



# **IP Office Release 6.1**

## **Voicemail Pro Installation and Maintenance**

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# Chapter 1.

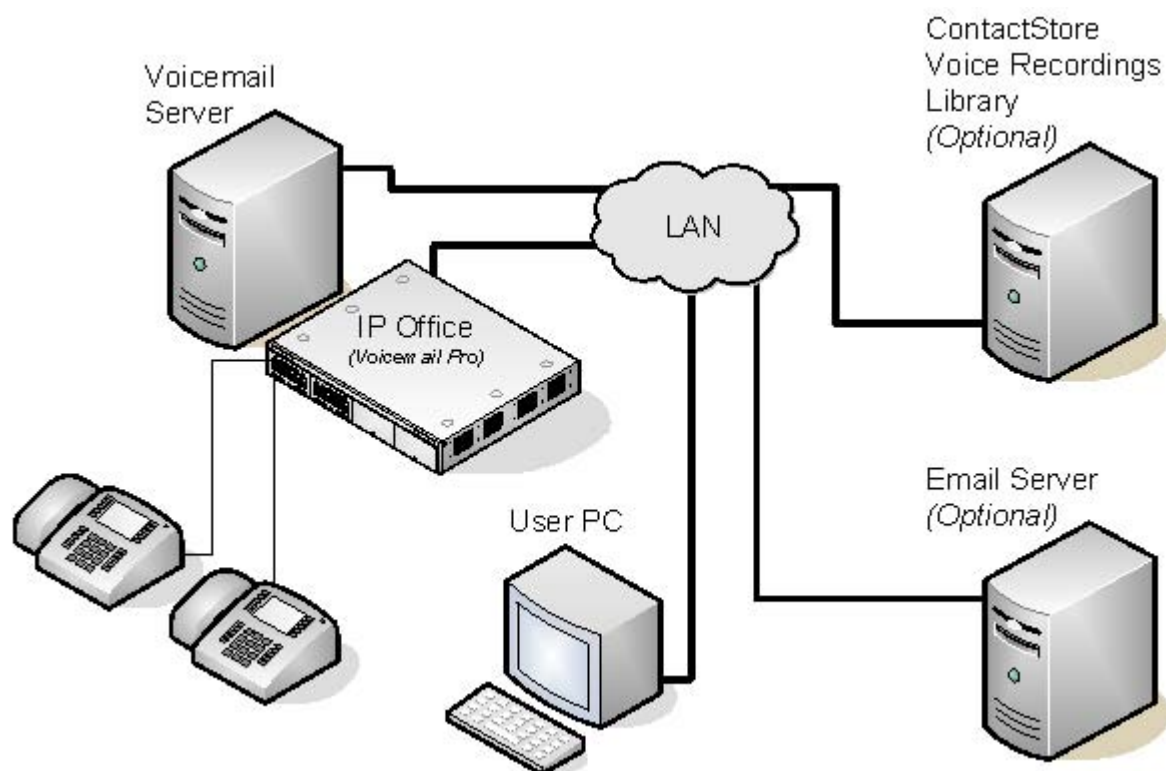
# Voicemail Pro





# 1. Voicemail Pro

The diagram illustrates a Voicemail Pro system with some of the setup options. Full details on the installation options available are covered in the [Installing Voicemail Pro](#) section.



- **IP Office Control Unit**  
The IP Office Voicemail Pro [licenses](#) are entered into the configuration of the IP Office system. The licenses are required to activate Voicemail Pro features. An unlicensed Voicemail Pro service will run for two hours to allow demonstration and testing. License keys are issued against and validated against the unique serial number of the feature key dongle used by the IP Office. For USB and parallel port feature key dongles, the dongle must be installed on a PC running the IP Office Feature Key Server application.
- **Voicemail Pro Server**  
The Voicemail Pro service is installed on the Voicemail Pro server PC. This becomes the PC where messages and other data are stored for the mailboxes and services provided by Voicemail Pro.
- **Voicemail Pro Client**  
The Voicemail Pro Client is used to manage and configure the Voicemail Pro service. It is typically installed on the Voicemail Pro server but can also be installed separately on another computer to allow remote access to the server. Only one client can connect to the server at any time.
  - The version of Voicemail Pro client used with a Voicemail Pro server should match. If the Voicemail Pro client is used to load a call flow from an earlier version of Voicemail Pro server, you will be warned that if you edit the call flow you will not be able to save it back to the original server. If the client is used to load a call flow from a later version of Voicemail Pro server it will stop the action and prompt that the call flow cannot be loaded.
- **Telephone Extension**  
For internal extensions, the voicemail server provides message waiting indication. This is done automatically for the phone users own mailbox. However the user can be configured to also receive message waiting indication for other mailboxes.
- **User's PC**  
In addition to accessing mailbox voicemail messages through the phone, there are a range of method for accessing messages from a users computer. This can be by web browser, IMAP email account, Exchange 2007 email account and various other options. The IP Office one-X Portal for IP Office and IP Office Phone Manager applications can also be used.
- **Email Server**  
Using an email server, Voicemail Pro can provide a number of services. This includes send messages alerts or copies of messages. For Exchange 2007 email servers, the email server can be used as the message store with users accessing their messages using Outlook 2007.
- **ContactStore Server**  
In addition to taking voicemail messages, the Voicemail Pro can be used for automatic and manual call recording. These recordings are normally stored in the voicemail servers mailboxes. ContactStore is an additional licensed application to which recordings can be transferred for long term storage. ContactStore supports archiving to DVD, access by web browser and searching based on call details.

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Voicemail Pro is supplied the IP Office User and Admin Applications DVD. Voicemail Pro ScanSoft TTS is supplied as a separate 2 DVD set. For IP Office 6.1, a Linux based Voicemail Pro server can also be installed from the IP Office Applications Server DVD. Notes about the Linux operation are included in this documentation but not notes on actual installation which is covered by the IP Office Applications Server documentation.

## 1.1 What is New in 6.1

The following features have been added to Voicemail Pro 6.1.

- [Additional Generic Action String Manipulation Options](#)<sup>[204]</sup>  
The String Manipulation command has two additional options. They are:
  - Copy  
This action can be used to copy the value of one variable to another variable. The command can copy the whole value or can, treating the value as a string, copy a section to or from a specified matching character.
  - Length  
This action can be used to return the length of variable. It can return the full length or the length from or to a specified matching character.
- [Post Call Completion Call Flows](#)<sup>[190]</sup>  
Call flows can be configured to continue running even after the caller has disconnected. If the current action which the call had reached has a *Timeout* or *Next* result, the connection from that result is followed immediately until the call flow either reaches a Disconnect action or an unconnected result.
- [Automatic Call Recording for Internal Calls](#)<sup>[290]</sup>  
The user and hunt group options for automatic call recording can now be set to include internal calls. Previously they only applied to external calls.
- [Voicemail Pro Linux Server](#)<sup>[137]</sup>  
Voicemail Pro is supported running on a Linux server. It supports most of the same features as a Windows Voicemail Pro server except those that rely on other Windows OS components, for example IIS, MAPI, ODBC and VPNM features. Installation of the server on Linux is done using the IP Office Applications Server DVD and is covered in the documentation for that product. However the Windows Voicemail Pro client is still used for configuration.
  - The Voicemail Pro client's backup and restore functions cannot currently be used to move voicemail data between a Linux based server and a Windows based server or vice versa. The client functions for importing and exporting module and the call flow database can be used.
  - As a result of Linux support, options set through the Windows Control Panel that were also applicable to a Linux based server are now settable through the Voicemail Pro client's System Preferences settings.
- [Default Remote Administrator Account](#)<sup>[137]</sup>  
Previously, no administrator accounts were created by default, instead accounts had to be created by running the client on the same PC as the server. With Linux based servers that option is not possible, so now the server installs with a default account.

## 1.2 Supported Languages

By default the prompts installed match the installer language selection plus English. If other languages are required they need to be selected by doing a custom installation. The installable Voicemail Pro prompts are listed in the table below. The availability of a language in voicemail does not necessarily indicate support for IP Office in a country that uses that language.


Language	WAV Folder	Fallback Selection	TTS 5.0
Brazilian Portuguese	ptb	> pt > en.	✓
Chinese (Cantonese)	zzh	> en > enu.	✓
Chinese (Madarin)	ch	> en > enu.	✓
Danish	da	> en.	✓
Dutch	nl	> en.	✓
English UK	en	en.	✓
English US	enu	> en.	✓
Finnish	fi	> en.	✓
French	fr	> frc > en.	✓
French Canadian	frc	> fr > enu > en.	✓
German	de	> en.	✓
Greek	el	> en.	✓
Hungarian	hu	> en.	✗
Italian	it	> en.	✓
Korean:	ko	> en.	✓
Latin Spanish	eso	> es > enu > en.	✓
Norwegian	no	> en.	✓
Polish	pl	> en.	✓
Portuguese	pt	> ptb > en.	✓
Russian	ru	> en.	✓
Spanish	es	> eso > en.	✓
Swedish	sv	> en.	✓

When the IP Office routes a call to the voicemail server it indicates the locale for which matching prompts should be provided if available. Within the IP Office configuration, a locale is always set for the system. However differing locales can be set for each user, incoming call route and for short codes in addition to the default system locale.

The locale sent to the voicemail server by the IP Office is determined as follows:

Locale Source	Usage
Short Code Locale	The short code locale, if set, is used if the call is routed to voicemail using the short code.
System Locale	If no user or incoming call route locale is set system locale is used unless overridden by a short code locale.
Incoming Call Route Locale	The incoming call route locale, if set, is used if caller is external.
User Locale	The user locale, if set, is used if the caller is internal.

If the prompts matching the IP Office locale are not available, the voicemail server will provide prompts from a fallback language if available. The table of languages above lists the order of fallback selection.

If required, the language provided by a voicemail call flow can be changed using a  [Select System Prompt Language](#) <sup>[224]</sup> action.

### TTY Teletype Prompts

TTY (Teletype (Textphone)) is included in the list of installable languages. TTY is a text-based system that is used to provide services to users with impaired hearing. See [Support for Callers with Impaired Hearing](#) <sup>[307]</sup>.

## 1.3 Number of Simultaneous Users

All connections between the voicemail server and the IP Office are via the LAN using data channels. The maximum number of data channels that can be used for voicemail operation at any moment are shown below.

IP Office	Maximum for Voicemail Pro
IP406 V2	20
IP412	30
IP500	40
IP500 V2	40

The actual number of simultaneous users is determined by the [licenses for Voicemail Pro](#)<sup>21</sup> added to the IP Office configuration. Note also that some specific functions can have [voicemail channels reserved](#)<sup>96</sup> for their use or may have channel restrictions.

## 1.4 Linux Server Support

A Voicemail Pro server is one of the Linux components installable as part of the IP Office Applications Server DVD installation. That process is covered separately in the IP Office Applications Server documentation. However, configuration and administration of that server is still performed using the Windows based Voicemail Pro client application.

For Voicemail Pro server running on the <%APPLICATION%>, the following Voicemail Pro features are not supported:

- VB Scripting.
- TTS Text to Speech.
- MAPI Email.
- UMS Exchange Integration.
- UMS Web Voicemail  
However access via IMAP and one-X Portal are available as alternatives.
- 3rd Party Database Integration.
- VPNM.

When logged into the voicemail server using the Voicemail Pro client, those features not supported are grayed out or hidden. If those features are present in an imported call flow, they will not function and calls attempting to use those features will be disconnected.

For Small Community Network scenarios where multiple voicemail servers are present, for example distributed and backup server, a mix of Linux based and Windows based servers are allowed.



# **Chapter 2.**

# **Installing Voicemail Pro**

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## 2. Installing Voicemail Pro

This section covers the installation of Voicemail Pro onto a Windows server PC. It does not cover installation onto a Linux server, that is covered in separate IP Office Applications Server documentation.

Voicemail Pro 6.1 can be installed with the following IP Office systems running IP Office Release 6.1 software:

- IP406 V2
- IP412
- IP Office 500
- IP Office 500v2

### 2.1 General Installation Requirements

Here is a list of general requirements for all types of voicemail installation.

- A PC with IP Office Manager and Microsoft .NET Framework versions 2.0 installed on it. If .NET 2.0 is not detected, you will be prompted to install it before the Voicemail Pro installation proceeds.
- An IP Office Feature Key. Refer to the IP Office Installation Manual for details.
- Licenses based on the serial number of the IP Office Feature Key. These should include:
  - A license for Voicemail Pro and any additional voicemail ports is required. If Voicemail Pro Server is installed without a license it will run for 2 hours and then shut down.
  - Licenses for any other Voicemail Pro components being installed, see [Voicemail Pro Licenses](#)<sup>[21]</sup>.
- IP Office Applications DVD.

#### Tips

- Before you start to install Voicemail Pro it is advisable to check that the PC that you are using can connect to the IP Office unit and that you can load and save a configuration file using IP Office Manager.
- Switch off any PC and hard disk sleep, power down, suspend, hibernation modes.
- The Voicemail Pro software needs to be installed using an account with full administrator rights on the PC. The service subsequently runs under that account. We recommend that a specific account is created for this purpose and set so that its password does not expire.



## 2.1.1 PC Specification

The PC specifications given below are the minimum required. To avoid having to replace the server when upgrading we recommend that at least a Pentium 4 2.8GHz or higher is used wherever possible.

This application requires various licenses entered into the IP Office configuration to control the features it offers and the number of [simultaneous connections](#)<sup>[13]</sup>, up to 40 on IP Office 5.0+ IP500 control units. The operation of Voicemail Pro can be customized to provide special services.

The Voicemail Pro software can be installed as separate Voicemail Pro client and server parts. This allows the remote administration of the Voicemail Pro server from a PC with just the Voicemail Pro client installed. A copy of the client is automatically installed locally with the Voicemail Pro server.

Source	
DVD	IP Office 6.0 Applications DVD (700480569)
Languages	See <a href="#">Supported Languages</a> <sup>[12]</sup> .
IP500	✓ IP Office Standard Edition <sup>[1]</sup> , ✓ IP Office Professional Edition.
License	✓ See below.

- For pre-IP Office 5.0 IP500 systems, an IP500 Upgrade Standard to Professional licenses is required to support Voicemail Pro.

The Voicemail Pro server part of the software consists of several components in addition to the core server software, these are:

- Campaigns**  
 The Voicemail Pro can be configured to run a campaign. This consists of a series of questions for which the Voicemail Pro records the callers answer or key presses. The resulting recordings can then be played back by users. The web aspect of campaigns allows user to perform this playback and processing of campaign recordings via their web browser. This requires an IIS web server to be run on the same PC as the Voicemail Pro software.
- Text to Speech (TTS)**  
 Through adding additional licenses, the Voicemail Pro is able to use the TTS functions of Windows to speak text and numbers to callers in addition to recording prompts. This is intended mainly for scenarios where the Voicemail Pro is obtaining text and number values from a customer database.
- UMS Web Voicemail**  
 UMS allows users to access their voicemail mailbox using either an IMAP compatible email program or through their web browser. UMS Web Voicemail requires the Voicemail Pro service to be installed on a server PC that has IIS already present. It also installs PHP if not detected as already present.
- Installation on Windows Server Operating Systems**  
 On many Windows server PC's, while the Windows Audio components are present by default they are not always enabled. If this is the case the playback of voice prompts may be 'choppy' and the TTS (if installed) will not work. However, enabling Windows Audio does not require the server PC to have a sound card installed.
  - Ensure that you have full administrator rights for the PC. This process will also require the PC to be restarted.
  - In the Windows Control Panel select Sounds and Audio Devices.
  - If Windows Audio has not been enabled, select the Enable Windows Audio check-box.

Notes:

- Use of the Large Fonts setting is not supported. Use of this option may cause options on some screens to become inaccessible.
- A 100Mbps network card is strongly recommended.
- Free [disk space requirements](#)<sup>[24]</sup> are also subject to the message storage required.

## Basic Voicemail Pro

Minimum PC Requirements	
RAM	256MB
Hard Disk Free Space	2GB*
Processor:	
- Pentium	P4 1.4GHz
- Celeron	Any 1.7GHz
- AMD	Any 1.4GHz.

\*Also allow 1MB per minute for message and prompt storage.

Operating System Support	
Server OS:	
2000 Server	✗
2003 Server	✓
2008 Server	✓
Client OS:	
Windows 7	✓
XP Professional	✓
Vista Business/Enterprise	✓
Vista Ultimate	✓

## Voicemail Pro plus UMS Web Voicemail and/or Campaigns

Minimum PC Requirements	
RAM	512MB
Hard Disk Free Space	2GB*
Processor:	
- Pentium	P4 2.8GHz
- Celeron	Not tested.
- AMD	Athlon XP 3000+, Athlon 64

\*Also allow 1MB per minute for message and prompt storage.

Operating System Support	
Server OS:	
2000 Server	✗
2003 Server	✓
2008 Server	✓
Client OS:	
Windows 7	✗
XP Professional	✗
Vista Business/Enterprise	✗
Vista Ultimate	✗

- Both Web Campaigns and UMS Web Voicemail require the IIS web server on the voicemail server PC to be enabled.
  - Windows 2008 Server IIS does not support legacy IIS applications such as Campaigns by default. This is rectified by reinstalling IIS from the Windows installation disk, and selecting Legacy IIS support.
- UMS Web Voicemail will install PHP is not detected as already installed.

## Voicemail Pro plus IVR and or TTS

Minimum PC Requirements: Basic Voicemail Pro	
RAM	512MB
Hard Disk Free Space	20GB*
Processor:	
- Pentium	P4 2.8GHz
- Celeron	Not tested.
- AMD	Athlon XP 3000+, Athlon 64

Also allow 1MB per minute for message and prompt storage.

Operating System Support	
Server OS:	
2000 Server	✗
2003 Server	✓
2008 Server	✓
Client OS:	
Windows 7	✓
XP Professional	✓
Vista Business/Enterprise	✓
Vista Ultimate	✓

- If the database being queried is located on the VM Pro server the query speed of the database will be affected by the amount of memory available. Please take into account the memory requirements of the database being queried.

## Voicemail Pro and IP Office Customer Call Reporter

Voicemail Pro and IP Office Customer Call Reporter can be run on the same server up to a maximum of 16 Voicemail Pro ports. Supported on a Dual Core CPU of 2.4Ghz and higher. The separate requirements of Voicemail Pro and Customer Call Reporter must be met.

## Ports

The Voicemail Pro service uses the following ports.

Port Number	Type	Description
25	TCP	Used to listen for SMTP connections.
37	UDP	Used to receive time requests (RFC 868).
143	TCP	Used to service IMAP4 requests.
50791	UDP	Used to receive requests from IP Office PBX.
	TCP	Used to receive requests from <%PORTAL%>.
50791	TCP	Used to receive connections from Voicemail Pro client.

Note that additional ports may be used for connection to services such as 3rd party database or Microsoft Exchange.

## 2.1.2 Virtual Server Support

Operation of IP Office server applications, including Voicemail Pro, is supported using the following virtual servers.

- VMWare Server.
- Microsoft Virtual Server 2005 R2.
- Microsoft Server Hyper-V.

## 2.1.3 Single Server Support

The following scenarios are supported for combining IP Office server applications onto a single Windows server PC.

In all cases, the individual requirements of each application as if installed on a separate server are still applicable. Also, depending on the application combination, additional restrictions and requirements may be applied as detailed below.

	Voicemail Pro	Customer Call Reporter	one-X Portal for IP Office	Minimum IP Office Release	Minimum PC Specification
1.	16 Ports	150 Agents	–	Release 5.0	As per each application.
2.	8 Ports (4 TTS)	–	50 Simultaneous users.	Release 6.0	2GHz Dual Core, 4GB RAM, Windows 2008 Server (32 or 64-bit).
3.	8 Ports (4 TTS)	30 Agents	50 Simultaneous users.	Release 6.0	2GHz Quad Core, 6GB RAM, Windows 2008 <a href="#">64-bit</a> .
4.	16 ports (8 TTS)	50 Agents	150 Simultaneous users.	Release 6.0	CCR run in Windows 2003 on a virtual server.








- Voicemail Pro includes UMS, VB Scripting and 3rd party database operation. It also includes the installation of ContactStore if required.
- Both ContactStore and one-X Portal for IP Office use Tomcat servers as part of the application. For scenarios with both installed, the redirect port setting of the ContactStore's Tomcat server should be configured to a port other than 8080.
- The supported virtual servers are:
  - VMWare Server.
  - Microsoft Virtual Server 2005 R2.
  - Microsoft Server Hyper-V.
- When used in a virtual server configuration, Customer Call Reporter and one-X Portal each require a 2GB RAM virtual machine. Voicemail Pro and ContactStore each require a 1GB RAM virtual machine.

## 2.1.4 Voicemail Pro Licenses

The [Help | About](#)<sup>[17]</sup> screen in the voicemail client can be used to check which IP Office the voicemail server is working and the licenses it has received from that IP Office.

The license keys are entered into the IP Office configuration using the IP Office Manager. If the Voicemail Pro server is installed without licenses, it will run for 2 hours and then shutdown.




For IP Office Release 6, support for Voicemail Pro is enable by the addition of a Preferred Edition license.

-  Preferred Edition (Voicemail Pro) :  
This license enables support for Voicemail Pro as the IP Office's voicemail server with 4 voicemail ports. The Preferred Edition license allows the voicemail server to provide the services listed below. Additional license can be added for additional voicemail features, these are detailed separately. This license was previously called Voicemail Pro (4 ports).
  - Mailboxes for all users and hunt groups.
  - Announcements for users and hunt groups.
  - Customizable call flows.
    - Call recording to mailboxes.
  - Campaigns.
  - TTS email reading for users licensed for Mobile User or Power User profiles.
    - Use of Conference Meet Me functions on IP500 and IP500 V2 systems.
-  Advanced Edition  
This license enables the additional features listed below. A Preferred Edition license is a pre-requisite for this license.
  - Support for Customer Call Reporter.
  - Voicemail Pro database interaction (IVR).
  - Voicemail Pro call flow generic TTS (8 ports).<sup>[1]</sup>
    1. Provides up to 8 ports of TTS for use with Speak Text actions within call flows. Not used for user TTS email reading.
    2. Note: In a Small Community Network using centralized voicemail, this license only enables ContactStore support for the central IP Office. Remote IP Offices in the network require their own Advanced Edition license or a VMPro Recordings Administrator license .
  - Voicemail Pro Visual Basic Scripting.
  - Voicemail Pro call recording to ContactStore.<sup>[2]</sup>
-  Preferred Edition Additional Voicemail Ports  
The required license for Voicemail Pro server support (Preferred Edition (Voicemail Pro)) also enables 4 voicemail ports. This license can be used to add additional voicemail ports up to the maximum capacity of the IP Office system (IP406 V2 = 20, IP412 = 30, IP500 = 40, IP500 V2 =40). This license was previously called Additional Voicemail Pro (ports).
-  VMPro Recordings Administrators :  
To support ContactStore in a Small Community Network, IP Offices other than the central IP Office require either their own Advanced Edition license or this license.
-  VMPro Networked Messaging :  
Enables VPNM (Voicemail Pro Networked Messaging) functionality within Voicemail Pro. This allows message exchange with remote Voicemail Pro systems and Avaya Interchange systems.
-  VMPro TTS (Generic) :  
This legacy license enables use of text to speech facilities using third party TTS software with Voicemail Pro. One license per simultaneous instance of TTS usage. For IP Office Release 6 this license is no longer used for user email reading. The IP Office Advance Edition license also enables 8 ports of generic TTS.
-  VMPro TTS (ScanSoft) :  
This legacy licence enables use of text to speech facilities using Avaya supplied TTS software with Voicemail Pro. One license per simultaneous instance of TTS usage. For IP Office Release 6 this license is no longer used for user email reading.

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## Legacy Licenses

The following legacy licenses are still supported by IP Office Release 6.

-  UMS Web Services  
This legacy license is used to enable UMS voicemail services support for users set to the *Basic User* profile. Other users are enabled for UMS through their licensed user profile.
-  VMPro Database Interface :  
This legacy license enables 3rd party database support within Voicemail Pro call flows. For IP Office Release 6 this is also enabled by the Advanced Edition license.
-  VMPro VB Script :  
This legacy license enables Visual Basic Script support with Voicemail Pro. For IP Office Release 6 this is also enabled by the Advanced Edition license.

## 2.1.5 Network Requirements

The PC should be configured and tested for TCP/IP networking.

We strongly recommend that the voicemail server PC is connected to the IP Office Control Unit directly or via a LAN switch.

If directly connected, changing the settings of the PC network card to match the IP Office control unit can resolve some issues. This should be done according to the PC or network card manufacturer's instructions. The options for IP Office LAN ports are:

- IP412: Use LAN1 and half duplex.
- Small Office Edition, IP406 (V2) and IP500: Full duplex.
- All IP Office LAN ports are 10Mbps/100Mbps auto sensing.

If not directly connected, using any of the above settings must be supported and matched by the intervening network equipment.

- The PC should have a fixed IP address. Although PCs in a DHCP network may retain the same IP address between reboots this is not guaranteed.
- If the IP Office is acting as a DHCP server, it defaults to using 192.168.42.2 to 192.168.42.201 for DHCP clients. This leaves 192.168.42.202 to 192.168.42.254 for devices that require fixed IP addresses.

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## 2.1.6 Disk Space Requirements

The following are only approximations:

- At least 2GB of free disk space is required on the operating system drive (by default c:), regardless of to which drive Voicemail Pro is actually installed.
- A compact Voicemail Pro installation requires 130MB.
- A typical installation requires approximately 255MB.
- A custom installation requires up to 2GB of disk space. However, prompts and recorded messages consume an additional 1MB of disk space per minute.
- For a busy environment you can expect to require at least 1000 minutes of message recording space, that is 1GB.
- If you are installing the Client only, you can expect to require at least 170MB.

## 2.1.7 Web Server Operation

If web browser access is required, the Microsoft IIS Web Server must be installed on the server PC before Voicemail Pro is installed:

- Microsoft web server products run as services and require Voicemail Pro to also run as a service.
- Internet Information Server 5.0 or higher is required.

## 2.1.8 ContactStore Operation

The current IP Office Voice Recording Library (VRL) application is Avaya IP Office ContactStore. This application and its installation are documented separately, however:

- IP Office ContactStore should be installed after Voicemail Pro has been installed and its operation verified.
- IP Office ContactStore must use a separate hard disk partition for its message archiving from that used by Voicemail Pro for current mailbox messages. Use of a separate hard disk or installation onto a separate server PC are alternatives.
- The use of ContactStore to store recordings requires additional [voicemail licenses](#)<sup>[21]</sup>. The IP Office hosting the Voicemail Pro server must have an Advanced Edition license. If in a Small Community Network, other IP Offices in the network wanting to use ContactStore must have either Advanced Edition licenses or VMPro Recordings Administrators licenses.
- The use of RAID 1 or RAID 5 are recommended.
- The use of a DVD recorder for long-term archiving is recommended.
- A figure of 7.2MB per hour for archived recordings is given.
- The archived messages held by IP Office ContactStore are accessed via web browser using the port address 8888. This port address is not configurable and so it is necessary to ensure that it does not conflict with any other web server service running on the same server PC.



## 2.1.9 User and Group Mailboxes

The voicemail server creates mailboxes based on the user and hunt group names that are entered in the IP Office Manager application. Whenever the Voicemail Pro is restarted or the IP Office configuration is changed, new mailboxes are created for any new names that are found.

This method of operation has the following consequences:

- Mailboxes are based on names  
For all users and groups, if their name is changed or deleted, they are no longer associated with their former mailbox and any associated Voicemail Pro start points.
- Voicemail is case sensitive  
If a mailbox or start point name is entered incorrectly in IP Office Manager or Voicemail Pro, the intended operation will not occur and the call may be disconnected.
- Voicemail removes spaces at the end of mailbox names  
If spaces are left at the end of a mailbox user's name in IP Office Manager, when the mailboxes are created, the space at the end of the name is dropped. When this occurs the mailbox cannot be found as there is a mismatch between the user name and directory.

## 2.2 Server/Client Installation

The Voicemail Pro installation software offers a number of different types of installation. The key types are client only, compact, typical and custom. These differ in the components installed as detailed in the table below.

Component	Sub Component	Installation Type				Notes
		Client	Compact	Typical	Custom	
Voicemail Pro	Voicemail Pro Client	✓	✓	✓	✓	
	Voicemail Pro Service	✗	✓	✓	✓	
	Languages	✓	✓	✓	✓	Installs the prompts that best match the server PC locale plus English prompts. For an installation with additional languages use the Custom installation option.
Voicemail Pro Campaign Web Component		✗	✗	✓	✓	Not available for installation on an XP Pro server.
Web Voicemail (UMS)		✗	✗	✗	✓	Only available for installation on server operating systems.

Before you begin:

1. Log on to the server PC using the account under which you intend the Voicemail Pro server or service to run. This account must have full administrator rights to the server PC.
2. Recommendation  
Create a new user account called Voicemail and give it full administrator rights on the PC. This will help to identify the purpose of the account. Set the account password so that it does not expire.
3. In IP Office Manager, check that the correct [licenses for Voicemail Pro](#) have been installed and show a status of *Valid*.
4. For installations other than client only and compact, check that the necessary pre-installation processes have been completed:
  - [Web Campaigns Installation](#)
  - [Voicemail Email Installation](#)
  - [UMS Web Voicemail](#)
    - [IMAP Installation](#)
    - [Web Voicemail Installation](#)
    - [Exchange 2007 Installation](#)
  - [Centralized Voicemail Pro](#)
  - [Installing Text to Speech Features](#)
  - [Voicemail Private Networked Messaging \(VPNM\) Installation](#)
  - [Installing Voicemail Pro TTY Prompts](#)
- Installation on Windows Server Operating Systems  
On many Windows server PC's, while the Windows Audio components are present by default they are not always enabled. If this is the case the playback of voice prompts may be 'choppy' and the TTS (if installed) will not work. However, enabling Windows Audio does not require the server PC to have a sound card installed.
  1. Ensure that you have full administrator rights for the PC. This process will also require the PC to be restarted.
  2. In the Windows Control Panel select Sounds and Audio Devices.
  3. If Windows Audio has not been enabled, select the Enable Windows Audio check-box.

To install the Voicemail Pro software components:

1. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe.
2. The Choose Setup Language menu is displayed. This language is used for the installation process and does not affect the language prompts that are installed.
3. Select the language for the installation process. Click OK.
4. The Preparing Installation menu is displayed.
  - Voicemail Pro requires Microsoft .NET 2.0 Framework. If this is not detected, you will be prompted to install it. Click Yes to install Microsoft .NET 2.0 Framework.
  - If the Modify, repair or remove the program window appears you need to follow the [upgrade process](#)<sup>33</sup>.
5. The Welcome window is displayed. Click Next.
6. The Customer Information menu is displayed.
  - Use the default names or enter a user and company name. These settings do not affect the Voicemail Pro installation.
  - Select the option Anyone who uses this computer (all users).
  - Click Next.
7. The Choose Destination Location menu is displayed. Unless specifically required, for ease of maintenance use the proposed folder location. Click Next.
8. The Messaging Components menu is displayed.
9. Select *Voicemail Pro (Full)* or *Voicemail Pro Client - Only*. Click Next. If *Voicemail Pro Client - Only* was selected, go to step 14.
10. The Setup Type menu is displayed. Select *Compact*, *Typical* or *Custom* and click Next.
  - If the option selected was *Custom*, the Select Features menu is displayed. Select the components required for the installation and click Next.
11. The Service Account Name menu is displayed. This window is used to select the account under which the Voicemail Pro services will be run following installation.
  - Enter the user name and password of the account to use. Alternatively, click Browse and select a name from the list of available PC or network accounts.
  - Click Next. The account name and password are validated. If the validation fails you whether you want to create a new account that matches the details entered.
12. The Select Program Folder menu is displayed. By default, the program folder for the Voicemail Pro client is set to IP Office. For ease of maintenance use this option unless there is a specific reason to use a different folder. Click Next.
13. The Start Copying Files menu is displayed. It shows a summary of the components that are about to be installed. Check that this list is as expected. If for any reason the details are not what you expect, click Back and make the necessary changes. When you are satisfied that the details are correct, click Next to start copying the files.
14. The Setup Status menu is displayed. This shows you the progress of the file installation. For a client only installation, the software installation process is now completed.
15. The InstallShield Wizard Complete menu is displayed.
16. Depending on the operating system and the components installed you may be prompted to restart the computer. If so select *Yes, I want to restart my computer now*.
17. Click Finish.
18. If necessary, the computer will restart and you will need to log in to continue the installation process. If otherwise, the installation process continues without restarting.
19. The installation process continues by requesting a number of configuration settings used by the voicemail server services,
  1. The IP Office Voicemail Pro Email Settings window is displayed. This is used to enter the account that the voicemail pro server should use for email functions. Enter the name of the email account to use or click Browse and select an account to use. Click Next.
  2. The IP Office Voicemail Pro SMTP Email Settings window opens.
  3. In the Mail Server box, type the name of the SMTP mail server or use the name that is proposed. This should be the fully qualified domain name.
  4. In the Port Number box, type the number of the receiving port on the SMTP mail server. The default is 25.

---

5. To enforce server authentication, check the Server Requires Authentication box. This is optional. If you check it you also need to provide the Account Name and Password that need to be entered. You can also choose whether or not to set the Use Challenge Response Authentication option.

6. Click Finish. An attempt is made to validate the email settings. An error message is displayed when the attempt to connect with an SMTP server fails. Click OK to acknowledge the message.

20. You have now finished installing the Voicemail Pro server and client software.

21. If doing a custom installation to install a specific Voicemail Pro feature, refer to the appropriate section for details of any actions that need to be performed after the installation of the Voicemail Pro server software.

- [Web Campaigns Installation](#) <sup>[30]</sup>
- [Voicemail Email Installation](#) <sup>[64]</sup>
- [UMS Web Voicemail](#) <sup>[36]</sup>
  - [IMAP Installation](#) <sup>[37]</sup>
  - [Web Voicemail Installation](#) <sup>[40]</sup>
  - [Exchange 2007 Installation](#) <sup>[46]</sup>
- [Centralized Voicemail Pro](#) <sup>[51]</sup>
- [Installing Text to Speech Features](#) <sup>[81]</sup>
- [Voicemail Private Networked Messaging \(VPNM\) Installation](#) <sup>[442]</sup>
- [Installing Voicemail Pro TTY Prompts](#) <sup>[308]</sup>

## Initial Configuration


Following installation of the server and client, you should check operation by using the client to connect to the server.

1. Select Start | Programs | IP Office | Voicemail Pro. The Voicemail Pro Client starts and the main window opens.

2. Change the default remote administrator account details:

- a. In the navigation panel, click on Voicemail Pro Administrators. There should be one account called *Administrator*.
- b. Double-click on the account (or right click and select Modify).
- c. Change the Password and Confirm Password to a new value than the default (*Administrator*).

3. Initialize the server call flow:

- a. Click the  Save and Make Live icon.
- b. Select Yes. The file *root.vmp* is created on the server. This is the compiled non-editable version of the call flow that is used by the server.
- c. Voicemail operation can now be tested from an extension by dialing \*17.

