. For example, number sign (#) is used by SkyPager as the numeric pager data terminator character. You may want to contact your common carrier to see if they use any of the other formatting characters.

Identify necessary passwords

Each voice menu can have two passwords: an access password and an update password. Both are optional.

The access password

Use an access password to restrict caller access to a voice menu. You may want to create an access password for the following types of voice menus:

- personal voice menus that are intended for one user only

- voice menus that include thru-dial services that allow long-distance calling
- voice menus that contain information that is classified
- voice menus that are intended for internal users only

If a password is defined, callers will be prompted for it. Without a valid password, they will be denied access to the voice menu.

Passwords must be between 4 and 16 numeric characters in length. Spaces are not allowed.

The update password

If you are planning on using the voice prompt maintenance service to update menu prompts (the voice menu greeting and menu choices prompt), you must define an update password. If the update password is not defined, the voice prompt maintenance service cannot be used. You will only be able to modify the voice menu prompts from the administration screen.

Passwords must be between 4 and 16 numeric characters in length. Spaces are not allowed.

Script the voice menu greeting

The voice menu greeting is the first prompt that callers hear when they are connected to a voice menu.

The purpose of this greeting is to

1 Identify your organization to let callers know where the call is being answered.

2 Inform callers of the menu choices that are available at this point.

3 Inform callers of any additional information they may need in order to use the voice menu effectively. This usually includes information about the use of standard function keys. You should inform callers that they can

   - Press star (*) to hear the menu choices again.

   - Press "0" to revert to an attendant.

   - Wait on the line if they have a rotary phone. (If the caller does not provide any keypad input, the system will timeout and transfer the caller to the revert DN that has been defined for the voice menu.)

The following is an example of a voice menu greeting:

"Thank you for calling ZUNI Radio. If you do not have a touchtone phone, please wait on the line and an operator will be with you shortly. If you have a touchtone phone and wish to dial the extension of the person you want to speak to, press 1. To hear the latest weather report, press 2. To talk to the

broadcaster, press 3. To leave a song request, press 4. To speak with an operator, press "0". To hear your choices again, press star"

Always record a greeting for first-level menus. If the voice menu is not a first-level menu (that is, it is a sub-menu in a layered menu application), this greeting is not necessary.

> *Note:* When scripting the menu choices, it is recommended that you describe the item first and then provide information about which key to press. Callers tend to listen out for the item they are interested and may not be paying close attention when the number is announced first. If the caller has to repeat the menu choices to make sure he knows which key to press, he will be kept on the line longer.

If no greeting is recorded, the recorded menu choices (see below) are played when a caller accesses the voice menu.

Script the menu choices prompt

The menu choices prompt explains the options that are available to the caller and solicits an action, after which the system waits for the caller to press a key. This prompt is played

- when a caller accesses a menu that is not a first-level menu
- when a caller requests to hear menu choices again (if you have associated RP—Repeat Menu Choices—with one of the action keys)
- when a caller presses star (*) for assistance
- when a caller doesn't enter anything for a certain period of time (that is, it acts as a delayed prompt if RP—Repeat Menu Choices—is defined as the delayed prompt action in the voice menu definition). Note that a different action can be defined for the initial no response. *Initial no response* only applies to first-level menus. If a caller doesn't press anything after the greeting in a first-level menu, this is usually a good indication that the caller does not have a touch-tone phone. Since the caller cannot press any keys and essentially cannot use the voice menu, instead of replaying the menu choices you might want to revert the caller to a live attendant.
- when a caller accesses a first-level menu that doesn't have a recorded greeting

This prompt is not usually played when a caller accesses a first-level menu because the voice menu greeting includes the menu choices.

Note: If this is not a first-level menu, this prompt should also inform callers that they can press number sign (#) to return to the previous menu.

The following is an example of a menu choices prompt:

"To dial the extension of the person you want to speak to, press 1. To hear the latest weather report, press 2. To talk to the broadcaster, press 3. To leave a song request, press 4. To speak with an operator, press "0". To hear your choices again, press star. To return to the main menu, press number sign."

Figure 42 is a flowchart illustrating a possible call sequence to show you when the various menu prompts are played.

Figure 42xxx
Voice menu prompt sequence
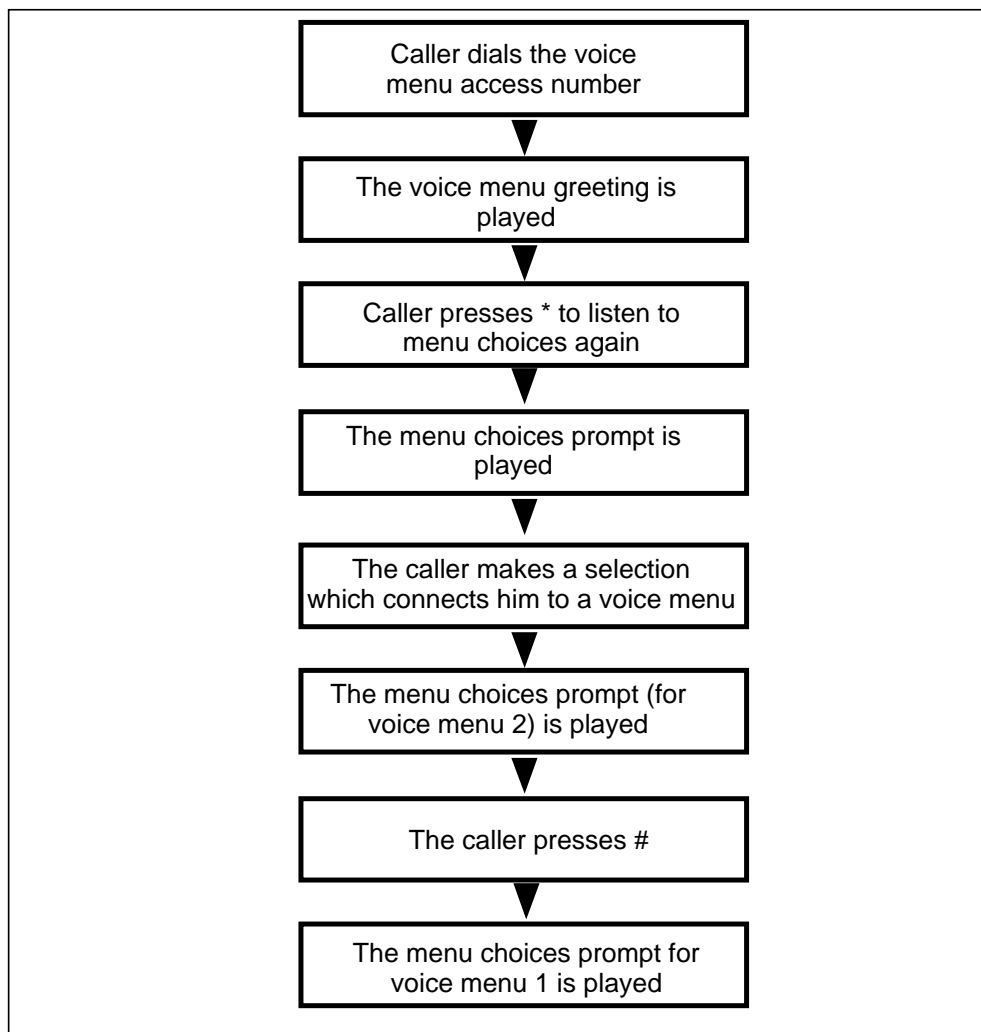
Identify if silent disconnect is required

When silent disconnect is enabled, the system "Goodbye" prompt is not played when a caller is disconnected from the voice menu. This allows voice menus to be integrated into the Call Center where high volumes of inbound calls are given a variety of treatments. Upon disconnection from a voice menu a caller may therefore be passed to a queue for holding or an IVR (Interactive Voice Response) application or the caller may be played a RAN announcement. In this case, the voice menu is not the terminating application and if the caller hears the "Goodbye" prompt in this situation, he or she may hang up prematurely.

If the voice menu is the terminating application, silent disconnect should be disabled. When the caller disconnects from the voice menu, the system plays the prompt: "Goodbye" to indicate that the end of the application has been reached.

Silent disconnect is disabled by default.

Identify the language for system prompts (multilingual systems only)

This is necessary only if more than one language is installed on the system. If this is the case, select the language in which all *system* prompts are to be played. (Note that this is not a translation of the voice menu prompts.)

Assign a menu action to keys 1 to 9

Using your ordered list of menu options, identify the corresponding menu actions. For example, if callers are to press 1 to dial an extension, this is the thru-dial service. Therefore, in the voice menu definition, the thru-dial service must be assigned to key 1.

If your voice menu has less than nine options, you must still assign an action to those numeric keys that are not used. Using the previous example, a voice menu has six choices:

1 dial by extension
2 dial by name
3 connect to customer support line
4 full address and fax number
5 new product information
6 customer satisfaction survey

What happens if the caller presses "7" inadvertently? If you do not define an action, the following system prompt is played: *"That selection is not recognized. Please make another choice."* Since this not very user-friendly, it is suggested that you decide the action that should be taken if 7, 8, or 9 is pressed. These options are described on page 122.

Beginning on the following page is a description of all the possible actions that can be assigned to the menu keys 1 to 9. Figure 43 below shows the actions that are assigned to the nine keys of our sample voice menu.

Figure 43xxx
Nine menu actions

Key	Action
1	TS - Thru-dial service (dial by number)
ABC 2	TS - Thru-dial service (dial by name)
DEF 3	CL - Call customer support extension
GHI 4	AS - Announcement (address and fax number)
JKL 5	MS - New Product Information Menu Service
MNO 6	VF - Customer Satisfaction Voice Form Survey
PRS 7	PP - Play custom error message
TUV 8	PP - Play custom error message
WXY 9	PP - Play custom error message

AS - Announcement service

To cause an announcement to play when a key is pressed, assign the announcement service to a voice menu key.

Identify the ID of the announcement. (If the announcement has not yet been configured, create it and assign an announcement ID to it.)

Example: Callers are instructed to press "1" if they they require directions to your office. When "1" is pressed, the appropriate announcement is played.

TS - Thru-Dial Service

To allow callers to place a call (dialing by number or by name), assign the thru-dial service to a voice menu key.

Identify the ID of the appropriate thru-dial service. (If the thru-dial service has not yet been configured, create it and assign a thru-dial ID to it.)

Example: Callers are instructed to press "2" if they know the extension of the person they want to speak to. The caller is connected to a thru-dial service that is set up for dialing by number only.

TD - Time-of-Day Control

If a time-of-day controller is associated with a key in a voice menu, the caller will be routed to a particular service (as defined in the time-of-day control definition), depending on the day (holiday or non-holiday) and time of day (business hours or off-hours).

Identify the ID of the time-of-day controller. (If the time-of-day controller has not yet been configured, create it and assign a time-of-day control ID to it.)

Example: You have a menu that is just a list of people's names. For example, "*Press 1 to speak to Dr. Evenshire, 2 to speak to Dr. Bradley...*" Each person in the list may want a different service to be invoked depending on the time of day that calls arrive. For example, Dr. Evenshire might be in surgery every morning, so if a call arrives on a weekday morning, express messaging is invoked. If a call arrives in the afternoon, DMS VoiceMail rings his office phone.

MS - Voice Menu Service

To connect a caller to another voice menu, assign the voice menu service to a voice menu key.

Identify the ID of the voice menu service. (If the voice menu has not yet been configured, create it and assign a voice menu ID to it.)

Example: One of the choices in your main menu allows callers to call through to a specific department. When they choose this option, they are transferred to another voice menu, each item of which represents a department in your organization. (For example, *"For customer support, press 1. To talk to a sales representative, press 2..."*)

CL - Call

If you want a call to be placed to a specific DN when a key is pressed, assign the Call function to that key.

Identify the calling number.

Note: This must be a network DN (that is, the DN that is configured on the DMS, such as a public network DN in the format NPA-NXX-XXXX).

Example: Callers are instructed to press "2" if they they require technical support. When "2" is pressed, a call is placed to the customer support number (extension 2334, entered in the format NPA-NXXX-2334). Callers not have to know the extension or the name of anyone in this department since the call is placed to the appropriate number automatically.

EM - Express messaging

If you want the caller to be transferred to a mailbox in order to leave a message, assign express messaging to that key. You can configure express messaging to work in one of two ways:

1 When the key is pressed, the caller is automatically passed to a specific mailbox. The caller hears the greeting for that mailbox and is prompted to leave a message.

   Use this method to create a general messages mailbox. For example, you are going to use a voice menu service during off-hours. You want callers to be able to leave a message for the person they are trying to reach. If the caller does not know the extension number, he or she will not be able to leave a message. To get around this, create a special mailbox in which callers can leave messages. This mailbox number will be entered into the voice menu definition. The caller leaves a message, specifying who the message is for. The next day, the owner of the mailbox (a receptionist or secretary) will listen to the messages and transfer them to the appropriate people.

2 When the key is pressed, the caller is prompted to enter a mailbox number.

   When a caller enters the extension, he or she hears the personal greeting of the mailbox owner and is prompted to leave a message after the tone. This type of service allows callers to leave messages directly in the mailbox of the person for whom the message is intended.

The following fields may also appear when defining a DN for express messaging:

Mailbox ID

In the first scenario, you need to identify the mailbox ID. The mailbox ID can be up to 18 digits in length.

In the second scenario, do not specify a mailbox ID, to allow for caller input. If you do not specify a mailbox ID, you can use Expansion Digits and Enforce Dial (described below).

Expansion Digits

In the second scenario (where no mailbox ID is specified), you have the option of specifying expansion digits. This feature allows you to make it more convenient for callers to enter mailbox numbers when using express

messaging by allowing them to enter the shorter local DN length of the mailbox numbers instead of the full system DN length of the mailbox numbers.

Note: To use expansion digits, 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 (at the customer administration level). If the system DN length is zero, expansion digits and Enforce dial fields will not appear.

For example, the system DN length is 10 digits (416-598-2339). This is the length of the DNs that are stored on the switch and the length of the mailbox numbers defined on DMS VoiceMail. The local DN length for a centrex customer group is 4.

If expansion digits are not used, the caller would have to enter the full 10-digit DN. However, if expansion digits are implemented, the user need only enter the four-digit DN. The shortened DN is expanded out to the full system DN length using the expansion digits in this field.

The expansion digits in this example would be "416598". When a caller specifies the DN "2339", it is expanded to "4165982339".

Enforce dial

If expansion digits are used, you can also enable a feature called Enforce Dial. If Enforce Dial is implemented, callers will not be allowed to enter a DN that conflicts with the expansion digits. For example, if Enforce Dial is disabled, users would be able to specify a 10-digit DN such as "416-575-2115". If, however, Enforce Dial is enabled, the call would not be placed in this case since "416575" conflicts with the expansion digits ("416598").

VM - Voice Messaging

To allow DMS VoiceMail users to log on to their mailbox from a voice menu, assign the voice messaging service to a key. (Note that callers cannot return to the voice menu once they have invoked voice messaging.)

As with express messaging, you have the option of entering expansion digits to make dialing more convenient, if the local addressing length is smaller than the system DN length. See the descriptions of expansion digits and enforce dial in the preceding description of express messaging.

Example: You have set up an automated attendant (a voice menu) which is active during off-hours. If DMS VoiceMail users call into the office from home, they will be able to log into their mailboxes in order to listen to any new messages by choosing this menu option.

PM - Prompt Maintenance

To allow administrative delegates to call into a voice menu and then access the prompt maintenance service to update recorded prompts, assign the prompt maintenance service to a voice menu key.

If multiple languages are installed on the system, choose the language in which system prompts are to be played.

GS - Greetings service

If the VMUIF interface is installed on your system (and enabled for the customer group), you can assign this action to a voice menu key.

The greetings service allows callers to update their personal greeting using a simplified interface that requires no keypad input. The service simply prompts callers to speak at certain times to record a new greeting.

