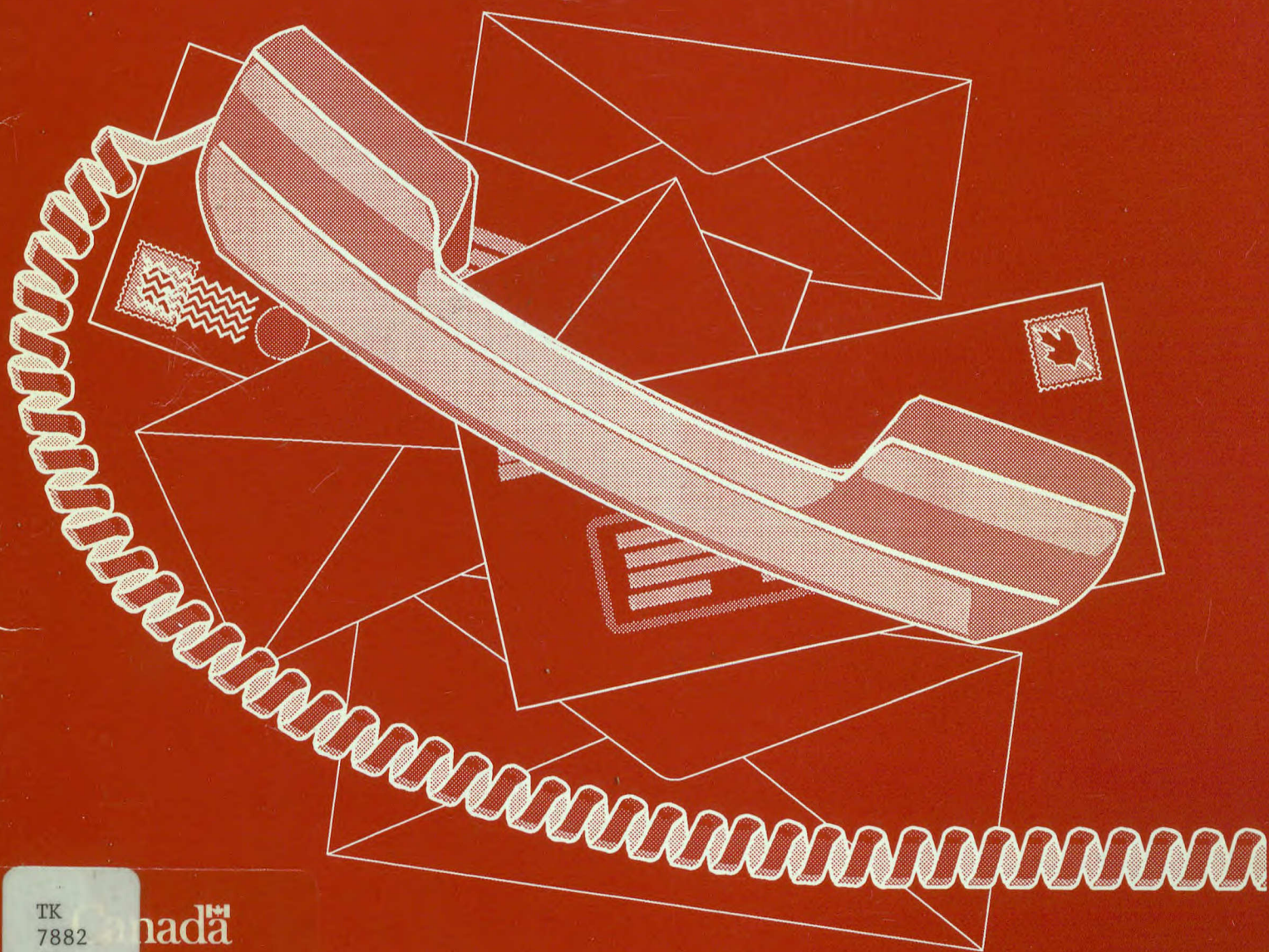




Communications
Canada

Government Telecommunications
Agency

Guidelines for the Implementation of the Government Voice Messaging Service (GVMS)