4. You can now start configuring the operation of the voicemail server, for example changing the [system preferences](#) <sup>[98]</sup>.

## 2.2.1 Modifying the Installed Components

1. Start the Windows Control Panel.
2. Select Add and Remove Programs.
3. Select IP Office Voicemail Pro from the list of installed applications.
4. Click on Change.
5. Select Modify and click Next.
6. The Select Features menu is displayed. The existing installed components are indicated by a tick mark.
7. Select the additional components required for the installation.
8. Not that de-selecting a component will cause it to be uninstalled.
9. Click Next.
10. The process continues are a [normal installation](#) <sup>26</sup>.

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## 2.2.2 Web Campaigns Installation

The web campaigns component of Voicemail Pro requires IIS to be installed and running on the server PC.

1. Check that IIS is installed and running on the server PC.
  - Windows 2008 Server IIS does not support legacy IIS applications such as Campaigns by default. This is rectified by reinstalling IIS from the Windows installation disk and selecting Legacy IIS support during the installation.
2. Check that the server PC can be browsed from other PC's on the customer network.
3. If the Voicemail Pro server software has not yet been installed:
  - Run the [Voicemail Pro software installation](#) <sup>[26]</sup> and select *Voicemail Pro (Full)*.
  - Select either *Typical* or *Custom*. If *Custom* is selected, ensure that *Voicemail Pro Campaigns Web* is selected in the list of components.
4. If the Voicemail Pro server software is already installed:
  - Modify the installed components and ensure that *Voicemail Pro Campaigns Web* is selected in the list of components.

### Windows 2003 Server

The following configuration changes are required for IIS version 6 after installation of the Voicemail Pro web campaigns component.

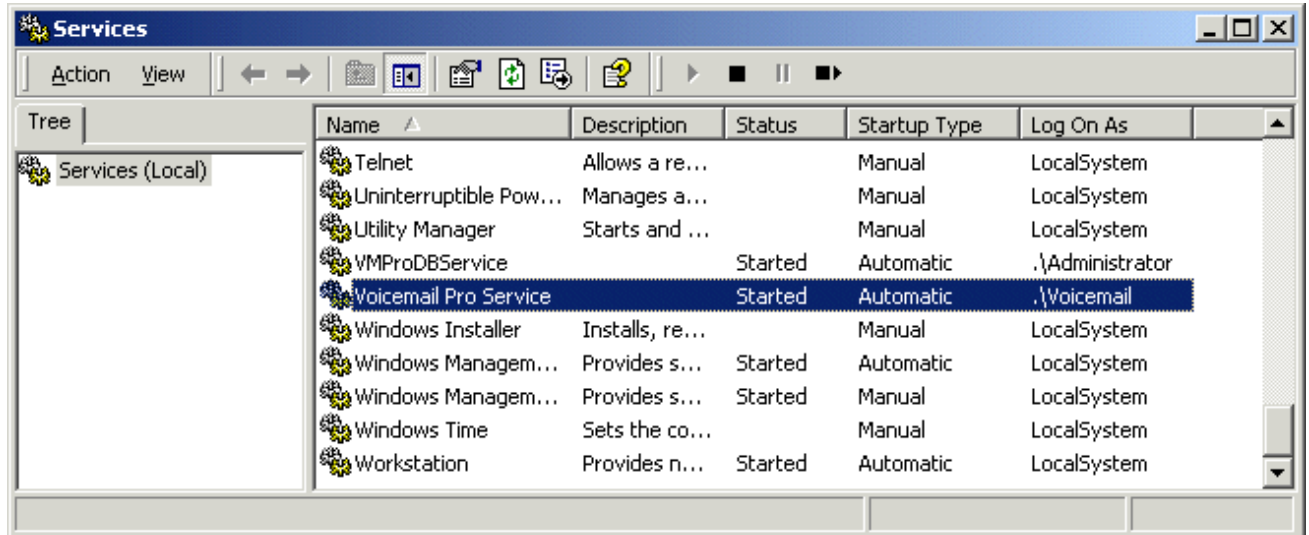
1. Open the Windows Control Panel.
2. Select Administrative Tools | Computer Management.
3. Go to Services and Applications | IIS Manager | Web Sites | Default Web Site.
4. Under Web Sites, right-click Default Web Site and select Properties.
  - Select the Home Directory tab.
  - Under Application Settings section, set the Execute Permissions to *Scripts and Executables*.
  - Click OK twice.
5. Under Web Sites, go to Web Service Extensions.
6. Right-click and select Add a new web service extension....
  - Set the following values:
    - Extension Name: campaigns.
    - Required files: Click Add. Select the file type as CGI exe files and browse to the campaign.exe file location specified during installation. This is usually *c:\inetpub\wwwroot\scripts\campaign.exe* or *c:\inetpub\scripts\campaign.exe*.
    - Set extension status to *Allowed*.
  - Press OK.

## 2.2.3 The Voicemail Pro Services

If Voicemail Pro has been installed successfully, if the server PC has been rebooted then the voicemail service is started automatically. However it is useful know how to check the services and to manually restart them if necessary.

To check/restart the Voicemail Pro Service:

1. Open the Windows Control Panel.
2. Select Administrative Tools > Services.



3. The Voicemail Pro Service should be visible. Its Status should be *Started* and the Startup Type should be set to *Automatic*. Other services may be present depending on the Voicemail Pro options installed. The possible services are:
  - *Voicemail Pro Service*  
This is the main Voicemail Pro service. Normally this is the only service that needs to be stopped and restarted. It will stop and restart the other services that it uses.
4. Close Services.

### Setting the Voicemail Services or PC to Restart Automatically

The following action is optional. If there is some fault causing the Voicemail Pro service to halt, that fault should be investigated and fixed, however having the service or PC automatically restarted if possible will minimize the disruption to the Voicemail Pro users.

1. Use the Windows control panel to select the *Voicemail Pro Service*.
2. Right-click on the service and select Properties.
3. Select the Recovery tab.
4. Use the options presented to either restart the service and or restart the PC should the operating system detect that the Voicemail Pro service has halted.

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### Using a Batch File to Start Services

In some instances, certain computers might not respond quickly enough in order to start all of the Avaya services in the correct order. In this circumstance, it can be advisable to create a batch file which will delay the start of these services until the PC is fully running.

Avaya IP Office Services can be started successfully at system start-up using a scheduled task that initiates the batch file below. This batch file ensures that the services will start successfully and in the proper order.

1. Set all Avaya services listed below to Manual start. Do not include Key Server.
2. Create the batch file below and save it to %SYSTEMROOT%. Only include lines for the services which are installed.

```
@echo off
rem Wait 60 seconds before execute.
timeout /t 60
net start Voicemail Pro Service
```

3. Create a scheduled task to start the batch file at system start-up.



## 2.3 Upgrading Voicemail Pro

This section describes how to upgrade Voicemail Pro. The options available are:

- [Upgrading from Voicemail Lite](#) <sup>[35]</sup>
- [Upgrading from below Voicemail Pro 3.2](#) <sup>[33]</sup>
- [Upgrade from 3.2 or higher](#) <sup>[34]</sup>

### 2.3.1 Upgrade from below version 3.2

It is important that the settings of an existing Voicemail Pro are exported before any upgrade. Although folders that contain prompts and messages are not affected by the upgrade process, the editable version of a customer call flow is lost.

To upgrade from below version 3.2 to version 4.x+:

#### 1. Export the Database

Before removing Voicemail Pro as part of an upgrade, you must create a backup copy of the call flow database. This will contain any customizations made to the default call flow.

1. Start the Voicemail Pro Client.
2. From the File menu, select the option Import or Export.
3. Select the option Export call flows and click Next.
4. Enter a file path and file name ending in .mdb, for example C:\temp\backup.mdb. Click Next.
5. Click Finish to start the export then click Close to complete the export procedure.
6. Close the Voicemail Pro Client.

#### 2. Back up the Registry

Any registry settings that are associated with Voicemail Pro need to be backed up.

1. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe. The Choose Setup Language window opens.
2. Right-click the DVD drive and select Open.
3. Locate the file *backupreg.bat* and double-click it to run the application.
4. Check that the registry settings have been backed up. The batch file should have created 3 backup files in the Windows Temp directory. Make sure that the following 3 files exist in that location:
  - VMPro.arf
  - NetAly.arf
  - IMSGateway.arf

#### 3. Remove Voicemail Pro

Any previous versions of Voicemail Pro must be removed before you start to install the new version.

1. Open the Windows Control Panel.
2. Select Add/Remove Programs.
3. Select IP Office Voicemail Pro and click Add/Remove.
4. From the options offered, select Remove and click Next.
5. Follow the prompts that you see on the screen during the removal process.
6. When the process has been completed, select the option Yes, I want to restart my computer now and click Finish.

#### 4. Restore the Registry

The Voicemail Pro registry settings that were backed up in step 2 needs to be restored.

1. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe. The Choose Setup Language window opens.
2. Locate the file *restorerereg.bat* and double-click it to run the application. This restores the registry settings previously associated with Voicemail Pro.

#### 5. Install the New Software

See [Installing Voicemail Pro](#) <sup>[18]</sup> and then refer to the sections that relate to the type of Voicemail Pro that you intend to install.

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## 6. Restore the Database

The copy of the call flow database that contained any customizations made to the default call flow needs to be restored.

1. Start Voicemail Pro.
2. From the File menu, select Import or Export. The Import or Export Call Flows window opens.
3. Select Import Call Flows.
4. Click Next.
5. Click the Browse button and locate the file that contains the backed up call flows.
6. Select the file and click Open.
7. In the Import or Export Call Flows window, click Next.
8. Click Finish to start importing the database.
9. Click Close to complete the import process.
10. Click on Save and Make Live to save the Call flows.

The new version of Voicemail Pro has been installed. Test that the system is running by dialing \*17 from any extension. You should hear the mailbox announcement.

## 2.3.2 Upgrade from Version 3.2+

You can directly upgrade versions of Voicemail Pro from Voicemail Pro 3.2 upwards. However we still recommend that you follow the procedure for backing up the database before upgrading.

To upgrade from version 3.2 or higher:


1. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe. The Choose Setup Language window opens.
2. Select the installation language. The language selected is used for the installation.
3. Click OK. You are asked *'This setup will perform an upgrade of IP Office Voicemail Pro. Do you want to continue?'*
4. Click Yes. The Upgrading the IP Office Voicemail Pro window opens.
5. Click Next to start the upgrade. The setup status window opens. The progress of the upgrade is indicated by a time bar.
6. Click Finish. The Email settings window opens.
7. Enter your email account details and click Next. The SMTP Email settings window opens.
8. Enter your SMTP Email details and click Finish. The SMTP settings entered will be validated. If an error occurs, the validating configuration window opens containing the [SMTP Error](#)<sup>[416]</sup>.
9. Click Yes when asked if you want to start the Voicemail Pro service.
10. The new version of Voicemail Pro has been installed. Test that the system is running by dialing \*17 from any extension. You should hear the mailbox announcement.

### 2.3.3 Upgrade to Voicemail Pro

You can upgrade from Voicemail Lite to Voicemail Pro. The process described here assumes that Voicemail Pro is being installed onto the same PC that previously hosted Voicemail Lite. The steps described here will remove Voicemail Lite but will not remove the existing mailbox messages and greetings.

To upgrade from Voicemail Lite to Voicemail Pro:

#### 1. Remove Voicemail Lite

1. Make sure that Voicemail Lite is not running. It might be necessary to close the Voicemail Lite server program.
2. Open the Windows Control Panel and select Add/Remove Programs.
3. Select IP Office Admin Suite and click Change. The Welcome to the InstallShield Wizard for IP Office Admin Suite window opens.
4. Click Next. The Program Maintenance window opens.
5. Select Modify and click Next.
6. In the list of selected Features, click the option Voicemail Lite and select This feature will not be available. The feature Voicemail Lite will have a red cross by the name. 
  - Important - Do not uncheck any other boxes as this will also remove those features.
7. Click Next. The Ready to Modify the Program window opens.
8. Click Install. The Voicemail Lite program will be removed, which may take several minutes.
9. Click Finish to exit the InstallShield Wizard.
10. Click Close to close the Add/Remove Programs window.
11. Remove any shortcuts to *VMLite.exe* from Start > Programs > Startup.

#### 2. Install the New Software

The next step is to install the Voicemail Pro software. See [Installing Voicemail Pro](#) and then refer to the sections that relate to the type of Voicemail Pro that you intend to install.

#### 3. Move the Voicemail Lite Folders

This must be done before users start to use Voicemail Pro. As part of the upgrade procedure you need to move the Voicemail Lite folders that contain any existing voicemail messages and mailbox greetings. This stage copies the existing Voicemail Lite messages and greetings over the newly installed Voicemail Pro set.



4. Using Windows Explorer or My Computer, locate the folder *C:\Program Files\Avaya\IP Office\Voicemail Server*.

5. Copy all sub-folders and files in that folder.

6. Paste the sub-folders and files in the folder *C:\Program Files\Avaya\IP Office\Voicemail Pro\VM*. Replace any existing folders.

#### 7. Select the Mailbox Mode.

Voicemail Lite runs in IP Office mailbox mode. By default Voicemail Pro installs in Intuity mailbox mode. If required by your users, you can set Voicemail Pro back to IP Office mailbox mode.

1. Start the Voicemail Pro Client.
2. Click the Preferences  icon and select General.
3. On the General tab, change the Default Telephony Interface from Intuity to IP Office.
4. Click OK.
5. Click  Save & Make Live.

The new version of Voicemail Pro has been installed. Test that the system is running by dialing \*17 from any extension. You should hear the mailbox announcement.

## 2.4 UMS Web Services

Voicemail Pro 4.2+ adds support for user mailboxes to be accessed using the additional methods listed below. For Voicemail Pro 5.0+ this has been expanded to include hunt group mailboxes.

- IMAP Email Client Support**  
 This method allows mailbox access using any email client that supports IMAP, for example Outlook and Lotus Notes. The Voicemail Pro server PC acts as the IMAP server.
- Web Voicemail Access**  
 This method allows mailbox access using a web browser. Messages can be played back to an IP Office phone extension or through the PC if the browser is audio enabled. Web voicemail requires the voicemail server to also run IIS and PHP.
- UMS Exchange 2007 (Voicemail Pro 5.0+)**  
 A user or group can be configured to have their voicemail messages forwarded to the inbox of an Exchange 2007 email account. Telephone, including Visual Voice, mailbox access is redirected to that email inbox as the store for voicemail messages. Alternatively the user can access their voicemail messages using Outlook 2007 or any other mechanisms supported by Exchange 2007. Voicemail messages in an Exchange 2007 inbox are not visible to UMS IMAP and UMS Web Voicemail, however Exchange 2007 provides its own methods for IMAP and web browsing of Exchange mailboxes.

Use of these options requires the user to be licensed, either using an appropriate IP Office user profile license or the legacy UMS Web Services license.

Feature	Web Voicemail	IMAP Client	Exchange 2007
Playback via PC.	✓	✓	✓
Playback via User Extension.	✓	✗	✗ <sup>[1]</sup>
Save message Wav to PC.	✗	✓	✓
Forward messages to other voicemail mailbox.	✓	✗	✗
Forward messages to other email mailbox.	✗	✓	✓
Undelete manually deleted messages.	✓	✓	✓
Mark message as unread.	✓	✓	✓
Change voicemail password.	✓	✗	✗
Show Message Types	Web Voicemail	IMAP Client	Exchange 2007
- New (Unread).	✓	✓	✓
- Old (read).	✓	✓	✓
- Saved.	✓	✓	✗
- Priority.	✓	✓	✓
- Private.	✗ <sup>[2]</sup>	✗	✓
- Deleted.	✓	✓	✓

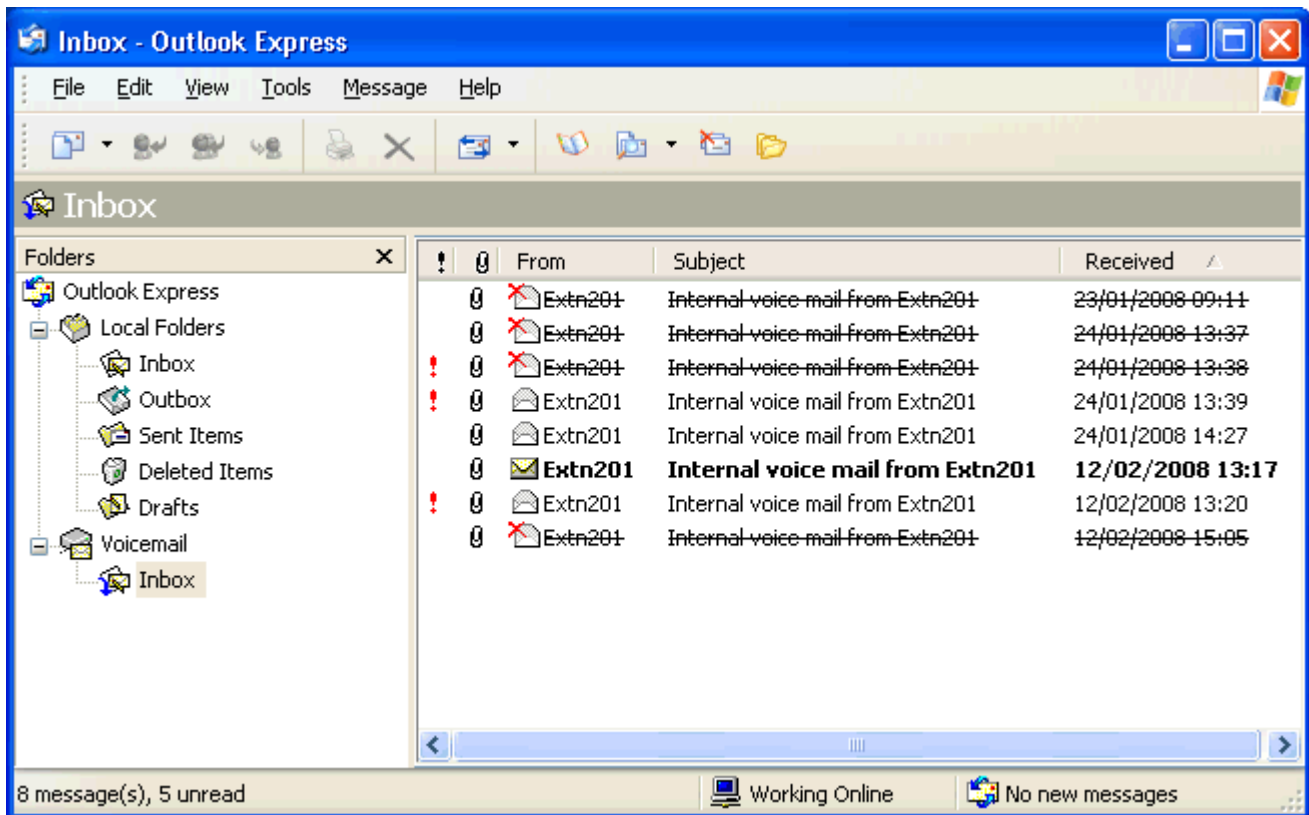
1. Exchange 2007 Unified Messaging supports the playback of messages through a range of options controlled and configured on the exchange server.

2. Private messages are not indicated, however the web voicemail will not allow the forwarding of private messages.

## 2.4.1 IMAP Installation

Voicemail Pro 4.2+ support mailbox synchronization with email clients that can support IMAP (Internet Message Access Protocol) accounts. Examples are Outlook, Outlook Express and Lotus Notes.

Once configured, the IMAP folder and the mailbox are synchronized whenever the IMAP folder is opened. The method of indication of the different message types will depend on the email client being used and is not controlled by the Voicemail Pro.



The number of mailboxes that can be configured for IMAP and/or web access is controlled by licenses.

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## Installing the Voicemail Pro IMAP Server



The IMAP server is installed as a standard part of the Voicemail Pro service installation. It uses the IP address of the Voicemail Pro server PC and runs on the standard IMAP port 143.

The only special consideration is to avoid having any other IMAP server running on the same PC.


## Licensing IP Office for Web Services

UMS web services can be licensed in a number of ways by licenses added to the IP Office configuration:

- User Licensing  
User licensing is done as follows.
  - Users whose Profile is set to *Teleworker User* or *Power User* can be enabled to UMS if required. This requires Teleworker Profile or Power User Profile licenses.
  - User's whose Profile is set to *Basic User* can be licensed using legacy UMS Web Services licenses.
- Hunt Group Licensing  
Hunt groups are licensed by UMS Web Services licenses.

1. Start IP Office Manager.
2. Receive the configuration from the IP Office associated with the Voicemail Pro server.
3. In the  Licenses section, add the required licenses.
4. Merge the configuration back to the IP Office and then receive the configuration again.
5. In the  Licenses section check that the License Status of the licenses is now shown as *Valid*.
6. Start the Voicemail Pro client
7. Select Help | About.
8. The screen should list the Web Services as *Started* and should show the number of UMS licenses.

## Configure Users for UMS

1. Start IP Office Manager.
2. Receive the configuration from the IP Office system hosting the user.
3. Select  User and then select the required user.
4. Set their Profile to either *Teleworker* or *Power User*.
5. Select the Voicemail tab. Enable UMS Web Services. Click OK.
6. Merge the configuration back to the IP Office.

## Configuring Hunt Groups for UMS

Access to hunt group mailboxes using UMS is supported for Voicemail Pro 5.0+.

1. Start IP Office Manager.
2. Receive the configuration from the IP Office system hosting the hunt group.
3. Select the hunt group.
4. Click on the Voicemail tab.
5. Enable UMS Web Services. Click OK.
6. Merge the configuration back to the IP Office.

## Configuring a User Email account

The exact method of configuration of an IMAP account depends on the IMAP client being used by the user. For example it may be necessary to enable some field with dummy data in order for the email client to accept the account even though those settings are not used by the Voicemail Pro IMAP server.

The general details that are required are:

IMAP Account Setting	IP Office Value
Incoming Server	Voicemail Pro server IP address or domain name address.
Account Name	User name or extension number.
Password	User voicemail code.

### Example: Outlook

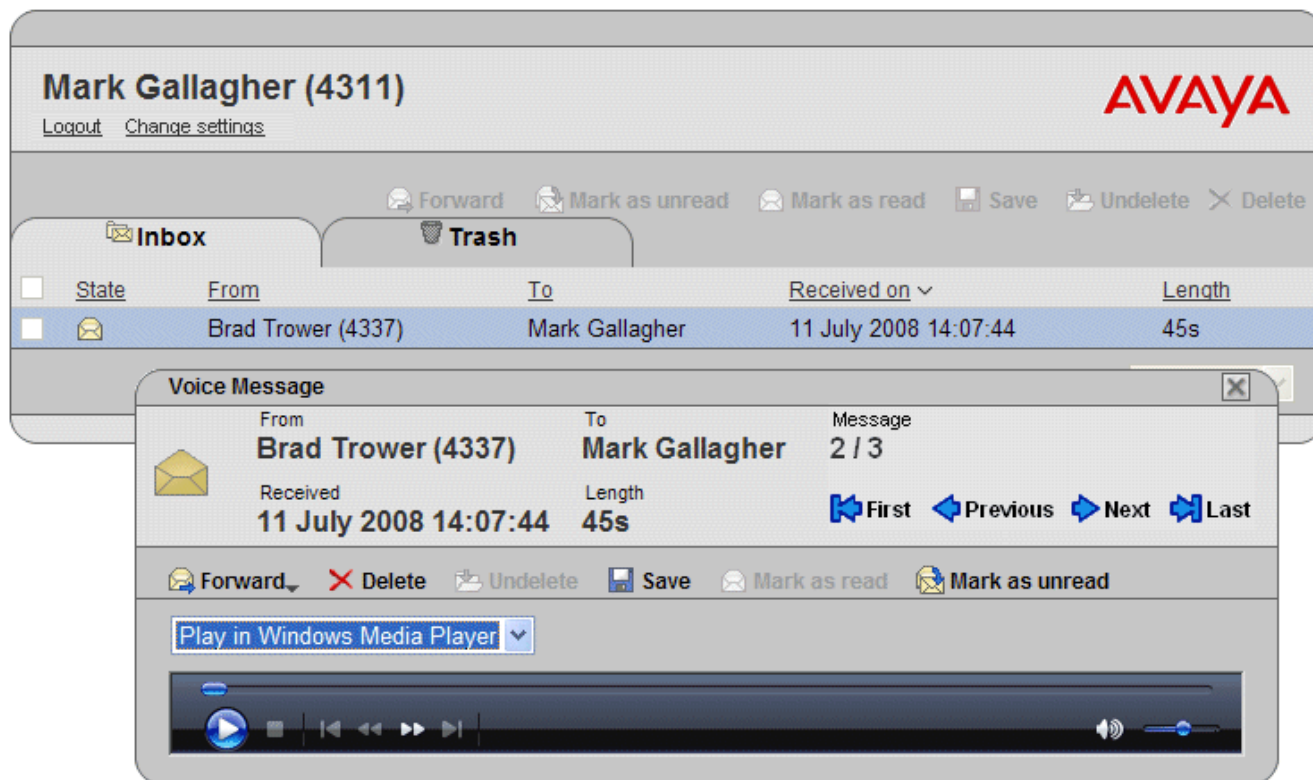
1. Select Tools and then Options.
2. Select Mail Setup and then click E-mail Accounts.
3. Select Add a new e-mail account.
4. Select IMAP as the server type.
5. In Server Information for Incoming mail server and Outgoing mail server enter the IP address or domain name address of the Voicemail Pro server PC.
6. In Logon Information enter the user's extension number and voicemail code as the User Name and Password.
7. Click Next.

### Example: Outlook Express

1. Select Tools and then Accounts.
2. Select Add and then Mail.
3. Enter a descriptive name such as *Voicemail* and click Next.
4. Enter an email address. This is not used but a value must be entered to move to the next screen. Click Next.
5. Set My incoming mail server is a to *IMAP*.
6. In the Incoming server field enter the IP address or domain name address of the Voicemail Pro server PC.
7. Enter a value in the Outgoing mail server field. This is not used but a value must be entered to move to the next screen. Click Next.
8. For Account Name enter the user's extension number or name in the IP Office configuration.
9. For Password enter the user's Voicemail Code.
10. Click Next and then Finish.

## 2.4.2 Web Voicemail Installation

Voicemail Pro 4.2+ support web access to user mailboxes. Users are then able to play their messages, mark them as saved or deleted, or forward messages to another mailbox. Playback is through an IP Office extension or through the audio facilities of the PC.



### Web Voicemail Installation Requirements

The Web Voicemail component is selectable as part of a custom Voicemail Pro installation. Note the pre-requisites below before doing the Web Voicemail installation.

- IIS Web Server  
Must be installed on the voicemail server PC before the Voicemail Pro Web Voicemail component is installed.
  - PHP  
Web Voicemail uses PHP. If an existing PHP is not detected, the Voicemail Pro installation will install its own PHP.
- Licenses  
The use of Web Voicemail and the number of users who can be configured to access it are controlled by the UMS Web Services license entered in the IP Office configuration.

UMS web services can be licensed in a number of ways by licenses added to the IP Office configuration:

- User Licensing  
User licensing is done as follows.
  - Users whose Profile is set to *Teleworker User* or *Power User* can be enabled to UMS if required. This requires Teleworker Profile or Power User Profile licenses.
  - User's whose Profile is set to *Basic User* can be licensed using legacy UMS Web Services licenses.
- Hunt Group Licensing  
Hunt groups are licensed by UMS Web Services licenses.
- Computer Name\URL  
The computer name is used as part of its URL on the network. Ensure that the name is set to something that appropriately indicates its purpose and that can be used as part of the URL for the web server within the customer's domain.
- Remove IMS  
Voicemail Pro UMS is not supported on systems that are using Voicemail Pro IMS. IMS must be removed before UMS can be selected for installation.



## User and Browser Requirements

For users to access Web Voicemail they require a web browser that meets the following requirements:

- Javascript Enabled Web Browser  
Web Voicemail is tested against the following browsers. Other browser may work so long as they support JavaScript and CSS.
  - Internet Explorer V6 SP1 or higher.
  - Internet Explorer V7 or higher.
  - Mozilla Firefox V2.0.0.2 or higher.
  - Opera V9.10 or higher.
- PC Playback  
Browser access allows the selection of message playback either via an IP Office extension or through the web browser. Avaya test browser playback using the following Windows media players:
  - Windows Media Player 10.
  - Windows Media Player 11.
  - Quick Time 7.4.
  - VLC 0.8.
- User Name and Password  
Once enabled for UMS Web Services in the IP Office configuration, to log on using Web Voicemail, the user will need to know their Name and Voicemail Code as set in the IP Office configuration. Note that this is the Name and not the Full Name.

## Voicemail Pro Software Installation with Web Voicemail Component


The Web Voicemail component is installed as part of a Custom Voicemail Pro installation. From the list of


1. Verify that IIS is installed and running on the voicemail server PC. Check that it can be browsed from user PC's.
  - While the server can be browsed by IP address, the URL used by users will be based on the server's computer name within the customer domain. Check that web server can be browsed from user PC's using the server's computer name as part of the URL. If necessary change that name to accurately indicate its function.
2. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe. The Choose Setup Language window opens.
3. When asked for the type of Voicemail Pro install to perform, select Voicemail Pro (Full).
4. On the next screen select Custom.
5. In the list of components scroll down and select Web Voicemail. Do not change any of the other selections unless you understand the requirements for those components.
6. Follow the remainder of the installation process and allow the voicemail server to reboot when required.

## Licensing IP Office for Web Services


UMS web services can be licensed in a number of ways by licenses added to the IP Office configuration:

- User Licensing  
User licensing is done as follows.
  - Users whose Profile is set to *Teleworker User* or *Power User* can be enabled to UMS if required. This requires Teleworker Profile or Power User Profile licenses.
  - User's whose Profile is set to *Basic User* can be licensed using legacy UMS Web Services licenses.
- Hunt Group Licensing  
Hunt groups are licensed by UMS Web Services licenses.

1. Start IP Office Manager.
2. Receive the configuration from the IP Office associated with the Voicemail Pro server.
3. In the  Licenses section, add the required licenses.
4. Merge the configuration back to the IP Office and then receive the configuration again.

- 
5. In the  Licenses section check that the License Status of the licenses is now shown as *Valid*.
  6. Start the Voicemail Pro client
  7. Select Help | About.
  8. The screen should list the Web Services as *Started* and should show the number of UMS licenses.

### Configure Users for UMS

1. Start IP Office Manager.
2. Receive the configuration from the IP Office system hosting the user.
3. Select  User and then select the required user.
4. Set their Profile to either *Teleworker* or *Power User*.
5. Select the Voicemail tab. Enable UMS Web Services. Click OK.
6. Merge the configuration back to the IP Office.

### Configuring Hunt Groups for UMS

Access to hunt group mailboxes using UMS is supported for Voicemail Pro 5.0+.

1. Start IP Office Manager.
2. Receive the configuration from the IP Office system hosting the hunt group.
3. Select the hunt group.
4. Click on the Voicemail tab.
5. Enable UMS Web Services. Click OK.
6. Merge the configuration back to the IP Office.

### UMS Web Voicemail and ContactStore

It is possible to run ContactStore and UMS Web Voicemail on the same server PC. However some additional steps are required following installation in order to allow browser access to both applications.

1. Install UMS web voicemail.
2. Install ContactStore.
3. Reboot the server.
4. Within services, stop the *ContactStore* service.
5. Using a web browser access a voicemail mailbox using UMS web voicemail.
6. Restart the ContactStore service.
7. Both application should now be accessible via web browser.

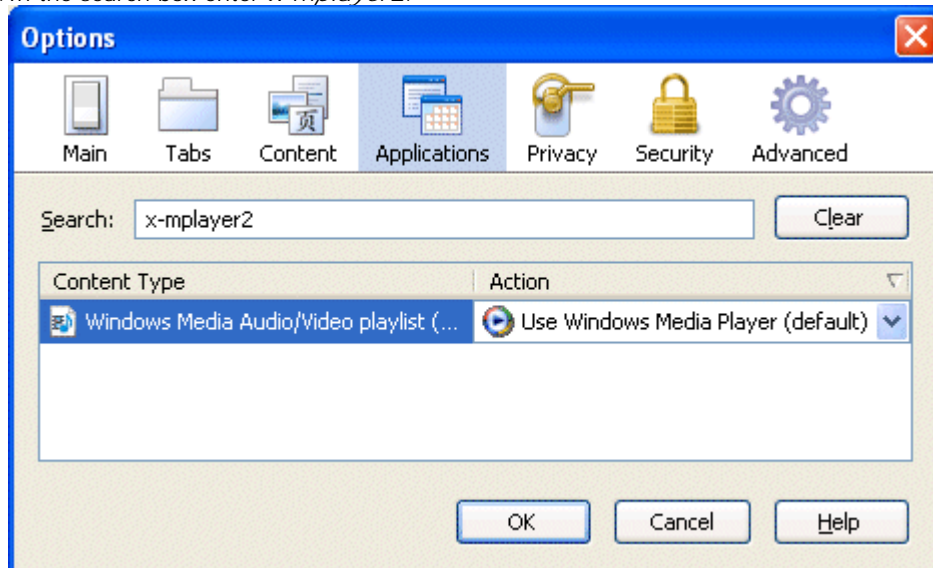
## Playback Control

UMS message playback through the web browser is tested and supported with the Windows Media Player. It may work with other audio playback controls but will not have been tested.

The following methods can be used to check that the audio playback is associated with the Windows Media Player.

### Firefox

1. Select Tools | Options | Applications or Tools | Options | Content | File Types | Manage.
2. In the search box enter *x-mplayer2*.