Note: This service is primarily intended for users with rotary phones. However, rotary phone users cannot access it from a voice menu. Therefore, there must be a VSDN configured for this service in the VSDN table. However, if any users that do have touchtone phones prefer this simplified service, you can offer it to them through a voice menu.

The following two actions can be included in a voice menu if the Voice Forms feature is installed.

VF - Voice forms service

To make a voice form accessible from a voice menu, assign this service to the appropriate voice menu key. A voice form is a service which must be planned and configured separately and then incorporated into the voice menu. See the *Voice Forms Application Guide* for details.

Identify the ID of the voice form.

Example: You have created a number of voice forms to survey customer satisfaction with a number of products. You could create a voice menu to serve as a front end to these voice forms. Callers are prompted to *"Press 1 to tell us what you think about Product A. Press 2 to make comments about Product B..."*

TR - Transcription service

To allow transcribers of voice forms to access the transcription service from a voice menu, assign the transcription service to a menu key.

If you want transcribers to be automatically logged into a particular voice form, identify the ID of the voice form. To allow transcribers to specify which voice form they want to transcribe, do not specify a voice form ID. The transcriber will be prompted for the voice form number.

Assigning actions to undefined keys

If your voice menu has less than 9 choices, an action should still be assigned to each of the remaining undefined (or extra) keys. This allows you to decide what action should be taken if a caller inadvertently presses a key that is undefined. These actions, however, are not real choices and should not be included in the menu greeting prompt or menu choices prompt.

For example, callers are given five choices (*"Press 1 to ... Press 2 to ... Press 3 to ... Press 4 to ... Press 5 to ..."*). The caller presses "8" instead of "5". One of the following actions can occur: the caller can be transferred to the revert DN, a custom prompt can be played, the menu choices can be repeated, the caller can be returned to the main menu (if the caller is currently in a sub-menu), or the call can be disconnected.

If you do not define an action, the system will play the following error prompt: *"That selection is not recognized. Please make another choice."* Since this prompt is not very friendly and does not provide much information, it is generally recommended that you assign PP or RV to any extra (undefined) keys.

PP - Play prompt

If this action is associated with a menu key, a custom prompt (recorded by the administrator) will be played. This allows you create your own custom error messages and instruct the caller what to do if an invalid key was pressed.

An example of a custom error prompt is *"That is not an option. Please choose a number from 1 to 6 or press star to hear your choices again. If you require assistance, press 0 to speak with an operator."*

If this action is assigned to a key but you have not recorded a custom prompt, the following prompt is played: *"No prompt has been recorded. Please make another choice."*

RV - Call Revert DN

If you want a caller to be transferred to a live attendant when an undefined key is pressed, select this action. Make sure that the revert DN for the voice menu is defined. (If this DN is not defined, the following message is played: *"That selection is not recognized."*) The attendant can now give the caller personal assistance.

RP - Repeat menu choices

The menu choices prompt will be played if this action is assigned to pressed key.

MM - Return to main menu

If the caller is in a sub-menu and he or she presses an undefined key, this action will return the caller to the main menu. The menu choices prompt for the main menu will be repeated. If the current menu is the main menu (that is, the first-level menu), the menu choices prompt is repeated.

DS - Disconnect

If this action is assigned to a menu key, the caller is disconnected from the current voice menu when that key is pressed. If *Silent Disconnect* is set to "No", the caller hears a system prompt ("*Goodbye*") before being disconnected. If *Silent Disconnect* is set to "Yes", the caller is disconnected from the current voice menu without hearing the "Goodbye" prompt. This is desired when calls will be connected to another service upon disconnection from the voice menu.

Summary of menu actions and related fields

The following table summarizes the actions that you can assign to any one of the numeric keys (1 to 9). For each menu action, any required or optional fields (such as service IDs) are listed.

Table 1xxx
Summary of menu actions

Menu Action	Related Fields
AS: announcement	Announcement ID (required)
TS: thru-dial service	Thru-Dial ID (required)
TD: time-of-day controller	Time-of-Day Control ID (required)
MS: voice menu service	Voice Menu ID (required)
CL: call	Calling Number (required)
EM: express messaging	Mailbox ID (optional) If no Mailbox ID is specified, Expansion Digits and Enforce Dial (both optional)
VM: voice messaging	Expansion Digits (optional) Enforce Dial (optional if Expansion Digits are used)
GS: greetings service	N/A
VF: voice form	Voice Form ID (required)
TR: transcription service	Voice Form ID (optional)
PM: prompt maintenance service	Language of Service (multilingual systems only)
PP: play prompt	N/A
RV: call revert DN	(a revert DN must be defined for the voice menu)
RP: repeat menu choices	N/A

Menu Action	Related Fields
MM: return to main menu	N/A
DS: disconnect	N/A

Identify the initial no response action

In addition to defining an action for the keys 1 to 9, you must specify the action that should be taken if there is no initial response on the part of the caller within a certain amount of time.

This amount of time is defined as the Command Entry timeout value in the Voice Services Profile. If Command Entry is set to 5 seconds, for example, and a caller who has just listened to the menu choices greeting waits longer than 5 seconds to make a selection, then the Initial No Response action will be taken.

Initial No Response is primarily intended to deal with callers that do not have touchtone phones. If no keypad input is provided by the caller, the most likely reason is that the caller has a rotary phone. In your voice menu greeting, you probably included the statement *"If you do not have a touchtone phone, please wait on the line and an operator will be with you shortly."* To transfer a caller to an operator for assistance from a live attendant, you should assign the RV (Call Revert DN) action.

Identify the delayed response action

A delayed response means that the caller is slow in responding to a prompt (by pressing a key on the telephone keypad). Delayed Response is different from Initial No Response, in that it is used only if the caller has already provided keypad input (therefore, it is known that the caller has a touchtone phone), but is now delaying in providing subsequent input.

For example, a caller has accessed a voice menu that has 5 choices, but pressed "7" by mistake. The menu choices are repeated and the caller is now delaying in choosing an option. If the caller waits longer than a predetermined amount of time, the Delayed Response action will be taken.

The amount of time that the system waits is defined as the Command Entry timeout in the Voice Services Profile.

Since the caller does have a touchtone phone, an appropriate action would be RP (repeat menu choices) or RV (Call Revert DN) since the caller may need assistance at this point.

Identify how the voice menu will be accessed

Identify how the voice menu will be accessed by callers. A voice menu can be accessed in one of three ways:

1   Directly. The caller dials the VSDN of the voice menu.

2   Indirectly, through another voice menu application. The published number connects the caller to a voice menu. The caller accesses the voice menu by pressing the appropriate menu key in a higher level menu.

3   Indirectly, through a time-of-day controller. If the voice menu is associated with the time of day at which the call is received (business hours, off-hours, or a holiday), the caller is connected to the voice menu service.

Voice Menu Definition Worksheet

Page 1 of 3

Voice Menu ID: _____

The ID of the voice menu. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____

The title of the voice menu (up to 29 characters).

Revert DN: _____

(Optional) The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____

(Optional) The password required to access the voice menu. This password can be between 4 and 16 numeric characters in length.

Update Password: _____

(Optional) The password required to access the voice menu in order to update the the prompts using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Greeting:

_____

_____

_____

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Voice Menu Definition Worksheet   Page 2 of 3

Menu choices:

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_____

Silent Disconnect: No ❑   Yes ❑
Should the system "Goodbye" prompt be played upon disconnection? No is the default.

Language for Prompts: _____
If multiple languages are installed, select the one in which system prompts will be played.

Voice Menu Definition Worksheet   Page 3 of 3

Key	Action	Comment
1	_____ _____ *	_____
2	_____ _____	_____
3	_____ _____	_____
4	_____ _____	_____
5	_____ _____	_____
6	_____ _____	_____
7	_____ _____	_____
8	_____ _____	_____
9	_____ _____	_____

Initial No Response:

_____ _____   _____

Delayed Response:

_____ _____   _____

Method of access: Direct ☐   **Via a Voice Menu** ☐   **Time-of-day Controller** ☐

VSDN: _____

*   Enter any associated IDs, calling numbers, or expansion digits in this second field.

Configuring voice menus

Note: All voice menus must be associated with a particular customer group. Therefore, they can only be created at the customer administration level. However, once created, they can be viewed, modified or deleted from the system administration level.

Voice menus are added, viewed, modified and deleted from the Voice Menu Definitions data menu. This menu is invoked from the Voice Services Administration menu, which is accessed from the Voice Administration menu.

> **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 voice services administration (which includes adding, modifying and deleting voice menus) 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 20xxx
Accessing the Voice Menu Definitions data menu

Starting point: The Customer Administration menu

1   Select Voice Administration.

The Voice Administration menu is displayed (Figure 44).

Figure 44xxx
The Voice Administration menu
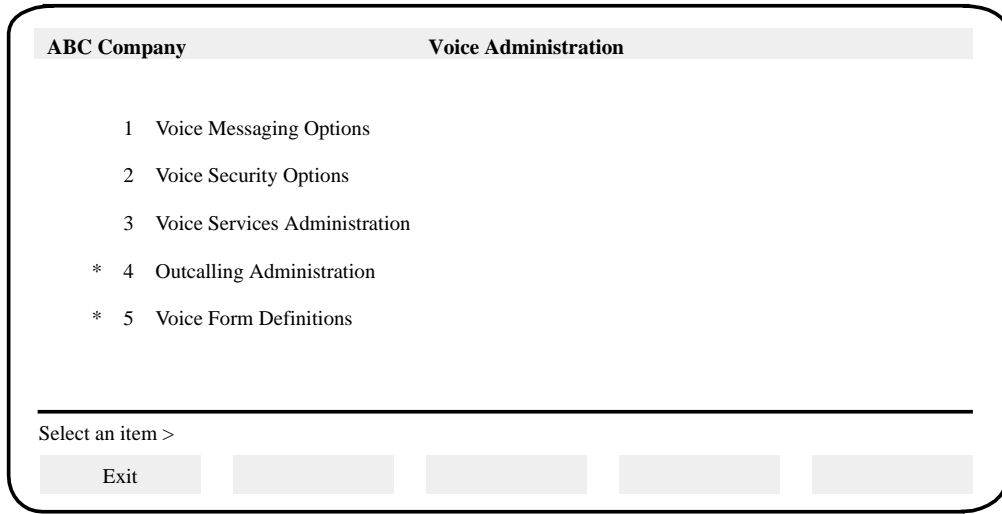
ABC Company	Voice Administration

      1   Voice Messaging Options

      2   Voice Security Options

      3   Voice Services Administration

*   4   Outcalling Administration

*   5   Voice Form Definitions

Select an item >

    Exit

* Indicates an option that may not be part of the base software package
in your country. If optional and not purchased, these items will not be
displayed.

2   Select Voice Services Administration.

The Voice Services Administration menu is displayed (Figure 45).

Figure 45xxx
The Voice Services Administration menu

ABC Company		Voice Services Administration
	1	Voice Services-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		Set Display Options		Find Subset of VSDNs/Services
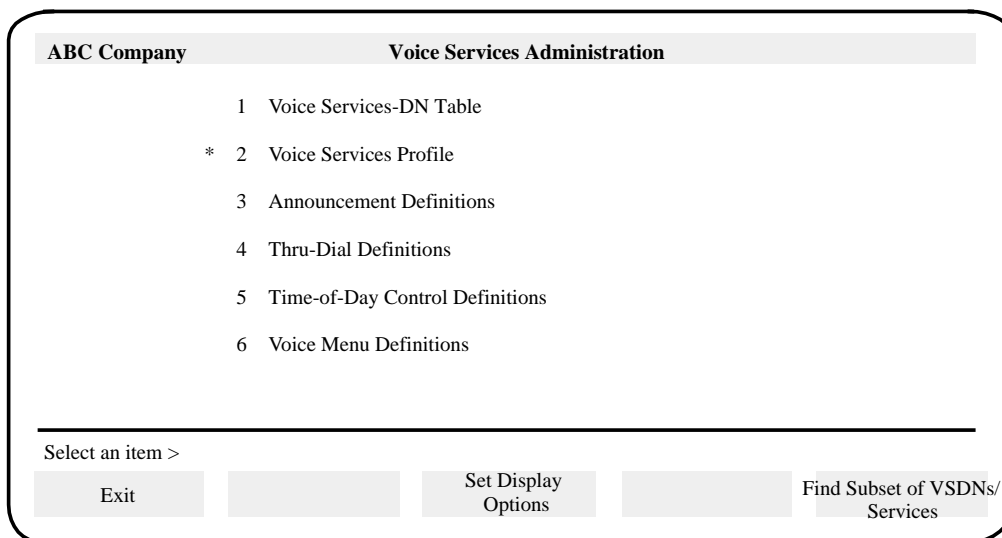
* This item is displayed only at the customer administration level.
# This softkey is only displayed at the system administration level.

3   Select Voice Menu Definitions.

The Voice Menu Definitions data menu is displayed (Figure 46).

Figure 46xxx
The Voice Menu Definitions data menu

ABC Company	Voice Services Administration

Voice Menu Definitions

ID	Title
7051	Auto Attendant
7055	Suggested Retail Prices
7056	Salesmen's Schedules
7060	Customer Information: Line 34
7061	Dept. 603
7063	Dept. 671
7070	Dept. 604
8081	Managers' Information

Move the cursor to the item and press the space bar to select. >

Exit	Add	View/Modify	Delete	Find
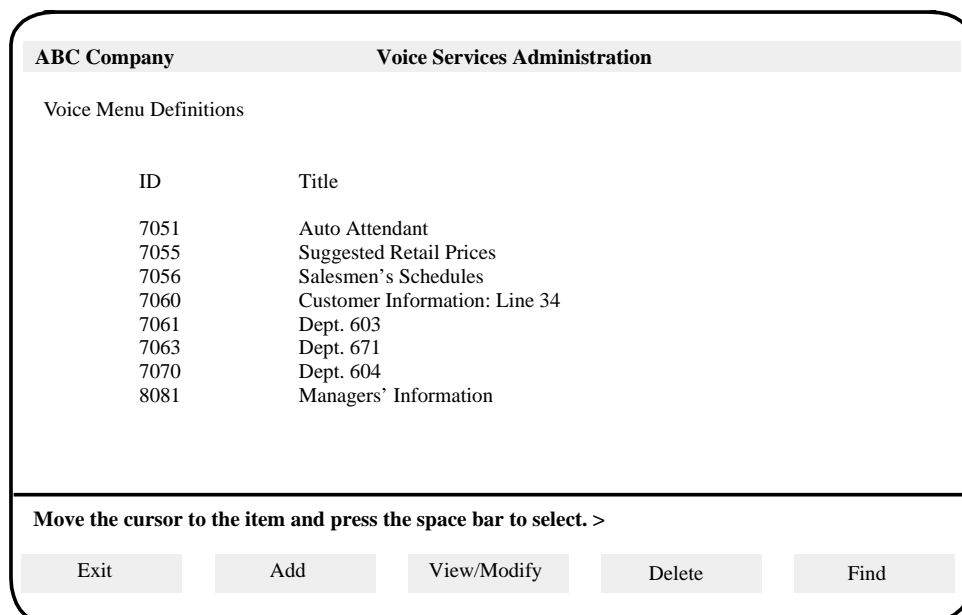
Add a voice menu

Voice menus are defined in the Add a Voice Menu Definition screen.

Follow Procedure 21 to create a new voice menu definition. Make sure you have your Voice Menu Definition Worksheet on hand.

Procedure 21xxx
Adding a voice menu definition

Starting point: The Voice Menu Definitions data menu

1   Press the [Add] softkey.

Note: You must be logged on as customer administrator to add an announcement.

The Add a Voice Menu Definition screen (Figure 47) is displayed.