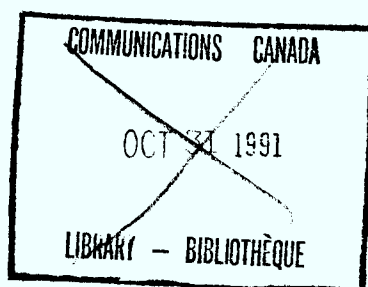
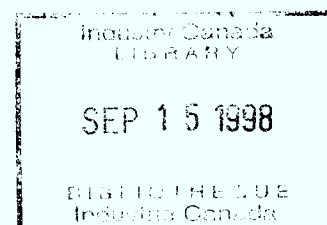


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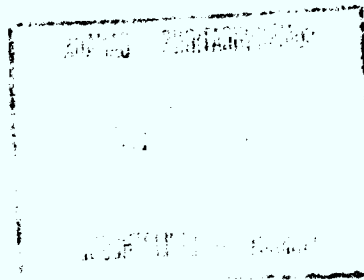
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**GUIDELINES FOR THE IMPLEMENTATION OF THE
GOVERNMENT VOICE MESSAGING SERVICE**



Government Telecommunications Agency
November 1990



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1.0 INTRODUCTION

Voice messaging systems offer individual users two major services: voice mail and telephone answering. Although people often tend to confuse voice messaging systems (VMS) with telephone-answering machines, the former, because of their voice mail capability and rich variety of features, are much more useful than the latter. It is recommended that users be strongly encouraged to use the voice mail capability of the Service which allows voice messages to be treated in much the same way as written messages.

With voice mail, messages can be treated much the same way as written messages.

2.0 PURPOSE

The purpose of this document is to provide implementation guidelines for the Government Voice Messaging Service (GVMS). It is assumed that the reader has a basic understanding of voice messaging and its applications. Those requiring some background information on voice messaging in general and GVMS in particular should refer to Annex A.

Guidelines for implementation can make voice messaging more effective.

Although voice messaging is very easy to understand and use, it must be properly implemented to be fully effective. Failure to establish and follow proper operational procedures during the implementation of this service can cause unnecessary and annoying problems for both service subscribers and outside callers. It is, therefore, very strongly recommended that the guidelines contained in this document be followed closely.

3.0 THE MOST COMMON SCENARIO

There are many ways to configure and use voice messaging, but it has been found that the following is the most common and useful set-up for government subscribers who do not have personal secretaries:

- the telephone is set at *call forward busy/call forward don't answer* to the voice messaging centre;
- it is equipped with a light which flashes when a new message is in the mailbox (if the telephone set cannot be fitted with a light, then a stuttered dial tone can be activated);
- a *revert-to-operator* to a designated person (usually a secretary or a receptionist) in the office is implemented.

Call forward busy/call forward don't answer, a flashing light for new messages and a revert-to-operator.

While the needs of most subscribers are satisfied with the above scenario, some require tailor-made solutions. In Annex B, you will find some examples which will help you assess and meet users' needs.

4.0 WHAT TO ORDER

The most common scenario described above should be implemented by ordering or changing the telephone and voice messaging features which are described below.

- 4.1 Call forward busy/Call forward don't answer:** If a call comes in when the line is busy, or if it does not get answered after a certain number of rings (usually three), it can be transferred directly to the mailbox.

With this feature, subscribers do not have to remember to forward their calls to their mailbox when they leave the office or to remove the call forward when they come back.

A one-time service charge, but no monthly charge.

Most people in the government already have *call forward busy/call forward don't answer* on their telephone. This feature is programmed by the telephone company and allows unanswered calls to go automatically to a secretary or a colleague. If subscribers want their unanswered calls automatically to reach their voice mailbox instead of the secretary, the telephone company will have to change the program in order to substitute the Voice Messaging Service Centre's telephone number.

This feature is ordered/changed through the Government Telecommunications Agency (GTA)/Bell and there is a one-time service charge and no monthly charge.

- 4.2 Call waiting:** For those who have *call waiting* on their telephones, the system can be set up with *call forward busy/call forward don't answer* to a voice mailbox. In this case, the second call will ring if the phone is busy and, if it does not get answered, it will be transferred to the mailbox.