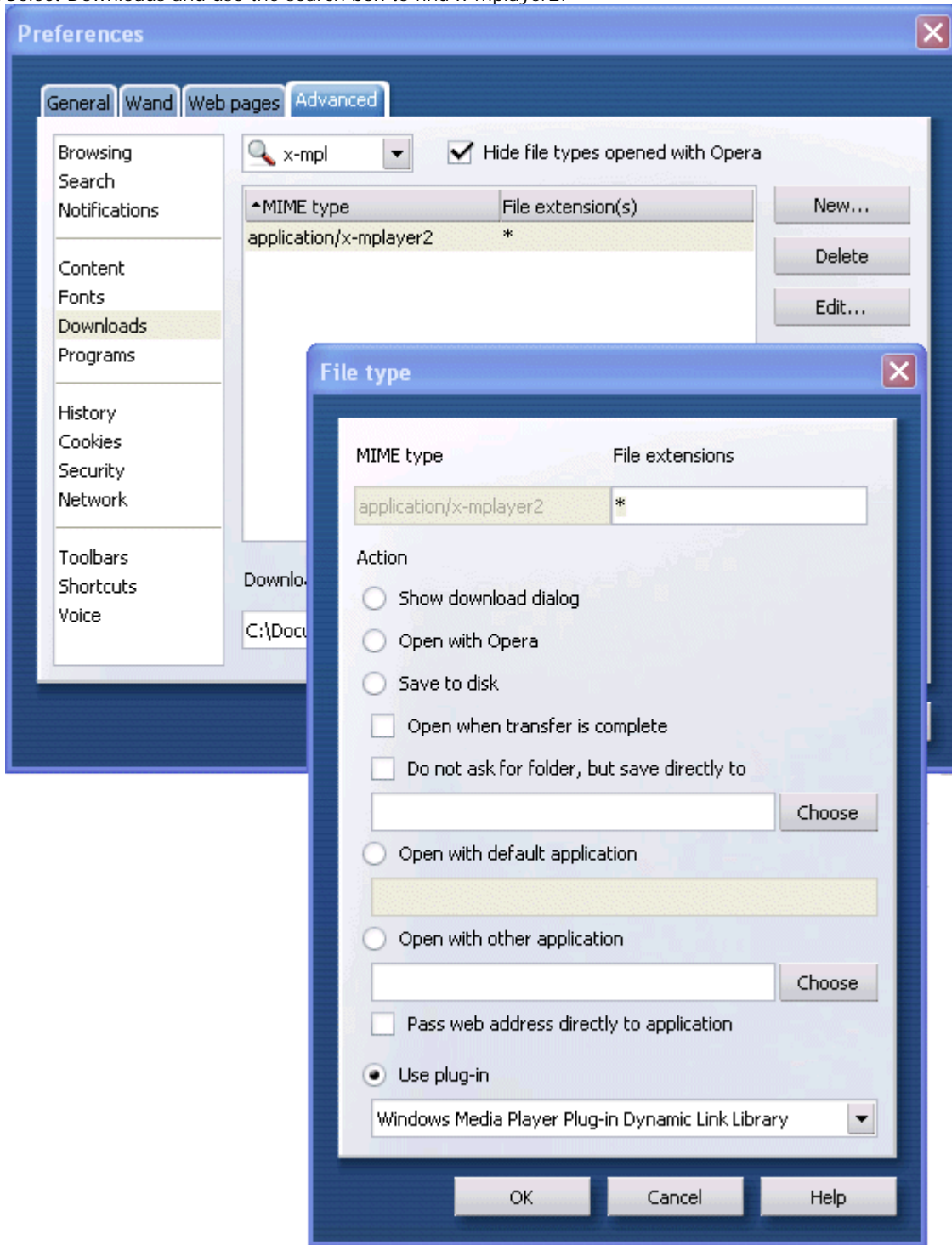


3. Check that the Action is set to *Use Windows Media Player* or *Use Windows Media Player plug-in Dynamic Link Library*.

### Opera

1. Select Tools | Preferences.

2. Select Downloads and use the search box to find x-mplayer2.

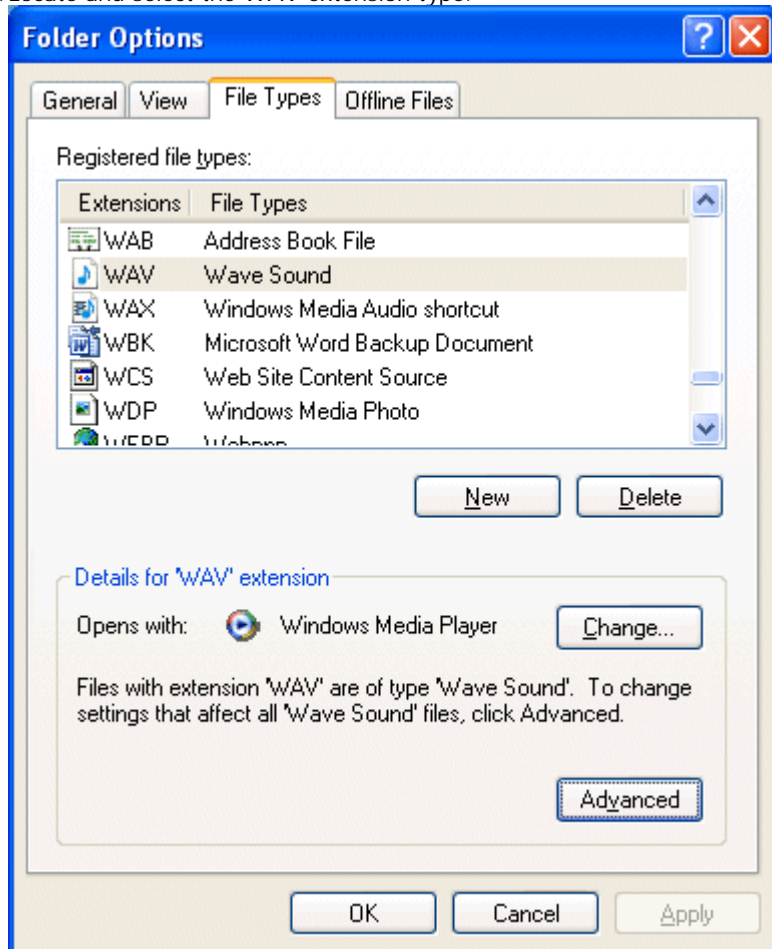


3. Check that the setting is set to Use plug-in and *Windows Media Player Plug-In Dynamic Link Library*.

#### Internet Explorer

1. Internet Explorer uses the application associated with the wav file type for Windows.
2. Select My Computer.
3. Select Tools | Folder Options.
4. Select File Types.

5. Locate and select the WAV extension type.



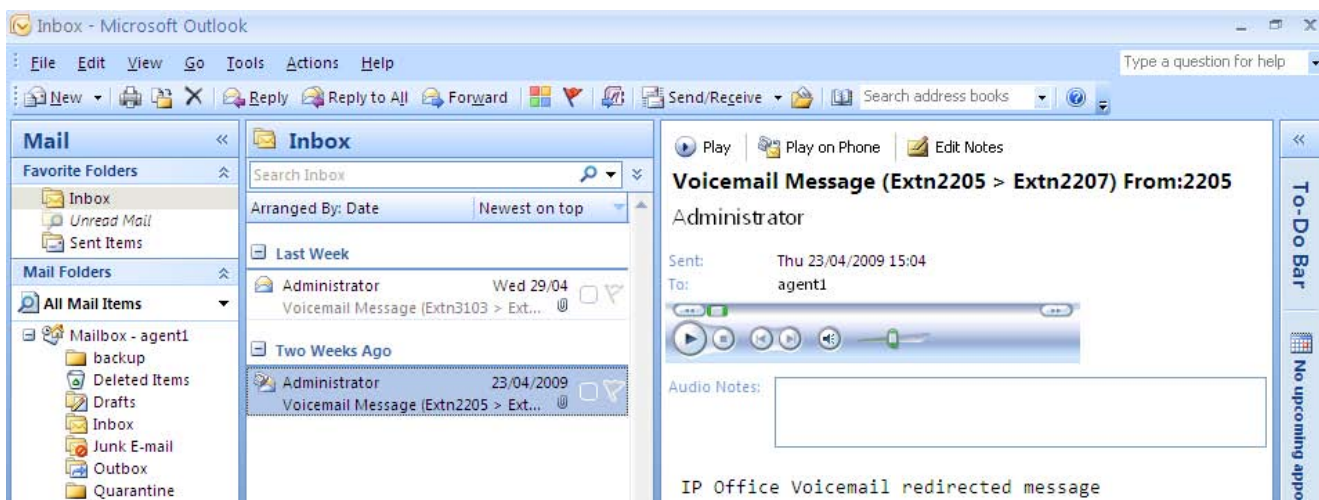
6. Check that the details show Windows Media Player as the selected application for this file type.

## 2.4.3 Exchange 2007 Installation

A UMS user or group can be configured to have their voicemail messages forwarded to the inbox of an Exchange 2007 email account. They can then access their voicemail messages using Outlook 2007 and playback those messages on their PC. Alternatively any other mechanisms supported by Exchange 2007 Unified Messaging can be used. Access to the messages from an IP Office telephone is still supported, including Visual Voice.

Voicemail messages in an Exchange 2007 inbox are not visible to UMS IMAP and UMS Web Voicemail, however Exchange 2007 provides its own methods for IMAP and web browsing of Exchange mailboxes.

- Note  
When using an Exchange 2007 server as the message store for a user's voicemail messages, the voicemail server will deliver messages to the Exchange server on completion of the recording. However, the presentation to Outlook and back to the voicemail server for message waiting indication (MWI) and access via telephone is delayed by Exchange server processing. The delay is typically 1 or 2 minutes. The same delay also applies to changes in the message status that affect message waiting indication.



The following are the pre-requisites for UMS Exchange 2007:

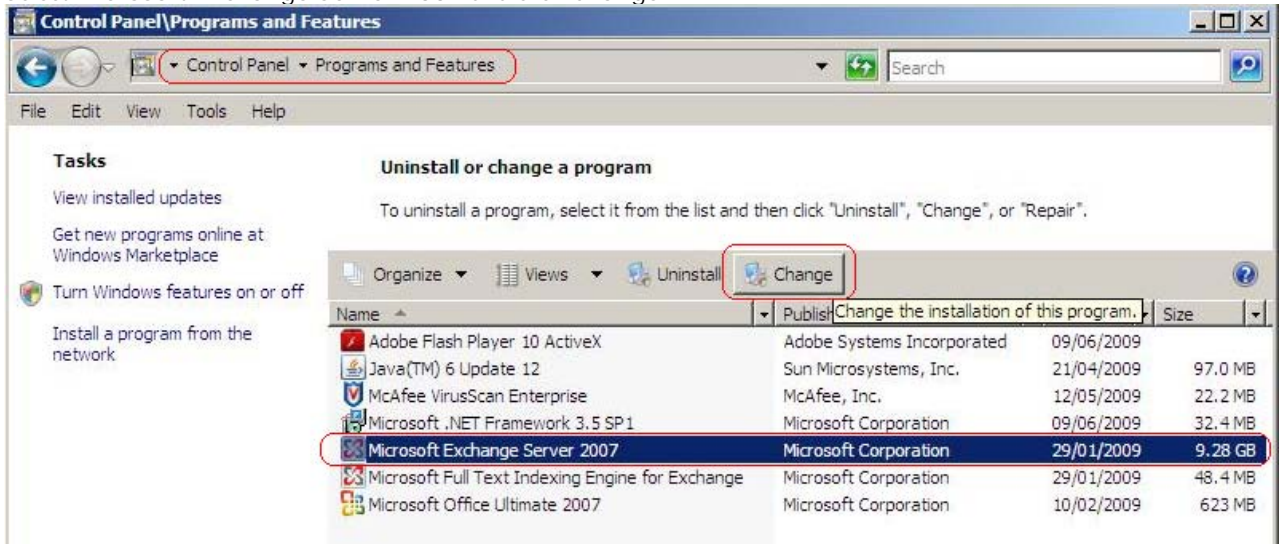
- Exchange 2007 Server
  - The Exchange 2007 server must be configured with the Unified Messaging Server Role selected.
  - A Dial Plan must be created on the Exchange 2007 server. This can be a blank dial plan but it must exist.
  - Within the Exchange 2007 server settings for each mailbox, select Enable Unified Messaging.
- Voicemail Pro
  - The Voicemail Pro server must be configured for [MAPI based voicemail email](#).
  - The supported MAPI applications are Exchange 2007 and Outlook 2007.
- IP Office
  - The user or hunt group must be licensed and enabled for UMS Web Services.
  - The user or hunt group's Voicemail Email mode must be set to *Forward*.

## Exchange Server 2007 Unified Messaging Configuration

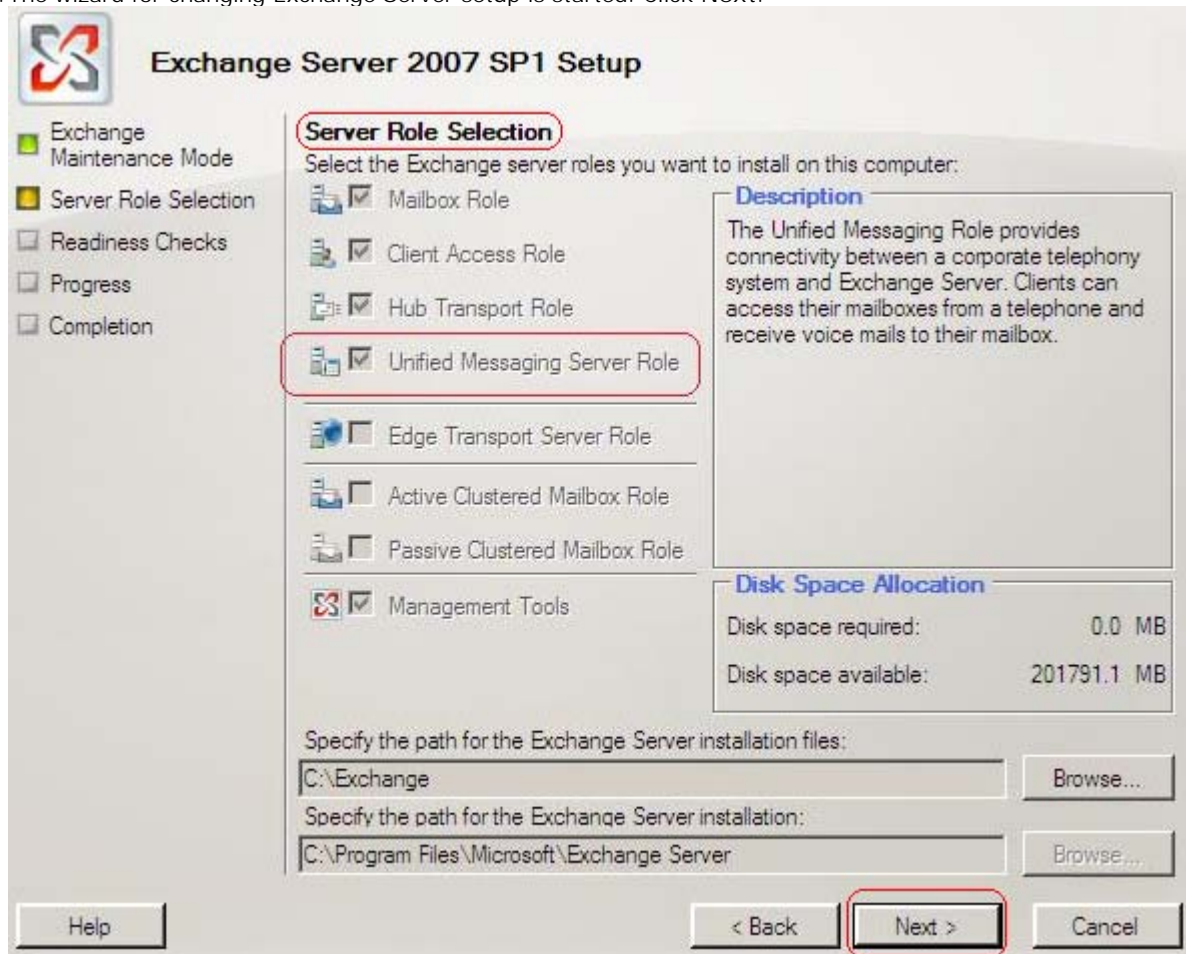
This is a simple overview of the minimum steps required. For full details refer to the Microsoft documentation.

In order to support UMS Exchange Server 2007 operation, the Exchange Server must be configured to include the Unified Messaging Server Role.

1. From the Windows Control Panel, select Program and Features.
2. Select Microsoft Exchange Server 2007 and click Change.



3. The wizard for changing Exchange Server setup is started. Click Next.



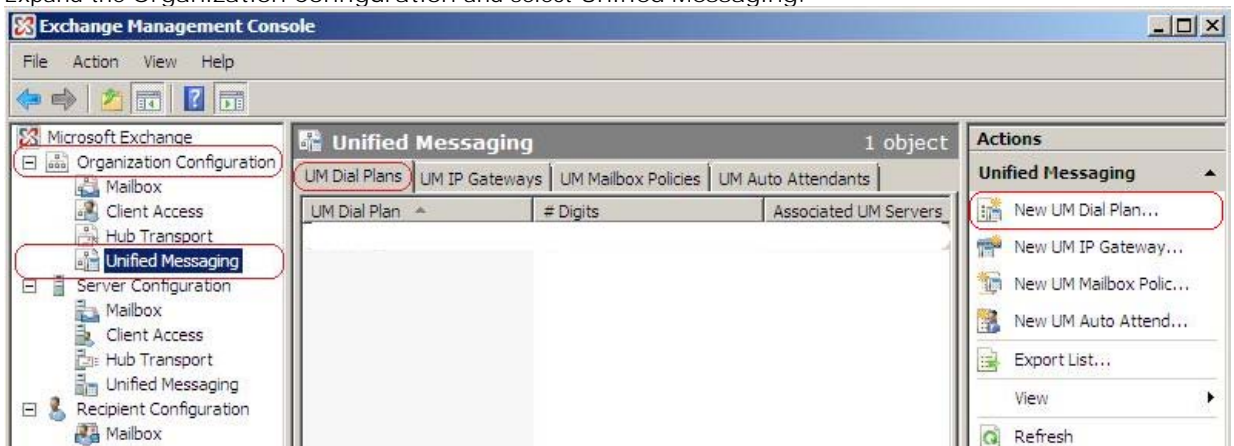
4. In the Server Role Selection list check that Unified Messaging Server Role is one of the selected roles. Click Next through the wizard and then Finish.

Having enabled the Unified Messaging role on the Exchange Server, the role can be configured and enabled for the mailboxes.

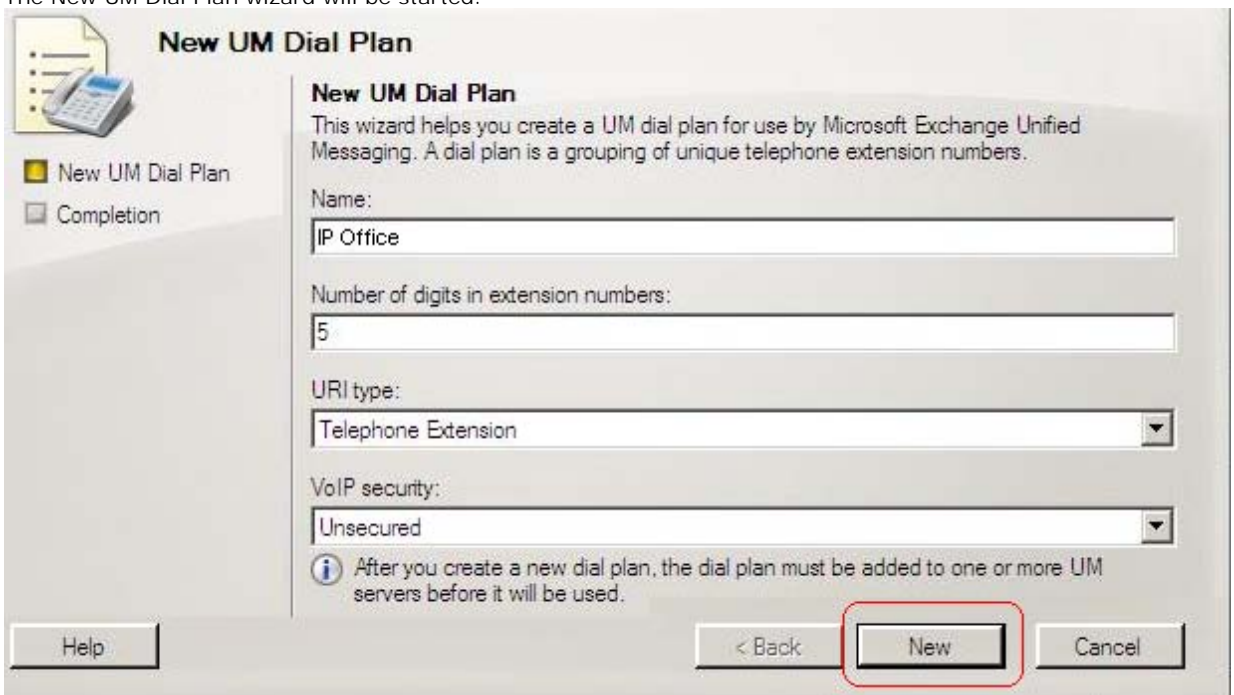
1. Select Start | Programs | Microsoft Exchange Server 2007 | Exchange Server Management Console.
2. Expand the Server Configuration list. The Unified Messaging role should appear in the list.



3. You need to create a Unified Messaging dial plan.
  - a. Expand the Organization Configuration and select Unified Messaging.



- b. Select the UM Dial Plans tab and in the Actions list select New UM Dial Plan....
- c. The New UM Dial Plan wizard will be started.

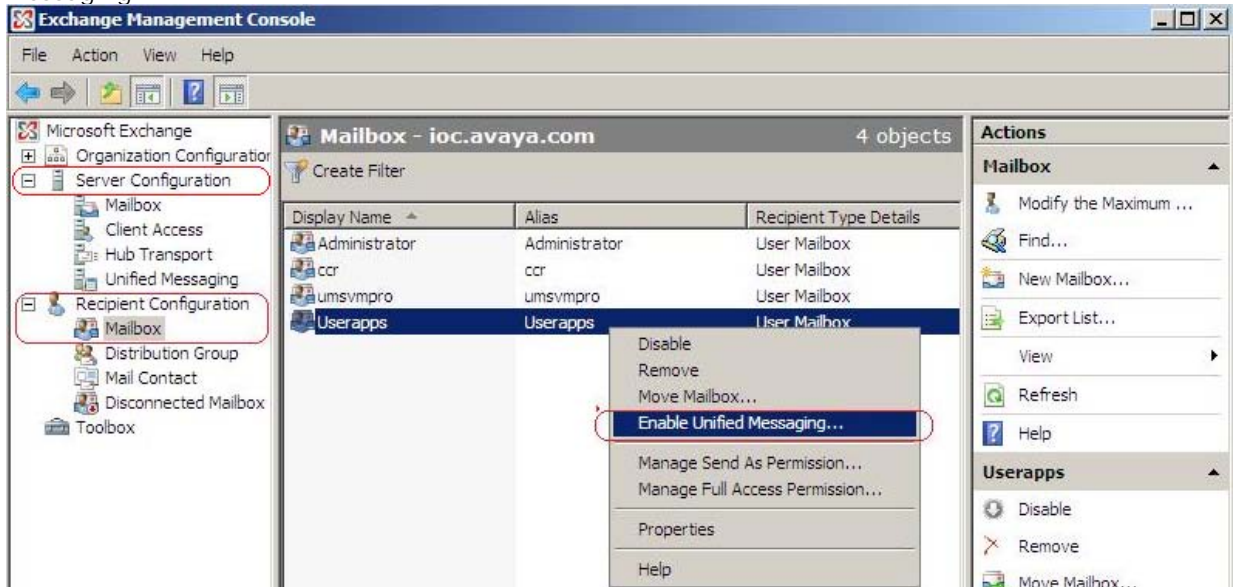


- d. Create a plan similar to the one shown above. The digits length is not important but must be matched later in the process. The simplest option is to set it to match your IP Office extension number length. Click New and then Finish.

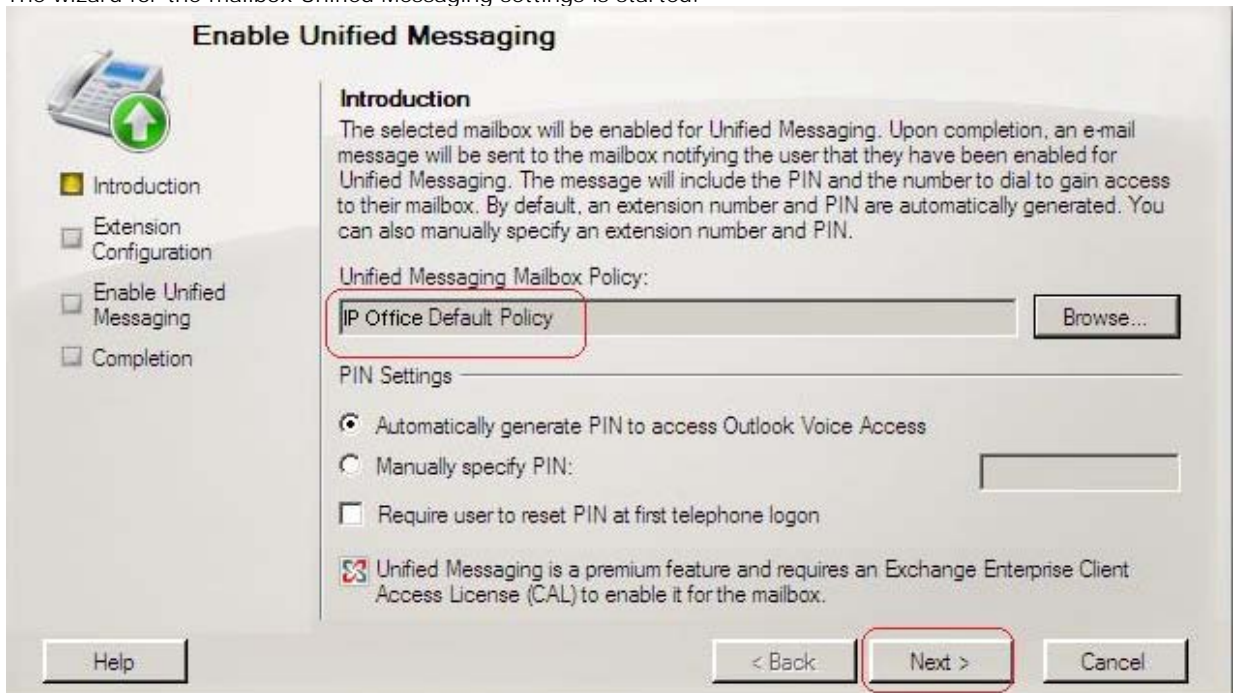
4. You now need to select which mailboxes the Unified Server role is available.



- a. Expand the Recipient Configuration section and select Mailbox.
- b. Right click on the configuration settings used for general mailbox users and select Enable Unified Messaging....



- c. The wizard for the mailbox Unified Messaging settings is started.



- d. For the Unified Messaging Mailbox Policy click on Browse... and select the previously created dial plan.

e. Select Automatically generate PIN to access Outlook Voice Access. Click Next.

The screenshot shows the 'Enable Unified Messaging' wizard. On the left, a navigation pane lists: Introduction (selected), Extension Configuration, Enable Unified Messaging, and Completion. The main area is titled 'Extension Configuration' and contains two radio button options: 'Automatically generated mailbox extension' and 'Manually entered mailbox extension:'. The second option is selected and circled in red. To its right is a text box containing the number '55557', also circled in red. Below this is the 'SIP Resource Identifier' label and a text box. A note explains that for a SIP URI dial plan, this is the SIP address of the user (example: tony.smith@contoso.com), and for an E.164 dial plan, it is the E.164 address (example: +14255550150). Below the note are two more radio button options: 'Automatically-generated SIP resource identifier:' and 'Manually entered SIP or E.164 address:'. The second option is selected. At the bottom, there are three buttons: 'Help', '< Back', and 'Next >', with the 'Next >' button circled in red. A 'Cancel' button is also present.

f. Select Manually entered mailbox extension. Enter a number that matches the digit length that was specified in the UM Dial Plan previously created. The actual number entered does not need to match an IP Office extension, only the length is important. Select Next.

g. Select Enable and then Finish.

## 2.5 Centralized Voicemail Pro

A Small Community Network (SCN) consists of several IP Office telephone systems. These are connected using H323 Lines where the Supplementary Services settings of the lines has been set to *IP Office SCN*. For details refer to the IP Office Manager documentation.

Within a Small Community Network, the following options for providing voicemail are supported:

- [Centralized Voicemail](#) <sup>[52]</sup>

Centralized Voicemail Pro uses a single Voicemail Pro server to provide voicemail services for all IP Offices in the Small Community Network. Except for use of ContactStore, only the central IP Office hosting the voicemail server requires licensing for Voicemail Pro operation and features.

  - Licenses: The central IP Office is licensed as normal for Voicemail Pro operation and the voicemail features required. The other IP Offices only require licenses for UMS and or for ContactStore if required.
- [Centralized Voicemail with Fallback IP Office](#) <sup>[53]</sup>

Control of the voicemail server can be assumed by another IP Office if the central IP Office becomes unavailable.

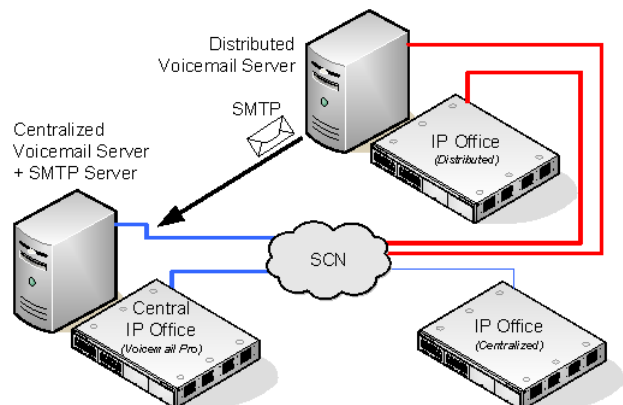
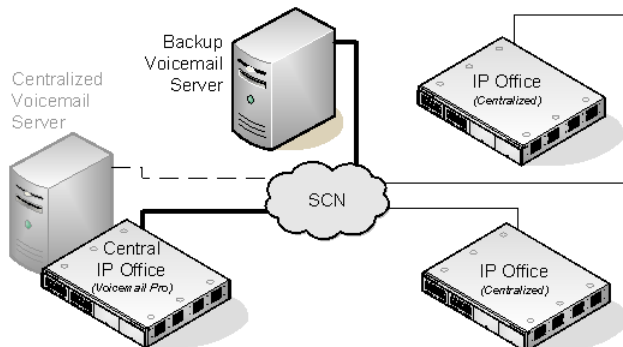
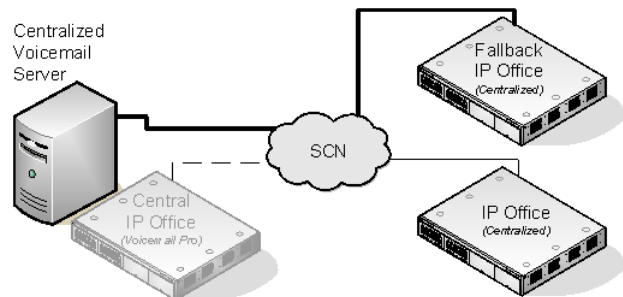
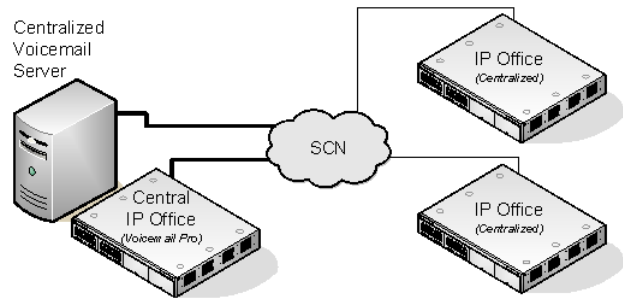
  - IP Office Release 5.0+ with Voicemail Pro 5.0+.
  - Licenses: The fallback IP Office that assumes control of the voicemail server requires licenses for Voicemail Pro operation and the features required during fallback.
- [Centralized Voicemail with a Backup Voicemail Server](#) <sup>[54]</sup>

The central IP Office hosting the voicemail server can be configured with the IP address of a backup voicemail server. During normal operation, call flows and other settings on the backup server are kept synchronized with those of the primary voicemail server. If the primary voicemail server becomes unavailable to the network, voicemail services are provided by the backup voicemail server.

  - IP Office Release 6.0+ with Voicemail Pro 6.0+.
  - IIS SMTP is used to exchange information between the servers.
  - Licenses: The existing licenses are used.
- [Centralized Voicemail with Distributed Voicemail Servers](#) <sup>[55]</sup>

Other IP Offices in the Small Community Network can host their own Voicemail Pro server. That server is then used for the IP Office's voicemail functions except message storage.

  - IP Office Release 6.0+ with Voicemail Pro 6.0+.
  - IIS SMTP is used to exchange information between the servers.
  - The distributed voicemail server provides all voicemail services except voicemail collection for its associated IP Office.
  - Licenses: Each IP Office using a distributed voicemail server must have licenses for Voicemail Pro operation and the voicemail features required.

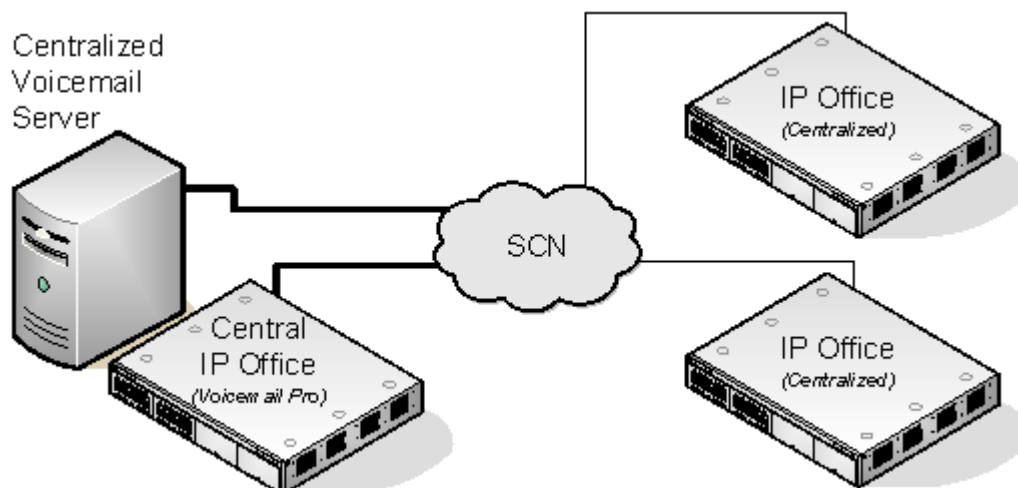


In all the cases above, the central voicemail server remains the store for messages and recordings (except for Exchange UMS users). The central voicemail server does message waiting indication and is the voicemail server used for message collection. Only when the central server is temporarily unavailable will the backup or any distributed server do message storage and collection. In those scenarios, when the central server is restored, messages collected by the backup or distributed servers are forwarded to the central server.

[Combinations](#) <sup>[57]</sup> of the solutions above can be deployed. For example using a backup server and fallback IP Office control.

## 2.5.1 Centralized Voicemail

Within a Small Community Network, a single Voicemail Pro server can be used to provide voicemail features for all the IP Offices in the SCN.



One IP Office is configured for operation with the Voicemail Pro server as normal, including the license for voicemail operation and the features required. This IP Office is then regarded as the central IP Office for voicemail.

Within the other IP Office systems, the voicemail settings are configured to indicate that they get their voicemail services from the central IP Office. These IP Offices do not need licenses for voicemail (except for ContactStore and or UMS if required).