Figure 47xxx
The Add a Voice Menu Definition screen

ABC Company	**Voice Services Administration**

Add a Voice Menu Definition

* Choice of Menu Actions:
AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect		EM Express Messaging	PP	Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: 100   Title: Main Menu

Revert DN: 0

Access Password: 3295341   Update Password: 39243221

Greeting Recorded (Voice): Yes   Menu Choices Recorded (Voice): Yes

Silent Disconnect: [No]   Yes

** Language for Prompts: [AmericanEnglish]
                 CanadianFrench
                 AmericanSpanish
                 French

Key	Action			Comments
1	TS	Thru-Dial ID:	200	Internal thru-dialer
2	AS	Announcement ID:	300	Weather Report
3	CL	Calling Number:	3900	
			DJ's phone	
4	EM	Mailbox ID:	2339	
		or Expansion Digits:		
		Enforce Dial:	No [Yes]	song requests
5	PP	Recorded (Voice): Yes		
6	PP	Recorded (Voice): Yes		
7	PP	Recorded (Voice): Yes		
8	PP	Recorded (Voice): Yes		
9	PP	Recorded (Voice): Yes		
Initial No Response	RV			
Delayed Response	RP			

Select a softkey >

Save	Cancel		Voice	

---

* Some of these actions are feature-dependent and may not appear on your screen.
** This field is displayed only if more than one language is installed.

2 Enter the Voice Menu ID, the Title, and the Revert DN (optional, but recommended).

3 Enter an Access Password if required.

4 Enter an Update Password if you want to use voice prompt maintenance to modify voice menu prompts.

5 Use the [Voice] softkey to record the menu greeting.

> *See the following section, "Record the voice menu greeting, menu choices prompt and play prompts", for details.*

6 Use the [Voice] softkey to record the menu choices prompt.

> *See the following section, "Record the voice menu greeting, menu choices prompt and play prompts", for details.*

7 Enable Silent Disconnect if necessary.

8 If more than one language is installed on the system, select the language in which system prompts are to be played.

9 Assign an action to keys 1 to 9. Specify any necessary IDs, expansion digits, or calling numbers.

10 Assign an action for Initial No Response.

11 Assign an action for Delayed Response.

12 Go to 12a to save the voice menu definition or 12b to cancel the addition.

    a. Use [Save].

> *The voice menu definition is saved and the the Voice Menu Definitions data menu is displayed.*

    b. Use [Cancel].

> *The voice menu definition is discarded and the Voice Menu Definitions data menu is redisplayed.*

Record the voice menu greeting, menu choices prompt and play prompts

The menu greeting and the menu choices prompt can be recorded in one of two ways: from the administration terminal using the [Voice] softkey, or from a remote DTMF telephone set using the voice prompt maintenance service. If the environment around your terminal is noisy, you may prefer to use the voice prompt maintenance service to call from a phone in a quiet location.

This section describes how to use the [Voice] softkey. The voice prompt maintenance service is described in the chapter "Using voice prompt maintenance and remote activation".

Procedure 22
Recording voice menu prompts

Starting point: The Add a Voice Menu Definition screen

1 To record the menu greeting, go to step 1a. To record the menu choices prompt, go to step 1b. To record a play prompt, go to step 1c.

    a. Move the cursor to the *Greeting Recorded* field.

    b. Move the cursor to the *Menu Choices Recorded* field.

    c. Move the cursor to the key for which you want to record a prompt and enter PP in the *Action* field.

Another field, Recorded (Voice), is displayed. If no prompt is currently recorded, it will say No.

2 Press the [Voice] softkey.

You are prompted for an extension number.

3 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.

4 Pick up the telephone handset.

The recording softkeys are displayed.

Return	Play	Record	Delete	Disconnect

5 Press the [Record] softkey.

At the sound of the beep, begin speaking into the handset.

Press the [Stop] softkey when you have finished.

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 Services Profile.

6 When you are satisfied with the recording and want to disconnect the call through the softkeys, use step 6a. To disconnect by hanging up, go to step 6b. To return to the original softkeys without disconnecting the extension, go to step 6c.

a. Use [Disconnect]. The line is disconnected and the original softkeys are displayed. If you press [Voice] to access the recording softkeys again, you will have to re-enter the telephone extension.

b. Place the receiver on hook.

The call is terminated and [Return] appears.

Use [Return] to return to the current screen with its original softkeys.

c. Use [Return] softkey. The line is not disconnected (unless you hang up the receiver). The original softkeys are displayed. 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.

7 Press [Save] to save the recording and the voice menu definition.

Make the voice menu accessible

You can make a voice menu accessible to callers in one of three ways: direct access, indirect access through another voice menu, or indirect access through a time-of-day controller.

Direct Access

Callers access the voice by dialing a special DN that connects them directly to the voice menu. Follow Procedure 23 to create a VSDN for the voice menu. This procedure assumes that there are available hunt groups on the switch.

Procedure 23xxx
Creating a VSDN for a voice menu

Starting point: The Customer Administration menu

1   Select Voice Administration.

The Voice Administration menu is displayed.

2   Select Voice Services Administration.

The Voice Services Administration menu is displayed.

3   Select Voice Services-DN Table.

The Voice Services-DN Table is displayed. See Figure 48.

Figure 48xxx
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

4   Press the [Add] softkey.

The Add DN Information screen is displayed. See Figure 49.

Figure 49xxx
The Add DN Information screen (voice menu datafill)

```
ABC Company                          Voice Services Administration

Add DN Information

*Choice of Services:

AN  AMIS Networking            AS     Announcement Service     EM     Express Messaging
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:          7009

        Service:            MS      Voice Menu ID:      701

        Comment:



Select a Softkey >
     Save                Cancel
```

*   **All possible services are listed in this screen for illustration purposes.**

5 Enter the access DN.

This is the number that callers will dial to access the voice menu.

6 Enter "MS" in the *Service* field.

An additional field, Voice Menu ID is displayed.

7 Enter the ID of the voice menu that will be retrieved when callers dial the access DN.

8 Enter a comment (this is an optional step).

9 Go to 9a to save the VSDN or 9b to cancel the addition.

   a. Use [Save].

   The VSDN is saved and the the Voice Services Administration screen is displayed.

   b. Use [Cancel].

   The VSDN is discarded and the Voice Services Administration screen is redisplayed.

Indirect access through another voice menu

Callers dial the DN of first-level voice menu. The menu you are creating is a menu action (a sub-menu) of the main menu and is accessed when the caller presses the appropriate key.

The VSDN of the main menu is entered in the VSDN table since the sub-menu is accessed through the main menu. Procedure 23 on page 136 describes how to create a VSDN for a voice menu.

Indirect access through a time-of-day controller

Callers dial the DN of the active time-of-day controller and are routed to the voice menu depending on the day and time of day. For instructions on planning and creating a time-of-day controller, see the chapter "Planning and configuring time-of-day controllers".

Any one of the three time periods in a time-of-day controller IDs (Business Hours, Off-Hours, or Holiday), can be associated with a voice menu ID.

You can either modify an existing time-of-day controller definition or create a new time-of-day controller. If the time-of-day controller already exists, the VSDN will already be defined. If you are going to create a new time-of-day controller, you will have to add the VSDN of the time-of-day controller to the VSDN Table. See the chapter "Planning and configuring time-of-day controllers" for details.

Test the voice menu

Call the menu service (or time-of-day controller) VSDN and test every menu action. Have your diagram and/or worksheet in front of you to verify that the correct actions are taken. For items that do not work, return to the definition screen and correct the mistake. If, for example, the wrong service is accessed, you probably entered the wrong service ID in the voice menu definition. After making any modifications, test the menu again. If you have to go back and modify again, always test the service afterwards to ensure your modifications actually fixed the problem.

Personal voice menus

Voice menus can be created specially for particular users who require more options than the standard call answering options that are presented to callers (to leave a message or press "0" for assistance). These are known as *personal voice menus*. Discuss with your user the various actions that are required and determine an appropriate design.

The user's DN is entered as a voice service DN in the VSDN table. When the DN is called, the voice menu associated with the DN takes the call. Unlike regular voice menus, personal voice menus do not require because there is a real DN associated with the user's terminal. To set up a personal voice menu, follow the procedure below.

Procedure 24xxx
Creating a personal voice menu

1   Create a voice menu for the user.

2   Access the Voice Services-DN Table.

3   Press the [Add] softkey.

   The Add DN Information screen is displayed.

4 Enter the user's extension DN as the access DN.

5 Enter MS (voice menu service) as the Service.

6 Save the DN information.

Modifying a voice menu

While a voice menu is being updated, the old version of the voice menu is still played to callers. The new version takes effect when the updated voice menu has been saved.

Voice menus can be modified from either the system administration level or the customer administration level.

Procedure 25xxx
Modifying voice menus

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Voice Menu Definitions.

The Voice Menu Definitions data menu is displayed.

4 Move the cursor to the voice menu definition you want to view or modify.

5 Press the <Spacebar> to select it.

6 Press [View/Modify].

The View/Modify a Voice Menu Definition screen (Figure 50) is displayed.

Figure 50xxx
The View/Modify a Voice Menu Definition screen

```
ABC Company                          Voice Services Administration

View/Modify a Voice Menu Definition

* Choice of Menu Actions:
  AS    Announcement Service      CL    Call                    RV    Call Revert DN
  DS    Disconnect                      EM   Express Messaging       PP    Play Prompt
  PM    Prompt Maintenance        PM    Prompt Maintenance    RP    Repeat Menu Choices
  MM     Return to Main Menu      TS    Thru-Dial Service        TD    Time-of-Day Control
  TR    Transcription Service     VF    Voice Forms Service     MS    Voice Menu Service
  VM     Voice Messaging

  Voice Menu ID:          100_____        Title:     Main Menu_____

  Revert DN:              0_____

  Access Password:     3295341____              Update Password: 39243221_____

  Greeting Recorded (Voice):  Yes             Menu Choices Recorded (Voice): Yes

  Silent Disconnect:       [No]      Yes

  **Language for Prompts:   [AmericanEnglish]
                            CanadianFrench
                            AmericanSpanish
                            French

        Key              Action                                    Comments
        1               TS    Thru-Dial ID:          200___   Internal thru-dialer__
        2               AS    Announcement ID:          300___   Weather Report_____
        3               CL    Calling Number:        3900_____
                                                     DJ's phone_____
        4               EM       Mailbox ID:                2339_____
                              or Expansion Digits:      _____
                              Enforce Dial:         No  [Yes]    song requests_____
        5               PP    Recorded (Voice): Yes              _____
        6               PP    Recorded (Voice): Yes              _____
        7               PP    Recorded (Voice): Yes              _____
        8               PP    Recorded (Voice): Yes              _____
        9               PP    Recorded (Voice): Yes              _____
  Initial No Response   RP                                       _____
  Delayed  Response     RV


  Select a softkey >
```

| Save | Cancel | | Voice | |

*   Some of these actions are feature-dependent and may not appear on your screen.
** This field is displayed only if more than one language is installed.

7   Change the Voice Menu ID, the Title, or the Revert DN if necessary.

8   Change the Access Password or Update Password if necessary.

9   Use the [Voice] softkey to re-record the menu greeting.

See the section "Record the voice menu greeting, menu choices prompt and play prompts" on page 134 for details.

10 Use the [Voice] softkey to record the menu choices prompt.

See the section "Record the voice menu greeting, menu choices prompt and play prompts" on page 134 for details.

11 Enable or disable Silent Disconnect if necessary.

12 If more than one language is installed on the system, change the language in which system prompts are played if necessary.

13 Change key assignments if necessary. Specify any new IDs, expansion digits, or calling numbers.

14 Assign a different action for Initial No Response if necessary.

15 Assign a different action for Delayed Response if necessary.

16 Go to 16a to save the voice menu definition or 16b to cancel the addition.

   a. Use [Save].

    The voice menu definition is saved and the the Voice Menu Definitions data menu is displayed.

   b. Use [Cancel].

    The voice menu definition is discarded and the Voice Menu Definitions data menu is redisplayed.

Deleting a voice menu

Voice menus are deleted from the Delete a Voice Menu Definition screen (Figure 51). The fields in this screen are read-only. If the voice menu is currently being modified through the voice prompt maintenance service, you cannot delete it until it has been saved.

Voice menus can be deleted from either the customer administration level or the system administration level.

Note 1: If the voice menu you are deleting is associated with another voice menu or time-of-day controller, be sure to modify the appropriate definitions to account for the absence of this voice menu (that is, remove references to this voice menu ID within the voice menu or time-of-day controller definition). If the voice menu is associated with an entry in the VSDN table, be sure to delete it. VSDNs must not point to deleted services. The system does not perform a sanity check to ensure against this.

Note 2: If the voice menu contains any thru-dial services, announcements, time-of-day controllers, voice forms, or other voice menus, these services will not be deleted from the system.

Procedure 26xxx
Deleting a voice menu

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Voice Menu Definitions.

4 Move the cursor to the voice menu you want to delete and press the <Spacebar> to select it.

5 Press [Delete].

The Delete a Voice Menu Definition screen is displayed (Figure 51).

Figure 51xxx
The Delete a Voice Menu Definition screen

ABC Company		Voice Services Administration	

Delete a Voice Menu Definition

Choice of Menu Actions:

AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect	EM	Express Messaging	PP	Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: 100   Title: Main Menu

Revert DN: 0

Access Password: 3295341   Update Password: 39243221

Greeting Recorded (Voice): Yes   Menu Choices Recorded (Voice): Yes

Silent Disconnect: [No]   Yes

Language for Prompts: [AmericanEnglish]
                          CanadianFrench
                          AmericanSpanish
                          French

Key	Action			Comments
1	TS	Thru-Dial ID:	200	Internal thru-dialer
2	AS	Announcement ID:	300	Weather Report
3	CL	Calling Number:	3900	
				DJ's phone
4	EM	Mailbox ID:	2339	
		or Expansion Digits:		
		Enforce Dial:	No [Yes]	song requests
5	PP	Recorded (Voice): Yes		
6	PP	Recorded (Voice): Yes		
7	PP	Recorded (Voice): Yes		
8	PP	Recorded (Voice): Yes		
9	PP	Recorded (Voice): Yes		
Initial No Response	RP			
Delayed Response	RV			

Select a softkey >

OK to Delete	Cancel			

6 Go to 6a to delete the voice menu or 6b to cancel the deletion.

a. Use [OK to Delete].

The system deletes the voice menu and redisplays the Voice Menu Definitions data menu.

b. Use [Cancel].

The voice menu is kept and the Voice Menu Definitions data menu is redisplayed.

7 If the voice menu was associated with a DN in the VSDN table, go to the VSDN table and delete the DN.

If the voice menu was associated with another voice menu or time-of-day controller, go to the appropriate service definition, and delete voice menu ID from the definition.

Using the find function

Overview

The find function can be used to

- Retrieve a particular service definition (announcement, thru-dial service, time-of-day controller, voice menu, or voice form).

  For example, you have defined a large number of announcements for a particular customer group. Whenever you select Announcement Definitions from the Voice Services Administration menu in order to modify an announcement, all of the announcements for that customer group are displayed. This is quite a long list and the system may take a while to display it.

- Retrieve a subset of services.

  For example, you want to retrieve all of the holiday announcements for all customer groups so that you can update them. Each customer group has an announcement called "Holiday AS". This announcement is referenced in time-of-day controllers as the holiday service. You want to re-record the announcement for the upcoming holiday.

- Easily switch between different service definitions and the VSDN table without having to traverse a menu hierarchy.

  For example, you have just created a thru-dial service and now need to create a DN for it in the VSDN table. Rather than going through a number of screens to get to the table, you use the [Find] softkey to get to it quickly.

- Print lists of VSDNs and service definitions.

  For example, you want a list of all of the announcements on the system (or created for a particular customer group) for your records. In the Find Subset of VSDNs/Services screen, you specify that you want to retrieve announcements (you do not specify any other requirements). When you press [Print Selection] a list of all announcements (the title and ID of each announcement) is printed.

The [Find Subset of VSDNs/Services] softkey

The [Find Subset of VSDNs/Services] softkey is displayed on the Voice Services Administration menu (Figure 52). When this softkey is used, the Find Subset of VSDNs/Services screen is displayed.