A one-time service charge, but no monthly fee.

Subscribers who already have access to the *call waiting* feature can ask GTA/Bell to substitute the Voice Messaging Service Centre's telephone number for the one already programmed. Those who would like to have *call waiting* should order it through GTA/Bell.

There is a one-time service charge but no monthly fee for *call waiting*.

- 4.3 Message waiting indication:** There are two types of message indicators that can be used with GVMS: a light or a stuttered dial tone.

- **Light:** Subscribers whose telephones have a message-waiting light can have the light activated whenever a message is left in that mailbox. In this way, they always know at a glance whether there is a message. This indication stimulates a prompt response from subscribers, a vital factor of voice messaging success.

A one-time cost plus a small monthly fee.

Ordered through GTA/Bell; there is a one-time cost plus a small monthly fee.

- **Stuttered dial tone:** Whenever a new message is waiting in the mailbox, the subscriber hears a stuttered dial tone when the telephone receiver is lifted.

Only a one-time charge and no monthly cost.

Ordered through GTA/Bell; there is only a one-time charge and no monthly cost.

- 4.4 **Revert-to-operator:** This feature lets a caller reach a person (at a pre-programmed telephone number) rather than a mailbox by pressing "0" while the personal greeting is playing. It is important that the caller be given this escape route from the mailbox because some calls are urgent and some people do not like to leave voice messages. Subscribers can alert callers to this feature by briefly explaining it in their personal greeting.

The caller should be given an escape route from the voice messaging system.

Administrative procedures: The person designated for back-up answering should not have a mailbox to ensure that callers who want to speak to a real person will not be caught in a maze of mailboxes. If all of the telephones in the division are equipped with a *revert-to-operator* to a designated person, let's say the secretary, then it becomes of vital importance to the division that the secretary's telephone be answered at all times during normal working hours. If the secretary leaves the workstation, it is everybody's responsibility to pick up the phone if they hear it ringing.

If nobody is designated as back-up to answer the telephone, then the *revert-to-operator* cannot be implemented. Users should therefore refer callers to a secretary or a colleague by recording that person's telephone number in their greeting.

No cost for this feature.

When ordering this feature, state on the order form the telephone number to which the calls are to be reverted.

This feature is a GVMS feature; it is ordered through GTA/Time and there is no cost.

5.0 USE OF GVMS BY SENIOR EXECUTIVES

Senior executives usually prefer to have their calls answered by their personal secretaries. In this instance, calls are not automatically forwarded to the voice messaging system, but the *message-waiting* and *revert-to-operator* features are activated. By using only the voice mail part of the system, executives can make very effective use of GVMS by sending or receiving messages from staff and colleagues. Experience has shown that messages to colleagues or superiors get answered faster with voice mail. Since they are often away from the office, their secretaries can leave messages in their mailboxes that they can access whenever or from wherever it is convenient for them. This way, they can be in touch with the office without having to keep a close watch on the time of day to make sure that somebody will answer the telephone.

Keeping track of office business without keeping track of the time.

Some executives have the system set up so that their secretaries also have access to a mailbox without the *call forward busy/call forward don't answer* feature, but with the message waiting light. (This is implemented only if the published number for the executive is the secretary's telephone number.) After normal working hours, the secretary forwards all calls to GVMS. In the morning, the secretary removes the *call forward*, listens to the messages and reroutes to the boss' mailbox (unpublished number) the messages to be listened to.

6.0 FORWARDING ALL CALLS TO SOMEONE WITH A MAILBOX

Because of the way calls are handled by the voice messaging system, it is important to know where your calls are being forwarded. The following scenarios explain what happens to calls forwarded to someone who has a mailbox.