### Summary of IP Office Settings

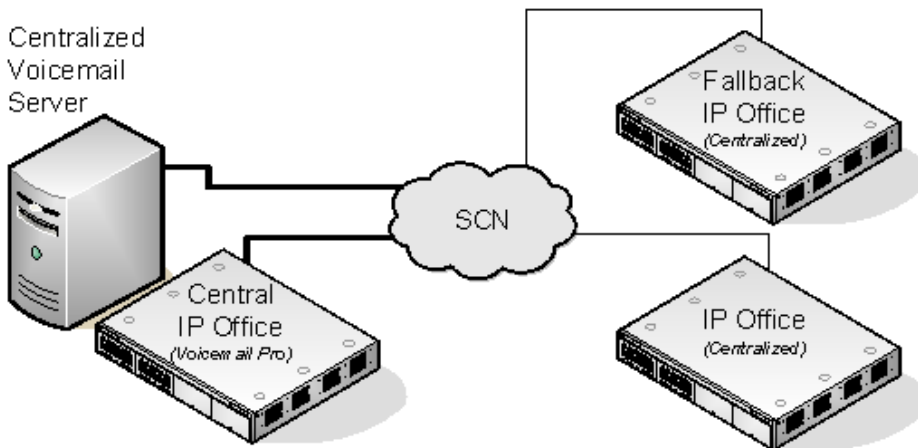
Once the IP Office SCN has been setup, the following settings are used in the IP Office systems to provide voicemail operation for all the IP Offices.

IP Office Settings	Central IP Office	Other IP Offices
Voicemail Type	<i>Voicemail Pro</i>	<i>Centralized Voicemail</i>
Voicemail IP Address	Set to the voicemail server PC's IP address.	<i>Not used.</i>
Voicemail Destination	<i>Not used.</i>	Set to the Outgoing Group ID of the H323 Line to the central IP Office.
Licenses	This system needs <a href="#">licenses</a> <sup>21</sup> for all the Voicemail Pro features required.	The other IP Offices only require licenses for UMS and or for ContactStore if required.

When accessing a voicemail server that is acting as centralized voicemail server, the Voicemail Pro will display Centralized Voicemail in the title bar.

## 2.5.2 Fallback IP Office Control

IP Office Release 5.0+ supports a number of fallback features for Small Community Networks. In conjunction with Voicemail Pro 5.0+, fallback can include one of the IP Offices assuming control of the voicemail server should the central IP Office become unavailable on the network.



**Normal Operation**  
During normal operation, voicemail services for the Small Community Network are provided by the central IP Office communicating with the voicemail server.

**Fallback Control Operation**  
If the central IP Office becomes unavailable to the network, control of voicemail services for the Small Community Network is assumed by the fallback IP Office.

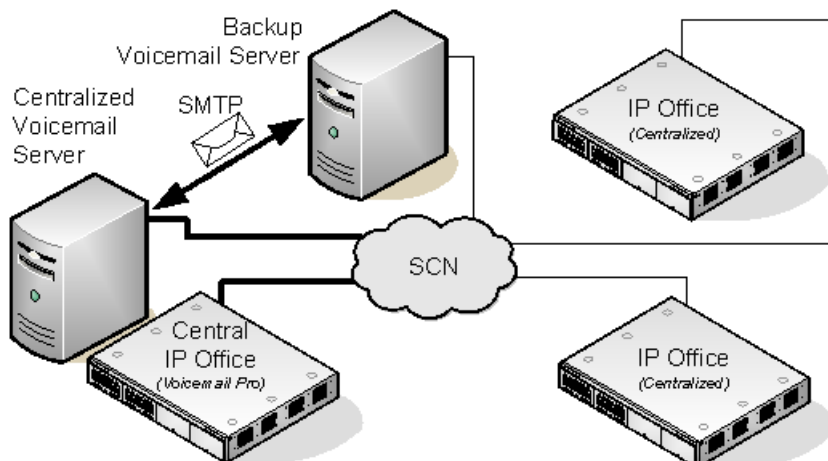
- **WARNING**  
During the transition of voicemail control, access to voicemail may be unavailable for several minutes. Existing voicemail calls are disconnected and new calls are routed as if voicemail is unavailable. The same applies when the central IP Office is restored.

### Setup and Requirements for Voicemail Fallback

- Within the configuration of the central IP Office hosting the voicemail server, on the H323 Line to the fallback IP Office;
  - The Supplementary Services setting should be changed from *IP Office - SCN* to *IP Office - SCN Fallback*.
  - The option *Backs up my Voicemail* should then be selected from the SCN Backup Options.
- The fallback IP Office is configured for centralized voicemail as normal. However its configuration must also include licenses for the Voicemail Pro support and the voicemail features required during fallback.

## 2.5.3 Backup Voicemail Server Operation

For IP Office Release 6.0, the central IP Office hosting the Voicemail Pro server can be configured with the IP address of a backup voicemail server. If the central voicemail server becomes unavailable to the network, the backup server will be used to provide voicemail services. This option requires the voicemail servers to be running Voicemail Pro 6.0 or higher.



Centralized voicemail with a backup server during normal operation.

During Normal Operation:

- Voicemail services and message storage for the IP Offices is provided by the primary voicemail server.
- Call flows and other settings configured on the backup voicemail server are synchronized with those of the central voicemail server.
- Messages are synchronized but the central voicemail server remains the message store accessed for message collection.
- The synchronization is done using IIS SMTP email between the servers.

During Backup Operation:

If the central voicemail server become unavailable to the network:

- The backup voicemail server provides voicemail services for the IP Offices.
- New messages are left on the backup server.

After Backup Operation

- When the central voicemail server is restored, it does not automatically resume control. However messages and changes that occurred while it was unavailable are synchronized from the backup server.
- If the backup server fails, the central sever resumes control as the active server.

- Call flows defined on the central server are synchronized with the backup server.
- Call flows defined on the central server cannot be modified on the backup server.
- Call flows cannot be defined on the backup server.
- Call flows defined on a distributed server are not synchronized to the central or backup servers.

### Configuring Backup Server Operation

1. The Voicemail Pro server software is installed as normal on the backup server PC. The voicemail server is not specifically configured as being a backup server.
2. The central IP Office hosting the primary voicemail server is configured with the IP addresses of both the primary voicemail server and the backup voicemail server.

System	LAN1	LAN2	DNS	Voicemail	Telephony	Directory Services	System Events	SMTP	SMDR	Twinning	VCM	CCR
Voicemail Type		Voicemail Lite/Pro		<input checked="" type="checkbox"/> Messages Button Goes To Visual Voice								
Voicemail Destination												
Voicemail IP Address		192 . 168 . 42 . 201										
Backup Voicemail IP Address		192 . 156 . 42 . 211										

3. The other IP Offices are configured for centralized or distributed voicemail as normal.

### 2.5.4 Distributed Voicemail Servers

For IP Office Release 6.0, remote IP Offices in the Small Community Network can be associated with another voicemail server in addition to the centralized voicemail server. The additional distributed server then provides all voicemail services (except message storage and collection) for that IP Office. This requires the remote IP Office to have licenses for voicemail operation and the features it requires.

While the distributed server does message recording, it forwards all messages to the central voicemail server. The messages are transferred between systems using an IIS SMTP email services. For mailbox users, message waiting indication and message collection is still done using the central voicemail server.

#### Centralized Voicemail with Additional Distributed Voicemail Servers

In this scenario, an additional voicemail sever has been added to the Small Community Network. One of the IP Office is configured to use that server for its voicemail services.

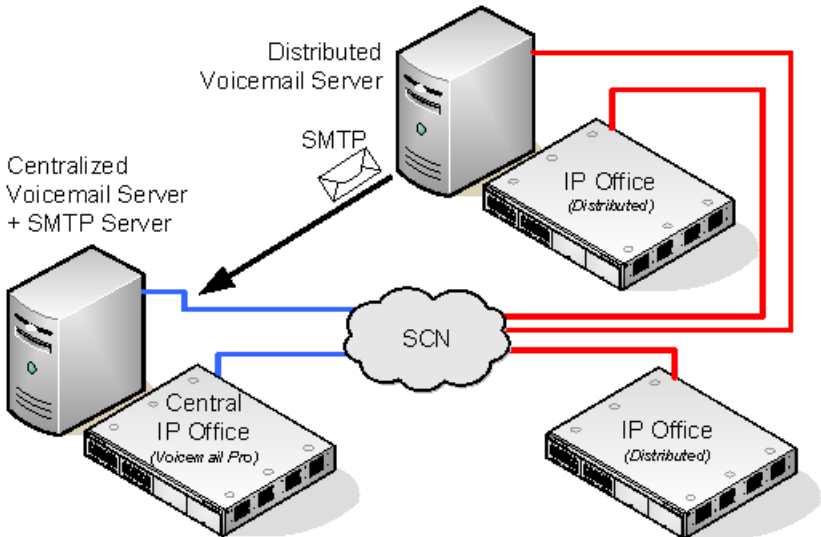
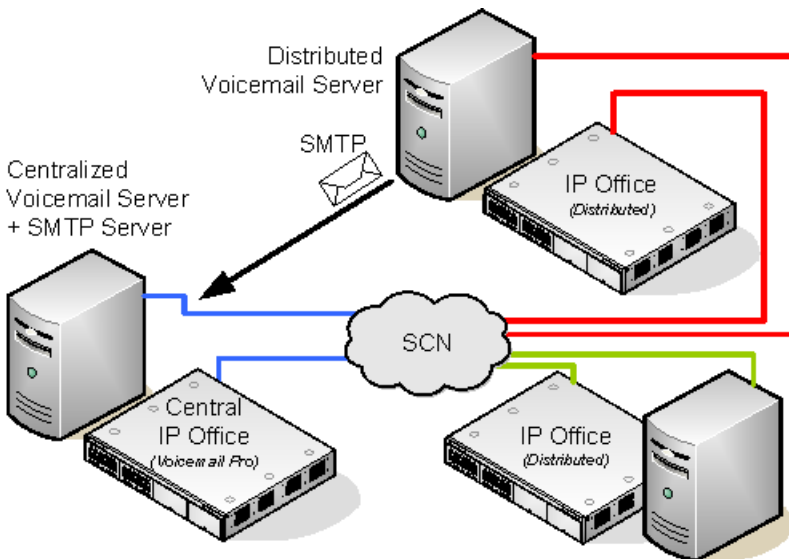
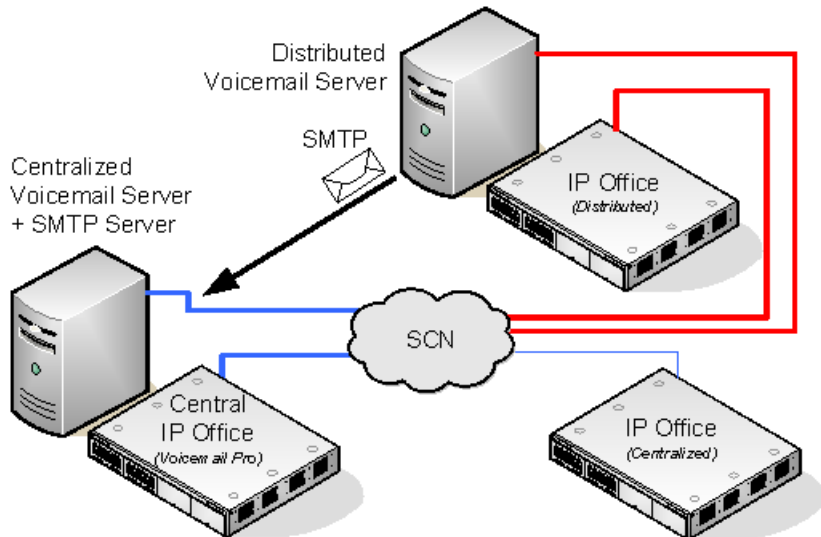
- Other IP Offices continue to use centralized voicemail as normal.
- An IP Office that is using a distributed voicemail server cannot also be used as the [fallback IP Office](#) for the central voicemail server.
- The synchronization is done using IIS SMTP email between the servers.

#### Multiple Distributed Servers

Additional distributed voicemail servers can be added as required by the individual IP Office sites in the Small Community Network.

#### Sharing Distributed Voicemail Servers

The same distributed voicemail server can be shared by several IP Offices. The services it provided to each will depend on the licenses that each has.



## Summary of IP Office Configuration Settings for Distributed Voicemail Servers

IP Office Settings	Central IP Office	Other IP Offices	IP Office with Distributed Server
Voicemail Type	<i>Voicemail Pro</i>	<i>Centralized Voicemail</i>	<i>Distributed Voicemail</i>
Voicemail IP Address	Set to the central voicemail server PC's IP address.	<i>Not used.</i>	Set to the distributed voicemail server PC's IP address.
Voicemail Destination	<i>Not used.</i>	Set to the Outgoing Group ID of the H323 Line to the central IP Office.	Set to the Outgoing Group ID of the H323 Line to the central IP Office.
Licenses	This system needs <a href="#">licenses</a> <sup>21</sup> for Voicemail Pro and all voicemail features required.	The other IP Offices only require licenses for UMS and or for ContactStore if required.	This system needs <a href="#">licenses</a> <sup>21</sup> for Voicemail Pro and all voicemail features required.

### Configuring Distributed Voicemail Server Operation

1. The centralized voicemail server for the SCN and its central IP Office are configured as normal.
2. The Voicemail Pro server software is installed as normal any distributed voicemail server PC's. The distributed voicemail server is not specifically configured as being a distributed server.
3. Each IP Office hosting a distributed voicemail server is configured with the Voicemail Type set to *Distributed Voicemail*.

The screenshot shows the configuration page for an IP Office, with the 'Voicemail' tab selected. The following settings are visible:

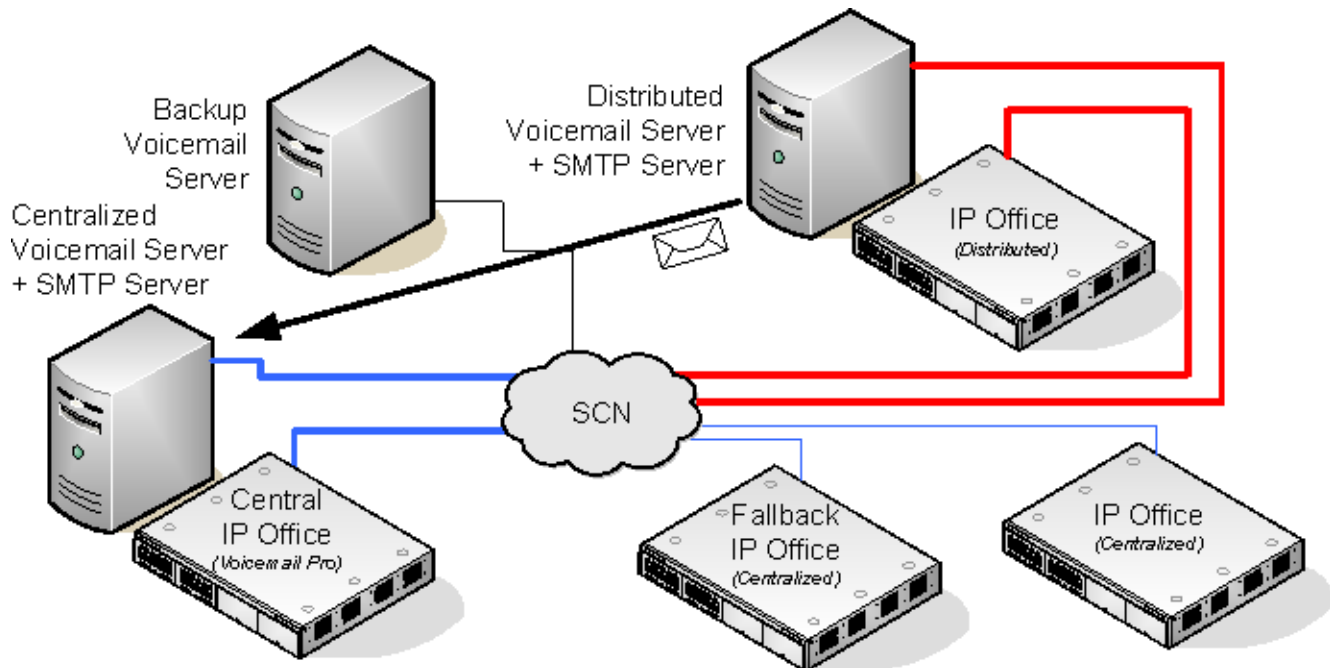
- Voicemail Type:** Distributed Voicemail (dropdown menu)
- Voicemail Destination:** 10 (dropdown menu)
- Voicemail IP Address:** 192 . 168 . 42 . 212 (text input)
- Backup Voicemail IP Address:** 0 . 0 . 0 . 0 (text input)
- Messages Button Goes To Visual Voice:**  (checkbox)

- The Voicemail Destination is set the *Outgoing Group ID* of the H323 trunk to the central IP Office hosting the centralized voicemail server.
- The Voicemail IP Address is set to the IP address of the PC running the distributed voicemail server for the IP Office.



## 2.5.5 Combined Options

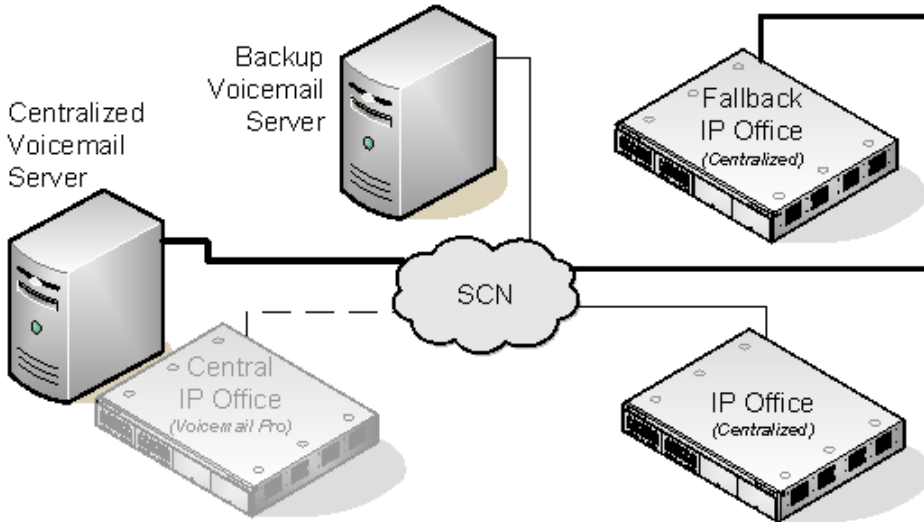
The various centralized voicemail options (standard, fallback, backup and distributed) can be used within the same Small Community Network.



- An IP Office using a distributed voicemail cannot be used as the fallback IP Office for the central IP Office.
- A distributed voicemail server cannot also be used as the backup voicemail server.

Example: Combined Fallback Control and Backup Server Operation

In the example below the [fallback IP Office control](#) [53] and [backup voicemail server](#) [54] operation can be combined.



*Central Voicemail Server controlled by Fallback IP Office*

- **Central IP Office Unavailable**  
If the central IP Office becomes unavailable on the network, the fallback IP Office assumes control of voicemail services using the centralized voicemail server.

- **Central Voicemail Unavailable**  
If the central voicemail server becomes unavailable on the network, the central IP Office will switch to using the backup voicemail server.

*Backup Voicemail Server controlled by Central IP Office*

- **Central IP Office and Central Voicemail Server Unavailable**  
If both the central IP Office and the central voicemail server become unavailable to the network, voicemail services will switch to the backup voicemail server under control of the fallback IP Office.

*Combined Backup Voicemail Server and Fallback IP Office Operation*

## 2.5.6 Installation Notes

### SMTP Configuration

Both the distributed voicemail and backup voicemail scenarios use the same mechanism for the information exchange between the servers. That mechanism uses SMTP emails between the IIS on each of the voicemail servers. Note that this means a server with Microsoft Exchange installed (such as a SBS server) cannot be used as Exchange replaces the IIS SMTP service.

The following notes apply to both scenarios unless specifically stated as otherwise.

#### 1. Install and Enable IIS


All the voicemail servers (central, distributed and backup) require IIS to be installed and enabled on the server before installation of the Voicemail Pro server software.

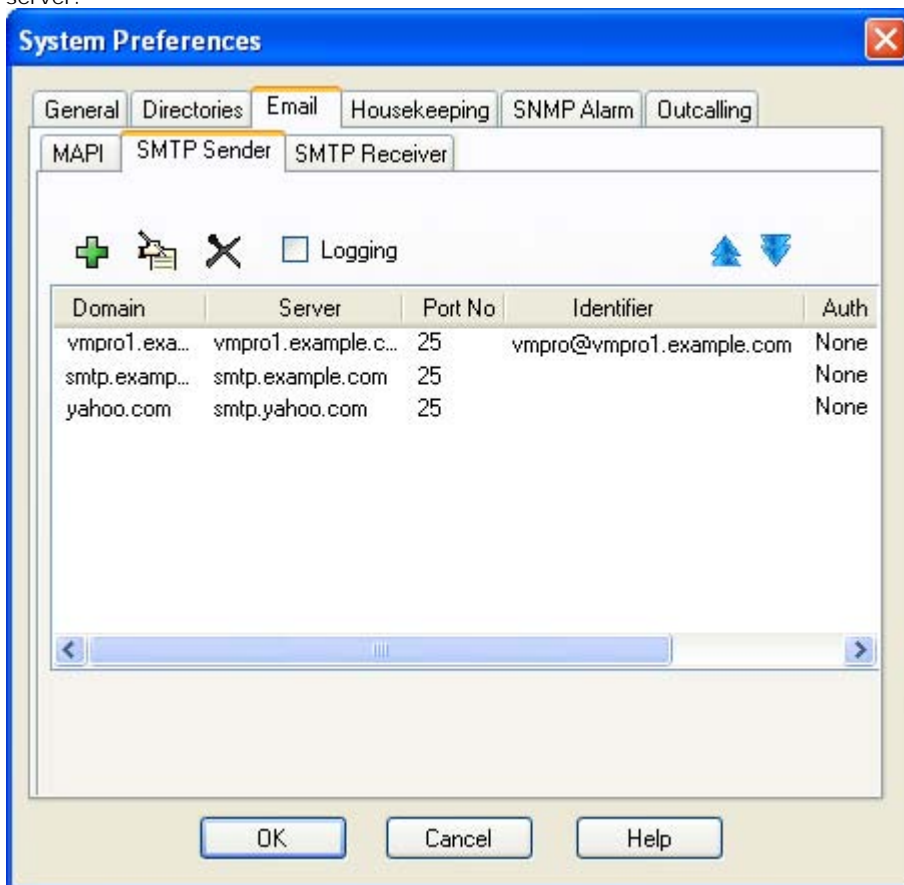
1. Start the Internet Information Services manager.
2. Right-click on the Default SMTP Virtual Server and select Properties.
3. Select the Messages tab. Deselect the Limit Message Size and Limit number of messages per connection options.

#### 2. Configure Each Voicemail Pro Server for SMTP Email via IIS

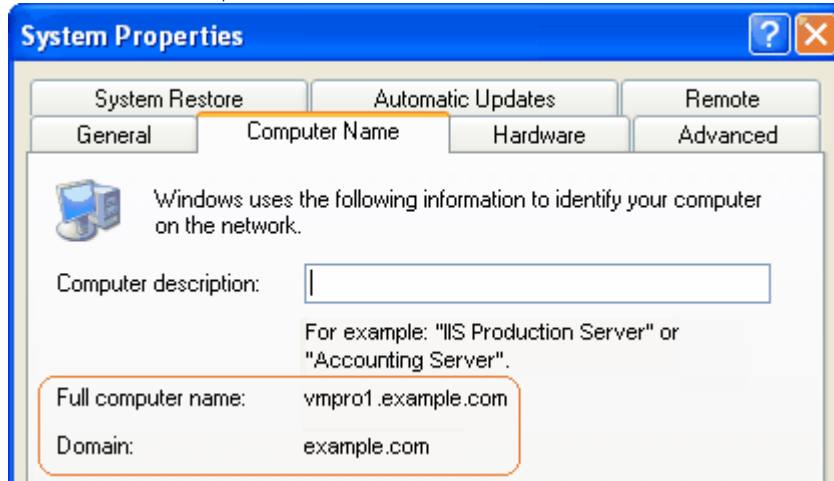
Following installation of the Voicemail Pro server software, its should be configured for SMTP email operation as follows:

- a. By default the Voicemail Pro server installs defaulted to SMTP email operation. However this should be checked.

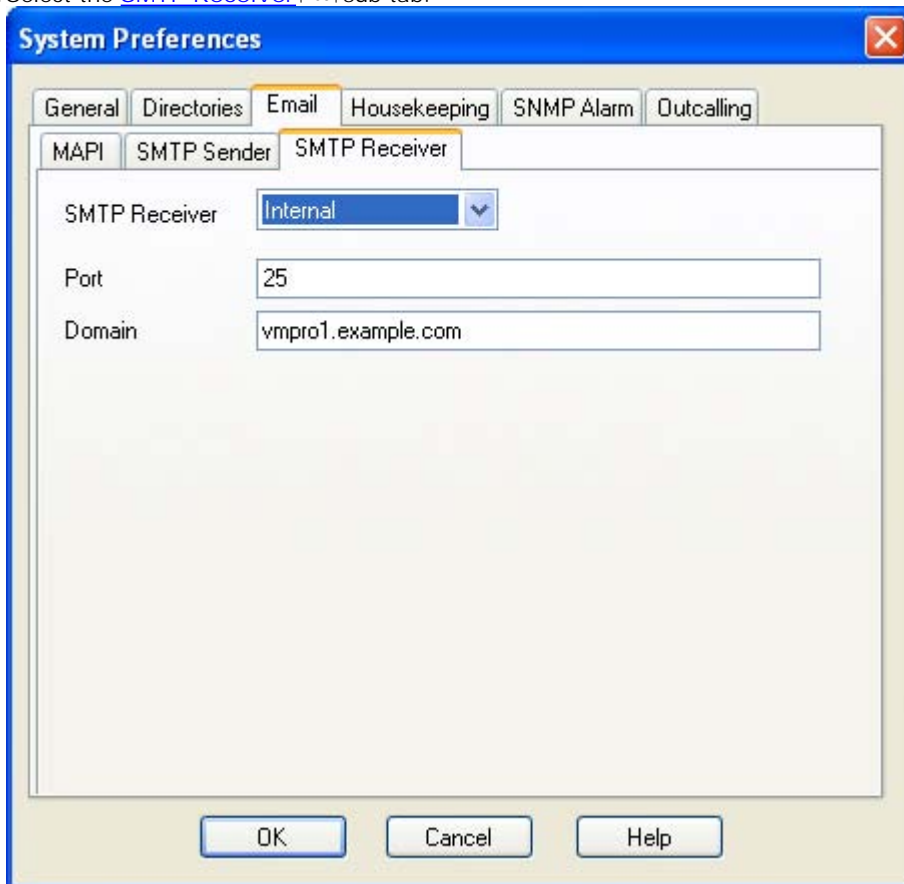
1. Start the Voicemail Pro Client. Click  Preferences and select General.
2. Click the Email tab.
3. Ensure that the [MAPI](#) <sup>[101]</sup> settings are not enabled. .
4. Select the [SMTP Sender](#) <sup>[102]</sup> sub tab. The first entry in the list must be configured for SMTP between the voicemail servers. Set the Domain and Server to the fully qualified domain name of the voicemail server.



- For a Windows based voicemail server, these emails will be received on port 25 by IIS and will be placed in its mail drop folder. To obtain the name, right-click on My Computer and select Properties . The Computer Name tab shows the information that should be used as Full computer name. The name must be used, IP addresses are not used.



5. Select the [SMTP Receiver](#) sub tab.



- For a Windows based server, set the SMTP Receiver as *External* and set the Drop Folder address to be the IIS mail drop folder (usually *C:\inetpub\mailroot\Drop*). For a Linux based server set the SMTP Receiver as *Internal*.
- Click OK.

6. Click  Save & Make Live.

3. Ensure that Port 25 is Not Blocked

Many firewalls block access to port 25 by default. Check that the firewall software being used on the server is configured to allow *VMPProV5Svc.exe* as an exception.

4. DNS Host Routing (*Optional*)

SMTP operation uses fully qualified domain names that need to be resolved to IP addresses by the network's DNS server. To guarantee name resolution the hosts files on each server can be used. Note however that if this method is used, any changes to IP addresses of servers will need to be reflected in the file update. Locate the file *C:\Windows\System32\drivers\etc\hosts* and open it in a text editor such as WordPad. Add IP address and fully qualified domain name entries for each of the other voicemail servers.

## Voicemail Pro Configuration

In all scenarios, each Voicemail Pro server should use the same basic configuration settings, ie. the same voicemail mode (Intuity or IP Office) and the same housekeeping settings.

### IP Office Configuration

#### Configuring Distributed Voicemail Server Operation

1. The centralized voicemail server for the SCN and its central IP Office are configured as normal.
2. Each IP Office not hosting a distributed voicemail server is configured with the Voicemail Type set to *Centralized Voicemail*.

System	LAN1	LAN2	DNS	Voicemail	Telephony	Directory Services	System Events	SMTP	SMDR	Twining	VCM	CCR
Voicemail Type	Centralized Voicemail				<input checked="" type="checkbox"/> Messages Button Goes To Visual Voice							
Voicemail Destination	10											
Voicemail IP Address	0 . 0 . 0 . 0											
Backup Voicemail IP Address	0 . 0 . 0 . 0											

- The Voicemail Destination is set the *Outgoing Group ID* of the H323 trunk to the central IP Office hosting the centralized voicemail server.

#### Configuring Distributed Voicemail Server Operation

1. The centralized voicemail server for the SCN and its central IP Office are configured as normal.
2. The Voicemail Pro server software is installed as normal any distributed voicemail server PC's. The distributed voicemail server is not specifically configured as being a distributed server.
3. Each IP Office hosting a distributed voicemail server is configured with the Voicemail Type set to *Distributed Voicemail*.

System	LAN1	LAN2	DNS	Voicemail	Telephony	Directory Services	System Events	SMTP	SMDR	Twining	VCM	CCR
Voicemail Type	Distributed Voicemail				<input checked="" type="checkbox"/> Messages Button Goes To Visual Voice							
Voicemail Destination	10											
Voicemail IP Address	192 . 168 . 42 . 212											
Backup Voicemail IP Address	0 . 0 . 0 . 0											

- The Voicemail Destination is set the *Outgoing Group ID* of the H323 trunk to the central IP Office hosting the centralized voicemail server.
- The Voicemail IP Address is set to the IP address of the PC running the distributed voicemail server for the IP Office.

#### Configuring Backup Server Operation

1. The Voicemail Pro server software is installed as normal on the backup server PC. The voicemail server is not specifically configured as being a backup server.
2. The central IP Office hosting the primary voicemail server is configured with the IP addresses of both the primary voicemail server and the backup voicemail server.

System	LAN1	LAN2	DNS	Voicemail	Telephony	Directory Services	System Events	SMTP	SMDR	Twining	VCM	CCR
Voicemail Type	Voicemail Lite/Pro				<input checked="" type="checkbox"/> Messages Button Goes To Visual Voice							
Voicemail Destination												
Voicemail IP Address	192 . 168 . 42 . 201											
Backup Voicemail IP Address	192 . 156 . 42 . 211											

3. The other IP Offices are configured for centralized or distributed voicemail as normal.

## Check the Server Connections

### 1. Check Connection to the Central Server

In the following tests, remember to use the fully qualified domain name of each server.

#### a. Ping Test

Make a ping from the server to the central server, for example *ping vmpro1.example.com*. You should see a series of 4 successful replies from the sever.

#### b. Telnet Test

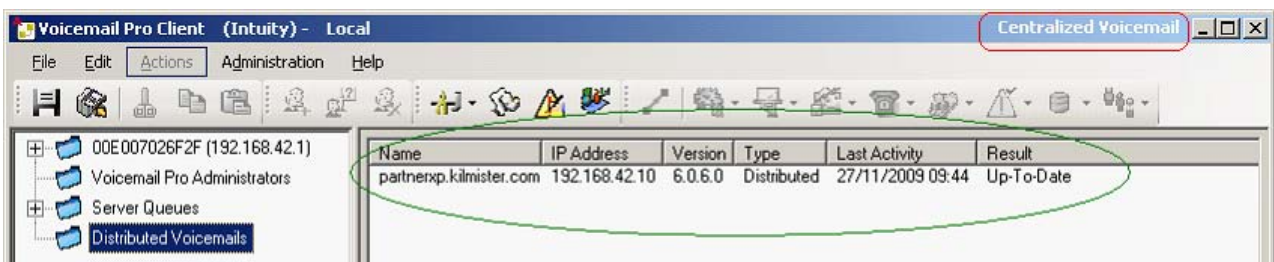
Make a telnet test from the server to the central server, for example *telnet vmpro1.example.com 25*. You should receive a response from the email server within IIS. Enter *quit* to close the telnet connection.

### 2. Check Connection from the Central Server

Repeat the ping and telnet tests, this time from the central server to the backup or distributed server.

## Checking Status with the Voicemail Pro Client

When connected to a Voicemail Pro server using the Voicemail Pro client, the client title bar will display the role assumed by that voicemail server; *Centralized Voicemail*, *Backup Voicemail* or *Distributed Voicemail*.



When connected to the backup voicemail server, if it is the active server, the title will have changed from *Backup Voicemail* to *Backup Voicemail (Live)*.

When connected to the centralized voicemail server, the Distributed Voicemails folder can be selected to display details of the distributed servers and the state of the connection with each. The Result will be either:

- In Progress  
The servers are synchronizing information via SMTP.
- Up-To-Date  
The servers are synchronized.

---

## 2.6 Voicemail Email

Voicemail Email allows the voicemail server to provide a number of email functions:

- **Forward a Message to Email**  
If the voicemail server is set to IP Office mailbox mode, mailbox users are able to manually forward an voicemail message to their email.
- **Automatic New Voicemail Messages**  
For all mailbox modes, users can use voicemail email to automatically have a message sent to their email whenever they receive a new voicemail message. The email can be a simple alert or it can include a copy of the voicemail as an attachment.
- **eMail Action**  
With customized call flows, an [eMail](#) <sup>245</sup> action can be used to send a caller's recorded voicemail message to a specified email address.
- **UMS Exchange 2007**  
In conjunction with Exchange 2007 and Outlook 2007, users are able to use their Outlook inbox as their mailbox for voicemail messages.


Voicemail Email features requires the voicemail server to be configured for access to either an SMTP email server or to a MAPI email server via a MAPI enabled email client program on the voicemail server PC.