Figure 52xxx
The Voice Services Administration Menu

ABC Company	Voice Services Administration

	1	Voice Services-DN Table
*	2	Voice Services Profile
	3	Announcement Definitions
	4	Thru-Dial Definitions
	5	Time-of-Day Controls Definitions
	6	Voice Menu Definitions

Select an item >

Exit		Set Display Options #		Find Subset of VSDNs/ Services
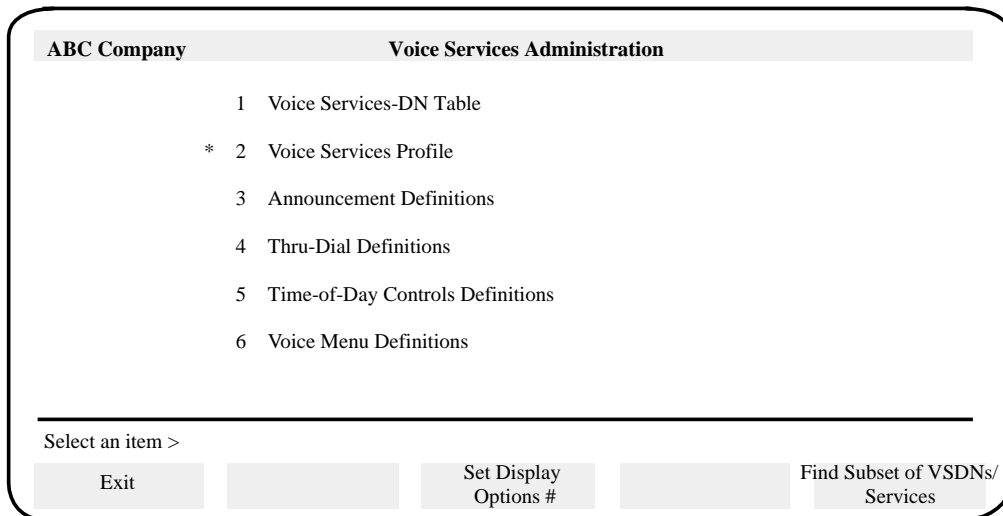
*   This item is displayed only at the customer administration level.
\#   The [Set Display Options] softkey is displayed only at the system administration level. See the chapter "Setting the display options" for details.

This softkey is used for finding a particular service definition or a subset of services. To retrieve a particular service definition, you must know one of the following:

- the service ID
- the title of the service

If you do not know the exact ID or title, you can retrieve a subset of services if you know some of the information (such as part of the title of the service) and then find the service definition you want from this shorter list of services. To retrieve a subset of services, you use wildcard characters to create a search pattern.

You might also want to retrieve a subset of services in order to print a list for your records using the [Print Selection] softkey in the Find Subset of VSDNs/Services screen.

The [Find] softkey

The [Find] softkey is available in the service definition data menus (such as the Announcement Definitions data menu as shown in Figure 53). When you press the [Find] softkey, the Find Subset of VSDNs/Services screen is displayed (see Figure 54 on page 149). 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, voice menus, and so on) are added to the system, you can manipulate DN information and then cross check the associated service definitions or vice versa.

Figure 53xxx
The Announcement Definitions data menu

ABC Company	Voice Services Administration

Announcement Definitions

ID	Title
211	Printer Status
212	System Status
213	Benefits Change
217	Department Reorganization
222	Club Activities
224	Overtime Policy
229	Health and Safety
234	Security Code

Move the cursor to the item and press the space bar to select. >

Exit	Add	View/Modify	Delete	Find

Using the find function

As mentioned earlier, you can either retrieve a particular service definition or a subset of definitions. To retrieve a subset, you may use wildcard characters. These characters are described below.

Using wildcard characters

You can use wildcard characters to create search patterns in the following fields in the Find Subset of VSDNs/Services screen: *Customer Name, DN, Comment* and *Title*. (The *Customer Number*, *ID* and *Service* fields do not accept wildcard characters.) Where accepted, the three valid wildcard characters are: "+" (the plus sign), "_" (underscore), and "?" (question mark).

Plus sign (+)

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.

Underscore (_)

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_ _".

Question mark (?)

The question mark (?) produces a "sound match". This is useful if, for example, you are unsure of the spelling of a customer's name or the exact title of a service. 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, and so on.

Filling in the Find Subset of VSDNs/Services screen

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

Figure 54xxx
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

    #   Customer Number:   123         Customer Name:  _____

        Type:            [VSDN Entry]Announcement    Thru-Dial  TOD_Control  Voice_Menu

*       DN:                 233+_____

*       Service:         MS_   *   Comment: _____

**      +ID:                ____

**      Title:              _____



     Select a softkey >

     [          ]      [   Cancel   ]      [    Find     ]      [   Print     ]      [          ]
                                           [  Selection  ]      [  Selection  ]
```

\#   This row is only displayed at the system administration.
*   These fields are displayed if Type is VSDN Entry.
**   These fields are displayed if Type is not VSDN Entry.
\+   This field is not displayed if Type is TOD_Control.

Customer number

(This field is displayed on multicustomer systems only at the system administration level.) To retrieve all service definitions (announcements, voice menus, thru-dial services, or time-of-day controllers) for a particular customer group, enter the customer number in this field.

To retrieve VSDNs or services across all customer groups, leave this field blank.

This field does not accept wildcard characters.

Customer name

(This field is displayed on multicustomer systems only at the system administration level.) If you want to retrieve the VSDNs or service definitions associated with a particular customer group, you can enter the customer name instead of the customer number (if, for example you only remember the customer name).

If you can't remember the exact name, use wildcard characters to create a search pattern. For example, one of your customer groups is the Orlando Trust Company. All you remember is "Orlando". Enter "Orlando+" to retrieve service definitions for all customers whose names begin with "Orlando".

Leave this field blank if the customer name is not a relevant search criteria.

Type
Specify the type of information you want to retrieve. Your choices are

- VSDN Entry

  The VSDN table will be displayed.

- Announcement

  The Announcement Definitions data menu will be displayed.

- Thru-Dialer

  The Thru-Dial Definitions data menu will be displayed.

- TOD Control

  The Time-of-Day Control Definitions data menu will be displayed.

- Voice Menu

  The Voice Menu Definitions data menu will be displayed.

Retrieving VSDNs
The following fields-*DN*, *Service* and *Comment*-are displayed only if Type is set to "VSDN Entry":

DN To retrieve a particular VSDN, enter the full DN in this field. To retrieve a subset of DNs, use wildcard characters to create a search pattern.

For example, if all announcement VSDNs are numbered from 2900 to 2999, you would enter "29_ _" to retrieve only announcement VSDNs.

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 voice menu VSDNs, enter "MS" in this field.

This field does not accept wildcard characters.

Comment Any comment you enter here must match the comment that is entered in the Add or View/Modify DN Information screen. Wildcard characters are acceptable.

Retrieving service definitions

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. If you do not know the service ID, you can use the next field, *Title*, if you remember all or part of the service title.

You cannot use wildcard characters in this field.

Title To retrieve a specific service definition, you can enter the title instead of the ID.

If you cannot remember the exact title of the service (or its spelling), use wildcard characters to create a search pattern. For example, you want to retrieve an automated attendant that is used during off-hours. You do not remember the ID, and you don't remember the exact title, but you know it's one of "Night Menu", "Nightly Menu", or "Nighttime Menu". The solution would be to enter "Night+ Menu". (Note that the space must be entered since wildcard characters do not work for spaces.)

Viewing or printing the results

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

Procedure 27xxx
Viewing or printing a list of VSDNs or services

Starting point: The main menu or the Customer Administration menu

8 Select Voice Administration.

9 Select Voice Services Administration.

10 Press the [Find Subset of VSDNs/Services] softkey.

The Find Subset of VSDNs/Services screen is displayed.

Note: This screen can also be accessed by using the [Find] softkey in a service definition data menu.

11 Fill in the Find Subset of VSDNs/Services screen. See the field descriptions on the preceding pages.

12 To view the results on the screen, go to step 12a. To print the results, go to step 12b. If you do not want to continue, go to step 12c.

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:

Select a softkey >

| | Cancel Printing | | Continue Printing | |
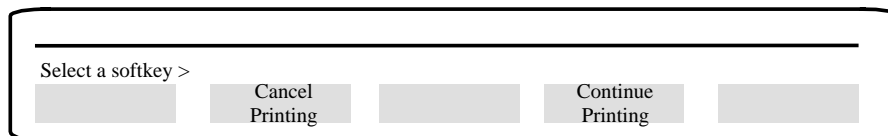
Press [Continue Printing] to go ahead with printing.

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.

Using the [Find] softkey to switch between screens

The [Find] softkey can make it easier for you to switch between screens. You can go from one service definition data menu to another service definition data menu or the VSDN table using the [Find] softkey.

For example, you have just created and tested a new voice menu application. You are ready to put it into use and make it available to callers. This requires a VSDN for the voice menu. To get from the service definition screen to the VSDN table quickly, you could use the [Find] softkey.

Procedure 28xxx
Using the [Find] softkey to switch screens

Starting point: The main menu or the Customer Administration menu

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select a service definition (such as Announcement Definitions, or Voice Menu Definitions) then add a new definition or modify an existing one.

After the new definition (or the modified version of an existing definition) is saved, the data menu is displayed.

4 Press [Find].

The Find Subset of VSDNs/Services screen is displayed.

5 To go to the VSDN table, go to step 5a. To go to another service definition, go to step 5b.

a. In the Type field, specify VSDN Entry.

To view or modify an existing DN, enter the DN in the DN field. If you need to create a VSDN, leave all fields blank.

b. In the Type field, specify the definition type (announcement, thru-dial, and so on).

To view or modify an existing service definition, specify its ID or title. To add a new service definition, leave all fields blank.

6   Press [Find Selection].

If VSDN Entry was selected, the VSDN Table is displayed.

If a service was selected, the appropriate data menu is displayed. For example, if voice menu was selected, the Voice Menu Definitions data menu is displayed.

Automated attendants

An automated attendant is a service that automatically answers calls within a predefined number of rings, with no assistance from a live attendant (operator). It then allows callers to reach an extension by prompting the caller to enter the extension number or name, or offers other services, such as announcements or voice menus choices. An automated attendant can process multiple calls simultaneously, and is only limited by the number of ports on the DMS VoiceMail system.

This chapter provides an example of each type of automated service outlined in the "Overview" chapter. This is to illustrate to you the types of applications that are possible, and to stimulate ideas about how you can use automated attendants in your organization.

Basic automated attendant

The most basic automated attendant uses only the thru-dial service. When a caller reaches the basic automated attendant, a prompt for the extension number or name is played. The caller then enters the number or name and the call is placed. If the caller does nothing, the call is routed to a live attendant.

This version of the automated attendant is useful for organizations whose employees have the same likelihood of being called. The value of this automated attendant depends on callers knowing the extension numbers or names of the people they want to reach.

This automated attendant can be set up as a separate outside line so that this number would be given to callers who know the extension numbers or names of the people they wish to reach. Another line with a live attendant could then handle the one-time callers who do not have the necessary information.

To plan and configure a basic automated attendant, refer to the chapter "Planning and configuring thru-dial services".

Example

Peer Enterprises does not have a receptionist and the secretary is too busy to answer the phone all day. It has been decided that a basic automated attendant that allows callers to thru-dial is sufficient.

Setup

1 The secretary's number will be used as the revert DN to provide callers with assistance, if necessary.

2 An access password is not needed since all callers need to be able to access the thru-dial service.

3 An update password is needed so that the voice prompt maintenance service can be used to update the thru-dial greeting.

4 The dialing method will be by number or by name (caller preference).

5 Only internal extensions are permitted-no off-switch calls are allowed (the existing OnSwitch restriction/permission set will be applied to the thru-dial service).

6 The thru-dial greeting is as follows:

"Thank you for calling Peer Enterprises. If you would like to speak to the receptionist, or if you have a rotary-dial phone, please wait on the line and someone will be with you shortly. If you know the extension number of the person you wish to dial, enter the extension number followed by the number sign. If you know only the person's name, please press 11, then spell the last name followed by the first, using the letters on the keypad."

Figure 55 on the following page is a flowchart that shows the call sequence for this basic automated attendant. The thru-dial definition is shown in Figure 56.

Figure 55xxx
Basic automated attendant

```
┌──────────────────────────────────────────────────────────────┐
│                                                                │
│            ┌──────────────────────────────┐                    │
│            │  Caller dials main number to │                    │
│            │       Peer Enterprises       │                    │
│            └──────────────┬───────────────┘                    │
│                           ▼                                    │
│            ┌──────────────────────────────┐                    │
│            │  Call terminates on a dummy  │                    │
│            │   queue (or hunt group)      │                    │
│            └──────────────┬───────────────┘                    │
│                           ▼                                    │
│            ┌──────────────────────────────┐                    │
│            │ Call is forwarded to the Prime│                   │
│            │    Voice Messaging Queue      │                   │
│            └──────────────┬───────────────┘                    │
│                           ▼                                    │
│            ┌──────────────────────────────┐                    │
│            │ Call is sent to the VSDN table│                   │
│            └──────────────┬───────────────┘                    │
│                           ▼                                    │
│      ┌────────────────────────────────────────────┐           │
│      │              VSDN TABLE                     │           │
│      │  DN          SERVICE        COMMENT         │           │
│      │  1001        TS ID 100      Internal only   │           │
│      └────────────────────┬───────────────────────┘           │
│                           ▼                                    │
│            ┌──────────────────────────────┐                    │
│            │  Call is sent to the Thru-Dial│                   │
│            │    Service (with the ID 100)  │                   │
│            │         See Figure 56         │                   │
│            └──────────────────────────────┘                    │
│                    ▼  ▼  ▼                                     │
│   Caller listens to greeting and does one of the following:    │
│                                                                │
│   ▶  Caller dials an extension number                          │
│                                                                │
│   ▶  Caller dials a user by name using the telephone keypad    │
│                                                                │
│   ▶  Caller dials "0" and the revert DN is dialed              │
│                                                                │
│   ▶  Caller does nothing for x seconds and the revert DN is dialed │
│                                                                │
└──────────────────────────────────────────────────────────────┘
```

Figure 56xxx
The Thru-Dial Definition