- 6.1 **GVMS Subscribers:** When voice messaging subscribers forward all their calls to someone else in the office who also has a mailbox, and the calls are not answered after three rings or the telephone is busy, they will be transferred back to the voice messaging system and the caller will hear the personal greeting of the original called party.
- 6.2 **Non-subscribers:** When people who do not have a mailbox forward all their calls to a colleague who has a mailbox, and the calls are not answered after three rings or the telephone is busy, the system will start searching for the mailbox of the original number called. After a certain time, the caller will hear the system level greeting asking for a mailbox number. Callers who do not know about voice messaging systems may be confused by these prompts. It is, therefore, extremely important that staff check the status of the line to which they wish to forward their calls before activating the call-forward feature. It is imperative that those without mailboxes refrain from forwarding calls to a person with a mailbox.

Those without mailboxes should refrain from forwarding calls to a person with a mailbox.

7.0 WHEN PRINCIPAL CONTACT IS WITH THE PUBLIC

In the federal government, it is a policy that public servants answer their telephones and promptly return their calls. The same principle should be applied when using a voice messaging system: nobody should hide behind the voice messaging system; all the messages should be answered promptly. Although it is difficult to enforce this principle, managers should periodically remind their staff of this fact to avoid complaints from callers. Furthermore, if calls are not returned, the use of voice messaging will be undermined since people will not have confidence that a message left in the mailbox will be answered as soon as possible.

Nobody should hide behind the voice messaging system; all the messages should be answered promptly.

It is also important that callers do not feel trapped in a mailbox or a maze of mailboxes. Since it is free, it is recommended that the *revert-to-operator* feature be implemented for all subscribers; the telephone to which all other telephones in your organization revert should not have a voice mailbox.

The revert-to-operator feature should be implemented for all subscribers.

The personal greeting that the caller hears when reaching the voice messaging system conveys information, e.g., when the person called will be back to the office, that might be of crucial interest to an outside caller. It is important that the personal greeting be checked regularly. When the subscriber is going to be away for more than a day, the personal greeting should be changed so that important messages that have to be answered right away are not left in the voice mailbox.

Subscribers who are going to be away for more than a day, should change their personal greeting.

The public has to be served in both official languages. Therefore, personal greetings have to comply with the bilingualism policy. For more on this, please refer to the following section on "Personal Greetings".

Personal greetings should comply with the bilingualism policy.

8.0 PERSONAL GREETINGS

Although subscribers are free to compose their own personal greetings, the samples in Annex C are provided for guidance.

It is recommended that subscribers write down their greetings before recording them to ensure that the message is clear and that all the information is included. With a written message as a guide, the recording will proceed more smoothly.

Since the *revert-to-operator* feature can be implemented free of charge by GVMS, it is recommended that it be implemented for all subscribers. They should let it be known in their personal greeting that a secretary can be reached by pressing "0" or by dialling a given telephone number. Users should specify this information at the beginning of their greeting since callers have to press "0" during the greeting.

It is also recommended that organizations determine the bilingual requirements for personal greetings based on official departmental bilingual policy. However, as a general rule, in bilingual regions like Ottawa/Hull, the personal greeting must contain enough information in each of the official languages to allow both English- and French-speaking callers to leave a message or reach someone who can handle the call in the language of the caller's choice.

If a long greeting is recorded in both official languages, some callers will hang up in frustration before they are given the opportunity to leave a message. Subscribers should let their frequent callers know that if they press "9" while listening to the greeting they will skip directly to the tone which allows recording. There is a disadvantage to this: the callers will not find out whether the subscriber is absent if they have skipped the greeting.

Note: Any key except "0" and "1" will permit the caller to skip the greeting. However, from memory, people tend to confuse "press 0 or 1" and "press any key except 0 or 1". Therefore we suggest the use of "press 9", which everybody tends to remember since that key is used throughout the system to skip to other levels, etc.

Subscribers who are in unilingual positions and are unable to speak in the second language should ask a bilingual colleague to help them record the portion of the greeting that must be recorded in the other official language.

All subscribers should change their greeting to reflect a change of status, such as a day's absence, and should listen to their greeting periodically to make sure that it is up to date.

Finally, greetings recorded by the subscribers themselves have more meaning to the caller. If they are familiar with the voice, they are reassured that they have reached the right mailbox. Also, it helps to emphasize that the subscriber is the only person with access to that mailbox.

Subscribers should write down their greetings before recording them.