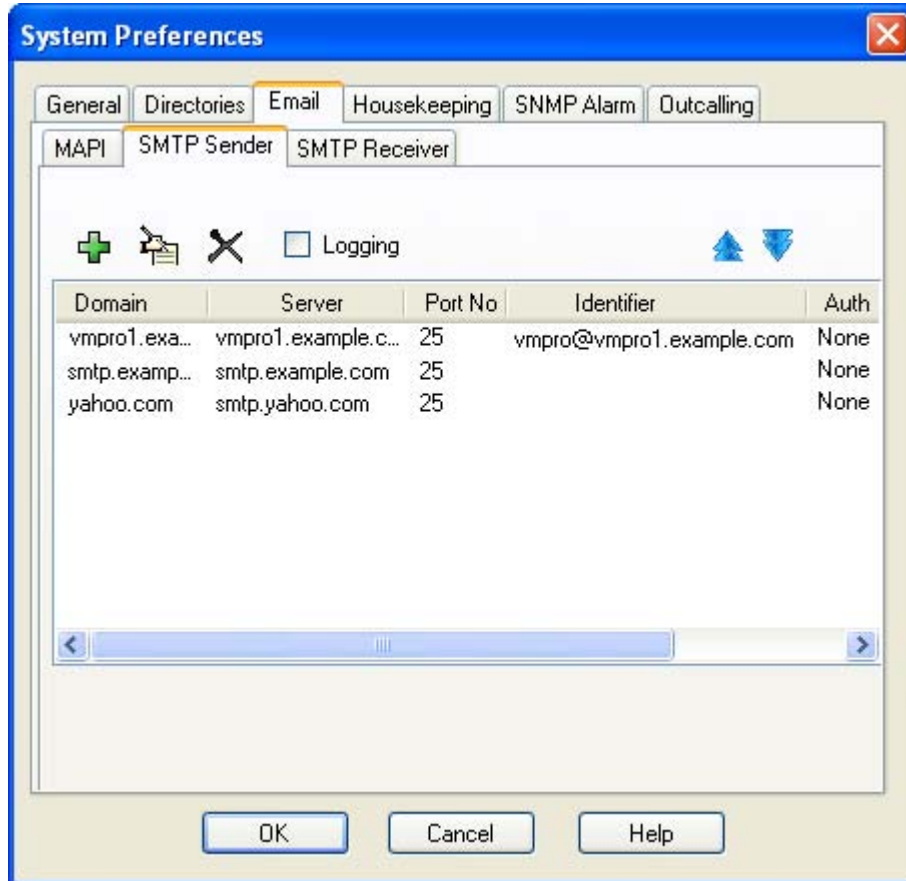
- **[SMTP Installation](#)** <sup>657</sup>  
This is an email standard supported by most email servers. It is the default email mode for the voicemail server.
- **MAPI Installation**  
MAPI requires a MAPI compliant email client program to be installed on the Voicemail Pro server. Supported MAPI clients are Outlook 2000, 2002, 2003, 2007. It also requires the Voicemail Pro service to be run using a user account that is able to send emails via that MAPI client.
  - The exact method of integration between the voicemail server and the MAPI email client depends on whether the voicemail server is part of a work group or a domain. This guide contains examples for both approaches.
  - The MAPI process described in this guide was based on Microsoft Windows 2000 Professional with Microsoft Outlook 2000 and Microsoft Outlook Express 5.5. Steps may differ depending on the version of Windows and email client used.



## 2.6.1 SMTP Setup

To configure the server SMTP email settings:

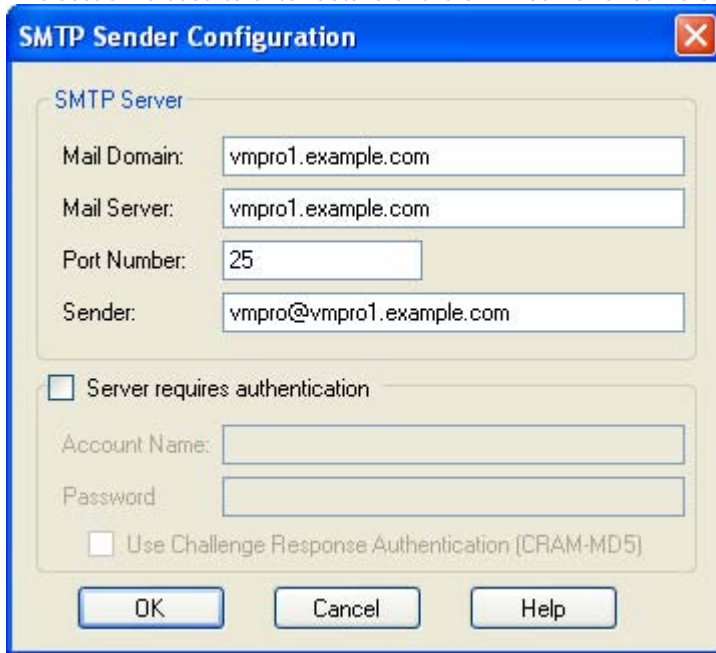
1. Start the Voicemail Pro Client.
2. Click  Preferences and select General.
3. Click the Email tab.
4. Ensure that there are no settings on the MAPI sub tab.
5. Enter the SMTP settings on the [SMTP Sender](#)<sup>[102]</sup> sub tab. These are the settings that the voicemail server uses for sending SMTP emails.






- Logging  
If selected, [SMTP logging](#)<sup>[416]</sup> by the server is enabled.

- Servers

This section is used to enter details of the SMTP server or servers to which the voicemail server send its messages.



The image shows a dialog box titled "SMTP Sender Configuration" with a blue header and a close button (X) in the top right corner. The dialog is divided into two main sections. The first section, titled "SMTP Server", contains four text input fields: "Mail Domain:" with the value "vmpro1.example.com", "Mail Server:" with the value "vmpro1.example.com", "Port Number:" with the value "25", and "Sender:" with the value "vmpro@vmpro1.example.com". The second section is titled "Server requires authentication" and is preceded by an unchecked checkbox. It contains two text input fields: "Account Name:" and "Password:". Below these fields is another unchecked checkbox labeled "Use Challenge Response Authentication (CRAM-MD5)". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

To add a server, click on the  icon. To edit the server, click on the  icon. To delete a server entry, click on .

- Mail Domain

This field is used differently depending on whether it is the first entry in the list or not:

- For the first server entry in the list:

This is the default outgoing email settings. It also sets the mail destination domain on which the voicemail server filters incoming messages (see below) and so is repeated on the [SMTP Receiver](#) <sup>[105]</sup> tab.

- Messaging Between Voicemail Servers

For messaging between voicemail servers, the first entry in the SMTP Sender list must be the one configured and used. Each server uses the SMTP server service on the same server PC as the voicemail service. For example a Windows based servers uses the SMTP email provided by the IIS on the same server. The voicemail service also uses the domain set to filter incoming SMTP mails received by the SMTP server. For this to work, the domain entered should be the fully qualified name of the server on which the voicemail server is running, for example *vmpro1.example.com*. Any incoming messages where the recipient mail domain is not exactly the same as the specified domain are ignored. The recipient can either by *vmyncmaster*, *vmyncslave* or the name or extension of a mailbox on the Voicemail Pro server, for example *Extn201@vmprocentral.example.com* or *201@vmprocentral.example.com*.

- For subsequent entries:

The domain specifies that these settings should be used for emails sent to the matching domain. The entry must be a fully qualified name resolvable by DNS or an IP address.

- Server

This specifies the IP address or fully qualified domain name of the SMTP server to which messages are sent.

- For the first server entry in the list:

Where messaging between voicemail servers is being used (central, backup and or distributed servers), the first entry is used and will match the domain set above.

- For subsequent entries:

It will be the address of the email server that will handle emails for recipients other than another voicemail server on the network.

- Port Number

This is port to which messages are sent, usually 25.

- Sender (Identifier)

Note that some servers will only accept emails from a specific sender or sender domain. If left blank, the voicemail server will insert a sender using either the email address set for the voice mailbox user if set or otherwise using the best matching name it can resolve from the IP Office.

- Server Requires Authentication

This check box indicates whether the connection to send SMTP messages to the mail server requires authentication with that server. The authentication will typically be to the name and password of a mailbox account configured on that server.

- Account Name

Sets the name to use for authentication.


- Password

Set the password to use for authentication.

- User Challenge Response Authentication (Cram MD5)

If this check box is selected, the name and password are sent using Cram MD5.

6. Click OK.

7. Click  Save and Make Live.

---

## 2.6.2 MAPI Setup

### 2.6.2.1 Domain Member

Before you start to install the Voicemail Pro software, you must:

1. [Create a Voicemail Domain Account](#) [68].
2. [Configure Outlook for Internet Mail](#) [74].

You are then ready to install Voicemail Pro for MAPI Voicemail Email as a Domain Member. This involves the following key stages:

1. [Install the Voicemail Pro Software](#) [70].
2. [Switch Voicemail Pro to MAPI](#) [70].

#### 2.6.2.1.1 Creating a Voicemail Domain Account

1. Make sure that the PC that will be running the voicemail server is a member of the domain. To join the domain you will need the use of a log account with administrative permissions on the domain as well as the server PC, consult the domain administrator.
2. On the Exchange server:
  - Create an account called Voicemail on the domain and an associated mailbox.
  - Provide a secure password.
  - Check the User Cannot Change Password and Password Never Expires boxes.
3. Log on to the voicemail server PC using a domain administrator account.
4. From the Control Panel, select Administrative Tools.
5. Select Computer Management | Local Users and Groups | Groups.
6. Double-click Administrators and select Add.
7. From the Look In list select the domain name.
8. In the Name window, locate and highlight Voicemail. Click Add followed by OK and OK to close.

**2.6.2.1.2 Configuring Outlook for VoiceMail Email**

1. On the desktop, right-click the Outlook icon and select Properties.
2. On the General tab, select Add.
  - a. Select Microsoft Exchange Server.
  - b. Click Next.
  - c. In the Server field, enter the name of the Exchange Server.
  - d. In the Mailbox field, enter *Voicemail*.
  - e. Click Next.
  - f. When you are asked if you travel with this computer, select *No*.
  - g. Click Next.
  - h. Click Finish.
3. Highlight the MS Exchange Settings and click Properties.
  - a. Highlight Microsoft Exchange Server and click Properties.
  - b. Click Check name and ensure that the name is resolved.
  - c. If the name is resolved, select Apply.
  - d. Click OK, OK and Close to shut the mail settings.
4. Do not continue until the name has been resolved correctly with the Exchange Server. If the name is not resolved, check the account details with the Exchange Administrator.
5. Open Outlook and select Yes to register Outlook as the default email application.
  - a. Select Tools > Options.
  - b. Click the Preferences tab.
  - c. Click Email Options.
  - d. Uncheck Save copies of messages in Sent Items folder.
    - You might want this option selected during initial setup to aid troubleshooting. However due to the size of wav file message attachments you should uncheck it after installation testing is completed.
6. Log on to the Voicemail Pro Server PC using the voicemail account.
7. From Outlook, send a message direct to an extension user.
8. If this message is received correctly, you can continue installing the Voicemail Pro software. See [Installing the Voicemail Pro Software](#)<sup>[70]</sup>.


### 2.6.2.1.3 Installing the VoiceMail Pro Software

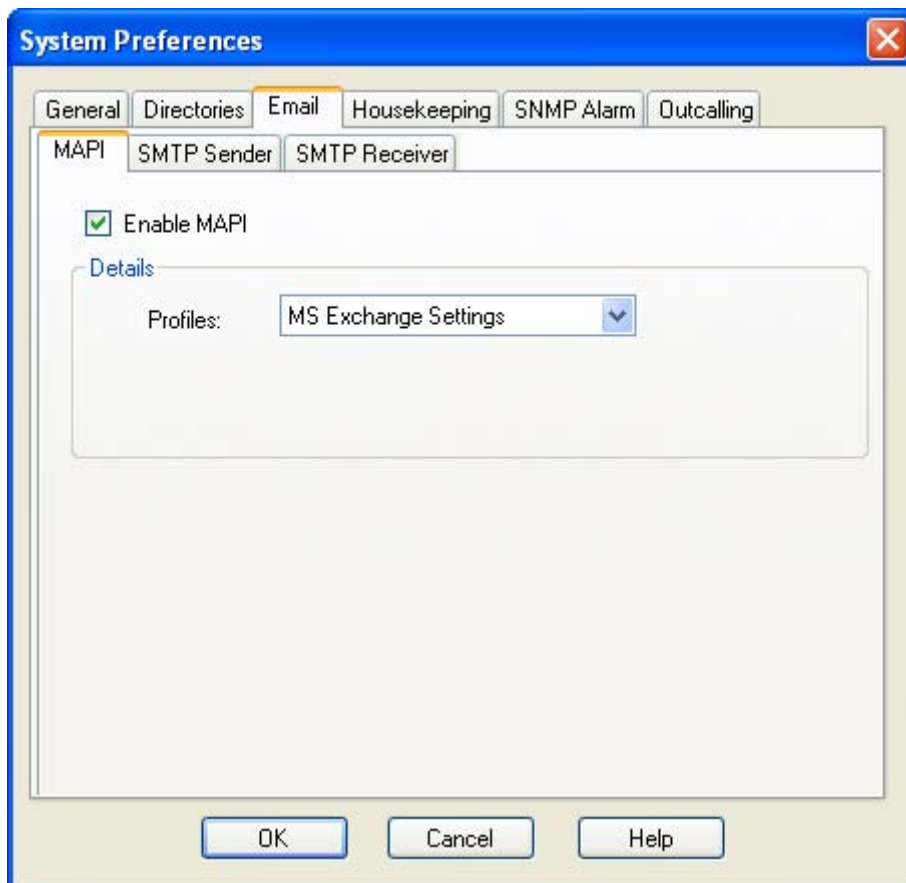
1. Log off and log back on using the Voicemail account and password.
2. Install the required Voicemail Pro software.
3. When the installation process requests a User Name and Password for the Voicemail Pro service, enter the Voicemail account details.
4. Restart the server PC when requested and log on using the Voicemail account.
5. When SMTP email details are requested, enter no values and ignore the error message following the SMTP check.
6. [Start the Voicemail Pro Service](#) [37].
7. Check that the basic voicemail services start and operate correctly.
8. [Switch Voicemail Pro to MAPI](#) [70].

### 2.6.2.1.4 Switching VoiceMail Pro to MAPI

By default, the Voicemail Pro server is configured for SMTP email mode. However, MAPI settings are entered it will switch to MAPI mode. Some options are not available if you are working offline. You must be working online to use this feature.


To select the server email mode

1. Start the Voicemail Pro Client.
2. Click  Preferences and select General.
3. Click the Email tab.
4. Select the MAPI sub tab. Set the settings to match a MAPI account already configured and able to send emails from the MAPI client on the voicemail server.



- **Enable MAPI**  
Selecting this option will switch the voicemail server to using MAPI for its email options rather than SMTP.
- **Profile**  
This is used to select the MAPI email account the voicemail server should use to provide visibility to the email account mailboxes for which it requires access. The profile must exist within the MAPI email client on the server PC and must be useable by the Windows account under which the Voicemail Pro service is running.

5. Click OK.

6. Click  Save and Make Live.

---

## 2.6.2.2 Work Group Member

Before you start to install the Voicemail Pro software, you must:

1. [Create a Voicemail User Account](#) [72].
2. [Configure Outlook Express for Internet Mail](#) [73].
3. [Configure Outlook for Voicemail Email](#) [69].
4. [Configure Outlook for Exchange Server](#) [75].

The user name and password created are requested as part of the installation of the Voicemail Pro service. The process described here assumes that Outlook is installed but has not been previously used or configured.

You are then ready to install the Voicemail Pro software. See [Installing the Voicemail Pro Software](#) [70].

By default, Voicemail Pro is set to use SMTP for emails. You need to change this to MAPI. See [Switching Voicemail Pro to MAPI](#) [70].

You also need to set the SMTP Email Account settings on the Voicemail Pro so that they match those of the customer's email server. See [Changing SMTP Email Account Settings](#) [77].

### 2.6.2.2.1 Installing VoiceMail Pro for MAPI VoiceMail Email as a Work Group Member

Before you start to install the Voicemail Pro software, you must:

1. Create a voicemail user account. See [Creating a Voicemail User Account](#) [72].
2. Configure Outlook Express for Internet Mail. See [Configuring Outlook Express for Internet Mail](#) [73].
3. Configure Outlook for internet mail. See [Configuring Outlook for Voicemail Email](#) [69].
4. Configuring Outlook for exchange server. See [Configuring Outlook for Exchange Server](#) [75].

The user name and password created are requested as part of the installation of the Voicemail Pro service. The process described here assumes that Outlook is installed but has not been previously used or configured.

You are then ready to install the Voicemail Pro software. See [Installing the Voicemail Pro Software](#) [70].

By default, Voicemail Pro is set to use SMTP for emails. You need to change this to MAPI. See , [Switching Voicemail Pro to MAPI](#) [70].

You also need to set the SMTP Email Account settings on the Voicemail Pro so that they match those of the customer's email server. See [Changing SMTP Email Account Settings](#) [77].

### 2.6.2.2.2 Creating a Voicemail User Account

To create a Voicemail User Account

1. Log on to the server PC as the local administrator and create a new user. For this example the name of the user account created used is Voicemail.
2. Set a secure password.
3. Clear User must change password at next logon and check Password never expires.
4. Click Create and then Close.
5. Right-click the New Account, and select Properties.
6. Select the Member Of tab.
7. Click Add.
8. In the Select Groups window, highlight Administrators and click Add. Click OK.
9. Continue with one of the following as appropriate to the installed MAPI client and method for sending email.



**2.6.2.2.3 Configuring Outlook Express for Internet Mail**

To configure Outlook Express for Internet Mail

1. Click the Outlook Express icon to start the Configuration wizard.
2. In the Display name box enter *Voicemail*.
3. Click Next.
4. Select I already have an e-mail address that I'd like to use and enter the address in E-mail address, eg. voicemail@example.com. Click Next.
5. Enter the name or address of the Incoming mail server and the Outgoing mail server. Note, if you enter the name, you must ensure that the voicemail PC has the correct IP address of the DNS Server configured.
6. Click Next.
7. Enter the email account name and password, for example Voicemail. Select Remember password.
8. Click Next.
9. Click Finish to complete the wizard.
10. Open Outlook Express and select Tools > Options.
11. Click the General tab.
  - Uncheck Send and Receive messages at Start up.
  - Uncheck Check for new messages every.
12. Select the Send tab.
  - Uncheck Save copy of sent messages in the 'Sent Items' folder.
  - Check Send messages immediately.
  - Under Mail Sending Format select Plain Text.
13. Click OK.
14. Log on to the server PC using the account that will be used for the Voicemail Pro server.
15. From Outlook or Outlook Express, send a message direct to an extension user.
16. If this message is received correctly, continue with installing the Voicemail Pro software.

---

#### 2.6.2.2.4 Configuring Outlook for Internet Mail

For the installation of Outlook to work correctly, the following setup process must be followed. Outlook can be configured in two ways. Using the Wizard, prior to completing the steps below will cause Outlook not to send the messages correctly.

To configure Outlook for Internet Mail:

1. Right-click the Outlook icon on the desktop and select Properties.
2. Select Add.
3. Select Internet Email and click OK.
4. For the Mail Account, enter *Voicemail*.
5. For User Information enter Voicemail as the Name and for the Email address enter your address, for example, voicemail@example.com.
6. Select the Servers tab. Enter the name or IP address of the Outgoing mail server and Incoming mail server.
7. The Incoming Mail Server details can be left blank as Outlook does not need to check for mail. Otherwise, enter the account name and password for example, *Voicemail*. Select Remember password.
8. Select the Connection tab. Select Connect using my local area network (LAN). Click Next.
9. Click OK.
10. Click Next.
11. Accept the default path for file creation.
12. Select Next, then Finish and then Close.
13. Open Outlook.
14. On the Email Service Option Screen, select Internet Only.
15. Click Next.
16. Select Yes to register Outlook as the default email application.
17. Select Tools > Options.
18. Click the Preferences tab.
19. Click Email Options.
20. Uncheck Save copies of messages in Sent Items folder.
  - You might want this option selected during initial setup and troubleshooting. Due to the size of wav file message attachments it is advisable to uncheck it after installation is complete.
21. Log on to the server PC using the account that will be used for the Voicemail Pro server.
22. From Outlook or Outlook Express, send a message direct to an extension user.
23. If this message is received correctly, continue with installing the Voicemail Pro software.



## 2.6.2.2.5 Configuring Outlook for Exchange Server

This option may be configured if Outlook is to be configured to connect to the Exchange Server, using a valid user name and password, while the Voicemail PC remains a member of a work group.

To configure Outlook for Exchange Server:

1. Create a new mailbox on the Exchange Server, for example *Voicemail*, and assign it the same password as has been configured on the voicemail PC.
2. Clear User must Change password at Next Logon and select Password Never Expires.
3. On the voicemail PC, logon with the *Voicemail* account.
4. Right-click the Outlook icon on the desktop and select Properties.
5. Select Add.
6. Highlight Microsoft Exchange Server and click OK.
7. Type in the Microsoft Exchange Server name and enter *Voicemail* in the Mailbox field.
8. Highlight the MS Exchange Settings, Click Properties.
9. Highlight Microsoft Exchange Server. Click Properties.
10. Click Check name and ensure the name is resolved.
11. If the name is resolved, select Apply. Click OK, OK and Close to shut the Mail settings.
12. Do not continue until the name has been resolved correctly with the Exchange Server. If the name is not resolved, check the account details with the exchange administrator.
13. Open Outlook and select Yes to register Outlook as the default email application.
14. Select Tools > Options.
15. Choose the Preferences tab. Click Email Options.
16. Uncheck Save copies of messages in Sent Items folder.
  - You may want this option selected during initial setup and troubleshooting. Due to the size of wav file message attachments deselect it once installation is complete.
17. Log on to the server PC using the account that will be used for the Voicemail Pro server.
18. From Outlook or Outlook Express, send a message direct to an extension user.
19. If this message is received correctly, continue with installing the Voicemail Pro software.


## 2.6.2.2.6 Installing the VoiceMail Pro Software

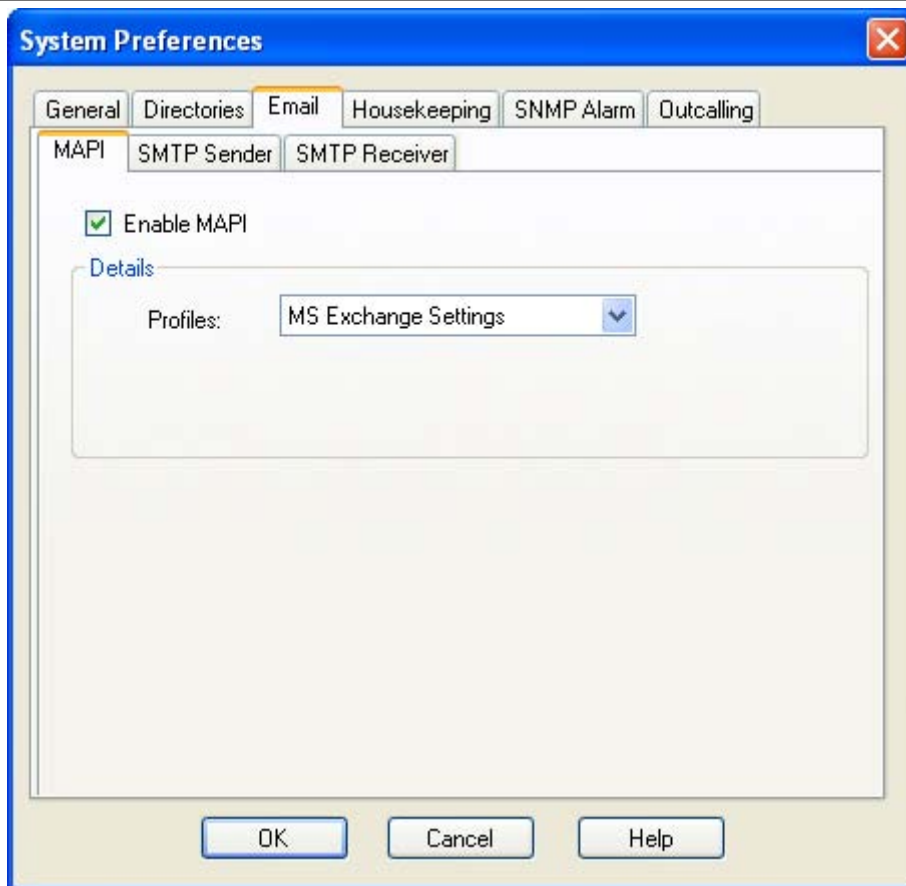
1. Log off and log back on using the Voicemail account and password.
2. Install the required Voicemail Pro software.
3. When the installation process requests a User Name and Password for the Voicemail Pro service, enter the Voicemail account details.
4. Restart the server PC when requested and log on using the Voicemail account.
5. When SMTP email details are requested, enter no values and ignore the error message following the SMTP check.
6. [Start the Voicemail Pro Service](#) .
7. Check that the basic voicemail services start and operate correctly.
8. [Switch Voicemail Pro to MAPI](#) .

## 2.6.2.2.7 Switching VoiceMail Pro to MAPI

By default, the Voicemail Pro server is configured for SMTP email mode. However, MAPI settings are entered it will switch to MAPI mode. Some options are not available if you are working offline. You must be working online to use this feature.


To select the server email mode

1. Start the Voicemail Pro Client.
2. Click  Preferences and select General.
3. Click the Email tab.
4. Select the MAPI sub tab. Set the settings to match a MAPI account already configured and able to send emails from the MAPI client on the voicemail server.



- **Enable MAPI**  
Selecting this option will switch the voicemail server to using MAPI for its email options rather than SMTP.
- **Profile**  
This is used to select the MAPI email account the voicemail server should use to provide visibility to the email account mailboxes for which it requires access. The profile must exist within the MAPI email client on the server PC and must be useable by the Windows account under which the Voicemail Pro service is running.

5. Click OK.

6. Click  Save and Make Live.

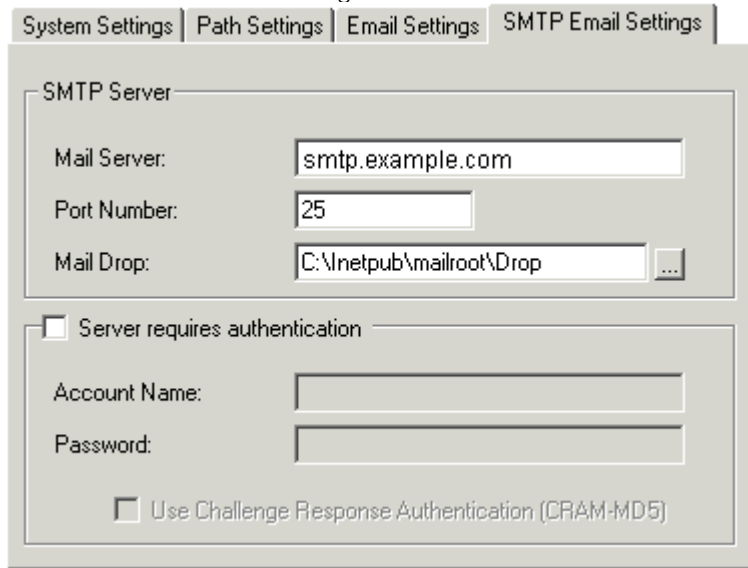
2.6.2.2.8 Changing SMTP Email Account Settings

To change SMTP Email Account Settings:

1. Open the Windows Control Panel.

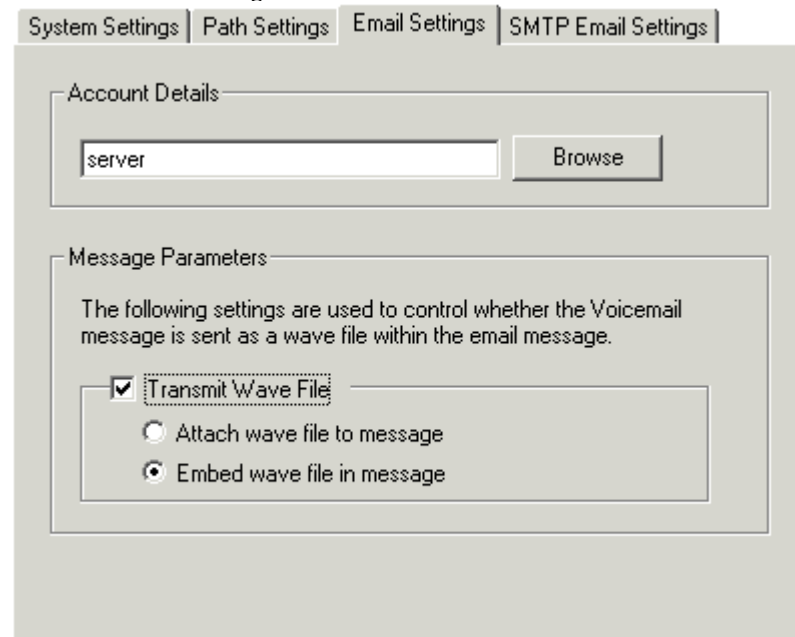
2. Select  IP Office Voicemail Pro.

3. Select the SMTP Email Settings tab.



4. Enter the settings to match the customer's email server and the email account configured on that server for the Voicemail Pro service.

5. Click the Email Settings tab.



6. Enter the email address for the account setup on the customer's email server for the Voicemail Pro service.

7. Click Check to test the connection to the specified email account.

8. Click OK.

## 2.6.3 Voicemail Email Operation

### 2.6.3.1 User and Group Configuration

The email address for each user and hunt group is set through the IP Office configuration.

The screenshot shows the 'User' configuration page with the 'Voicemail' tab selected. The 'Voicemail Code' field is empty. The 'Confirm Voicemail Code' field is empty. The 'Voicemail Email' field is empty. Below these fields, there are radio buttons for 'Voicemail Email' mode: 'Off' (selected), 'Copy', 'Forward', and 'Alert'. To the right, there are checkboxes for 'Voicemail On' (checked), 'Voicemail Help', 'Voicemail Ringback', 'Voicemail Email Reading', and 'UMS Web Services'. Below these, there is a 'DTMF Breakout' section with three fields: 'Reception / Breakout (DTMF 0)', 'Breakout (DTMF 2)', and 'Breakout (DTMF 3)', all set to 'System Default ()'.

The screenshot shows the 'Hunt Group' configuration page with the 'Voicemail' tab selected. The 'Voicemail Code' field is empty. The 'Confirm Voicemail Code' field is empty. The 'Voicemail Email' field is empty. Below these fields, there are radio buttons for 'Voicemail Email' mode: 'Off' (selected), 'Copy', 'Forward', and 'Alert'. To the right, there are checkboxes for 'Voicemail On' (checked), 'Voicemail Help', 'Broadcast', and 'UMS Web Services'.

- Voicemail Email: *Default = Blank (No voicemail email features)*  
This field is used to set the user or group email address used by the voicemail server for voicemail email operation. When an address is entered, the additional Voicemail Email control below are selectable to configure the type of voicemail email service that should be provided.
  - Use of voicemail email requires the voicemail pro server to have been configured to use either a local MAPI email client or an SMTP email server account. See [Voicemail Email Installation](#)<sup>[64]</sup>.
  - The use of voicemail email for the sending (automatic or manual) of email messages with wav files attached should be considered with care. A one-minute message creates a 1MB .wav file.
- Voicemail Email *Default = Off*  
If an email address is entered for the user or group, the following options become selectable. These control the mode of automatic voicemail email operation provided by the voicemail server whenever the voicemail mailbox receives a new voicemail message.
  - Users can change their voicemail email mode using [visual voice](#)<sup>[346]</sup>. If the voicemail server is set to [IP Office mode](#)<sup>[343]</sup>, user can also change their voicemail email mode through the telephone prompts. The ability to change the voicemail email mode can also be provided in a call flow using a [Play Configuration Menu](#)<sup>[222]</sup> action or a [Generic](#)<sup>[195]</sup> action.
  - If the voicemail server is set to [IP Office mode](#)<sup>[343]</sup>, users can manually forward a message to email.
- Off  
If off, none of the options below are used for automatic voicemail email. Users can also select this mode by dialing \*03 from their extension.
- Copy  
If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a copy of the message is attached to an email and sent to the email address. There is no mailbox synchronization between the email and voicemail mailboxes. For example reading and deletion of the email message does not affect the message in the voicemail mailbox or the message waiting indication provided for that new message.

- Forward

If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, that message is attached to an email and sent to the email address. No copy of the voicemail message is retained in the voicemail mailbox and there is no message waiting indication. As with Copy, there is no mailbox synchronization between the email and voicemail mailboxes. Users can also select this mode by dialing *\*01* from their extension.
- UMS Exchange 2007

Voicemail Pro 5.0+ supports voicemail email to an Exchange 2007 server email account. For users and groups also enabled for UMS Web Services this significantly changes their mailbox operation. The Exchange Server inbox is used as their voicemail message store and features such as message waiting indication are set by new messages in that location rather than the voicemail mailbox on the voicemail server. Telephone access to voicemail messages, including Visual Voice access, is redirected to the Exchange 2007 mailbox. See [UMS Exchange 2007 Installation](#)<sup>[46]</sup> and [UMS Exchange 2007](#)<sup>[35]</sup>.
- Alert

If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a simple email message is sent to the email address. This is an email message announcing details of the voicemail message but with no copy of the voicemail message attached. Users can also select this mode by dialing *\*02* from their extension.


### 2.6.3.2 How Voicemail Email Messages Look

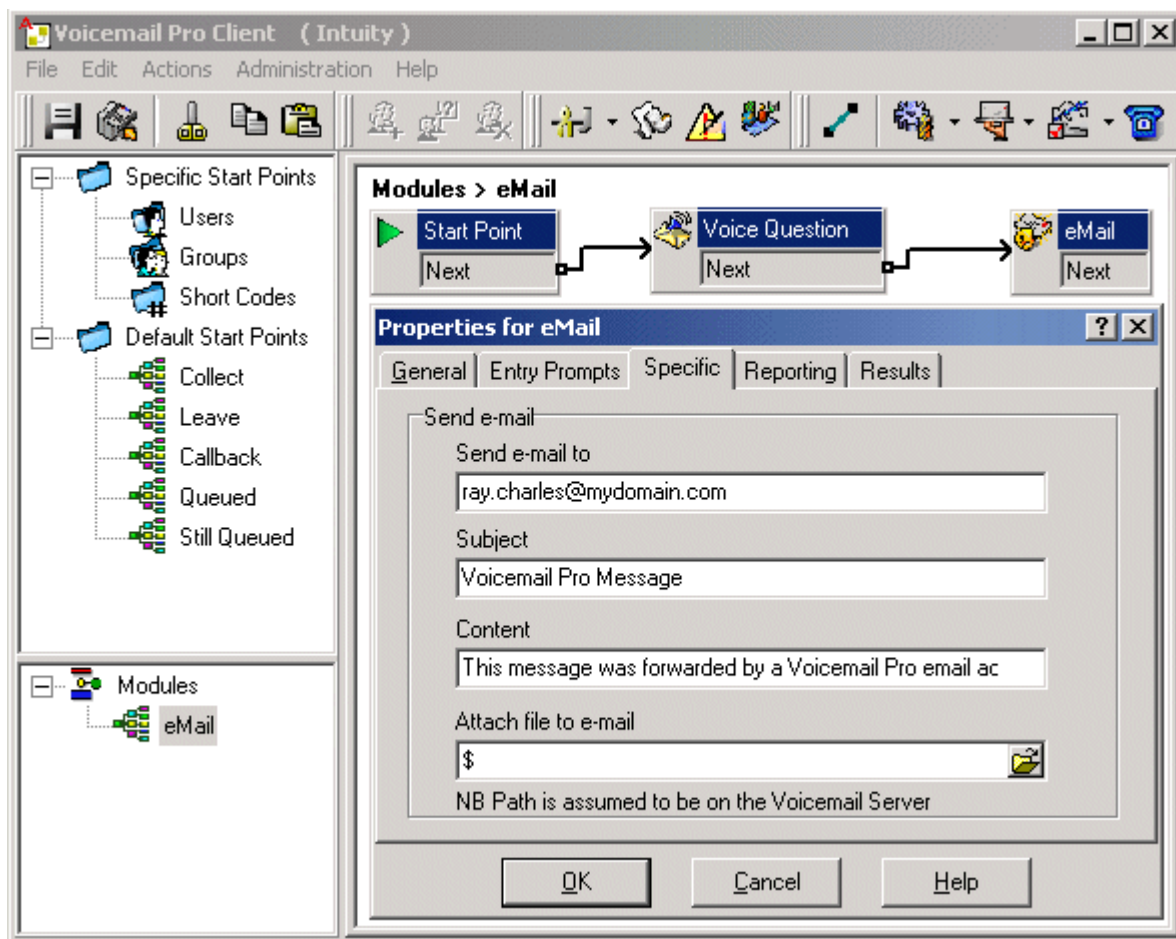
Messages sent by a user or group's voicemail email settings contain the following:

- To  
The user/group email address.
- From  
The name and address setting of the email client account.
- Subject  
Voicemail Message ('calling number' > 'user name') From:'calling number'.
- Body  
If the user or group's Voicemail Email mode is set to Copy or Forward, the message body will contain "IP office Voicemail redirected message".
- Attachment  
When using Copy or Forward mode, the message is attached as a wav file.