```
┌──────────────────────────────────────────────────────────────────┐
│  Peer Enterprises              Voice Services Administration        │
│                                                                    │
│   Add a Thru-Dial Definition                                       │
│                                                                    │
│   Thru-Dial ID:       100          Title:  Internal Thru-Dialer    │
│                                                                    │
│   Revert DN:           0                                           │
│                                                                    │
│   Access Password:   _____       Update Password: 43209876       │
│                                                                    │
│   Greeting Recorded (Voice):     Yes                               │
│                                                                    │
│ * Language for Prompts:            [AmericanEnglish]               │
│                                     CanadianFrench                  │
│                                     AmericanSpanish                 │
│                                                                    │
│** Dial by:                        Number  Name  [Both]             │
│                                                                    │
│   Restriction/Permission Set:  Custom [OnSwitch]  Local  LongDistance1 │
│                                     LongDistance2                   │
│                                                                    │
│  ───────────────────────────────────────────────────────────────  │
│   Select a softkey >                                               │
│     Save           Cancel                        Voice             │
└──────────────────────────────────────────────────────────────────┘
```

*   This field is displayed if multiple languages are installed.
** "Name" and "Both" are displayed only if Name Dialing is enabled.

Automated attendant with menu choices

This version of an automated attendant can be configured to let callers choose to be routed to predefined numbers rather than entering an extension number or name.

This type of automated attendant is useful for organizations that have people or departments receiving a high volume of calls. The directory number of such people or departments can be put in a menu so that, when a caller selects that menu choice, the call is routed directly to the appropriate number.

Having predefined numbers available to callers is also useful when callers may not know the extension number or name of the person they need to reach.

Example

Nadir International receives many calls for sales representatives and for product servicing. Because a large percentage of callers are first-time callers, they are not familiar with people's names or extensions.

An automated attendant is, therefore, created so that callers can dial an extension or name themselves, but it will also have predefined menu choices that route callers automatically to the sales or customer service representative they want. Figure 57 illustrates the structure of this automated attendant service.

Figure 57xxx
Structure of an automated attendant with menu choices
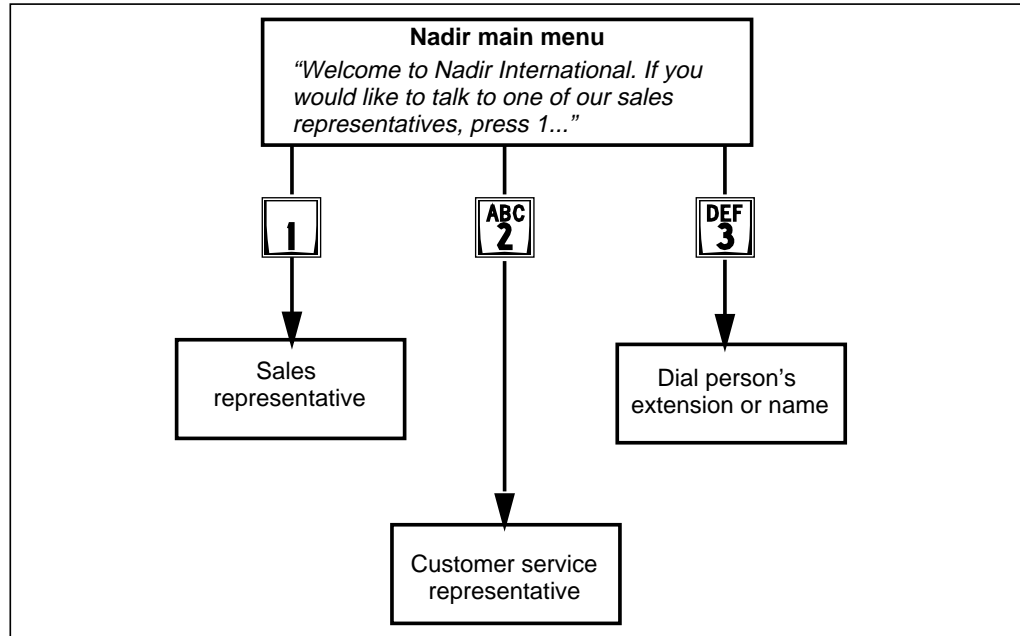
Setup

1 Greeting

"Welcome to Nadir International. If you would like to talk to one of our sales representatives, press 1. If you would like to talk to someone in the service department, press 2. If you know the extension number or name of the person you would like to reach, press 3. If you need assistance, press 0 or just wait on the line."

2 Menu choices prompt

"To talk to a sales representative, press 1. To talk to a customer service representative, press 2. To dial the extension number or name of the person you would like to reach, press 3. If you need assistance, press 0."

3   Key 1

Key 1 is set up to call the sales representative. The action is Call (CL) and the number is the extension number (4389) of the sales representative.

4   Key 2

Key 2 is set up to call the customer service representative. The action is Call (CL) and the number is the extension number (4399) of the customer service representative.

5   Key 3

Key 3 is set to go to a thru-dial service. The action is thru-dial service (TS), and the ID is that of the thru-dial service (100). This allows callers to dial the extension numbers or names of the people they want to reach.

6   Keys 4 to 9

Keys 4 to 9 are programmed to play a custom error prompt. The action is PP. If a caller presses a numeric key other than 1, 2, or 3, he or she will hear the following prompt:

"That selection is not valid. Please enter a number from 1 to 3. If you would like to hear your choices again, please press star."

7   Initial No Response

RV (revert) is selected as the action to be taken if a caller does not make an initial response in a predetermined amount of time. RV will transfer the caller to the revert DN of the voice menu.

8   Delayed Response

If a caller has provided keypad input, but is now delaying in providing a subsequent response, the following prompt (PP) will be played:

"Please enter a number from 1 to 3 on your telephone keypad. To hear the menu choices again, press star. If you require assistance, please press 0."

Since the caller has provided keypad input, you know that the caller has a touch-tone phone.

9   The receptionist's number will be used as the revert DN in case callers require assistance.

10 No access password is required since all callers must be able to access the service.

11 An update password is necessary so that the voice prompt maintenance service can be used to update the voice menu prompts.

12 Silent disconnect is set to "No" so that the system "Goodbye" prompt will be played before the caller is disconnected.

Figure 58 shows a flowchart for the above example. Figure 59 shows the Voice Menu Definition.

Figure 58xxx
Flowchart for an automated attendant with menu choices

```
        ┌─────────────────────────────┐
        │ Caller dials main number to │
        │      Nadir International     │
        └─────────────────────────────┘
                      ▼
        ┌─────────────────────────────┐
        │ Call terminates on a dummy  │
        │   queue (or hunt group)     │
        └─────────────────────────────┘
                      ▼
        ┌─────────────────────────────┐
        │ Call is forwarded to the Prime │
        │   Voice Messaging Queue     │
        └─────────────────────────────┘
                      ▼
        ┌─────────────────────────────┐
        │ Call is sent to the VSDN table │
        └─────────────────────────────┘
                      ▼
```

VSDN TABLE		
DN	**SERVICE**	**COMMENT**
1001	MS ID 200	Nadir main menu

```
                      ▼
        ┌─────────────────────────────┐
        │ Call is sent to the voice menu service │
        │         (See Figure 59)      │
        └─────────────────────────────┘
                      ▼
```

VOICE MENU 200		
KEY 1	**KEY 2**	**KEY 3**
Call Ext. 4389	Call Ext. 4399	Thru-dialer TS ID 100

Ext 4389   Ext 4399

Thru-Dialer
TS ID 100

Figure 59xxx
The Voice Menu Definition

Nadir International	Voice Services Administration

Add a Voice Menu Definition

*Choice of Menu Actions:

AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect	EM	Express Messaging	PP	Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: 200   Title: Nadir Main Menu

Revert DN: 0

Access Password: _____   Update Password: 3019492

Greeting Recorded (Voice): Yes   Menu Choices Recorded (Voice):Yes

Silent Disconnect: [No] Yes

\# Language for Prompts: [AmericanEnglish]
                CanadianFrench
                AmericanSpanish
                French

Key	Action			Comments
1	CL	Calling Number:	4389	
				Sales Rep
2	CL	Calling Number:	4399	
				Service Rep
3	TS	Thru Dial ID:	100	Internal thru-dialer
4	PP			_____
5	PP			_____
6	PP			_____
7	PP			_____
8	PP			_____
9	PP			_____
Initial No Response	RV			_____
Delayed Response	RP			

Select a softkey >

Save	Cancel		Voice	

---

*   Some of these Actions are feature-dependent and may not appear on your screen.
\#   This field is displayed if multiple languages are installed on the system.

Announcement-only automated attendant

The announcement-only automated attendant plays a single recorded announcement to the caller. The caller's options are to listen to the announcement and hang up, or dial 0 for assistance (if a revert DN is defined for the announcement).

Example

Nadir International shuts down completely after hours so that there is no one there to take calls. An announcement is created to inform callers that the premises are closed, states the business hours, then disconnects the caller.

Setup

1 Announcement

"Welcome to Nadir International. Our office is closed right now. Please call back during our regular business hours, Monday to Friday, 8:30 a.m. to 5:00 p.m. If you are calling about an urgent matter, dial 0 to speak with the security guard."

2 Revert DN

The extension of the night security guard is used as the revert DN. If a caller urgently needs to speak to someone, the security guard is instructed to call that person at home and pass on urgent messages.

3 No access password is required since all callers need to be able to access this service.

4 An update password is defined so that the announcement can be updated using the voice prompt maintenance service.

Figure 60 shows a flowchart for the above example. Figure 61 shows the Announcement Definition.

Figure 60xxx
Automated attendant with announcement only

```
                    ┌─────────────────────────────┐
                    │  Caller dials main number to │
                    │      Nadir International      │
                    │ (after hours through night   │
                    │           service)           │
                    └─────────────────────────────┘
                                   ▼
                    ┌─────────────────────────────┐
                    │   Call terminates on a dummy │
                    │    queue (or a hunt group)   │
                    └─────────────────────────────┘
                                   ▼
                    ┌─────────────────────────────┐
                    │ Call is forwarded to the Prime│
                    │    Voice Messaging Queue     │
                    └─────────────────────────────┘
                                   ▼
                    ┌─────────────────────────────┐
                    │  Call is sent to the VSDN table│
                    └─────────────────────────────┘
                                   ▼
```

VSDN TABLE		
DN	**SERVICE**	**COMMENT**
5000	AS ID 400	Nadir nite

```
                                   ▼
                    ┌─────────────────────────────┐
                    │ Call is sent to the announcement│
                    │    service (See Figure 61)   │
                    └─────────────────────────────┘
                                   ▼
```

Caller listens to the announcement. Then one of the following happens:

▶ Caller dials "0" to speak with security

▶ Caller listens to announcement and hangs up

▶ Caller does nothing and the call is disconnected

Figure 61xxx
The Announcement Definition

Nadir International	Voice Services Administration

Add an Announcement Definition

Announcement ID: 400_____   Title: Night announcement___

Revert DN: 2778_____

Access Password: _____   Update Password: 78230076___

Announcement Recorded (Voice):   Yes

* Language for Prompts: [AmericanEnglish]
                        CanadianFrench
                        AmericanSpanish
                        French

Select a softkey >

Save	Cancel		Voice	

*   This field appears only if more than one language is installed. The
     languages displayed here are for illustration purposes only.

Leave a message

This type of automated attendant is similar to the announcement-only type,
except that it allows callers to leave messages for persons they are trying to
reach. Like announcement-only, it is used as an after-hours attendant.

Example

As with Nadir International in the previous example, the Orlando Trust
Company shuts down during off-hours and there is no one to answer calls.
However, instead of just playing an announcement, it is decided that it
would be useful if callers could leave a message either directly in the
mailbox of the person with whom they want to speak (if they know the
extension), or in a predefined mailbox in which case, the receptionist will
sort through the messages the following business day and transfer them to
the appropriate people. This option is useful for callers who do not know the
extension of the person with whom they want to speak.

This requires a voice menu application. The announcement of the company's
business hours is included in the voice menu greeting. Callers are then offer
the choice of entering an extension number, or leaving a message.

Setup

1   Greeting

"Thank you for calling the Orlando Trust Company. Our office is closed right now. Our business hours are Monday to Friday, 8:30 a.m. to 5:00 p.m. If you would like to leave a message for someone whose extension you know, press 1. If you do not know the extension but would still like to leave a message which will be forwarded to the appropriate person, press 2. If you do not have a touchtone phone, please wait on the line and you will be asked to leave a message which will be forwarded to the appropriate person."

Note: If callers choose option 2, they will have to state who the message is for before recording the actual message. Rather than including this instruction in the menu greeting, include it as part of the external greeting for the mailbox. Callers may not wait long enough to hear these instructions if you include it in the menu greeting. (As soon as the caller hears "press 2", he may not wait for additional information and press 2 right away.) If you provide these instructions after the caller has pressed 2, he will be sure to hear them.

2   Menu choices prompt

"To leave a message for someone whose extension you know, press 1. If you do not know the extension but would still like to leave a message which will be forwarded to the appropriate person, press 2."

3   Key 1

Express Messaging (EM) is the action associated with Key 1. The Mailbox ID field should be left blank so that callers can enter the number they want.

4   Key 2

Express Messaging (EM) is also associated with Key 2. However, a particular Mailbox ID is defined. The owner of the this mailbox logs in every morning, listens to new messages, then forwards them to the appropriate people.

5   Keys 3 to 9

A prompt (PP) is associated with the unused menu keys. If a caller presses a numeric key other than 1 or 2 he or she will hear the following prompt:

"That selection is not valid. Please choose option 1 or 2. If you would like to hear your choices again, please press star."

6   Initial No Response

Express Messaging (EM) is defined as the Initial No Response action. Since there is no one to revert the call to during the evening, the caller will be transferred to the same Mailbox ID that is used in step 4. This way, rotary phone users can also leave a message without having to provide any keypad input.

7   Delayed Response

If a caller has provided keypad input, but is now delaying in providing a subsequent response, the following prompt (PP) will be played.

"Please press 1 or 2 on your telephone keypad to make a choice. To hear the menu choices again, press star."

8   No access password is required since all callers must be able to access the service.

9   An update password is necessary so that the voice prompt maintenance service can be used to update the voice menu prompts.

10 Silent disconnect is set to "No" so that the system "Goodbye" prompt will be played before the caller is disconnected.

11 No revert DN is defined since there is no one to take the call.

Figure 62 shows a flowchart for the above example. Figure 63 shows the Voice Menu Definition.

Figure 62xxx
A "leave a message" style automated attendant

Caller dials main number to
Orlando Trust
(after hours through night service)

▼

Call terminates on a dummy
queue (or hunt group)

▼

Call is forwarded to the Prime
Voice Messaging Queue

▼

Call is sent to the VSDN table

▼

VSDN TABLE

DN	**SERVICE**	**COMMENT**
5000	MS ID 200	Orlando nite

▼

Call is sent to the Voice Menu Service
(See Figure 63)

▼

VOICE MENU 200

KEY 1	**KEY 2**
Express	Express
Messaging	Messaging
	Mailbox 2411

▼ (KEY 1)
Caller enters
mailbox number

▼ (KEY 2)
Mailbox 2411
External Greeting: *"Please state who this message is for, followed by your name, number and message."*

Figure 63xxx
The Voice Menu Definition

Orlando Trust	Voice Services Administration

Add a Voice Menu Definition

*Choice of Menu Actions:
AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect	EM	Express Messaging	PP	Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: 200   Title: Orlando Nite

Revert DN: _____

Access Password: _____   Update Password: 3913083

Greeting Recorded (Voice):   Yes   Menu Choices Recorded (Voice):Yes

Silent Disconnect: [No]   Yes

Language for Prompts: [AmericanEnglish]
                    CanadianFrench
                    AmericanSpanish
                    French

Key	Action		Comments
1	EM	Mailbox ID: 2411	_____
		or Expansion Digits: _____	
		Enforce Dial: No [Yes] _____	
2	PP	Recorded (voice): Yes	_____
3	PP	Recorded (voice): Yes	_____
4	PP	Recorded (voice): Yes	_____
5	PP	Recorded (voice): Yes	_____
6	PP	Recorded (voice): Yes	_____
7	PP	Recorded (voice): Yes	_____
8	PP	Recorded (voice): Yes	_____
Initial No Response	EM	Mailbox ID: 2411 _____	
		or Expansion Digits: _____	
		Enforce Dial: No [Yes] _____	
Delayed Response	RP	Recorded (voice): Yes_____	

Select a softkey >

Save	Cancel		Voice	

*   Some of these Actions are feature-dependent and may not appear on your screen.
#   This field is displayed if multiple languages are installed on the system.

Time-of-day controlled automated attendant

An organization may decide that different automated attendants are required at different times of the day. For example, an automated attendant offering menu choices during the day would be appropriate, but at night when there is no one in the office an announcement-only attendant would be better. This situation can be handled through time-of-day controls.

Example

During the day, Nadir International wishes to use the automated attendant with menu choices (described on page 158), but at night wants to play the announcement that informs callers that the office closed and then states the business hours (see page 164).

This section describes how to set up the time-of-day controller. The time-of-day control definition must associate the appropriate service ID for the different times of the day.

Setup

1   Business-Hours Service ID

   Automated attendant with menu choices (Voice Menu ID 200)

2   Off-Hours Service ID

   Announcement-only (Announcement ID 400)

3   Holiday Service ID

   Announcement-only service ID. A special announcement is played if a call is received on one of the holidays specified in the Voice Services Profile.

4   Business Hours

   For Monday to Friday the business hours are 8:30 to 17:00. Saturday and Sunday are nonbusiness days. During business hours, the automated attendant with menu choices is used. Outside these hours, the announcement-only automated attendant is used (unless it is a holiday).

Figure 64 shows a flowchart for the above example. Figure 65 shows the Time-of-Day Control Definition.

Figure 64xxx
Time-of-day controlled automated attendants