Organizations should determine the bilingual requirements for personal greetings based on the official departmental bilingual policy.

Subscribers should let their frequent callers know that if they press "9" while listening to the greeting, they will skip directly to the tone which allows recording.

Unilinguals should ask a bilingual colleague to help them record their greeting.

Greetings recorded by the subscribers themselves have more meaning to the caller.

9.0 TRAINING

GTA, in collaboration with Time Communications Ltd., is offering training sessions designed to introduce people to GVMS, give them some hands-on experience, and outline the "dos and don'ts" of voice messaging. Details of the training arrangements can be obtained from your GTA consultant.

Even though voice messaging seems easy to learn, it is recommended that every subscriber receive training. Users who had never used a voice messaging system and who tried to train themselves with the help of colleagues all reported having initial problems with the system; those who attended a training session rarely experienced major or extensive problems.

Every subscriber should receive training.

If departments wish to train their own people, GTA/Time will train departmental trainers and provide them with training packages.

10.0 IMPLEMENTATION PRACTICES

The *call forward busy/call forward don't answer* feature that routes calls to the voice messaging system should be implemented *only after training has been completed*. At the training session or shortly after, subscribers initiate their mailboxes by entering a passcode, recording a personal greeting, etc. Thereafter, when callers reach subscribers' mailboxes, they hear personal greetings. Callers who reach an uninitiated mailbox will hear a series of system prompts which will confuse them.

The call forward busy/call forward don't answer feature should be implemented only after training has been completed.

11.0 CLASSES OF SERVICE

Because voice messaging is computer based, it is easy to modify many system parameters such as the networking ability, the size of address groups, the length and number of messages that may be stored, etc. A number of standard classes of service have been established by GTA to satisfy the needs of the typical users. It is, however, possible to establish other classes to satisfy particular client requirements. For more details on the subject of existing classes of service and system parameters, contact your regional GTA consultant.

Many classes of service are available. Contact your regional GTA consultant for details.

12.0 SECURITY

Like any computer-based system, voice messaging is vulnerable to hackers if it is not properly protected. There are already several reports about hackers who have successfully gained unauthorized access to voice messaging systems and caused havoc by removing messages, altering greetings, changing passwords, etc. In some cases these actions have caused severe embarrassment and financial loss to individuals and organizations. To protect against such actions, GVMS uses a personal passcode with a minimum of six digits (and a maximum of ten) and the system disconnects anyone who tries to log in and does not provide a valid passcode in two attempts.

A variety of features and capabilities can be set on GVMS. It is extremely important that departmental Telecommunications Officers understand these features and capabilities so that they can guard

A poorly-selected passcode or an unprotected one can result in a breach of privacy.

against unauthorized use of GVMS or any networks or systems to which it is connected.

However, these measures alone will not protect the system if users are not careful when setting their passcodes and do not protect them properly. It is, therefore, very strongly recommended that subscribers:

- change their passcodes regularly (every three months);
- refrain from programming their passcodes on the programmable keys of their telephones;
- refrain from writing their passcodes where they can be seen or found by others;
- pick unique sequences for their passcodes instead of sequences, such as office or home telephone numbers, names of spouses/children, or other easily deduced sequences (111111, 919191, etc.); and
- refrain from giving their passcodes to others; if it is necessary to do so for a specific period, the passcode should be changed once that period is over.

Passcodes should be protected with the same care as credit card numbers.

Passcodes should be protected with the same care as credit card numbers.

Note: GVMS is not a secure system and should not be used to communicate highly sensitive information or information affecting national security.

13.0 DIRECTORY ENTRIES

A "V" is placed next to the name of GVMS subscribers in the government telephone directory. It is each organization's responsibility to inform GTA's Directory Services which members of their staff are GVMS users.

DESCRIPTION OF VOICE MESSAGING

What is the Government Voice Messaging Service (GVMS)?

The Government Voice Messaging Service combines three basic service functions:

- automatic back-up telephone answering;
 - voice mail;
- (both these services are from a *private computer mailbox*)
- bulletin boards for information dissemination and gathering.

Telephone answering: allows all incoming calls or all unanswered and busy-line calls to be forwarded directly to a private mailbox.