Messages sent via a Voicemail Pro eMail action are configurable, see [The Voicemail Pro eMail Action](#)<sup>[80]</sup>.

### 2.6.3.3 The Voicemail Pro Email Action

The  eMail action in Voicemail Pro can be used to send messages via email in response to caller actions in the voicemail call flow. The action can also attach a wav file.



In the example above, the eMail action follows a Voice Question action. The \$ in the eMail action's Attach file to email field instructs it to use the file recorded by the preceding Voice Question action.


The same method can be used with a Leave Mail action. Note however that the Leave Mail action must be set to a valid target mailbox which will then have a copy of the message.

Alternatively, the eMail action can attach a prerecorded wav file by specifying the file name. That named file can be created by an Edit Play List action.



## 2.7 Text to Speech (TTS) Installation

The Voicemail Pro server is able to use Text to Speech (TTS) in the following ways:

- Speak text in call flows using the  Speak Text action. The text can include variables passed from other actions including database actions.
- When installed in parallel with [Voicemail Email](#)<sup>[64]</sup>, TTS can be used to provide [email reading](#)<sup>[66]</sup> to selected mailbox users.
- TTS can be used by the Voicemail Pro client user to [record prompts](#)<sup>[185]</sup> used by call flow actions.

### TTS Licensing

Voicemail Pro TTS requires the server PC to have a Microsoft SAPI 5 compatible TTS engine installed and a valid license entry.

- **Email Reading**  
This feature is supported by the Voicemail Pro server's standard Preferred Edition license. Users who want to use this feature must have their user profile configured as either *Mobile User* or *Power User* using Mobile User Profile or Power User Profile licenses.
- **Speak Text Actions / Prompt Recording**  
The license for this operation depends on whether you will be using the Avaya supplied ScanSoft TTS speech engines or a 3rd party generic TTS speech engines (including the TTS speech engines included in Microsoft operating systems).
  - **Generic TTS**  
The use of up to 8 simultaneous generic TTS ports is enabled by the Advanced Edition license. Alternatively separate VMPro TTS (Generic) licenses can be added.
  - **Avaya ScanSoft TTS**  
The use of the Avaya supplied ScanSoft TTS engines is licensed by the addition of VMPro TTS (ScanSoft) licenses to the IP Office configuration.

If both generic TTS and ScanSoft TTS licenses are added, both TTS engines will be used for calls on a first-come first-served basis. The TTS engine used for particular calls cannot be controlled. Therefore we recommend that only one type of TTS engine is licensed within a system.

### Languages

For Voicemail Pro 5.0, the supplied ScanSoft TTS software now supports the same set of languages as Voicemail Pro speech prompts except for Hungarian. If more than one TTS language is installed, a Select System Prompt Language action can then be used to switch TTS to a different language from the selected default.

- **Installation on Windows Server Operating Systems**  
On many Windows server PC's, while the Windows Audio components are present by default they are not always enabled. If this is the case the playback of voice prompts may be 'choppy' and the TTS (if installed) will not work. However, enabling Windows Audio does not require the server PC to have a sound card installed.
  1. Ensure that you have full administrator rights for the PC. This process will also require the PC to be restarted.
  2. In the Windows Control Panel select Sounds and Audio Devices.
  3. If Windows Audio has not been enabled, select the Enable Windows Audio check-box.

---

## 2.7.1 Installing Generic Text to Speech

To install Text to Speech:

1. Install and test Voicemail Pro as normal.
2. Using IP Office Manager, add the Advanced Edition or VMPro TTS (Generic) license into the IP Office configuration. Send the new configuration to the IP Office system.
3. Reload the IP Office configuration into IP Office Manager and check that the status of the license has changed to Valid.
4. The Voicemail Pro installation includes the default Microsoft TTS engines (Microsoft Sam, Mike, Mary and Simplified Chinese) as standard. If another third-party SAPI 5 compatible TTS engine is going to be used, install that software.
5. If the system is licensed for generic TTS, Voicemail Pro will automatically discover any SAPI 5 installed engine. If there is no 3rd party engine installed then the Microsoft 3rd party engine is used.


## 2.7.2 Installing Avaya Text to Speech

The Avaya TTS engine for Voicemail Pro is supplied on separate DVD's (x2) from the Voicemail Pro software .

To install Avaya Text to Speech:

1. Install and test Voicemail Pro as normal.
2. Using IP Office Manager, add the VM Pro TTS (ScanSoft) license into the IP Office configuration. Send the new configuration to the IP Office system.
3. Reload the IP Office configuration into IP Office Manager and check that the status of the license has changed to Valid.
4. Insert the first Avaya TTS DVD. The installation should auto-start.
5. Follow the prompts and install the required languages.
6. If the system is licensed for Avaya TTS, the ScanSoft engine is automatically used.

## 2.7.3 Using the Speak Text Action

One method of employing TTS is through adding a  Speak Text action to a call flow. The text to be spoken is entered in the action's Specific tab.

This text can include combinations of:

- Typed text sentences.
- Voicemail Pro [Call Variables](#)<sup>[162]</sup>. For example:
  - Entering \$KEY would be replaced when spoken by the last digits dialed within the call flow by the caller.
  - If using database interaction, entering \$DBD[x] would be replaced by the current value of that database field.
  - Entering \$CLI would speak the caller's CLI, if available, back to them.
- [SAPI 5 XML](#)<sup>[83]</sup> tags can be added to alter how the text is spoken. For example when 123 needs to be spoken as one two three rather than "one hundred and twenty-three", enter `<spell> 123</spell>`.

## 2.7.4 Text to Speech SAPI Controls

Windows TTS engines use Microsoft's SAPI (Speech Application Program Interface). This includes the use of XML tags in the text to change how the text is spoken. For example, in the text *This is the <volume level="90">text</volume> to speak* the items within < > brackets are XML tags used to change how the speech is spoken.

The following are samples of the SAPI XML controls supported by Voicemail Pro TTS. Further information on SAPI 5 can be obtained from Microsoft support websites.

- [Volume](#)<sup>[84]</sup>  
Change the speech volume.
- [Rate](#)<sup>[84]</sup>  
Change the speech rate.
- [Pitch](#)<sup>[84]</sup>  
Change the speech pitch.
- [Emph](#)<sup>[84]</sup>  
Add emphasis to words.
- [Spell](#)<sup>[85]</sup>  
Spell out words and numbers literally.
- [Silence](#)<sup>[85]</sup>  
Add a period of silence.
- [Partofsp](#)<sup>[85]</sup>  
Change the usage of words.

### Entering XML Tags

XML tags can be used in two ways, either *nested* or *empty*.

- **Nest Tags:** Example = `<volume level="90">text</volume>`  
Nest tags consist of:
  - An opening XML tag, in the example above `<volume level="90">`.
  - The text to which the opening tag command should be applied.
  - A closing XML tag. The closing tag use the same command as the opening tag, prefixed with / and no other settings. In the example above this is `</volume>`.
- **Empty Tags:** Example = `<volume level="90"/>`All following text  
An empty tag is not nested, its command and settings apply to all the following text. Empty tags are recognizable by the / before the tags closing >.

---

## Example SAPI XML Tags

### Volume

Controls the volume of the speech. This tag can be nested or empty.

- Attributes:
  - level=  
Supports values between 0 and 100, being percentages of the system's set volume.
- Examples:
  - <volume level="50"/> Speak allow following text at level 50.
  - <volume level="50"> Speak this text at level 50</volume> and this as normal.

### Rate

Controls the speed at which the text is spoken. This tag can be empty or nested.

- Attributes
  - Only one attribute may be applied within a tag.
    - absspeed=  
Sets the absolute speed for the speech in a range between -10 and 10 with 0 being normal speech.
    - speed=  
Sets a speed change that is added to the current speed.
- Examples:
  - <rate absspeed="5"> Speak this text at rate 5</rate> and this text as normal.
  - <rate absspeed="5"/> Speak all following text at rate 5.
  - <rate speed="-5"/> Drop the current speech speed by 5.

### Pitch

Controls the pitch at which the text is spoken. This tag can be empty or nested.

- Attributes
  - Only one attribute may be applied within a tag.
    - absmiddle=  
Sets the absolute pitch for the speech in a range between -10 and 10 with 0 being normal speech.
    - middle=  
Sets a pitch change that is added to the current speed.
- Examples:
  - <pitch absmiddle="5"> Speak this text at pitch 5</rate> and this text as normal.
  - <pitch absmiddle="5"/> Speak all following text at pitch 5.
  - <pitch middle="-5"/> Drop the current speech pitch by 5.

### Emph

Applies emphasis to a word or section of text. This tag must be nested.

- Attributes:
  - This tag has no attributes.
- Example:
  - Say <emph>boo</emph>.

### Spell

Spell forces the engine to speak any nested text literally rather than applying any speech rules. This is useful for numbers where rather than saying 3001 as three thousand and one for 3001, the speech required is three zero zero one. This tag must be nested.

- Attributes  
This tag has no attributes.
- Example:
  - The telephone number is <spell>555 3468</spell>.

### Silence

Inserts a period of silence. This tag must be empty.

- Attributes
  - msec=  
Sets the duration in milliseconds.
- Example:
  - A short silence <silence msec="500"/> of half a second.

### Partofsp

Forces the pronunciation of a word according to its usage if not correctly determined by the TTS speech engine or to override the engine. This tag must be nested.

- Attributes:
  - part=  
Takes a value from noun, verb, modifier, function or interjection.
- Example:
  - To <partofsp part="verb">record</partofsp> that <partofsp part="noun">record</partofsp> press 1.

## 2.7.5 Setting Up Text To Speech to Read Email

In conjunction with MAPI email clients and Exchange server, TTS can be used to read new e-mails in a user's email inbox when they access their voicemail mailbox.

- The Voicemail Pro server must have been installed and configured to support [voicemail email using a MAPI client](#) <sup>[64]</sup>.
- Email reading can only be enabled for IP Office users whose Profile setting is set to Mobile User or Power User. That requires the IP Office to have Mobile User Profile or Power User Profile licenses.
- This feature is supported only for Intuity mode. Users hear their new voicemail messages and then the number of "Messages with text". Before each email is spoken, details of who it is from, when the message was sent and the size are given. This allows large or non-urgent e-mails to be skipped.
- Email reading cannot be used for e-mails in HTML format. If HTML messages are received, all of the code will be read out as a message.

1. Within the IP Office configuration, display the settings for the user.

2. On the User tab, set the user's Profile to either Mobile User or Power User.

The screenshot shows the IP Office configuration interface for a user. The 'User' tab is selected, and the 'Profile' dropdown menu is highlighted with a red box, showing 'Mobile User' selected. Other fields include Name (Extn201), Password, Confirm Password, Full Name (Albert), Extension (201), Locale, Priority (5), and a checkbox for 'Receptionist'.

3. On the Voicemail tab

The screenshot shows the IP Office configuration interface for a user, specifically the 'Voicemail' tab. The 'Voicemail Email Reading' checkbox is checked and highlighted with a red box. Other fields include Voicemail Code (\*\*\*\*), Confirm Voicemail Code (\*\*\*\*), Voicemail Email (test@example.com), and checkboxes for 'Voicemail On', 'Voicemail Help', 'Voicemail Ringback', and 'UMS Web Services'.

- **Voicemail Email**  
Enter the user's email address.
- **Voicemail Email Reading**  
Enable this option for TTS email reading.

## 2.8 IP Office Configuration

The default IP Office configuration settings allow almost immediate voicemail operation as soon as a voicemail server is running on the LAN. Those default settings are:

- Voicemail running on a PC accessible by the IP Office using a broadcast address of 255.255.255.255.
- Voicemail on for each user and hunt group on.
- No Voicemail Code set for any mailboxes. Until a code is entered for a mailbox, it can only be accessed from the user's own extension.
- No Voicemail Email or Voicemail Help operation.
- No Voicemail Reception numbers set for user mailboxes.
- Hunt group mailboxes are created and used by default but there is no default message waiting indication or method for collecting messages. A method for accessing each hunt group mailbox should be programmed. See [Hunt Group Voicemail](#) <sup>287</sup>.

## 2.8.1 System Settings

The IP Office can work with several different types of voicemail server. Therefore it is important to check that it is configured for operation with Voicemail Pro.

1. In IP Office Manager, select System.
2. Click the Voicemail tab.

The screenshot shows the 'Voicemail' configuration page in IP Office Manager. The 'Voicemail' tab is active. The 'Voicemail Type' is set to 'Voicemail Lite/Pro'. The 'Voicemail Destination' is empty. The 'Voicemail IP Address' is '255 . 255 . 255 . 255'. The 'Voicemail Channel Reservation' section includes 'Unreserved Channels' (259), 'Auto-Attendant' (0), 'Voice Recording' (0), 'Mandatory Voice Recording' (0), 'Announcements' (0), and 'Mailbox Access' (0). The 'DTMF Breakout' section has three empty text boxes for 'Reception / Breakout (DTMF 0)', 'Breakout (DTMF 2)', and 'Breakout (DTMF 3)'. A checkbox for 'Messages Button Goes To Visual Voice' is present and unchecked.

- **Voicemail Type**  
Specifies the type of voicemail system the IP Office is configured to work with. Unless detailed otherwise, the option *Voicemail Lite/Pro* should be used with Voicemail Pro server. Additional options are displayed depending on the selected voicemail type.
  - [Centralized Voicemail](#)<sup>[52]</sup>  
This setting is used for remote systems in a Small Community Network where the central voicemail server is being hosted by another IP Office. The Voicemail Destination field below is used to enter the Outgoing Group ID of the SCN trunk to the IP Office hosting the central voicemail server.
  - [Distributed Voicemail](#)<sup>[55]</sup> (*Software level = IP Office Release 6*)  
This option is used in a Small Community Network for remote IP Offices which want to be associated with their own voicemail server in addition to the central voicemail server. The IP Office will require licenses for Voicemail Pro operation and for the voicemail features required. The Voicemail IP Address below is used to enter the IP address of the IP Office's voicemail server while the Voicemail Destination field below is still used to set location of the central voicemail server as for centralized voicemail.
  - **Embedded Voicemail**  
Not used with Voicemail Pro.
  - **Group Voicemail**  
Not used with Voicemail Pro.
  - **Remote Audix Voicemail**  
Not used with Voicemail Pro.
  - **Voicemail Lite/Pro**  
This is the normal setting used for Voicemail Pro.
- **Voicemail IP Address**  
By default the IP Office connects to the Voicemail Pro server by using the address 255.255.255.255 to broadcast for any server on the same LAN as itself. When it receives a response it will use that voicemail server. However it may be necessary or desired to set this access to an exact address. Change the default address (*255.255.255.255*) to the IP address of the PC on which the Voicemail Pro server is running.
  - For configuration of IP Office systems using centralized Voicemail Pro in an IP Office Small Community Network (SCN) see [Centralized Voicemail Pro](#)<sup>[51]</sup>.
- **Message Button Go To Visual Voice**  
Many Avaya phones have a fixed button labeled MESSAGES which can be used by the phone user to access their mailbox. If this option is selected, then on phones able to support [Visual Voice](#)<sup>[346]</sup>, visual voice is used when the button is pressed rather than the standard voice prompt interface.




- Voicemail Channel Reservation  
For calls going to voicemail from the IP Office, the IP Office can restrict how many sessions of various types are active at the same time. See [Voicemail Channel Reservation](#) [96].
- DTMF Breakout (*IP Office 5.0*)  
Previous breakout numbers for a user mailbox were set through the [user voicemail settings](#) [90]. IP Office 5.0+ allows system defaults to be set. These are then applied to all user mailboxes unless the users own settings differ.
  - Reception / Breakout (DTMF 0)  
The number to which a caller is transferred if they press 0 while listening to the mailbox greeting rather than leaving a message ( \*0 on embedded voicemail).
    - For systems set to Intuity emulation mode, the mailbox user can also access this option when collecting their messages by dialing \*0.
    - If the mailbox has been reached through a call flow containing a [Leave Mail](#) [216] action, the option provided when 0 is pressed are:
      - For IP Office mode, the call follows the Leave Mail action's *Failure* or *Success* results connections depending on whether the caller pressed 0 before or after the record tone.
      - For Intuity mode, pressing 0 always follows the Reception / Breakout (DTMF 0) setting.
  - Breakout (DTMF 2)  
The number to which a caller is transferred if they press 2 while listening to the mailbox greeting rather than leaving a message ( \*2 on embedded voicemail). For pre-5.0 systems this option is not support for Voicemail Pro running in IP Office mailbox mode.
  - Breakout (DTMF 3)  
The number to which a caller is transferred if they press 3 while listening to the mailbox greeting rather than leaving a message ( \*3 on embedded voicemail). For pre-5.0 systems this option is not support for Voicemail Pro running in IP Office mailbox mode.
- SIP Settings  
These options are available when the IP Office configuration contains a SIP line or H323 SCN line. The values may be used when the voicemail server makes calls using a SIP trunk or to a SIP device.
  - SIP Name: *Default = User name.*  
The value from this field is used when the From field of the SIP URI being used for a SIP call is set to *Use Internal Data*.
  - SIP Display Name (Alias): *Default = User name.*  
The value from this field is used when the Display Name field of the SIP URI being used for a SIP call is set to *Use Internal Data*.
  - Contact: *Default = User name.*  
The value from this field is used when the Contact field of the SIP URI being used for a SIP call is set to *Use Internal Data*.
  - Anonymous: *Default = Off.*  
If the From field in the SIP URI is set to *Use Internal Data*, selecting this option inserts *Anonymous* into that field rather than the SIP Name set above.

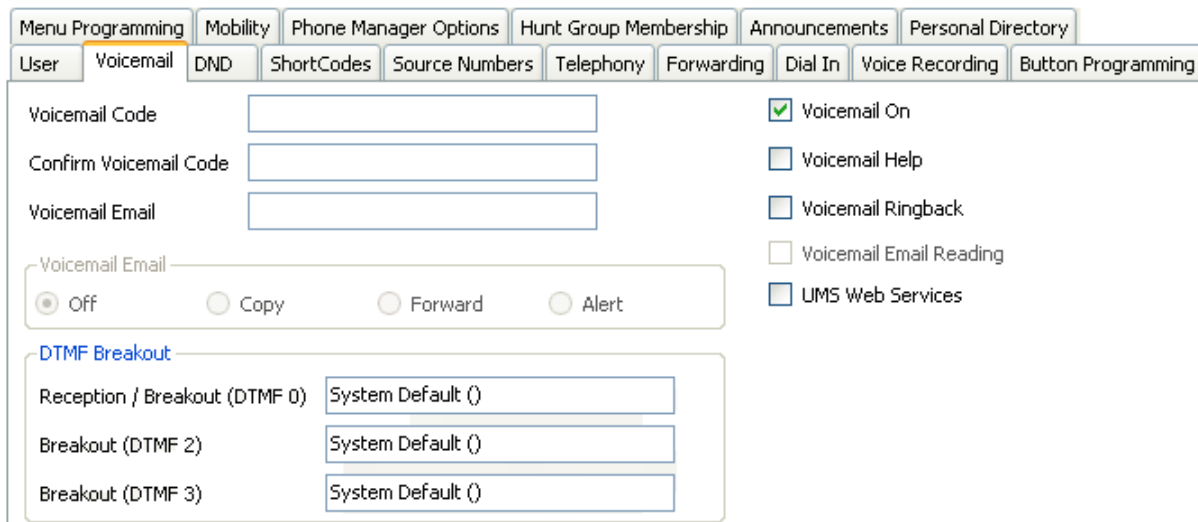
3. Click OK to save any changes.

4. Send the configuration back to the IP Office.

## 2.8.2 User Voicemail Settings

Voicemail can be configured for each individual user in IP Office Manager.

1. Open IP Office Manager.
2. In the Navigation pane, click  User and select the individual user.
3. Select the Voicemail tab.



- **Voicemail Code / Confirm Voicemail Code**  
These fields are used to set or change the user's mailbox passcode.
  - If the voicemail server is set to *Intuity Emulation* mode, mailbox users are asked to set a voicemail code the first time that they access the mailbox.
- **Voicemail On *Default = On***  
When on, the mailbox is used by the IP Office to answer the user's unanswered calls or calls when the user's extension returns busy. Note that selecting off does not disable use of the user's mailbox. Messages can still be forward to their mailbox and recordings can be placed in it. The mailbox can also still be accessed to collect messages. For other options [Disabling a Mailbox](#) <sup>[332]</sup>.
- **Voicemail Help *Default = Off***  
For voicemail systems running IP Office mailbox mode, this option controls whether users retrieving messages are automatically given an additional prompt "For help at any time press 8." If switched off, users can still press 8 for help. For voicemail systems running in Intuity emulation mode, this option has no effect. On those systems the default access greeting always includes the prompt "For help at any time, press \*4" (\*H in the US locale).
- **Voicemail Ringback *Default = Off***  
When on, if the user has a new message, the voicemail server can call the user's extension whenever the extension changes from off-hook to on-hook. The voicemail server will not ring the extension more than once every 30 seconds.
- **Voicemail Email: *Default = Blank (No voicemail email features)***  
This field is used to set the user or group email address used by the voicemail server for voicemail email operation. When an address is entered, the additional Voicemail Email control below are selectable to configure the type of voicemail email service that should be provided.
  - Use of voicemail email requires the voicemail pro server to have been configured to use either a local MAPI email client or an SMTP email server account. See [Voicemail Email Installation](#) <sup>[64]</sup>.
  - The use of voicemail email for the sending (automatic or manual) of email messages with wav files attached should be considered with care. A one-minute message creates a 1MB .wav file.
- **Voicemail Email *Default = Off***  
If an email address is entered for the user or group, the following options become selectable. These control the mode of automatic voicemail email operation provided by the voicemail server whenever the voicemail mailbox receives a new voicemail message.
  - Users can change their voicemail email mode using [visual voice](#) <sup>[346]</sup>. If the voicemail server is set to [IP Office mode](#) <sup>[343]</sup>, user can also change their voicemail email mode through the telephone prompts. The ability to change the voicemail email mode can also be provided in a call flow using a [Play Configuration Menu](#) <sup>[222]</sup> action or a [Generic](#) <sup>[195]</sup> action.
  - If the voicemail server is set to [IP Office mode](#) <sup>[343]</sup>, users can manually forward a message to email.

- Off  
If off, none of the options below are used for automatic voicemail email. Users can also select this mode by dialing \*03 from their extension.
  - Copy  
If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a copy of the message is attached to an email and sent to the email address. There is no mailbox synchronization between the email and voicemail mailboxes. For example reading and deletion of the email message does not affect the message in the voicemail mailbox or the message waiting indication provided for that new message.
  - Forward  
If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, that message is attached to an email and sent to the email address. No copy of the voicemail message is retained in the voicemail mailbox and there is no message waiting indication. As with Copy, there is no mailbox synchronization between the email and voicemail mailboxes. Users can also select this mode by dialing \*01 from their extension.
    - UMS Exchange 2007  
Voicemail Pro 5.0+ supports voicemail email to an Exchange 2007 server email account. For users and groups also enabled for UMS Web Services this significantly changes their mailbox operation. The Exchange Server inbox is used as their voicemail message store and features such as message waiting indication are set by new messages in that location rather than the voicemail mailbox on the voicemail server. Telephone access to voicemail messages, including Visual Voice access, is redirected to the Exchange 2007 mailbox. See [UMS Exchange 2007 Installation](#) [46] and [UMS Exchange 2007](#) [35].
  - Alert  
If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a simple email message is sent to the email address. This is an email message announcing details of the voicemail message but with no copy of the voicemail message attached. Users can also select this mode by dialing \*02 from their extension.
  - UMS Web Services  
If selected, the user is able to use [UMS](#) [36] to access their mailbox. UMS options allow messages to be accessed via a web browser, an IMAP compatible email application or an Exchange 2007 email account. The use of this function is subject to licenses.
  - DTMF Breakout  
When a caller is directed to voicemail to leave a message, they can be given the option to be transferred to a different extension. The greeting message needs to be recorded telling the caller the options available. The extension numbers that they can be transferred to are entered in the fields below. For IP Office 5.0+, these system default values can be set for these numbers and are used unless a different number is set within these user settings.
    - Reception / Breakout (DTMF 0)  
The number to which a caller is transferred if they press 0 while listening to the mailbox greeting rather than leaving a message (\*0 on embedded voicemail).
      - For systems set to Intuity emulation mode, the mailbox user can also access this option when collecting their messages by dialing \*0.
      - If the mailbox has been reached through a call flow containing a [Leave Mail](#) [216] action, the option provided when 0 is pressed are:
        - For IP Office mode, the call follows the Leave Mail action's *Failure* or *Success* results connections depending on whether the caller pressed 0 before or after the record tone.
        - For Intuity mode, pressing 0 always follows the Reception / Breakout (DTMF 0) setting.
    - Breakout (DTMF 2)  
The number to which a caller is transferred if they press 2 while listening to the mailbox greeting rather than leaving a message (\*2 on embedded voicemail). For pre-5.0 systems this option is not supported for Voicemail Pro running in IP Office mailbox mode.
    - Breakout (DTMF 3)  
The number to which a caller is transferred if they press 3 while listening to the mailbox greeting rather than leaving a message (\*3 on embedded voicemail). For pre-5.0 systems this option is not supported for Voicemail Pro running in IP Office mailbox mode.
4. Click OK to save the voicemail changes for the user.
5. Amend any other user details, then save and merge the configuration changes.

### Forward to Voicemail

For IP Office 5.0+, the option To Voicemail is available for Forward unconditional on the User | Forwarding tab within the IP Office configuration. When selected, the Forward Number set for Forward Unconditional is overridden and calls are sent direct to the user's mailbox.

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The option Forward Hunt Group calls is also overridden if To Voicemail is selected.

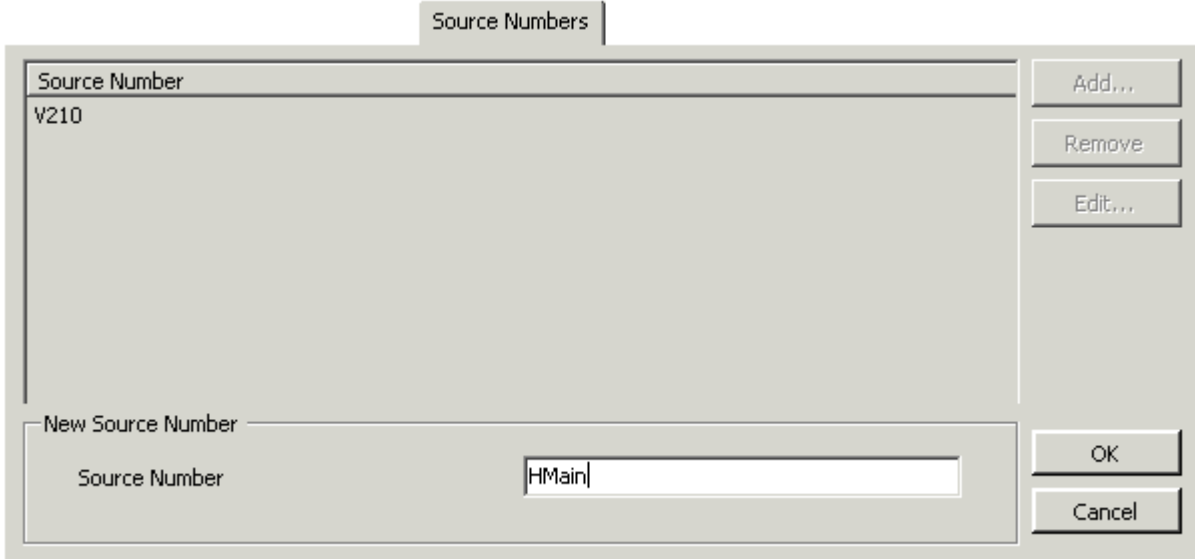
## 2.8.3 User Source Numbers

The Source numbers can be changed for individual users in IP Office Manager. The Source Numbers tab gives a list of Dial In Source Numbers. Several of these numbers can relate to voicemail operation. The source number settings that can be used for Voicemail Pro are:

- V < *Caller's ICLID* > = Voicemail Trusted Source Access.  
Strings prefixed with a v indicate numbers from which access to the user's mailbox is allowed without requiring entry of the mailbox's voicemail code.
  - When in Intuity mode users will still have to enter their voicemail code if they use the Messages button on their telephone. However, if they have a button programmed to collect voicemail they can access their mailbox without entering their voicemail code.
- H < *Group Name* > = Hunt Group Voicemail Indication.  
Allows the user to receive message waiting indication for new group messages. Enter H followed by the group name, for example *HMain* for the group Main. See [Hunt Group Message Waiting Indication](#) [282].
- P < *Telephone Number* > = Voicemail Ringback Number.  
This entry sets the destination for callback (outbound alert) calls from voicemail. Enter P followed by the telephone number including any necessary external dialing prefix, for example *P917325559876*. This facility is only available when using Voicemail Pro through which a default Callback or a user specific Callback start point has been configured. This feature is separate from voicemail ringback which alerts the user's own extension.

To add a source number:

1. Open IP Office Manager.
2. In the Navigation pane, click  User and select the individual user.
3. View the Source Numbers tab.
4. Click Add.



5. Enter the number in the Source Number field at the bottom of the window.
6. Click OK and save the configuration file.

## 2.8.4 Hunt Group Settings

Voicemail can be configured for each hunt group on the IP Office system. This section looks at the basic voicemail settings. For full details of other hunt group operation, see [Hunt Group Voicemail](#) [28].


### Voicemail Answer Time

For IP Office 4.0+, the condition under which calls targeted to a hunt group go to voicemail has been changed to a timeout. For calls waiting to be answered, once this timeout expires the call is redirected to voicemail regardless of where it is in the hunt group.

The screenshot shows the 'Voicemail' tab of the Hunt Group Settings. The 'Voicemail Answer Time (secs)' field is highlighted with a red box and set to 45. Other settings include Name: Main, Extension: 200, Ring Mode: Collective, Overflow Mode: Group, Hold Music Source: No Change, Agent's Status on No-Answer Applies To: None, No Answer Time (secs): System Default (15), and Overflow Time (secs): Off. There are also sections for User List and Overflow Group List.

### Hunt Group Settings

1. Open IP Office Manager.

2. In the Navigation pane, click  Hunt Group and select the hunt group.

3. Select the Voicemail tab.

The screenshot shows the 'Voicemail' tab of the Hunt Group Settings. The 'Voicemail' tab is selected. Fields include Voicemail Code, Confirm Voicemail Code, and Voicemail Email. There are also radio buttons for Voicemail Email (Off, Copy, Forward, Alert) and checkboxes for Voicemail On, Voicemail Help, Broadcast, and UMS Web Services.

- **Voicemail Code / Confirm Voicemail Code**  
Enter a voicemail code between 1-15 digits in the Voicemail Code field. This is required when users retrieve voicemail messages for the hunt group remotely, for example from an extension that is not a member of the hunt group or from an external telephone.
- **Voicemail Email: *Default = Blank (No voicemail email features)***  
This field is used to set the user or group email address used by the voicemail server for voicemail email operation. When an address is entered, the additional Voicemail Email control below are selectable to configure the type of voicemail email service that should be provided.
  - Use of voicemail email requires the voicemail pro server to have been configured to use either a local MAPI email client or an SMTP email server account. See [Voicemail Email Installation](#) [64].
  - The use of voicemail email for the sending (automatic or manual) of email messages with wav files attached should be considered with care. A one-minute message creates a 1MB .wav file.

- Voicemail Email *Default = Off*

If an email address is entered for the user or group, the following options become selectable. These control the mode of automatic voicemail email operation provided by the voicemail server whenever the voicemail mailbox receives a new voicemail message.

- Users can change their voicemail email mode using [visual voice](#)<sup>[346]</sup>. If the voicemail server is set to [IP Office mode](#)<sup>[343]</sup>, user can also change their voicemail email mode through the telephone prompts. The ability to change the voicemail email mode can also be provided in a call flow using a [Play Configuration Menu](#)<sup>[222]</sup> action or a [Generic](#)<sup>[195]</sup> action.
- If the voicemail server is set to [IP Office mode](#)<sup>[343]</sup>, users can manually forward a message to email.

- Off

If off, none of the options below are used for automatic voicemail email. Users can also select this mode by dialing *\*03* from their extension.

- Copy

If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a copy of the message is attached to an email and sent to the email address. There is no mailbox synchronization between the email and voicemail mailboxes. For example reading and deletion of the email message does not affect the message in the voicemail mailbox or the message waiting indication provided for that new message.

- Forward

If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, that message is attached to an email and sent to the email address. No copy of the voicemail message is retained in the voicemail mailbox and there is no message waiting indication. As with Copy, there is no mailbox synchronization between the email and voicemail mailboxes. Users can also select this mode by dialing *\*01* from their extension.

- UMS Exchange 2007

Voicemail Pro 5.0+ supports voicemail email to an Exchange 2007 server email account. For users and groups also enabled for UMS Web Services this significantly changes their mailbox operation. The Exchange Server inbox is used as their voicemail message store and features such as message waiting indication are set by new messages in that location rather than the voicemail mailbox on the voicemail server. Telephone access to voicemail messages, including Visual Voice access, is redirected to the Exchange 2007 mailbox. See [UMS Exchange 2007 Installation](#)<sup>[46]</sup> and [UMS Exchange 2007](#)<sup>[35]</sup>.