```
                    ┌─────────────────────────────┐
                    │  Caller dials main number to │
                    │  Nadir International (NXX-2000)│
                    └─────────────────────────────┘
                                  ▼
                    ┌─────────────────────────────┐
                    │   Call terminates on a dummy │
                    │    queue (or a hunt group)   │
                    └─────────────────────────────┘
                                  ▼
                    ┌─────────────────────────────┐
                    │  Call is forwarded to the Prime│
                    │    Voice Messaging Queue     │
                    └─────────────────────────────┘
                                  ▼
                    ┌─────────────────────────────┐
                    │   Call is sent to the VSDN table│
                    └─────────────────────────────┘
                                  ▼
```

VSDN TABLE

DN	SERVICE	COMMENT
2000	TODC ID 500	Auto attendant

TIME-OF-DAY CONTROL 500
Business Hours: 08:30 to 17:00 Business Days Mon through Fri
Business Hours ID: 200   Off-Hours ID: 400

Menu Service 200
Caller listens to greeting and responds
by pressing a key, remaining on the
line or dialing "0".

Announcement Service 400
Caller listens to greeting. Caller either
presses "0" or is disconnected after timeout
period has expired.

Figure 65xxx
The Time-of-Day Control Definition

```
┌─────────────────────────────────────────────────────────────────┐
│  Nadir International              Voice Services Administration    │
│                                                                   │
│  Add a Time-of-Day Control Definition                             │
│                                                                   │
│  Time-of-Day Control ID: 500_____    Business Hours Service ID:  200__  │
│                                                                   │
│  Off-Hours Service ID:      400____     Holiday Service ID:         300__ │
│                                                                   │
│      Business Days              Business Hours                     │
│      Sunday          [No]   Yes                                    │
│      Monday          No    [Yes]  08:30 to 17:00                   │
│      Tuesday         No    [Yes]  08:30 to 17:00                   │
│      Wednesday       No    [Yes]  08:30 to 17:00                   │
│      Thursday    No   [Yes]  08:30 to 17:00                        │
│      Friday      No   [Yes]  08:30 to 17:00                        │
│      Saturday       [No]   Yes                                     │
│                                                                   │
│  ─────────────────────────────────────────────────────────       │
│  Select a softkey >                                               │
│    Save              Cancel                                        │
└─────────────────────────────────────────────────────────────────┘
```

Nested time-of-day controls

If you have a single facility (for example, a single DID queue) serving
multiple departments with different business hours, you can nest several
time-of-day controllers in order to meet the needs of all departments.

Example

Burroughs and Bowles Inc. has four departments with different business
hours and they are all served by a single DID queue. Department A's
business hours are between 8:00 a.m. and 12:00 noon. At noon, Department
A wants calls to be routed to Department B. Department B closes at 4:00
p.m. at which time they want their calls to be routed to Department C which
closes at midnight. After midnight, calls are to be routed to Department D.
See Figure 66.

To nest time-of-day controls, the following rules apply:

- The time-of-day controllers must cover a 24-hour period.

- The time-of-day controllers must cover seven days a week.

- The maximum allowable nesting levels is six.

Figure 66xxx
One D.I.D. queue serving four departments
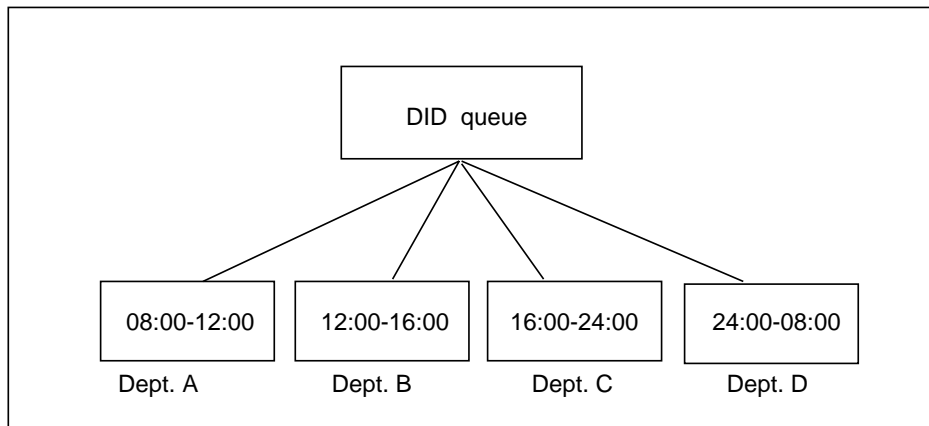
Setup

You must program a separate time-of-day control for each department. You will therefore, end up with four different time-of-day controls.

For each time-of-day control, configure the following:

1 Business-Hours Service ID

Menu service ID for the department.

2 Off-Hours Service ID

Time of Day Control ID of the following department.

3 Holiday Service ID

Announcement-only service ID. A special announcement is given on the holidays specified in the Voice Services Profile.

4 Business Hours

The department's business hours should be filled in. During these hours the automated attendant with menu choices is used. Outside these hours, calls are directed to the time-of-day control of the department whose business hours begin when the business hours of this department end.

Figure 67 is a flowchart of the applications required to meet the needs of the four departments shown in Figure 66. See Figure 65 for an example of a Time-of-Day Control definition.

Figure 67xxx
Flowchart for nested time-of-day controllers

```
                    ┌─────────────────────────────┐
                    │ Caller dials published num- │
                    │   ber (NPA)-NXX-2000        │
                    └─────────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────────┐
                    │ Call terminates on dummy    │
                    │   queue (or line DN) 2000   │
                    └─────────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────────┐
                    │ Call is forwarded to Prime  │
                    │   Voice Messaging Queue     │
                    └─────────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────────┐
                    │ Call is sent to VSDN table  │
                    │   where TD DN is found      │
                    │     (TODC ID is 150)        │
                    └─────────────────────────────┘
                                 │
                                 ▼
```

TIME-OF-DAY CONTROL 150 FOR DEPARTMENT A
Business Hours: 08:00 to 12:00 Business Days Sun through Sat
Business Hours ID: 101 (Menu)   Off-Hours ID: 250

TIME-OF-DAY CONTROL 250 FOR DEPARTMENT B
Business Hours: 12:00 to 16:00 Business Days Sun through Sat
Business Hours ID: 201 (Menu)   Off-Hours ID: 350

TIME-OF-DAY CONTROL 350 FOR DEPARTMENT C
Business Hours: 16:00 to 24:00 Business Days Sun through Sat
Business Hours ID: 301 (Menu)   Off-Hours ID: 450

TIME-OF-DAY CONTROL 450 FOR DEPARTMENT D
Business Hours: 24:00 to 08:00 Business Days Sun through Sat
Business Hours ID: 401 (Menu)   Off-Hours ID: 150

Mixed live and automated attendants

When an organization has a receptionist, an automated attendant is useful for handling overflow calls and for handling calls when the receptionist is unavailable (after hours, lunch breaks, and so on).

Example

The Orlando Trust Company has a receptionist available, however, during peak periods, she is sometimes unable to answer all calls. At night, no one is in the office. The administrator suggests that a basic automated attendant be created to handle call overflow during business hours, and that a leave a message style automated attendant be created to handle calls that are received during off-hours. A time-of-day controller is also required to ensure that the appropriate service is played depending on the time of day at which a call is received.

Setup

See the setup for the basic automated attendant on page 156. The setup for the leave a message style automated attendant is described beginning on page 166. The time-of-day control setup is very similar to the one described on page 171.

The attendant console must be set up to have the time-of-day control VSDN as the night number. This VSDN should also be specified as the overflow handling DN so that when the receptionist is dealing with a call and the line is busy, all calls go to the appropriate automated attendant.

Figure 68 shows a flowchart for the above example.

Figure 68xxx
Automated attendant with live attendants

Caller dials main number to the
Orlando Trust Co. (NXX-2000)

▼

Call terminates on attendant
console

▼

Call is sent to DN 2000 through
overflow or by night service

▼

Call is forwarded to the Prime
Voice Messaging Queue

▼

Call is sent to the VSDN table

▼

VSDN TABLE

DN	SERVICE	COMMENT
2000	TODC ID 500	Auto attendant

▼

TIME-OF-DAY CONTROL 500
Business Hours: 08:30 to 17:00   Business Days Mon through Fri
Business Hours ID: 101 (Thru-Dial)   Off-Hours ID: 200 (Voice Menu)

▼   ▼

Thru Dial Service 100
Caller listens to greeting and responds by
entering an extension or name, remaining
on the line or dialing "0".

Leave a Message Auto Attendant: 200
Caller listens to greeting. Caller chooses 1
to specify the extension of the person for
whom they want to leave message or 2 if
they do not know the extension.

Information services

Information services provide information to callers. They do not allow callers to place calls like automated attendants. Some information services may not require any keypad input on the part of the caller (announcement-only), whereas others do (voice menus) in that the caller is asked to specify the type of information they are interested in.

Announcement-only

The simplest form of information application is the announcement. It provides a single recording of information to what might be a large number of people who want or need to hear it. Examples of announcements are daily stock quotes, weather reports, the time, train and bus schedules, equipment status, fares, store hours, daily restaurant menus, and daily or weekly specials in stores.

Example

At Peer Enterprises almost everyone is interested in the status of the printers. This information must be current to be useful, so it may need to be updated a number of times a day.

The administrator decides to create an announcement. If employees want to verify the status of printers, they simply dial the DN that has been published as the "printer hotline". Once defined, the person responsible for maintaining the computer equipment will use the voice prompt maintenance service to keep the announcement current.

Setup

1 Announcement

   "You have reached the printer status information line. As of Friday at 4:40 p.m., all printers are up, except printer three which is down. A service call has been placed. If you are experiencing any other problems and need assistance, press zero."

2 The extension of the person responsible for maintaining the printers is used as the revert DN in case employees have further questions or complaints.

3   Update Password

An Update Password should be assigned so that the person responsible for updating the status can re-record it from his or her telephone set using the voice prompt maintenance service.

4   No access password is defined since all employees are allowed to use this service and since the information is not confidential.

5   A DN is added to the VSDN table. The announcement service ID is associated with this DN so that it can be accessed directly. This VSDN is published as the printer hotline number.

Figure 69 shows a flowchart illustrating the call sequence for this example. Figure 70 shows an example of the Announcement Definition.
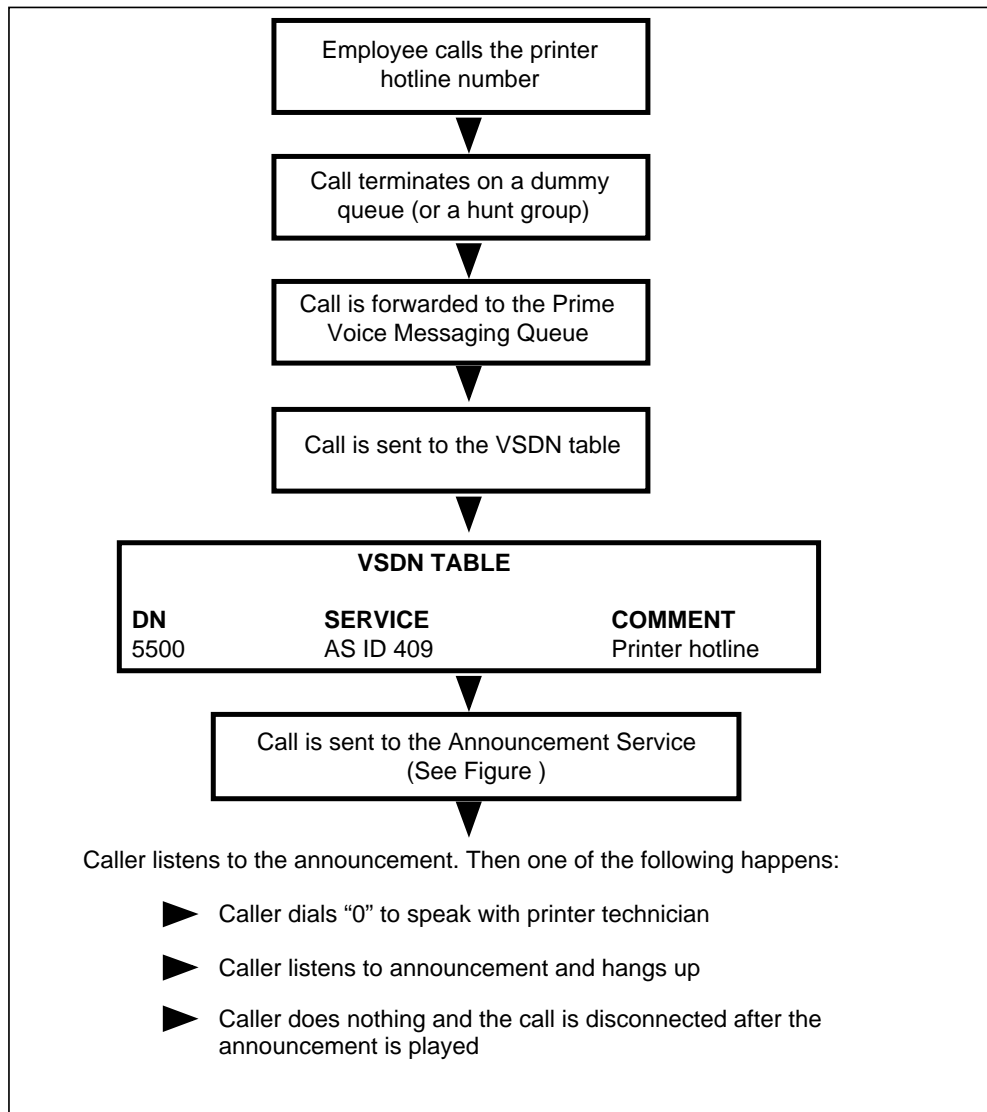
Figure 69xxx
Announcement-only information service

```
┌─────────────────────────────┐
│   Employee calls the printer │
│       hotline number         │
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│   Call terminates on a dummy │
│     queue (or a hunt group)  │
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│  Call is forwarded to the Prime │
│     Voice Messaging Queue    │
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│  Call is sent to the VSDN table │
└─────────────────────────────┘
              ▼
```

VSDN TABLE

DN	SERVICE	COMMENT
5500	AS ID 409	Printer hotline