GVMS provides a very effective back-up telephone answering capability by allowing subscribers to have all incoming calls or all unanswered and busy-line calls forwarded directly to a private mailbox. Callers who reach the mailbox hear the subscriber's personalized greeting and at this point can leave a full message or transfer to a secretary.

The service also provides voice messaging or voice mail which allows all system subscribers to record, edit and send voice messages quickly and efficiently to any other individual or group of subscribers on the GVMS network anywhere in Canada. Recipients are notified of the presence of messages in their mailboxes by means of a flashing light, a modified dial tone, (stuttered dial tone) or the Electronic Business Set's message waiting key. Messages can be:

Voice messaging: allows recording, editing and sending of voice messages.

- answered,
- replayed,
- forwarded to others with or without comments, or
- stored for future reference for a maximum of seven days.

Bulletin board: gives access to pre-recorded messages or allows the dissemination of information.

Subscribers can access their mailboxes from any touch-tone telephone so they can retrieve and send messages even when they are away from their offices.

The bulletin board function of GVMS gives callers access to a series of pre-recorded messages which can be used to answer often-asked questions or to disseminate information such as hours of operation, fee schedules or timetables. Callers can also record their responses to pre-recorded questions, leave messages to place orders or request assistance. This is a customized service; contact GTA's consultants for more on this application.

Why voice messaging?

Studies have shown that one-third of all the calls in the federal government do not reach the intended party on the first try and that 83% of the messages taken contain only the caller's name and telephone number. It follows that a voice messaging system which allows people to leave complete messages, even very long ones, any time from anywhere is an efficient complement to the telephone; it extends the telephone's capabilities and makes it more flexible.

One-third of all the calls in the federal government do not reach the intended party on the first try.

As a matter of fact, it has been shown that the number of messages with content is two and one-half times higher in a group using voice messaging than it is in a group not using it. Also, it is the users who place or receive many calls (as many as 70 calls per week) who see the most significant decrease in their total number of calls because of voice messaging use (a decrease of as much as 26%). This means that voice messages convey information which brings business transactions to a conclusion faster, with fewer calls, thereby increasing office productivity.

The number of messages with content is two and one-half times higher when using voice messaging and the total number of calls can decrease as much as 26%.

Who can benefit?

Anybody who meets one or more of the following conditions will benefit from GVMS:

- As many as ten telephone calls are placed or received per day;
- Time zones create communication problems;
- Frequent absences from the office, even for short periods of time, lead to important telephone calls being missed;
- Frustration is high due to "telephone tag";
- On business trips, it is difficult to contact the office;
- Support staff or colleagues are overburdened or annoyed by answering forwarded calls;
- Confusion exists due to incomplete or illegible telephone message slips;
- Calls are often placed to several people to leave the same message;
- The section/department disseminates standardized information to the public or to other public servants.

OTHER CONFIGURATION SCENARIOS

The boss has a mailbox linked to an unpublished number

Let's say that the boss has a mailbox linked to a private line for which the number is not widely published. The secretary takes the calls on another line. If the boss is away and the caller wants to leave a voice message, the secretary transfers the call to the private number with the mailbox. At the sound of the personal greeting, the secretary hangs up and lets the caller record the message.

Administrative procedures: *It is recommended that people with this configuration listen to their messages in their own mailbox. If the secretary has access to the boss' mailbox, the caller should be made aware of this.*

It is also recommended that executives record their personal greeting and name identification to reinforce the fact that they are the only ones with access to the mailbox, if that is the case. The personal greeting reassures people who want to leave a message.

Note: Callers who have digit-display business telephones and who get transferred to an unpublished number will see the unpublished number appear on their display screen.

Secretary call forwards all calls to the voice messaging system

A secretary has a voice messaging system and forwards calls to it at the end of the day. Anyone who calls a staff member who has a *revert-to-operator* feature to that secretary, and who presses "0" while listening to the staff member's personal greeting, will reach the secretary's mailbox and will hear the secretary's personal greeting. At this point, the caller has the choice of leaving a message in the secretary's mailbox or hanging up.