- Alert

If this mode is selected, each time a new voicemail message is received in the voicemail mailbox, a simple email message is sent to the email address. This is an email message announcing details of the voicemail message but with no copy of the voicemail message attached. Users can also select this mode by dialing *\*02* from their extension.

- Voicemail On *Default = On*

When on, the mailbox is used by the IP Office to answer the user's unanswered calls or calls when the user's extension returns busy. Note that selecting off does not disable use of the user's mailbox. Messages can still be forward to their mailbox and recordings can be placed in it. The mailbox can also still be accessed to collect messages. For other options [Disabling a Mailbox](#)<sup>[332]</sup>.

- Voicemail Help *Default = Off*

For voicemail systems running IP Office mailbox mode, this option controls whether users retrieving messages are automatically given an additional prompt *"For help at any time press 8."* If switched off, users can still press 8 for help. For voicemail systems running in Intuity emulation mode, this option has no effect. On those systems the default access greeting always includes the prompt *"For help at any time, press \*4"* (\*H in the US locale).

- Broadcast

Select the option Broadcast if you want any voicemail messages left for the hunt group to be forwarded to the mailboxes of the individual group members. The original message in the hunt group mailbox is deleted after being broadcast.

- UMS Web Service (*IP Office 5.0+*)

If selected, the hunt group mailbox can be accessing using [UMS](#)<sup>[36]</sup> via a web browser or an IMAP compatible email application.

4. Click OK and save the configuration.

## 2.8.5 Voicemail Channel Reservations

By default inbound calls routed from IP Office to voicemail are able to use any available voicemail channels, up to the limit of the [number of licensed channels](#)<sup>[13]</sup>, regardless of how many calls of the same type are already in progress. However, if required, channels can be reserved for different types of inbound calls to the voicemail server.


Voicemail channel reservations can be made for:

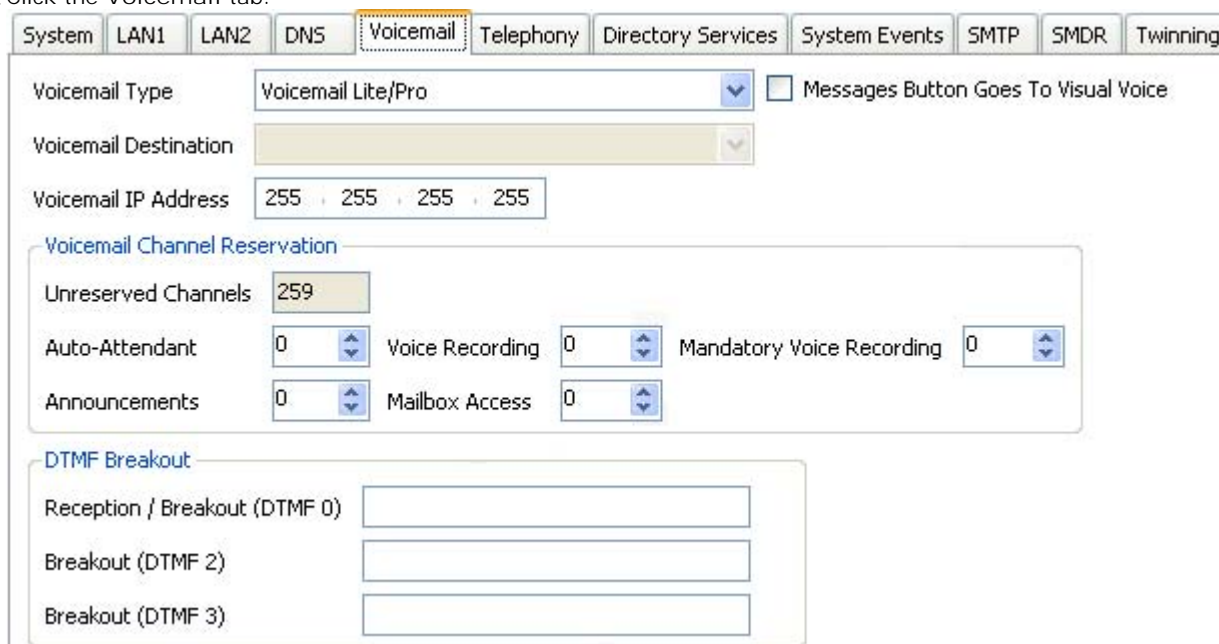
- Auto Attendant
- Announcements
- Voice recording
- Mailbox access
- Mandatory voice recording

It is worth checking the voicemail channel reservations if there are problems. If insufficient voicemail channels are available:

- Internal calls to an auto attendant are queued. The call will queue until a resource becomes available.
- Announcements are not heard by the caller, but the call is routed correctly.
- Manual voice recording is activated but no recording is made. The call will continue.
- Users are placed in a queue when trying to access their mailbox access.
- A user with mandatory recording on outgoing calls (internal and external) gets a busy tone.
- A call on a line with mandatory recording set will be barred.

To change voicemail channel reservations:

1. Open IP Office Manager and load the configuration.
2. In the Navigation pane click  System and select the system.
3. Click the Voicemail tab.



System | LAN1 | LAN2 | DNS | **Voicemail** | Telephony | Directory Services | System Events | SMTP | SMDR | Twinning

Voicemail Type: Voicemail Lite/Pro  Messages Button Goes To Visual Voice

Voicemail Destination: [Dropdown]

Voicemail IP Address: 255 . 255 . 255 . 255

**Voicemail Channel Reservation**

Unreserved Channels: 259

Auto-Attendant: 0 | Voice Recording: 0 | Mandatory Voice Recording: 0

Announcements: 0 | Mailbox Access: 0

**DTMF Breakout**

Reception / Breakout (DTMF 0): [Text Box]

Breakout (DTMF 2): [Text Box]

Breakout (DTMF 3): [Text Box]

4. Amend the channel reservations as required. By default the values are 0.



To view the utilization of voicemail channels:

1. Open the System Status Application.
2. Click Resources. The System Resources summary is displayed. The following details are displayed:
  - The number of voicemail channels available.
  - The number of channels in use.
  - Congestion information


#### Channel Restrictions

- The Voicemail Pro server has restrictions on the number of channels it can use for different types of outgoing calls that it can make. These limits are separate for each of the call types. When a limit is reached, further calls of that type are delayed until one of the existing calls is completed. These limitations are not controlled by [Voicemail Channel Reservation](#) settings.
  - Outcalling can use up to 5 channels at any time.
  - Conference center invitation calls can use up to 5 channels at any time.
  - Callback calls can use up to 2 channels at any time.
  - Alarm calls can use up to 2 channels at any time.

## 2.9 System Preferences

A range of voicemail server settings can be set through the Voicemail Pro client.

To change the Voicemail Pro Preferences:

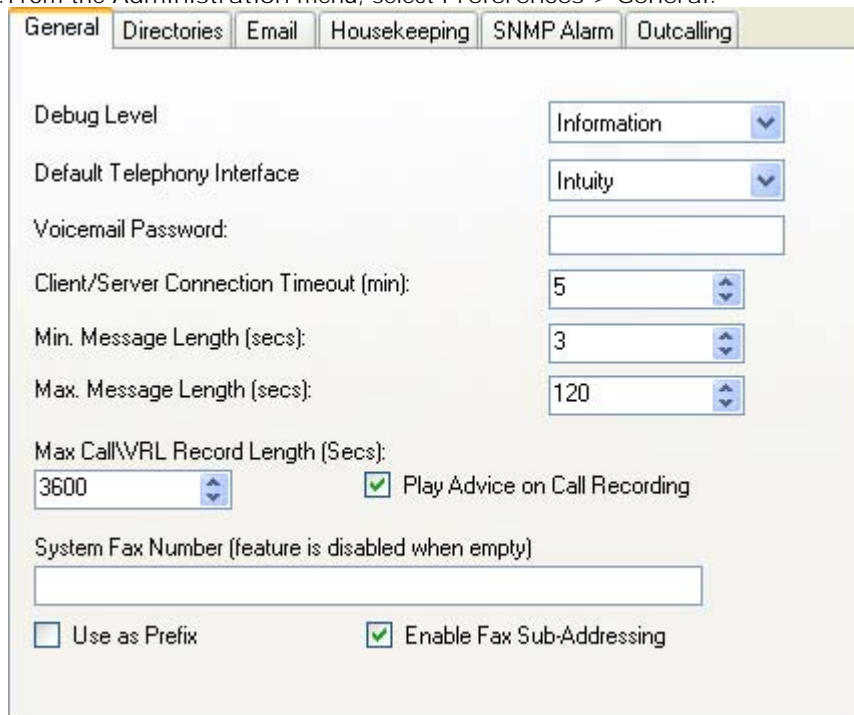
1. Click the Preferences  icon and then choose General or VPNM. Alternatively, from the Administration menu, select Preferences and then choose General or VPNM.
2. Select the System Preferences tab required.
  - [General](#) <sup>[98]</sup>  
General voicemail server settings.
  - [Directories](#) <sup>[100]</sup>  
Set the folder paths for different file locations.
  - [Housekeeping](#) <sup>[107]</sup>  
Set the times for automatic deletion of different types of messages. Also set the default playback order.
  - [Email](#) <sup>[107]</sup>  
Select the email mode (MAPI or SMTP) used by the voicemail server for its email functions and configure various settings for the selected mode.
  - [SNMP Alarm](#) <sup>[108]</sup>  
Set the criteria which will cause the voicemail server to send alarms via the IP Office.
  - [Outcalling](#) <sup>[110]</sup>  
Set the default times for outcalling operation and the frequency of outcalling retries.
  - [VPNM](#) <sup>[112]</sup>  
If VPNM is installed and licensed, this tab is available to set the locations of the remote VPNM servers and the mailbox users on those servers.

### 2.9.1 General

Although the default IP Office configuration settings allow voicemail to start operating almost immediately, as soon as a voicemail server is running on the LAN, there are some general system preferences that you can set or change.

To set up general system preferences:


1. Display the main Voicemail Pro window.
2. From the Administration menu, select Preferences > General.



The screenshot shows the 'General' tab of the Voicemail Pro Preferences dialog box. The tabs at the top are General, Directories, Email, Housekeeping, SNMP Alarm, and Outcalling. The 'General' tab is active. The settings are as follows:

Debug Level	Information
Default Telephony Interface	Intuity
Voicemail Password:	
Client/Server Connection Timeout (min):	5
Min. Message Length (secs):	3
Max. Message Length (secs):	120
Max Call/WRL Record Length (Secs):	3600
	<input checked="" type="checkbox"/> Play Advice on Call Recording
System Fax Number (feature is disabled when empty)	
<input type="checkbox"/> Use as Prefix	<input checked="" type="checkbox"/> Enable Fax Sub-Addressing

- **Debug Level**  
Set the level of information that the server should output for logging if required.

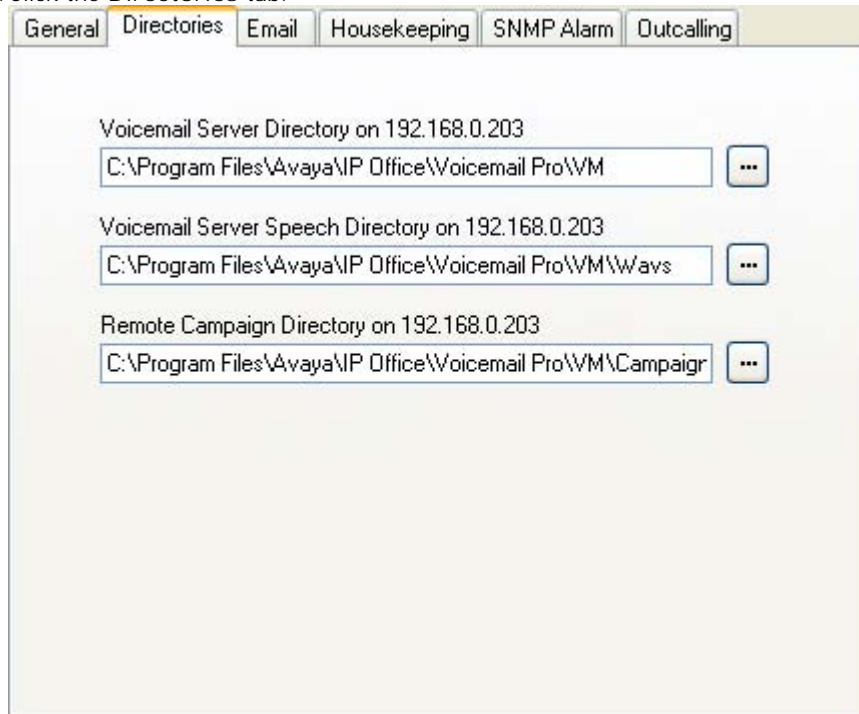
- **Default Telephony Interface:** *Default = Intuity*  
Select the mailbox operation mode for all mailboxes. The options are [IP Office](#)<sup>[343]</sup> mode or [Intuity](#)<sup>[342]</sup> emulation mode.
  - **Voicemail Password:** *Default = Blank*  
A voicemail password is optional for the voicemail server is optional. If you set a password here, it must match the Voicemail Password configured within the IP Office's security settings. See [Identifying the Voicemail Server PC](#)<sup>[88]</sup>.
  - **Client/Server Connection Timeout (mins):** *Default = 5 minutes.*  
The voicemail server only allows one Voicemail Pro client to be connected at a time. This timeout logs out an inactive client, stopping it from preventing another client from connecting.
  - **Min. Message Length (secs):** *Default = 3 seconds.*  
By default the minimum message length is 3 seconds in IP Office mailbox mode, 0 seconds in Intuity emulation mode. This field allows the minimum length to be set between 0 and 10 seconds. Messages under this length are deleted immediately.
  - **Max. Message Length (secs):** *Default = 120 seconds.*  
This value sets the maximum length for messages. The default message length is 120 seconds. The maximum message length is 3600 seconds (60 minutes). 1 minute equals approximately 1MB of disk space.
  - **Max. Call\VRL Record Length (secs):** *Default = 3600 seconds.*  
This value sets the maximum recording time for recorded calls. The default and maximum length is 3600 seconds (60 minutes).
  - **Play Advice on Call Recording:** *Default = On*  
If selected, an advice warning is played whenever call recording is started advising the callers that their call is being recorded. This may be a legal requirement in some countries and so should not be disabled without checking first.
  - **System Fax Number:** *Default = Blank*  
This field can be used to set the number of the fax machine to which all incoming faxes should be directed. If a fax board is being used, this number must match the number of the extension that is connected to the fax board of the fax server PC. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.
    - Intuity mailbox owners have the additional option to define their own personal fax number instead of the system fax number. As the system administrator, you still need to set a system fax number to enable mailbox owners to override it with their preferred personal fax number. Incoming calls are directed to Voicemail Pro and then Voicemail Pro redirects fax calls to the mailbox owner's personal fax number, if one has been set. For information mailbox owners should read the Intuity Mailbox User Guide.
    - If your fax system requires prefix addressing, for example the C3000 fax server, do not type a fax number in the System Fax Number box. Instead type the number to use as a prefix so that a fax message can be identified and forwarded to the extension number of the intended recipient. For example, if the prefix were 55, a fax message for extension 201 would have the prefix of 55 automatically added so that the complete number would become 55201.
  - **System Fax Number**  
By default fax detection is not enabled when Voicemail Pro is first installed. When fax detection is enabled, any fax calls that are left in a voicemail mailbox, are redirected to this system fax number.
    - **Use as a Prefix**  
If your fax system does not use prefix addressing, leave this box unchecked. For this feature to work, you also need to set up a short code.
    - **Enable Fax Sub-Addressing**  
Most fax servers perform fax forwarding based on DTMF signaling received with the fax call. Check the Enable Fax Sub-Addressing box so that the DTMF signal is passed to the fax server after the call has been answered so that the fax can be forwarded to the email address of the intended recipient.
3. Click OK.
4. Click  Save and Make Live and select Yes.

## 2.9.2 Directories

When Voicemail Pro is installed some default folder locations are used. You can change these if required.

To set the location of Voicemail system folders:

1. Display the main Voicemail Pro window.
2. From the Administration menu, select Preferences > General.
3. Click the Directories tab.



- Voicemail Server Directory  
The path to the folder where the voicemail server program is to be stored. This is the folder where the file *Root.vmp* is saved when the Save & Make Live option is used.
- Voicemail Server Speech Directory  
The path to the folder where the libraries of speech prompts are to be stored.
- Remote Campaign Directory  
The path to the folder where the campaign files are to be stored.

4. Click OK.

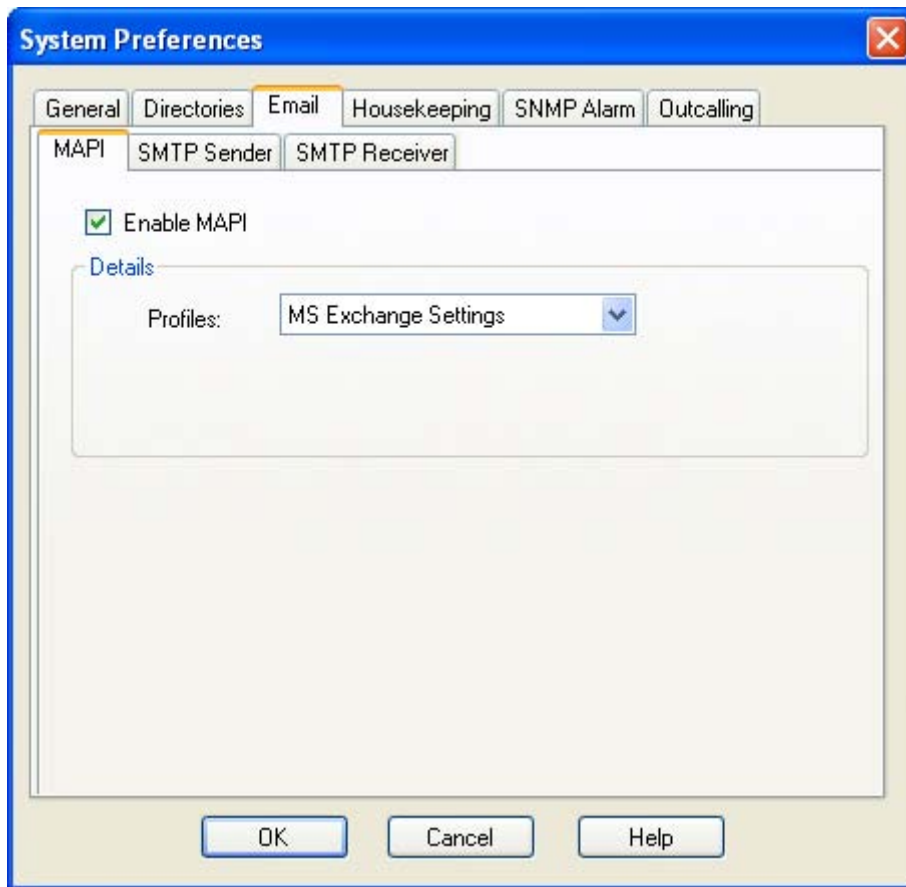
5. Click  Save and Make Live and select Yes.

## 2.9.3 Email

The Email tab is used to configure which email mode (MAPI or SMTP) the voicemail server should use and the settings for that mode.

### 2.9.3.1 MAPI

This form is used to configure MAPI settings for use by the voicemail server. Not supported for use with a Linux based server.



- **Enable MAPI**  
Selecting this option will switch the voicemail server to using MAPI for its email options rather than SMTP.
- **Profile**  
This is used to select the MAPI email account the voicemail server should use to provide visibility to the email account mailboxes for which it requires access. The profile must exist within the MAPI email client on the server PC and must be useable by the Windows account under which the Voicemail Pro service is running.

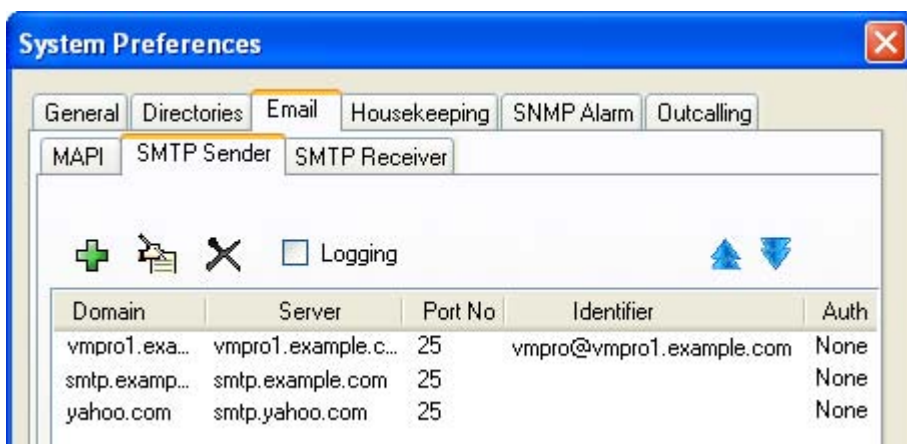
### 2.9.3.2 SMTP Sender

These settings are used to configure the SMTP server and server account that the voicemail server uses for sending emails using SMTP.

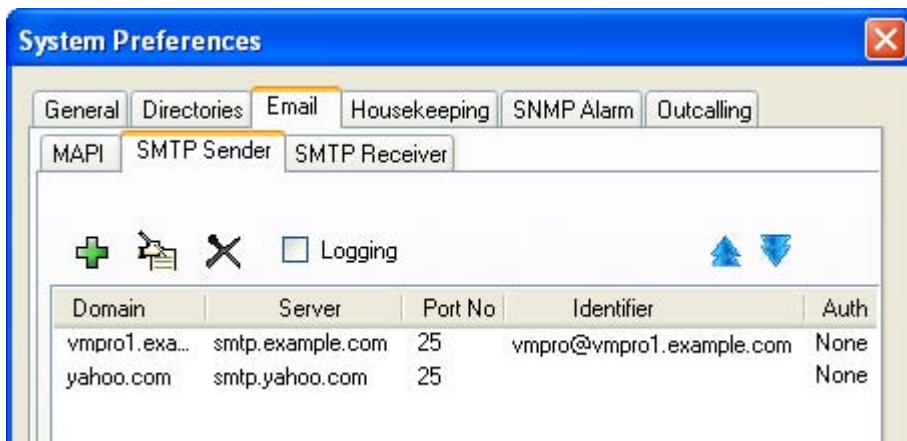
Multiple servers can be configured. The first entry specifies the default SMTP server used for sending emails if there is no other entry matching the domain specified in the email destination address. Additional servers can be added when different settings are required for sending emails to specific domains. For example, the default may be configured for the customer's internal network exchange server with additional entries added for emails to external email domain addresses such as yahoo.com.

- Messaging Between Voicemail Servers  
VPNM, distributed voicemail servers and primary/backup voicemail servers all use SMTP to exchange information and messages between the voicemail servers. When that is the case the first entry in the SMTP Sender list must be the one used and needs to be configured for that service with the domain and server setting both matching the IP address or fully qualified domain of the voicemail server.

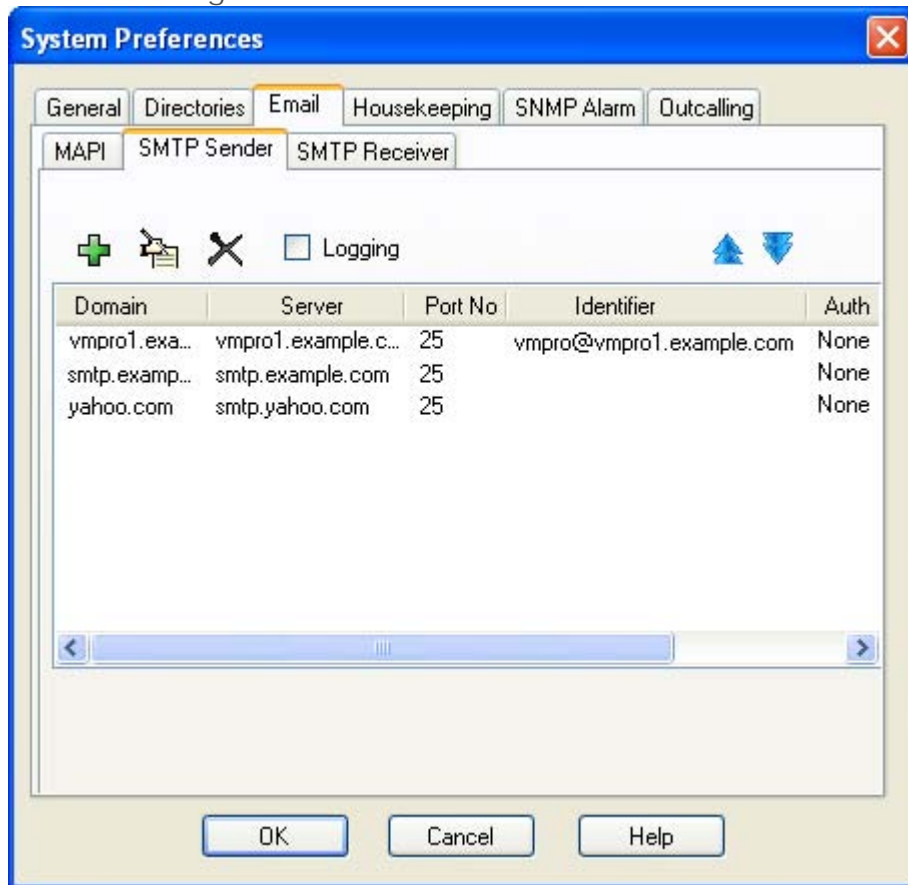
In the example below, the first entry is being used for messages to other voicemail servers. Its own address is used as the domain and server setting as an SMTP service on the same server as the voicemail service is used (eg. IIS SMTP on the Windows server). The next entry is used for other emails that use the customer's general email domain address with the server set to the customer's email server. A third entry has been added to send some emails generated by Email Actions in call flows direct to an external email service.



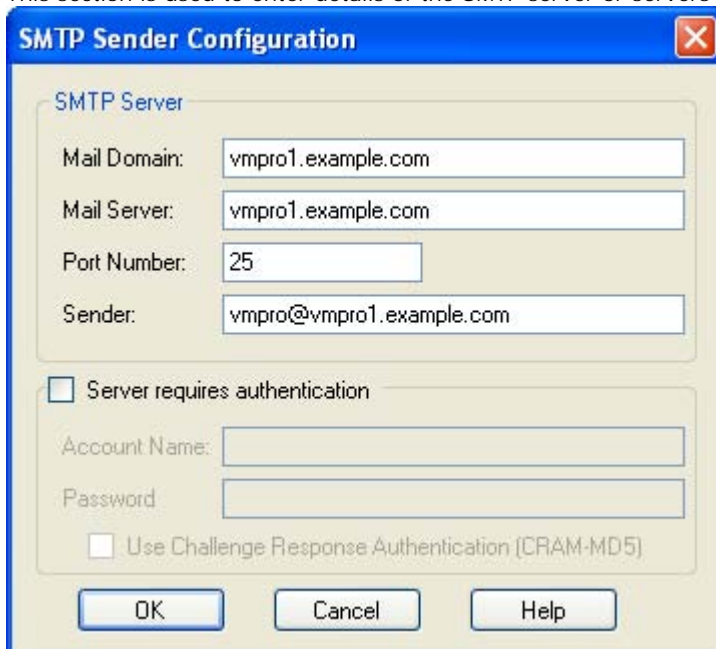
- The first two entries in the example above can be combined. Voicemail server to server synchronization uses the Domain setting only whereas other email services use the Server address and other setting.






SMTP Sender Settings



- Logging  
If selected, [SMTP logging](#) by the server is enabled.
- Servers  
This section is used to enter details of the SMTP server or servers to which the voicemail server send its messages.



---

To add a server, click on the  icon. To edit the server, click on the  icon. To delete a server entry, click on .

- Mail Domain

This field is used differently depending on whether it is the first entry in the list or not:

- For the first server entry in the list:

This is the default outgoing email settings. It also sets the mail destination domain on which the voicemail server filters incoming messages (see below) and so is repeated on the [SMTP Receiver](#) <sup>[105]</sup> tab.

- Messaging Between Voicemail Servers

For messaging between voicemail servers, the first entry in the SMTP Sender list must be the one configured and used. Each server uses the SMTP server service on the same server PC as the voicemail service. For example a Windows based servers uses the SMTP email provided by the IIS on the same server. The voicemail service also uses the domain set to filter incoming SMTP mails received by the SMTP server. For this to work, the domain entered should be the fully qualified name of the server on which the voicemail server is running, for example *vmpro1.example.com*. Any incoming messages where the recipient mail domain is not exactly the same as the specified domain are ignored. The recipient can either be by *vmSyncmaster*, *vmSyncslave* or the name or extension of a mailbox on the Voicemail Pro server, for example *Extn201@vmprocentral.example.com* or *201@vmprocentral.example.com*.

- For subsequent entries:

The domain specifies that these settings should be used for emails sent to the matching domain. The entry must be a fully qualified name resolvable by DNS or an IP address.

- Server

This specifies the IP address or fully qualified domain name of the SMTP server to which messages are sent.

- For the first server entry in the list:

Where messaging between voicemail servers is being used (central, backup and or distributed servers), the first entry is used and will match the domain set above.

- For subsequent entries:

It will be the address of the email server that will handle emails for recipients other than another voicemail server on the network.

- Port Number

This is port to which messages are sent, usually 25.

- Sender (Identifier)

Note that some servers will only accept emails from a specific sender or sender domain. If left blank, the voicemail server will insert a sender using either the email address set for the voice mailbox user if set or otherwise using the best matching name it can resolve from the IP Office.

- Server Requires Authentication

This check box indicates whether the connection to send SMTP messages to the mail server requires authentication with that server. The authentication will typically be to the name and password of a mailbox account configured on that server.

- Account Name

Sets the name to use for authentication.

- Password

Set the password to use for authentication.

- User Challenge Response Authentication (Cram MD5)

If this check box is selected, the name and password are sent using Cram MD5.



### 2.9.3.3 SMTP Receiver

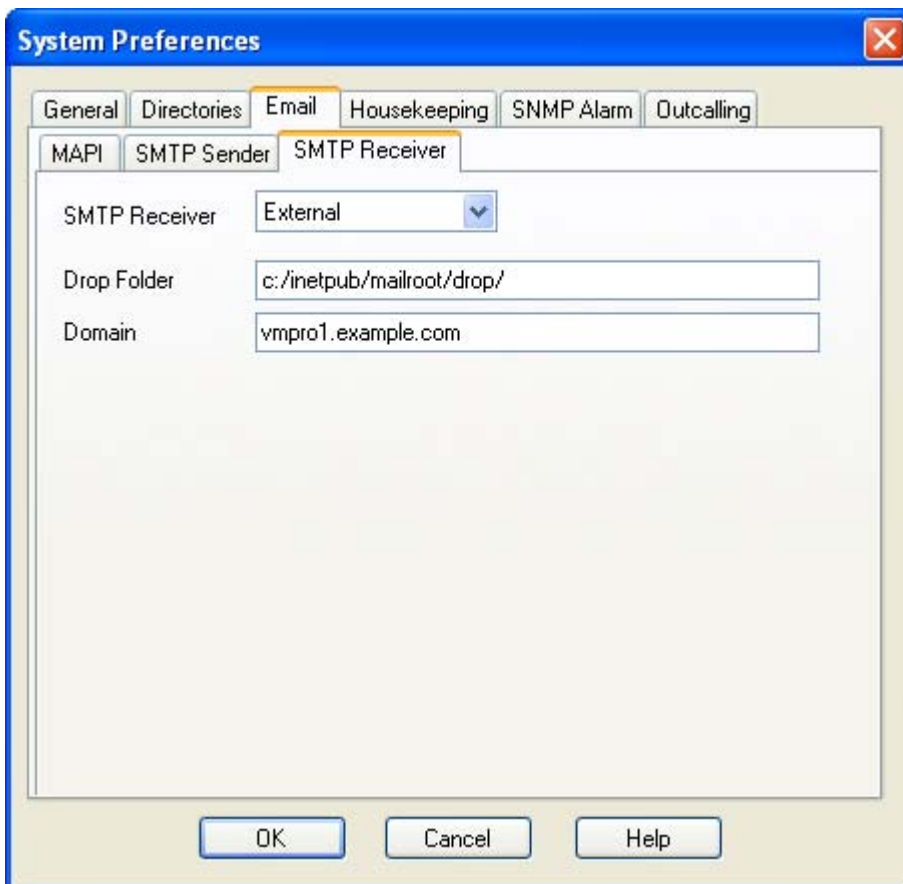
This tab is used to set where the voicemail server checks for incoming SMTP messages. The SMTP Receiver setting can be set to either *Internal* or *External*.

- [Internal](#) <sup>[105]</sup>  
Use this option for voicemail servers running on the IP Office Applications Server server.
- [External](#) <sup>[106]</sup>  
Use this option when the voicemail server is on a server where it co-exists with a third-party SMTP application, for example an IIS server with SMTP enabled.

#### Internal

The Internal setting can be used when the voicemail server should check the appropriate account on an SMTP server for waiting messages. The server settings will be pre-populated using the entries from the [SMTP Sender](#) <sup>[102]</sup> form.

- Distributed/Primary/Backup Voicemail  
This is the option that should be used when the voicemail server is a IP Office Applications Server (Linux) based server in a network distributed voicemail servers are being used or is a server in a primary/backup voicemail server pairing.