```
              ▼
┌─────────────────────────────────────┐
│  Call is sent to the Announcement Service │
│            (See Figure )            │
└─────────────────────────────────────┘
              ▼
```

Caller listens to the announcement. Then one of the following happens:

▶ Caller dials "0" to speak with printer technician

▶ Caller listens to announcement and hangs up

▶ Caller does nothing and the call is disconnected after the announcement is played

Figure 70xxx
The Announcement Definition

Peer Enterprises	Voice Services Administration

Add an Announcement Definition

Announcement ID: 409_____   Title: Printer Hotline_____

Revert DN: 2990_____

Access Password: _____   Update Password: 78230076_____

* Announcement Recorded (Voice):   Yes

Language for Prompts: [AmericanEnglish]
                                  CanadianFrench
                                  AmericanSpanish
                                  French

Select a softkey >

Save	Cancel		Voice	

*   This field appears only if more than one language is installed. The
     languages displayed here are for illustration purposes only.

Multi-layer announcements

Multi-layer announcements can be used when there is so much information
to present that it is more practical to split the information into amounts that
can be managed easily. This type of application is created with voice menus
that allow callers to choose what they want to hear, rather than having to
listen to lengthy recordings.

Example

A manager in the Orlando Trust Company is frequently away traveling and
has a busy schedule that is constantly changing. She wants to be able to find
out, at any time of the day, what her appointments and meetings are for each
day of the week.

After speaking with the DMS VoiceMail administrator, the secretary informs
the manager that a personal voice menu can be set up. The manager can call
into the menu at any time and select the day of the week for which she wants
to verify her schedule. Once the voice menu has been created by the
administrator, the secretary will be responsible for keeping the information
up-to-date. The manager agrees that this is a good idea and suggests that it
would also be useful if she could have the option of leaving a message for
the secretary and logging into her own mailbox.

There are two possible solutions:

1   Create five announcements-one for each day of the week. Organize them into a voice menu.

2   Create a single voice menu only. Instead of creating five separate announcements, assign PP (play prompt) to the first five menu keys. Play prompts can be used as pseudo-announcements if you want to be able to manage all of the information from one voice menu (that is, you do not have to manage five separate announcements and a voice menu).

   This second solution is easier since the secretary will only have to log on to the voice menu to update prompts. If five different announcements are created, the secretary will have to know the IDs of the five announcements, and log into each one separately to change them.

The following setup describes the second solution.

Setup
Set up a voice menu.

1   Greeting

   "Hi Catherine. For Monday's meetings and appointments, press 1. For Tuesday's, press 2. For Wednesday's, press 3. For Thursday's, press 4. For Friday's, press 5. To leave me a message, press 6. To log into your mailbox, press 7."

2   Menu Choices Prompt

   "For Monday's meetings and appointments, press 1. For Tuesday's, press 2. For Wednesday's, press 3. For Thursday's, press 4. For Friday's, press 5. To leave me a message, press 6. To log into your mailbox, press 7."

3   Keys 1 through 5

   Keys 1, 2, 3, 4, and 5, which represent the days of the week, have the Play Prompt (PP) action associated with them. The prompt recorded contains a list of appointments for that day. These five prompts use the following format: *"For Monday, March 11, you have an appointment with the Customer Relations group at 11:00 a.m. in the manager's office. Don't forget to call Frank Winchester to discuss the report he wrote for you before attending the meeting. At 1:00, the Standards Committee is holding a teleconference. The bridge number has been changed to 432-1991. Your flight to San Francisco leaves at 7:25 p.m. from Terminal 2. A taxi will pick you up at 5:45."*

4 Key 6

Key 6 has the Express Messaging (EM) action associated with it. The mailbox number is that of the manager's secretary.

5 Key 7

Key 7 has the Voice Messaging (VM) action associated with it. When 7 is selected, the manager is logged in to her mailbox to retrieve any messages.

6 Keys 8 and 9

The following prompt (PP) is associated with these keys: *"Catherine, you know there are only five working days in a week. Press 6 if you need to leave me a message, or 7 if you want to listen to new messages."*

7 Initial No Response

RP (repeat menu choices) is selected as the action to be taken if the manager does not make an initial response in a predetermined amount of time.

8 Delayed Response

RP (repeat menu choices) is selected as the action to be taken if the manager delays in responding (after having made an initial response).

9 Revert DN

The revert DN is the secretary's extension.

10 Access Password

An Access Password is assigned so that only the manager and her secretary have access to this menu.

11 Update Password

An Update Password is assigned so that the secretary can update the prompts from her phone using voice prompt maintenance.

12 A VSDN is assigned to this voice menu in the VSDN table so that the manager can call the number directly.

Figure 71 shows a flowchart for the above example.
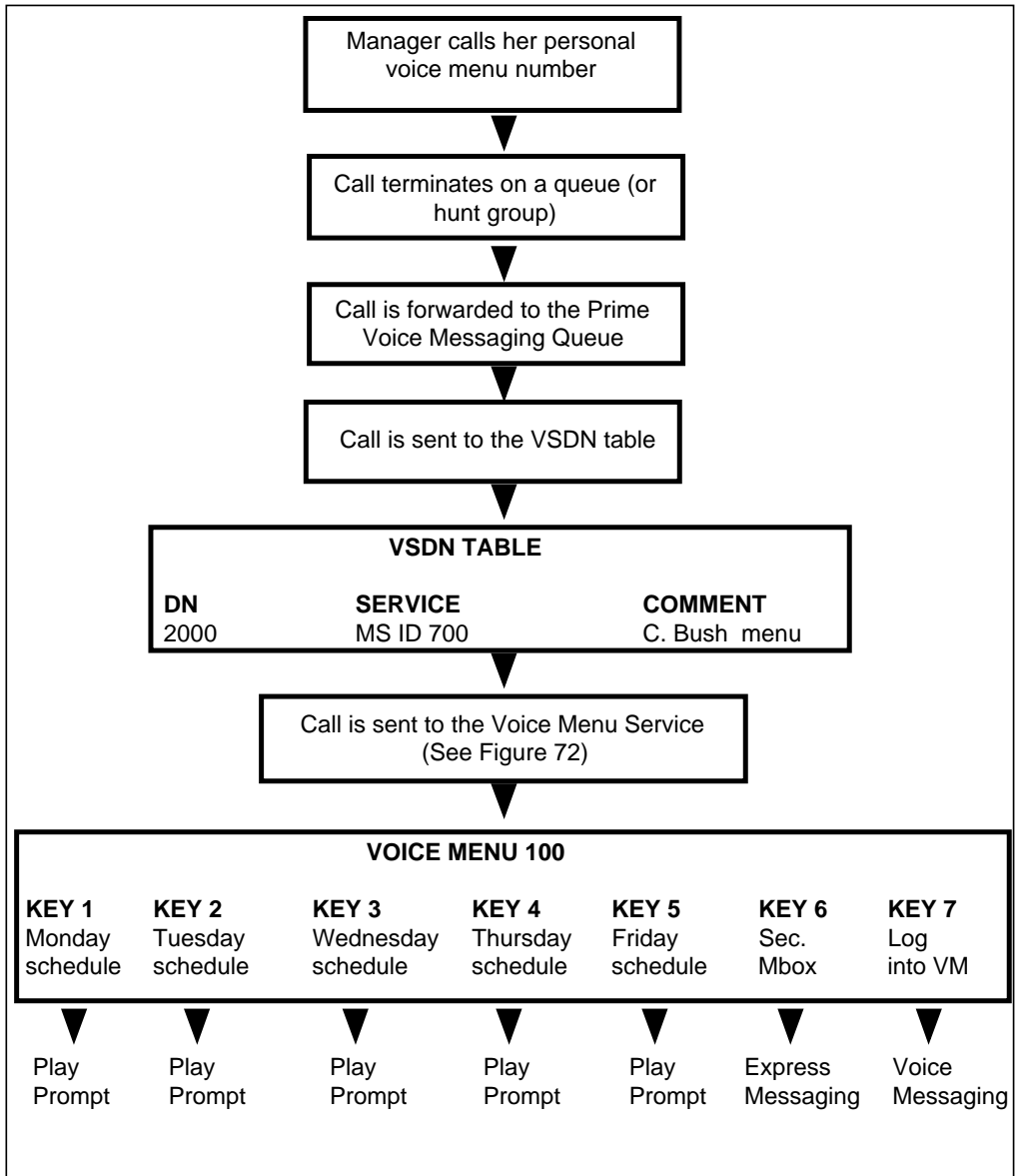
Figure 71xxx
Multi-layer announcements

```
┌─────────────────────────────┐
│  Manager calls her personal │
│    voice menu number        │
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│  Call terminates on a queue │
│    (or hunt group)          │
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│  Call is forwarded to the   │
│  Prime Voice Messaging Queue│
└─────────────────────────────┘
              ▼
┌─────────────────────────────┐
│ Call is sent to the VSDN    │
│ table                       │
└─────────────────────────────┘
              ▼
┌─────────────────────────────────────────────┐
│               VSDN TABLE                     │
│                                              │
│  DN          SERVICE           COMMENT       │
│  2000        MS ID 700         C. Bush  menu │
└─────────────────────────────────────────────┘
              ▼
┌─────────────────────────────────────┐
│ Call is sent to the Voice Menu      │
│ Service (See Figure 72)             │
└─────────────────────────────────────┘
              ▼
```

VOICE MENU 100						
KEY 1 Monday schedule	**KEY 2** Tuesday schedule	**KEY 3** Wednesday schedule	**KEY 4** Thursday schedule	**KEY 5** Friday schedule	**KEY 6** Sec. Mbox	**KEY 7** Log into VM
▼	▼	▼	▼	▼	▼	▼
Play Prompt	Play Prompt	Play Prompt	Play Prompt	Play Prompt	Express Messaging	Voice Messaging

Figure 72xxx
The Voice Menu Definition

Orlando Trust	Voice Services Administration

Add a Voice Menu Definition

*Choice of Menu Actions:
AS	Announcement Service	CL	Call	RV	Call Revert DN
DS	Disconnect	EM	Express Messaging	PP	Play Prompt
PM	Prompt Maintenance	PM	Prompt Maintenance	RP	Repeat Menu Choices
MM	Return to Main Menu	TS	Thru-Dial Service	TD	Time-of-Day Control
TR	Transcription Service	VF	Voice Forms Service	MS	Voice Menu Service
VM	Voice Messaging				

Voice Menu ID: 700_____   Title: C. Bush menu_____

Revert DN: 2398_____

Access Password: 499309179____   Update Password: 9613243____

Greeting Recorded (Voice):   Yes   Menu Choices Recorded (Voice): Yes

Silent Disconnect: [No]   Yes

\#   Language for Prompts: [AmericanEnglish]
                                CanadianFrench
                                AmericanSpanish
                                French

Key	Action		Comments
1	PP	Recorded (Voice): Yes	Monday Schedule____
2	PP	Recorded (Voice): Yes	Tuesday Schedule____
3	PP	Recorded (Voice): Yes	Wednesday Schedule__
4	PP	Recorded (Voice): Yes	Thursday Schedule___
5	PP	Recorded (Voice): Yes	Friday Schedule____
6	EM	Mailbox ID: 2398___	Secretary's Mbox___
		or Expansion Digits: _____	
		Enforce Dial: No [Yes] _____	
7	VM	Expansion Digits: _____	Voice Messaging____
8	PP	Recorded (Voice): Yes	_____
9	PP	Recorded (Voice): Yes	_____
Initial No Response	PP	Recorded (Voice): Yes	_____
Delayed Response	PP	Recorded (Voice): Yes	

Select a softkey >

Save	Cancel		Voice	

*   Some of these Actions are feature-dependent and may not appear on your screen.
\#   This field is displayed if multiple languages are installed on the system.

Using voice prompt maintenance and remote activation

Voice prompt maintenance

The Voice Prompt Maintenance service allows you to record announcements, thru-dial service greetings and voice menu prompts from a remote touch-tone telephone. This means that you do not have to be at the administration terminal to update recordings. This is especially useful for recordings that are updated frequently or if the administration terminal is in a noisy location which interferes with the recording quality.

> *Note:* This service cannot be used to update voice form prompts. Voice form prompts can only be recorded from the administration terminal.

Although you cannot delete recordings through this service, a newly recorded prompt overwrites any previous prompt. While you are in the process of updating a recording, any callers who reach the voice service continue to hear the old recording. Callers who reach the application once the new prompt has been saved hear the new prompt.

To make the voice prompt maintenance service available, you will have to define a DN for it in the VSDN table (see Procedure 29), or make it accessible through a voice menu. Furthermore, this service can only be used to change announcements, voice menu prompts or thru-dialer greetings if an Update Password has been defined for the application. If no password is specified in the voice service definition, prompts can only be updated from the administration terminal.

Under certain circumstances, you will have to decide whether to use the voice prompt maintenance service or the remote activation service (described in the next section). For example, the office is unexpectedly closed due to inclement weather and you want to ensure that callers are aware that this is the reason for the office closure. During normal business hours you use an auto-attendant which is a thru-dialer that allows callers to call through to the desired extension. You could either (a) change the thru-dialer greeting with the voice prompt maintenance service or (b) use remote activation to change the service that is accessed when the number is dialed. Of course, you will have to have some sort of announcement already

recorded (see the following section). If you choose to change the thru-dialer greeting, you will have to remember to change it back to the original greeting once the office is open. However, if an operator answers the phone during normal business hours, you will probably use the remote activation feature to ensure that an announcement is played.

Procedure 29xxx
Defining the voice prompt maintenance DN

Starting point: The main menu or the Customer Administration menu (multicustomer systems)

> *Note: The voice prompt maintenance DN can only be added at the customer administration level. However, once added it can be modified at the system administration level.*

1 Select Voice Administration.

2 Select Voice Services Administration.

3 Select Voice Services-DN Table.

4 Press the [Add] softkey.

The Add DN Information screen is displayed.

5 Enter an access DN.

This is the number that will be used to access the service.

6 Enter PM (Prompt Maintenance) in the *Service* field.

7 If multiple languages are installed on the system, select the language for system prompts.

8 Enter a comment (if desired).

9 Use step 9a to save the voice prompt maintenance DN definition; go to step 9b to cancel.

    a. Use [Save].

       The service DN is saved.

    b. Use [Cancel].

       The voice prompt maintenance service remains undefined or unchanged.

Once the voice prompt service has been configured, follow Procedure 30 to use the service to update voice menu prompts and Procedure 31 to update announcements and thru-dialer prompts. You can also use voice prompt maintenance to change update passwords (but not access passwords).

Procedure 30xxx
Updating voice menu prompts

Starting point: A DTMF telephone set

1   Dial the Voice Prompt Maintenance Service DN.

   The system prompts you for an ID.

2   Enter the ID of the voice menu you want to modify and press **#**.

   The system prompts you for the Update Password.

3   Enter the Update Password and press **#**.

4   The system plays a menu with five choices:

   a.   Update Greeting prompt—press 1

   b.   Update Menu Choices prompt—press 2

   c.   Update No Response prompt—press 3

   d.   Update Other Menu prompts—press 4

   e.   Update Password—press 84

   You are prompted to enter the new password once and then a second time (to verify it). You are then prompted to enter the old password.

5   Select the required function.

   If you select a, b, or c you are prompted to play the existing prompt or record a prompt.

   Option d allows you to update prompts associated with particular keys. You are prompted to enter the prompt number. Enter the keypad number that a caller must press to hear the prompt.

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.

Procedure 31xx
Updating announcements and thru-dialer greetings

Starting point: A DTMF telephone set

1   Dial the Voice Prompt Maintenance Service DN.

   The system prompts you for an ID.

2   Enter the required Announcement ID or Thru-dial 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 The system plays a menu with three choices:

    a. Record a new announcement/thru-dial greeting—press 5

    b. Listen to the existing announcement/thru-dial greeting—press 2

    c. Update Password—press 84

    You are prompted to enter the new password once and then a second time (to verify it). You are then prompted to enter the old password.

5 To return to the ID prompt, enter a number sign.

You can update another announcement or thru-dial greeting by returning to step 3.

Remote activation

The Remote Activation service allows you to switch voice services (voice menus, announcements, thru-dialers, time-of-day controllers, voice forms), off-site through a standard DTMF telephone set. This is done by reassigning a service's VSDN entry. For example, in the case of a storm, you (along with most of the office personnel) may be stranded at home due to the bad weather. As long as you have access to a touch-tone phone you can activate a pre-defined announcement informing callers that the office is closed due to inclement weather.

For example, you may have a regular "closed" greeting that goes as follows:

"Thank you for calling the First Bank of Moosejaw. We are open Monday to Friday from 8:00 a.m. to 4:00 p.m. Please call again when we are open."

You create the following "snow storm" greeting in preparation for the upcoming winter:

"Thank you for calling the First Bank of Moosejaw. Due to the recent snow storm, our offices will be closed today. We are normally open Monday to Friday from 8:00 a.m. to 4:00 p.m. Please call again. Thank you."

Whenever the office is closed due to a snow storm, call the Remote Activation service from home and change the normal closed greeting to the snow storm greeting.

To use the Remote Activation feature you must first define a DN for the Remote Activation service so that an entry is made in the Voice Services-DN Table. (On multicustomer systems, this is done at the customer administration level.) This makes the service available through a dialable DN.

A password is required to use the Remote Activation service. This password is defined in the Add DN Information screen. Callers dialing the Remote Activation DN cannot access this service without the password.

Note: If the password field is left blank, this effectively disables the remote activation service itself. Therefore, to temporarily disable remote activation, you do not have to delete the RA service from the VSDN table.

You should also create a complete listing of all voice menu services. Keep a copy of the list at home (or wherever you will be calling from to make changes). Make sure the place you choose to keep it is secure. This listing should include the voice service DN, the title (or a brief description of the service) so that you can easily identify it, the update password (if defined), and the access password (if defined).

Remote Activation only allows you to change which service is accessed when a particular DN is dialed. You cannot change any recorded prompts using this service. To change prompts remotely, use the Voice Prompt Maintenance feature.

Procedure 32xxx
Defining the remote activation DN and password

Starting point: The Customer Administration menu

> ***Note:*** *The remote activation DN can only be added at the customer administration level. However, once added it can be modified at the* system level.

1   Select Voice Administration.

2   Select Voice Services Administration.

3   Select Voice Services-DN Table.

4   Press the [Add] softkey.

   The Add DN Information screen is displayed.

5   Enter an access DN.

6   Enter RA in the *Service* field.

   A Password field is displayed.

7   Enter the password, up to 16 numeric characters in length, that users will require to use the remote activation service.

8   Enter a comment (if desired).

9   Use step 9a to save the remote activation DN definition; go to step 9b to cancel.

   a.   Use [Save].

      The DN information is saved.

   b.   Use [Cancel].

      The remote activation service remains undefined or unchanged.

Once you have defined a DN and a password for Remote Activation you may use a remote DTMF telephone to redefine which services are accessed by particular DNs.

Procedure 33xxx
Using Remote Activation

Starting point: A DTMF telephone set

1 Call the Remote Access DN as defined in the Voice Services-DN Table.

You are is prompted for a password.

2 Enter the Remote Activation Password, followed by **#**.

You are prompted to enter a voice service DN.

3 Enter the DN of the voice service you want to change, followed by **#**.

A voice prompt confirms your selection by stating the DN and the associated service ID.

You are prompted to enter a new service ID.

4 Enter the ID of the application you want to associate with the DN entered in step 3.

You will hear a confirmation that the new service is now associated with the DN.

You are then prompted to enter a new service ID. This gives you the opportunity to change the service ID you just entered in case of an error.

5 If you want to change the service ID you entered in step 4, enter the new service ID followed by **#**.

*If you want to change another voice service, enter **#** and you will be prompted for another voice service DN. Repeat from step 3 for each voice service you want to change.*

If no further changes are required, hang up the phone.

When you check the Voice Services-DN Table, you will notice that in the *Comments* field for those services that were changed, a message, "Changed by RA", will appear. The *Service* field will display the service that was associated with the DN during the Remote Activation session.

Monitoring voice services

Overview

There are a number of operational measurements that will help you monitor your voice services. These include

- the Voice Service Summary report
- the Voice Menu Detail report
- the Disk Usage Detail report

Note: If the Multi-Customer feature is installed on your system, these screens are accessible only from the system administration level.

See the chapter "Operational Measurements" in the *System Administration Guide* for more information about operational measurements.

The Voice Service Summary report

The Voice Service Summary report (Figure 73) provides a summary of the activity of announcements, thru-dial services, time-of-day controllers, voice menus, the voice prompt maintenance service, and the remote activation service.

Figure 73xxx
Voice Service Summary report screen