This is what is called being trapped in a maze of voice mailboxes. It is for this reason that secretaries who have access to the voice messaging system should forward all calls to the system only at the end of the working day. The greeting should clearly state that the office is closed for the day.

If a staff member has no voice mailbox but has *call forward busy/call forward don't answer* to that secretary and a phone call forwarded to the secretary is not answered, then the caller will hear system prompts, since the system cannot find a mailbox for the person originally called.

Incoming calls managed by uniform call distribution

Even if a division manages incoming telephone calls by way of uniform call distribution (UCD) or a hunt system, some people in the division could still have a voice mailbox with a *call forward busy/call forward don't answer* to the voice messaging centre. In this case, the number for the *revert-to-operator* feature would be that of someone on the UCD or the hunt system who does not have access to a voice mailbox. Once the call reaches that person, it is treated by the UCD like any other incoming telephone call.

One mailbox for several people

THIS CANNOT BE DONE! Those without a voice mailbox cannot forward their calls to someone with a mailbox. Whenever a forwarded call reaches a mailbox, the system reverts to the original number to try to find a mailbox. Since it will not find a mailbox, it will play system prompts to the caller.

SAMPLES OF PERSONAL GREETINGS

Out of the office for a short while

"Hello. This is Bob Smith speaking. Si vous avez besoin d'aide en français, veuillez appuyer sur le '0' maintenant. Si vous n'avez pas de téléphone à clavier, composez le 99x-xxxx. You have reached my voice messaging system. I am unavailable at this moment. If you wish to speak with someone immediately, please press '0' now or, if you do not have a touch-tone telephone, dial 99x-xxxx. If you leave a complete message, I will get back to you as soon as I can. Thank you."

On vacation: nobody will listen to your messages

"Hello. You have reached Bob Smith's voice messaging system. Je ne serai pas au bureau pendant deux semaines commençant le...(d/m/y). Si vous voulez parler à quelqu'un directement, appuyez sur le '0' maintenant. Si vous n'avez pas de téléphone à clavier, composez le 99x-xxxx. I will be away from the office for two weeks starting the...(d/m/y). You can leave a message or, if you wish to talk to someone else, you can press '0' now. If you do not have a touch-tone telephone, please call the secretary at 99x-xxxx. Again, the number is 99x-xxxx. Thank you."

On vacation: a colleague will answer your messages

"Hello, this is Bob Smith speaking. Je ne serai pas au bureau pendant deux semaines commençant le...(d/m/y). Un collègue va écouter et répondre à mes messages pendant mon absence. Si vous voulez parler à quelqu'un directement, appuyez sur le '0' maintenant. Si vous n'avez pas de téléphone à clavier, appelez la secrétaire au 99x-xxxx. I will be away from the office for two weeks starting the...(d/m/y). You can leave a message; a colleague will listen and respond to my messages while I am away. If you wish to talk to someone else, press '0' now. If you do not have a touch-tone telephone, please call the secretary at 99x-xxxx. I repeat: the number is 99x-xxxx. Thank you."

GLOSSARY

Call Forward Busy/Call Forward Don't Answer (CFB/CFD):

Whenever the line is busy or the call is not answered after three rings, it is routed to a pre-programmed telephone number.

Government Voice Messaging Service (GVMS):

A computer-based answering and messaging service offered government wide by the Government Telecommunications Agency.

Mailbox:

The space on the computer assigned to record voice messages for users. This space is private; it can be accessed only with a passcode.

Message Centre:

The main computer containing all the prompts, the personal greetings and all the messages.

Message Waiting Indication:

Whenever a voice message is waiting in the mailbox, one of two mechanisms can be activated: a light on the telephone or a stuttered dial tone.

Passcode:

To access a mailbox, users are required to enter a six- to ten-digit code chosen as their personal combination.

Personal Greeting:

The message recorded by the subscriber that callers hear when they reach the voice mailbox.

Revert-to-operator:

A feature allowing callers to exit a voice mailbox and reach a person such as a secretary or receptionist.

Voice Messaging:

The capability of leaving a recorded voice message for subscribers of a voice messaging service which they can retrieve at their own leisure.