```
┌─────────────────────────────────────────────────────────────────────────┐
│                        Operational Measurements                          │
│                                                                          │
│   Voice Service Summary                                                  │
│                                                                          │
│                                        Average            Voice          │
│                              Number of  Length         Mail Usage        │
│   Interval   Start-End     Service Name  Accesses  (in seconds)  (in CCS)│
```

Interval	Start-End	Service Name	Number of Accesses	Average Length (in seconds)	Voice Mail Usage (in CCS)
04/22	**09:00-10:00**	**Thru-Dial**	**53**	**7**	**4**
04/22	**09:00-10:00**	**Voice Menus**	**301**	**12**	**36**
04/22	09:00-10:00	Voice Messaging	1022	65	664
04/22	09:00-10:00	Call Answering	1437	29	416
04/22	09:00-10:00	AMIS	0	0	0
04/22	09:00-10:00	Express Messaging	86	49	42
04/22	**09:00-10:00**	**Voice Announcements**	**31**	**111**	**34**
04/22	09:00-10:00	Voice Administration	0	0	0
04/22	**09:00-10:00**	**Voice Prompt Admin**	**0**	**0**	**0**
04/22	**09:00-10:00**	**Time of Day Control**	**53**	**0**	**0**
04/22	09:00-10:00	Delivery to Non User	0	0	0
04/22	09:00-10:00	Remote Notification	26	42	11
04/22	**09:00-10:00**	**Remote Activation**	**0**	**0**	**0**
04/22	**09:00-10:00**	Voice Forms	3	400	12
04/22	09:00-10:00	Transcription Service	0	0	0

Select a softkey >

Exit	Next Report		Next Page*	

*   The "Next Page" softkey appears when the information fills more than one screen.

Each report covers a certain interval of time. For that interval, the following information is provided:

*   The number of times that all voice services have been accessed during the reporting interval

    Note: This does not include indirect accesses of these services through voice menus or time-of-day controllers.

*   The average length of all voice service sessions that occurred during the interval

*   The voice mail usage (in CCS) which indicates the amount of time that voice services were active during the interval

    CCS (hundred call-seconds) is a traffic measurement statistic. One CCS equals 100 seconds of call connection time. See the "Operational Measurements" chapter for more details.

The Voice Service Summary report is useful for determining whether or not your voice services (especially voice menus) are generating a lot of traffic.

Consider the following points when analyzing the Voice Service Summary report:

- If the number of accesses is lower than you expected, it could because
  - the feature is not working properly and attempts to access it have fallen off
  - people are not aware of the feature and are, therefore, not using it

- If an unusually high amount of traffic is being generated by voice services, you may encounter system performance problems, such as no free channels. As the administrator, you may need to do more research beyond checking the OM reports to learn more about the nature of the problem and possibly come up with a solution. For example, you need to determine if the high traffic level was due to some unusual event that affected your organization (if so, the high traffic would not be expected to continue).

  If the high traffic is expected to continue, one solution may be to dedicate a channel to the Voice Menus feature so that the feature does not tie up the whole system. Another solution is to expand the system if overall traffic for the whole system is higher than what was originally anticipated for the system.

- Another area to check is the average length for voice menu accesses. If the average length is long, review your voice menus to see if they can be shortened or rearranged for more efficient use.

Voice Menu Detail report

The Voice Menu Detail report provides statistics about voice menus and announcements. In addition to supplying you with information about which voice menus and announcements are most popular (that is, being accessed the most), this report is useful for determining how many times each item in a voice menu was accessed during the reporting period. This is an excellent way of telling whether or not your voice menu is structured efficiently. For example, if you notice that menu option 7 is being accessed more than any other option, you should rearrange the menu items so that it is the first choice in the menu.

Figure 74xxx
The Voice Menu Detail report

```
                           Operational Measurements

Voice Menu Detail

Interval    Start-End
            Service              For each menu item, the number of accesses are:
  ID        Accesses      1    2    3    4    5    6    7    8    9    0    *        #

9/30        9:00-10:00
M 5009         167            41  116    0    0    0    0    0    0    0    0    0    0
M 5004           4             3    0    0    0    0    0    0    0    0    1    0    0
A 1003          11             0    0    0    0    0    0    0    0    0    0    0    0
M 4058           1             1    0    0    0    0    0    0    0    0    0    0    0
M 5003           1             0    0    0    0    0    0    0    0    0    0    0    0
M 5012          42             6   21    0    6    4    0    0    0    0    1    2    0
M 5013          21             5    4    6    0    4    0    0    0    0    1    0    0
M 4033           5             0    0    1    0    0    1    0    2    0    0    0    0
M 1011           2             0    0    0    0    0    0    0    0    0    0    0    0
M 4023           2             1    0    0    1    0    0    0    0    0    0    0    0


Select a softkey >

   Exit            Next                              Next Page*
                   Report
```

*   **The "Next Page" softkey appears when the information fills more than one
     screen.**
****On multicustomer systems, an extra column, Customer Number, will be displayed.**

When reviewing this report, consider the following:

- If the menu items that are at the end of the menu (for example, item 8 or 9) are being accessed more frequently than earlier items, you may wish to reorganize the menu so that the popular items are presented first. This structure prevents users from having to wait through all the earlier options before hearing the one the way want, thus reducing the call length.

- If a menu item has few or no accesses, the reason may be a lack of training or awareness regarding those items, or that those items are simply not required. If you find that certain menu actions are not required, either remove them or replace them with a more useful menu action. Be sure to re-record the menu greeting and menu choices prompt to reflect the changes.

The Disk Usage Detail report

This report tells you how much voice storage space is used on each volume during a time interval. It does not, however, report separately how much space is being used by voice menus, and voice forms.

Figure 75xxx
The Disk Usage Detail report

Operational Measurements				
Disk Usage Detail				
Interval Start-End	**Name**	**Volume Size (hh:mm)**	**Voice Volume Used (%)**	**Voice Space Used (%)**	**Text Space**
09/30 10:00-11:00	VS1	1;51	33	47	
	VS203	25:45	10		30
	VS204	25:45	10		30
09/30 11:00-12:00	VS1	1:51	33	47	
	VS203	25:45	10		30
	VS204	25:45	10		30
09/30 12:00-13:00	VS1	1:51	33	47	

Select a softkey >

Exit	Next Report		Next Page*	

* The "Next Page" softkey appears when the information fills more
 than one screen.

Use this report to monitor space usage on your voice volumes to determine when you need to consider increasing storage space, or redistributing voice services between volumes.

After new applications been implemented or voice menus have been added, you should run the Disk Usage Detail report to see if volume VS1 is getting too full (within 80% of capacity). If VS1 is approaching capacity, you will have to ask your distributor to move the voice service definitions to another user volume. See your *System Installation and Modification guide.*

Appendix A: Worksheets

This appendix contains a blank copy of each of the worksheets used in the planning stages of various types of voice forms.

Voice Services Profile Worksheet

Timeouts

> **Command Entry:** _____ **seconds**
>
> Enter a value between 1.0 and 5.0 seconds. The default is 3.5 seconds.
>
> **Short Disconnect:** _____ **seconds**
>
> Enter a value between 1.0 and 30.0 seconds. The default is 10 seconds.
>
> **Record:** _____ **seconds**
>
> Enter a value between 00:06 and 05:00. The default is 02:00.

Maximum Prompt Sizes

> **For announcements:** _____ **(mm:ss)**
>
> Enter a value between 00:30 and 10:00. The default is 00:30.
>
> **For other recordings:** _____ **(mm:ss)**
>
> Enter a value between 00:30 and 10:00. The default is 02:00.

Act on AMIS Initiation Tone: No ☐ Yes ☐

Select "Yes" if a voice service will be used to accept incoming AMIS calls.

Enable Update Logging: No ☐ Yes ☐

Select "Yes" if you want a SEER to be generated every time a DN is added, modified or deleted.

Business Hours Default: _____ **(hh:mm) to** _____ **(hh:mm)**

Holidays

#	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Start Time (hh:mm)	Comment
1	_____	_____	_____	_____
2	_____	_____	_____	_____
3	_____	_____	_____	_____
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____
8	_____	_____	_____	_____
9	_____	_____	_____	_____
10	_____	_____	_____	_____

Voice Services Profile Worksheet   Page 2 of 2

Holidays

#	Start Date (mm/dd/yy)	End Date (mm/dd/yy)	Start Time (hh:mm)	Comment
11	_____	_____	_____	_____
12	_____	_____	_____	_____
13	_____	_____	_____	_____
14	_____	_____	_____	_____
15	_____	_____	_____	_____
16	_____	_____	_____	_____
17	_____	_____	_____	_____
18	_____	_____	_____	_____
19	_____	_____	_____	_____
20	_____	_____	_____	_____

Announcement Definition Worksheet

Announcement ID: _____

The ID of the announcement. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____

The title of the announcement (up to 29 characters).

Revert DN: _____

(Optional) The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____

(Optional) The password required to access the announcement (to listen to it). This password can be between 4 and 16 numeric characters in length.

Update Password: _____

(Optional) The password required to access the announcement in order to update it using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Language for Prompts: _____

If multiple languages are installed, select the one in which system prompts will be played.

Announcement:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Method of access: Direct ❏   **Voice Menu** ❏   **Time-of-day Controller** ❏

VSDN: _____

Thru-Dial Definition Worksheet

Page 1 of 2

Thru-Dial ID: _____

The ID of the thru-dial service. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____

The title of the thru-dial service (up to 29 characters).

Revert DN: _____

The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____

(Optional) The password required to use the thru-dial service. This password can be between 4 and 16 numeric characters in length.

Update Password: _____

(Optional) The password required to update the thru-dial greeting using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Thru-dial greeting:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Language for Prompts: _____

If multiple languages are installed, select the language in which system prompts will be played.

Thru-Dial Definition Worksheet Page 2 of 2

Dial by: Number❏ **Name**❏ **Both**❏
The method by which callers can dial.

(If Dial by Number) DN Length: Fixed❏ **Variable** ❏
Choose fixed if all DNs are of the same length, or Variable if they are of varying lengths.

(If Fixed) Digits: _____ **Left Pad:** _____
Digits is the number at which the DN length is fixed.

Restriction/Permission Set: **Custom** ❏ **OnSwitch**❏ **Local** ❏
LongDistance 1❏ **LongDistance 2** ❏

If the restriction/permission set is Custom, specify the restricted and permitted dialing codes
for this thru-dial service in the following fields.

Custom Restriction Codes:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Custom Permission Codes:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

Method of access: Direct ❏ **Voice Menu** ❏ **Time-of-day Controller** ❏

VSDN: _____

Time-of-Day Control Definition Worksheet

Time-of-Day Control ID: _____

The ID of the time-of-day controller. This number can be up to 8 digits long and must be unique among service IDs.

Business Hours Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during business hours.

Off Hours Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during off-hours.

Holiday Service ID: _____ **Type of Service:** _____

The ID of the service that will be activated during holidays.

Business Days			**Business Hours**
Sunday	No ❑	Yes ❑	_____ to _____
Monday	No ❑	Yes ❑	_____ to _____
Tuesday	No ❑	Yes ❑	_____ to _____
Wednesday	No ❑	Yes ❑	_____ to _____
Thursday	No ❑	Yes ❑	_____ to _____
Friday	No ❑	Yes ❑	_____ to _____
Saturday	No ❑	Yes ❑	_____ to _____

Method of access: Direct ❑   **Voice Menu** ❑   **Time-of-day Controller** ❑

VSDN: _____

1st Level Menu

| 1 | ABC 2 | DEF 3 | GHI 4 | JKL 5 | MNO 6 | PRS 7 | TUV 8 | WXY 9 |

Voice Menu Definition Worksheet

Voice Menu ID: _____

The ID of the voice menu. This number can be up to 8 digits long and must be unique among service IDs.

Title: _____

The title of the voice menu (up to 29 characters).

Revert DN: _____

(Optional) The DN to which the caller will be transferred if he or she presses "0".

Access Password: _____

(Optional) The password required to access the voice menu. This password can be between 4 and 16 numeric characters in length.

Update Password: _____

(Optional) The password required to access the voice menu in order to update the the prompts using the voice prompt maintenance service. This password can be between 4 and 16 numeric characters in length.

Greeting:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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_____

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Voice Menu Definition Worksheet   Page 2 of 3

Menu choices:

_____

_____

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_____

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_____

_____

_____

Silent Disconnect: No❑   Yes ❑
Should the system "Goodbye" prompt be played upon disconnection? No is the default.

Language for Prompts: _____
If multiple languages are installed, select the one in which system prompts will be played.

Voice Menu Definition Worksheet Page 3 of 3

Key	Action		Comment
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____

Initial No Response:

_____ _____   _____

Delayed Response:

_____ _____   _____

Method of access: Direct ☐   **Via a Voice Menu** ☐   **Time-of-day Controller** ☐

VSDN: _____

* Enter any associated IDs, calling numbers, or expansion digits in this second field.

DMS-100 Family

DMS VoiceMail
Voice Menus Application Guide

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telecom**