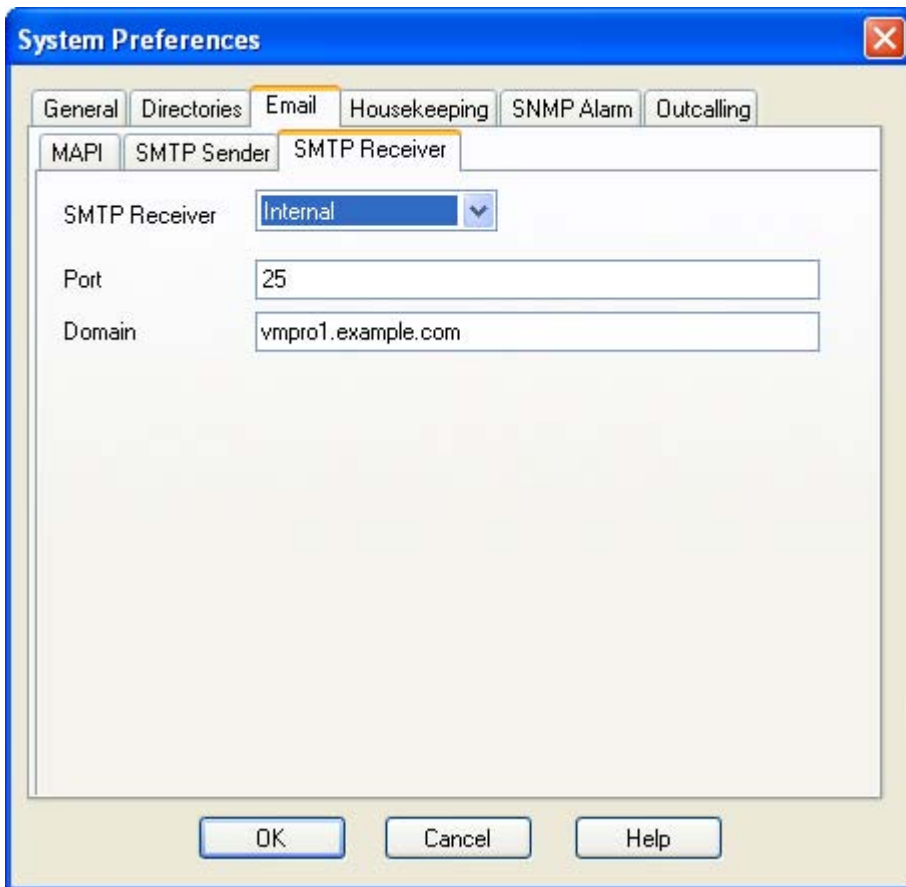


- Port  
This is the port on which the Voicemail Pro server listens for incoming messages. The default is 25.
- Domain  
This is the domain destination address for which the server will accept incoming emails. Note that it matches the domain set by the first server entry in the [SMTP Sender](#) <sup>[102]</sup> tab.
  - Messaging Between Voicemail Servers  
For messaging between voicemail servers, the first entry in the SMTP Sender list must be the one configured and used. Each server uses the SMTP server service on the same server PC as the voicemail service. For example a Windows based servers uses the SMTP email provided by the IIS on the same server. The voicemail service also uses the domain set to filter incoming SMTP mails received by the SMTP server. For this to work, the domain entered should be the fully qualified name of the server on which the voicemail server is running, for example *vmpro1.example.com*. Any incoming messages where the recipient mail domain is not exactly the same as the specified domain are ignored. The recipient can either be *vmSyncmaster*, *vmSyncslave* or the name or extension of a mailbox on the Voicemail Pro server, for example *Extn201@vmprocentral.example.com* or *201@vmprocentral.example.com*.

## External

The External setting should be used when the voicemail server should check the mail drop folder on a local SMTP server for SMTP email messages. For example, when there is an IIS server with SMTP enabled on the same server PC as the Voicemail Pro server.

- Distributed/Primary/Backup Voicemail  
This is the option that should be used when the voicemail server is a Windows based server in a network distributed voicemail servers are being used or is a server in a primary/backup voicemail server pairing.



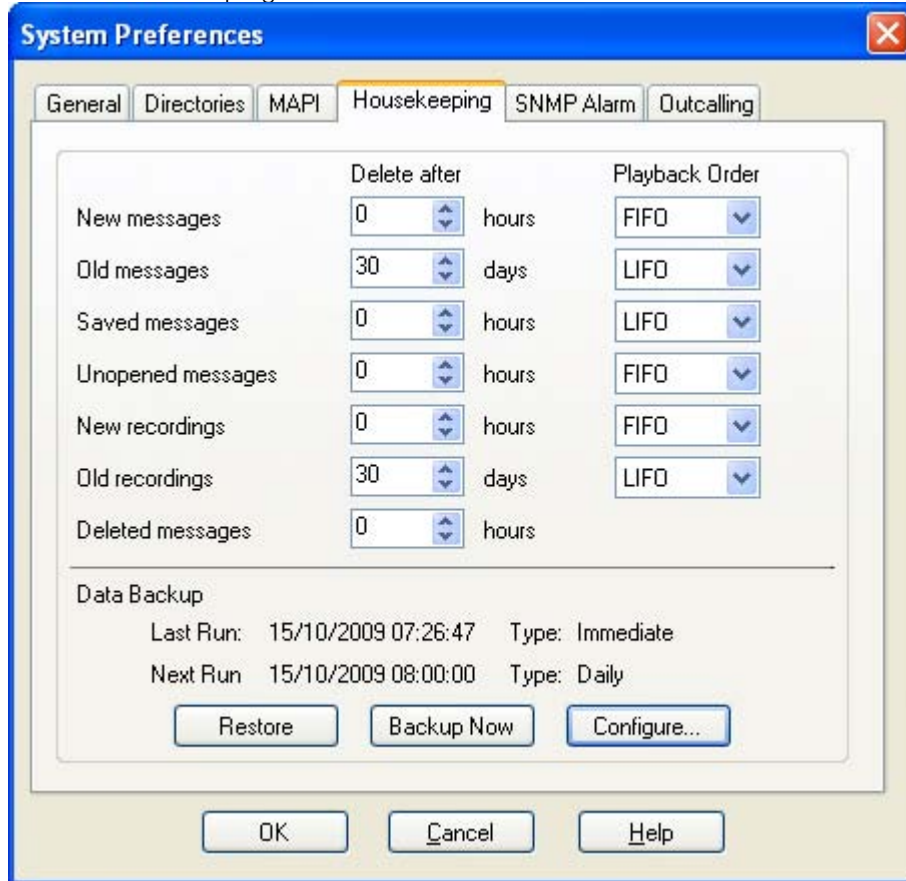
- Port  
This is the port on which the server receives incoming SMTP emails.
- Domain  
This is the domain destination address for which the server will accept incoming emails. Note that it matches the domain set by the first server entry in the [SMTP Sender](#) <sup>(102)</sup> tab.
  - Messaging Between Voicemail Servers  
For messaging between voicemail servers, the first entry in the SMTP Sender list must be the one configured and used. Each server uses the SMTP server service on the same server PC as the voicemail service. For example a Windows based servers uses the SMTP email provided by the IIS on the same server. The voicemail service also uses the domain set to filter incoming SMTP mails received by the SMTP server. For this to work, the domain entered should be the fully qualified name of the server on which the voicemail server is running, for example *vmpro1.example.com*. Any incoming messages where the recipient mail domain is not exactly the same as the specified domain are ignored. The recipient can either by *vmyncmaster*, *vmyncslave* or the name or extension of a mailbox on the Voicemail Pro server, for example *Extn201@vmprocentral.example.com* or *201@vmprocentral.example.com*.

## 2.9.4 Housekeeping

This tab is used to set the Voicemail Pro server settings for automatically deleting messages and for the default playback order of messages. For Voicemail Pro 6.0+ it is also used to access options for [backing up and restoring voicemail messages and settings](#) <sup>(15b)</sup>.

The voicemail servers housekeeping settings can be used to configure how long messages and recordings are retained before the server will automatically delete them. The playback order for different types of messages can also be set. Note that the housekeeping deletion settings are not applicable for messages stored on the Exchange server.

1. From the Administration menu, select Preferences > General.
2. Click the Housekeeping tab.



3. Delete after  
Sets the time, in hours, after which messages of various types automatically deleted. A value of 0 disables automatic deletion. The actual deletion is performed during the next idle period during which there are no calls to or from the voicemail server.
4. Playback Order  
Sets the order of playback used for different message types. The options are first in-first out (*FIFO*) and last in-first out (*LIFO*). *FIFO* is the default.
  - The different message status types are:
    - New  
This status is applied to messages where neither the header or the message content has been played.
    - Old  
This status is applied to messages where the user has played the message content but has not marked the message as saved.
    - Saved  
This status is applied to messages that have been marked as saved by the user.
    - Unopened  
This status is used for messages where, in Intuity emulation mode, the user has played the message header but has not played the message content.
    - New Recordings  
This status is used for recordings that have not been played.
    - Old Recordings  
This status is used for recordings that have been played.

- Deleted Messages  
This status is used for messages that have been marked as deleted through mailbox access.

5. Click OK.

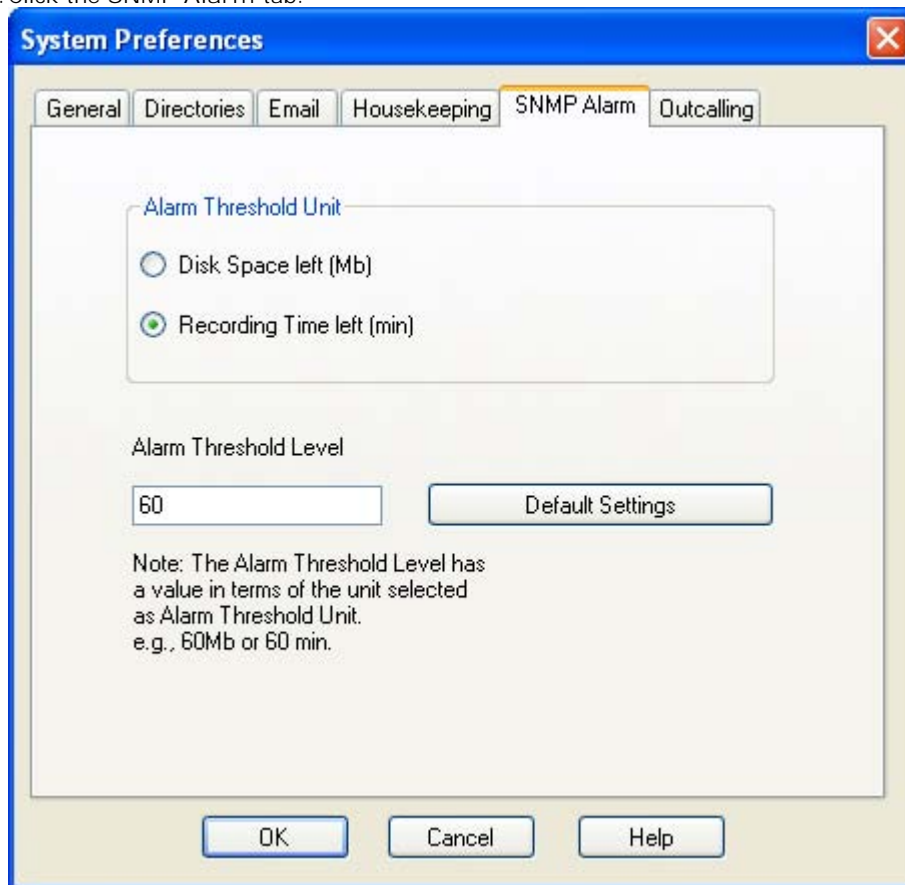
6. Click  Save and Make Live and select Yes.


## 2.9.5 SNMP Alarm

The IP Office system can be configured to send alarms. These alarms can be sent from the IP Office using SNMP, SMTP email or Syslog alarm formats. This tab is used to set the levels at which the voicemail server will indicate to the IP Office to send an alarm.

To set up disk space and recording time alarms:

1. Display the main Voicemail Pro window.
2. From the Administration menu, select Preferences > General.
3. Click the SNMP Alarm tab.



4. Choose the Alarm Threshold Unit either Disk Space Left (MB) or Recording Time left (minutes).
5. In the Alarm Threshold Level box, type the number of units (minutes or MB) left at which SNMP alarms are to be triggered. The minimum is 11. This value also sets two further SNMP alarm levels which are:
  - Space OK Alarm  
This alarm is triggered when the amount of available space returns to above a level set at *Alarm Threshold Level plus 30*.
  - Critical Alarm  
This alarm is set at 30 or, when the Alarm Threshold Level is less than 40, at *Alarm Threshold Level minus 10*. Currently the critical alarm value will decrease in accordance with the above rule. Note however that it does not increment upwards when the Alarm Threshold is increased again. To reset the critical alarm back to 30, click Default Settings.
6. To return to the default alarm settings, click Default Settings. The Alarm Threshold Level is reset to 60. The Space OK level is reset to 90. The Critical Alarm level is reset to 30.
7. Click OK.
8. Click  Save and Make Live and select Yes.



## 2.9.6 Outcalling

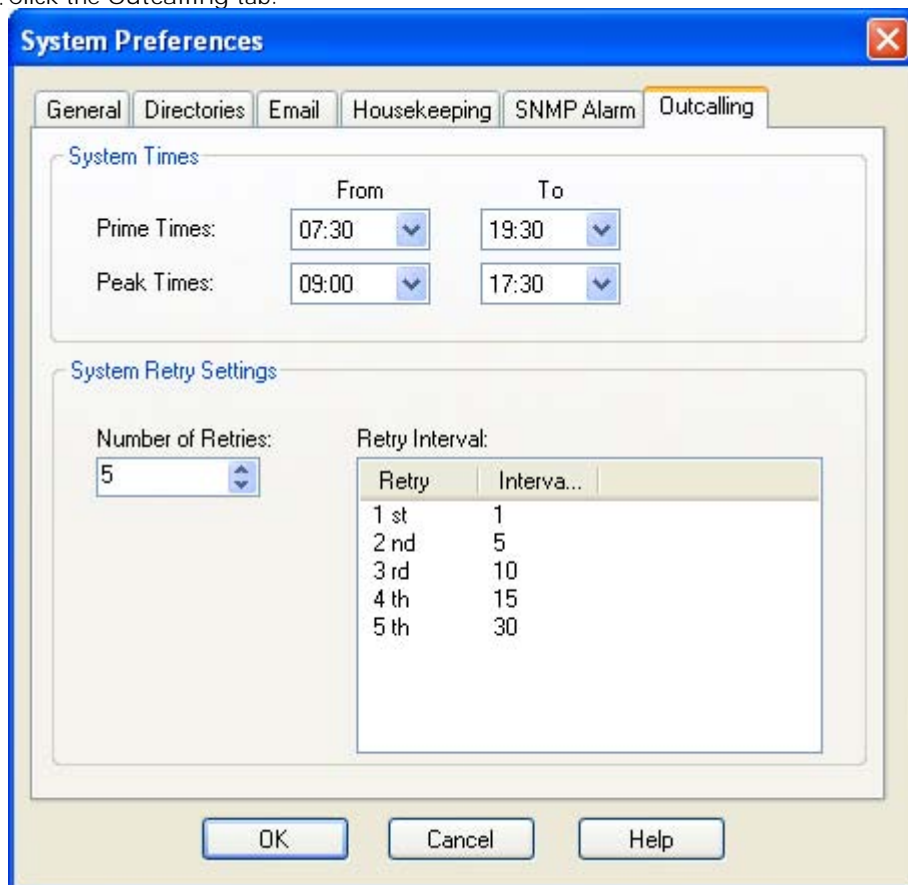
The outcalling preferences in Voicemail Pro are defaults for global operation. Mailbox owners can configure their own outcalling options from their telephone, for example, create their own time profile.


Details on how users can configure outcalling are found in the Intuity Mailbox guide and Phone Manager User Guide.

A timeout value can also be set by a user. This is how long outcalling will attempt to call a number before giving up.

To set the global outcalling preferences:

1. Display the main Voicemail Pro window.
2. From the Administration menu, select Preferences > General.
3. Click the Outcalling tab.



4. Select the times that outcalling is active in the System Times section.
  - Prime Times  
The time period that outcalling is to be active as default for the system.
  - Peak Times  
The busiest working hours.
5. Set the retry settings in the System Retry Settings section.
6. The Number of Retries can be between 0 and 10. If the message is not collected after the last retry, no notification is sent until another new message is delivered in the user's mailbox.
7. The Retry Interval for each retry attempt. The interval is the length of time between each attempt to ring to targeted number again. The 6th to 10th retries use the default retry interval.
8. Double-click a selected retry time to edit the interval between retries. The New interval number window opens where the length of time between each attempt to ring the target number can be changed. Click OK to save the change and return to the Outcalling window.
9. Click OK.
10. Click  Save and Make Live and select Yes.



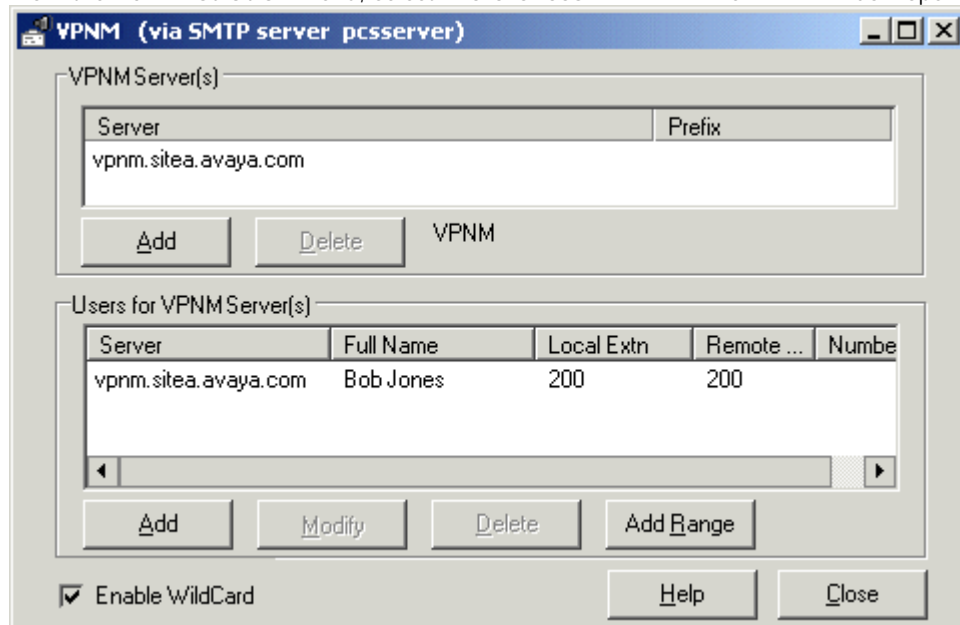
## 2.9.7 VPNM

This set of preferences is used to add a list of the remote VPNM servers and mailbox users on those servers.

- ! These features are not supported on a Linux based Voicemail Pro server.

To open the VPN window:

1. Start the Voicemail Pro Client.
2. From the Administration menu, select Preferences > VPNM. The VPNM window opens.



To add a VPNM server:

1. In the VPNM Server(s) section, click Add.
2. Enter the fully qualified domain name of the remote VPNM destination (the remote Voicemail Pro server PC or Avaya Interchange).
3. Enter the two digit access prefix, if these are being used.
4. Click OK.

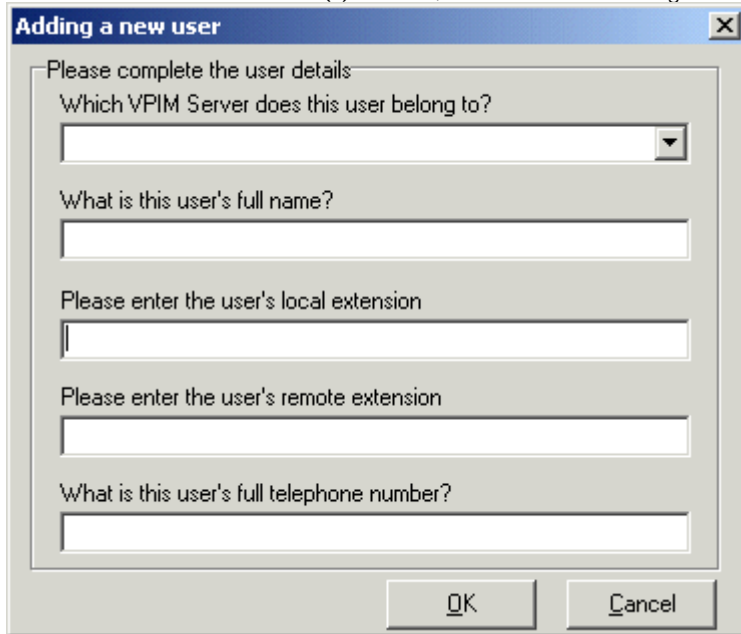
To delete a VPNM server:

1. In the VPNM Server(s) section, select the server that you need to delete.
2. Click Delete. When a server is deleted, all of the users associated with that server are also deleted.



To add a user to VPNM server:

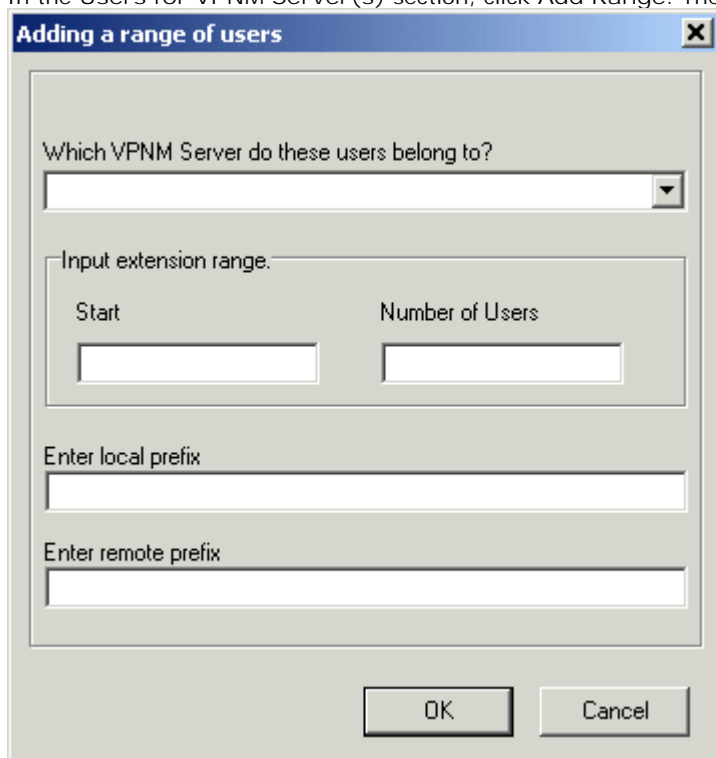
1. In the Users for VPNM Server(s) section, click Add. The Adding a new user window opens.



2. Enter details for the user. All of these details MUST be completed before the user can be added.
  - Select the VPIM server from the listing.
  - Enter the user's full name. The user's full name is used by the local Voicemail Pro's dial by name feature.
  - Enter the user's extension. The local extension number is used as the local mailbox number and so should not conflict with any existing local number.
  - Enter the user's remote extension. The remote extension number should be the user's real extension number. Typically this and the 'local extension number' are kept the same using a unique extension number dial plan for the linked systems.
  - Enter the user's full telephone number. The full telephone number should be a dialable number that is routed to the user's extension or mailbox.
3. Click OK to save the details and return to the VPNM configuration window.

To add a group of users:

1. (Optional) Check the option Enable WildCard. When this option is selected you can use the question mark symbol (?) to represent any number.
2. In the Users for VPNM Server(s) section, click Add Range. The Adding a range of users window opens.



3. Enter details for the users. All of these details MUST be completed before the users can be added.
  - Select the VPNM server to which you want to add the users.
  - Enter the start number of the extension range.
  - Enter the local prefix.
  - Enter remote prefix.
4. Click OK to save the details and return to the VPNM configuration window.

To change details of a VPNM user:

1. In the Users for VPNM Server(s) section, select the name of the user whose details need to be changed.
2. Click Modify. You can change the user's full name, the local extension number and the full telephone number.

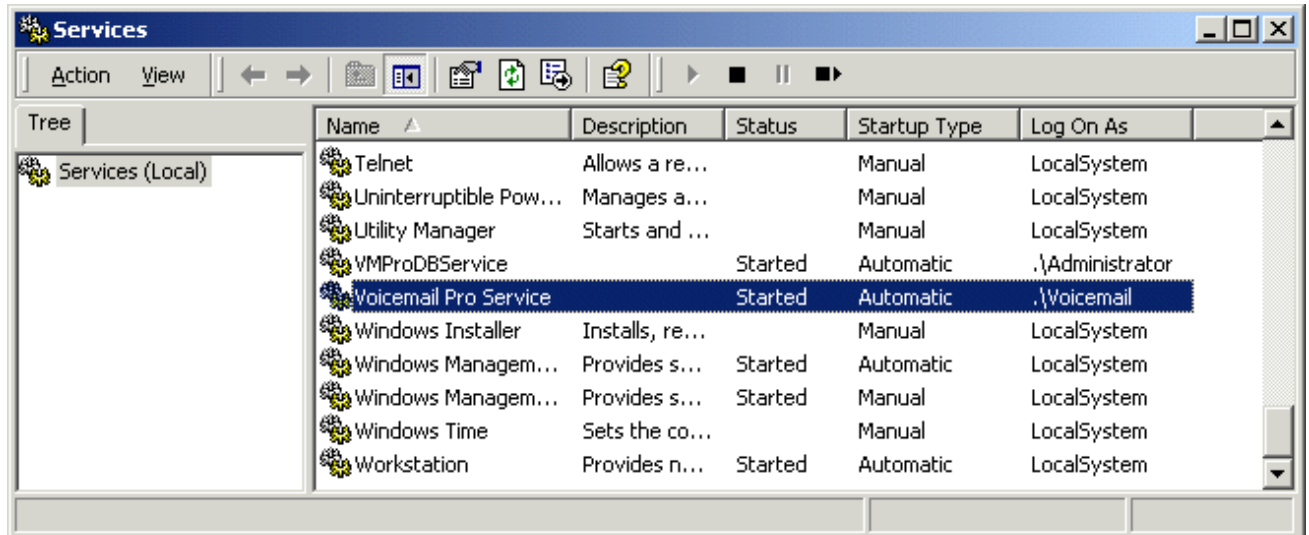
## 2.10 Troubleshooting

### 2.10.1 Checking the Voicemail Pro Service

If Voicemail Pro has been installed successfully, if the server PC has been rebooted then the voicemail service is started automatically. However it is useful know how to check the services and to manually restart them if necessary.

To check/restart the Voicemail Pro Service:

1. Open the Windows Control Panel.
2. Select Administrative Tools > Services.



3. The Voicemail Pro Service should be visible. Its Status should be *Started* and the Startup Type should be set to *Automatic*. Other services may be present depending on the Voicemail Pro options installed. The possible services are:
  - *Voicemail Pro Service*  
This is the main Voicemail Pro service. Normally this is the only service that needs to be stopped and restarted. It will stop and restart the other services that it uses.
4. Close Services.

#### Setting the Voicemail Services or PC to Restart Automatically

The following action is optional. If there is some fault causing the Voicemail Pro service to halt, that fault should be investigated and fixed, however having the service or PC automatically restarted if possible will minimize the disruption to the Voicemail Pro users.

1. Use the Windows control panel to select the *Voicemail Pro Service*.
2. Right-click on the service and select Properties.
3. Select the Recovery tab.
4. Use the options presented to either restart the service and or restart the PC should the operating system detect that the Voicemail Pro service has halted.

---

### Using a Batch File to Start Services

In some instances, certain computers might not respond quickly enough in order to start all of the Avaya services in the correct order. In this circumstance, it can be advisable to create a batch file which will delay the start of these services until the PC is fully running.

Avaya IP Office Services can be started successfully at system start-up using a scheduled task that initiates the batch file below. This batch file ensures that the services will start successfully and in the proper order.

1. Set all Avaya services listed below to Manual start. Do not include Key Server.
2. Create the batch file below and save it to %SYSTEMROOT%. Only include lines for the services which are installed.

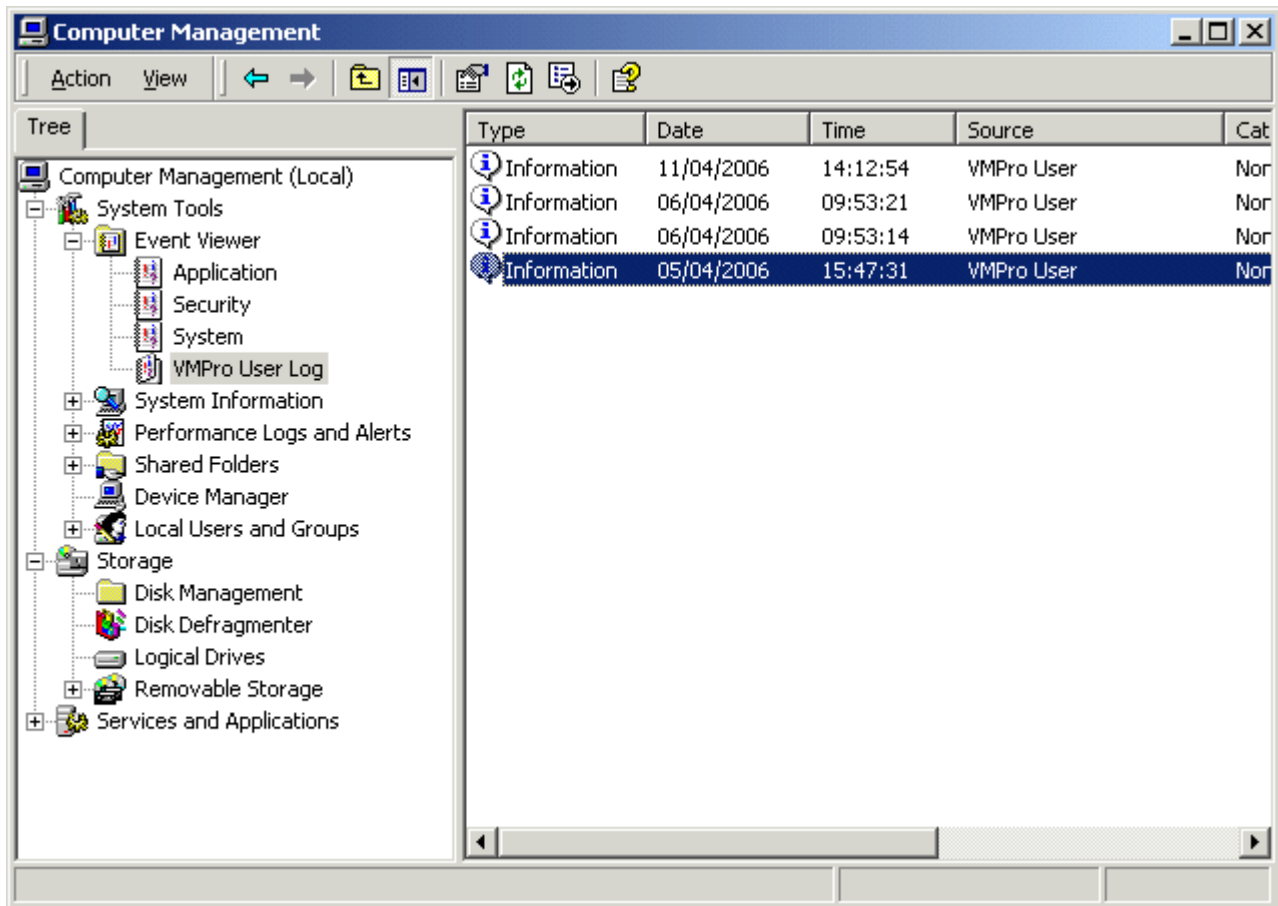
```
@echo off
rem Wait 60 seconds before execute.
timeout /t 60
net start Voicemail Pro Service
```

3. Create a scheduled task to start the batch file at system start-up.

## 2.10.2 Voicemail Pro User Log

User authentication failures are logged in the event viewer, under VMPro User Log. The following details are logged:

- UserID
- Tool name
- IP address of the Client trying to log in.

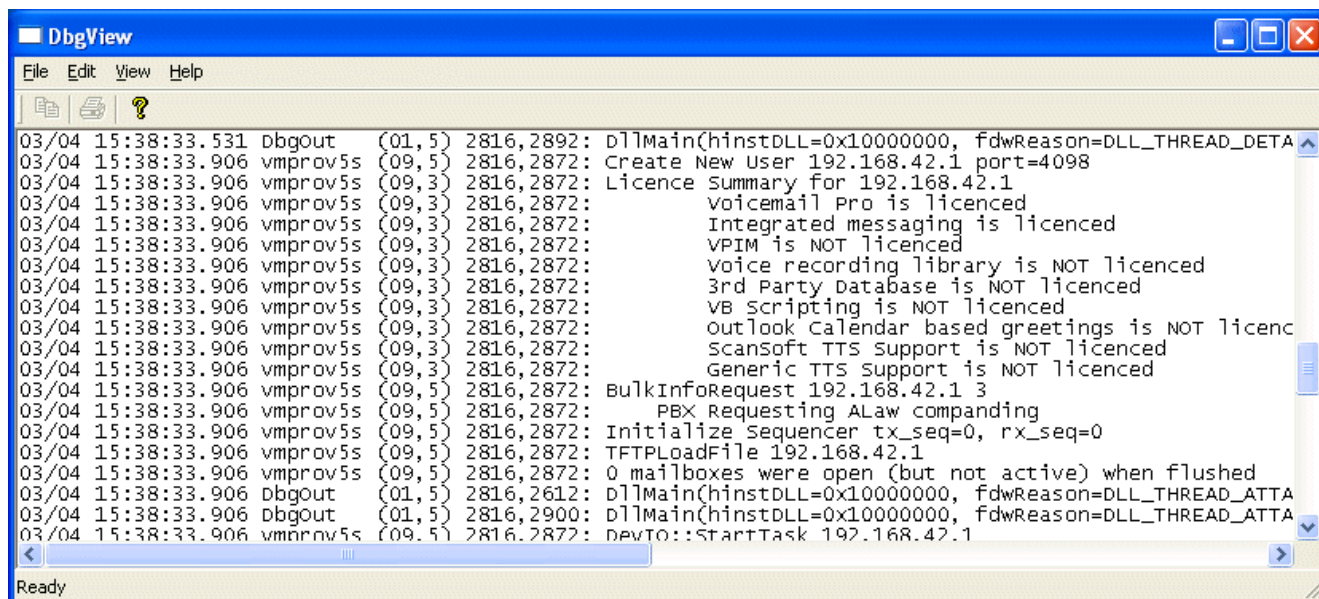


To view the log details:

1. From the Control Panel, select Administrative Tools > Computer Management. The Computer Management window opens.
2. In the System Tool directory, view the Event Viewer.
3. Click VMPro User Log to view the details.

## 2.10.3 Tracing in Debug

Many applications, including Voicemail Pro, output activity messages that are viewable in Debug View (DbgView). This application can be downloaded from <http://marketingtools.avaya.com/knowledgebase/tools/debug>.

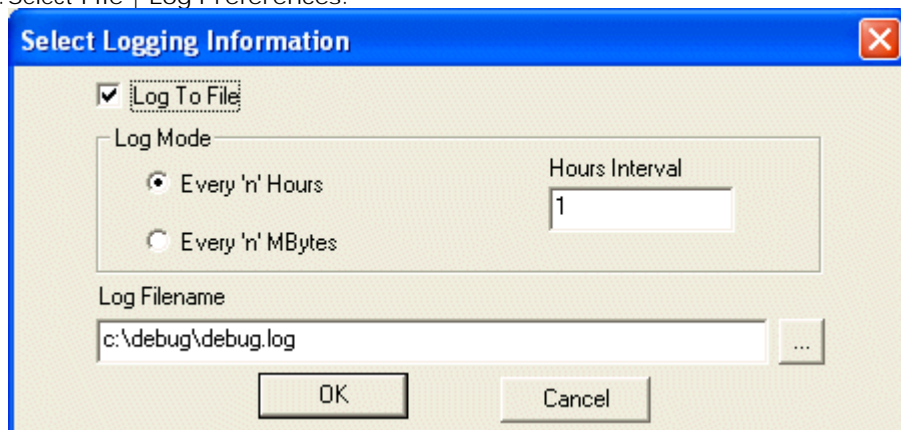


### Installation

1. Download the zip file.
2. Unpack the files into a folder such as c:\debug on the server PC.
3. Run DbgView.exe.
4. Events are shown in the DbgView window. These can be logged to a file if required. The level of detail shown can be filtered to show more or less activity.

### Logging

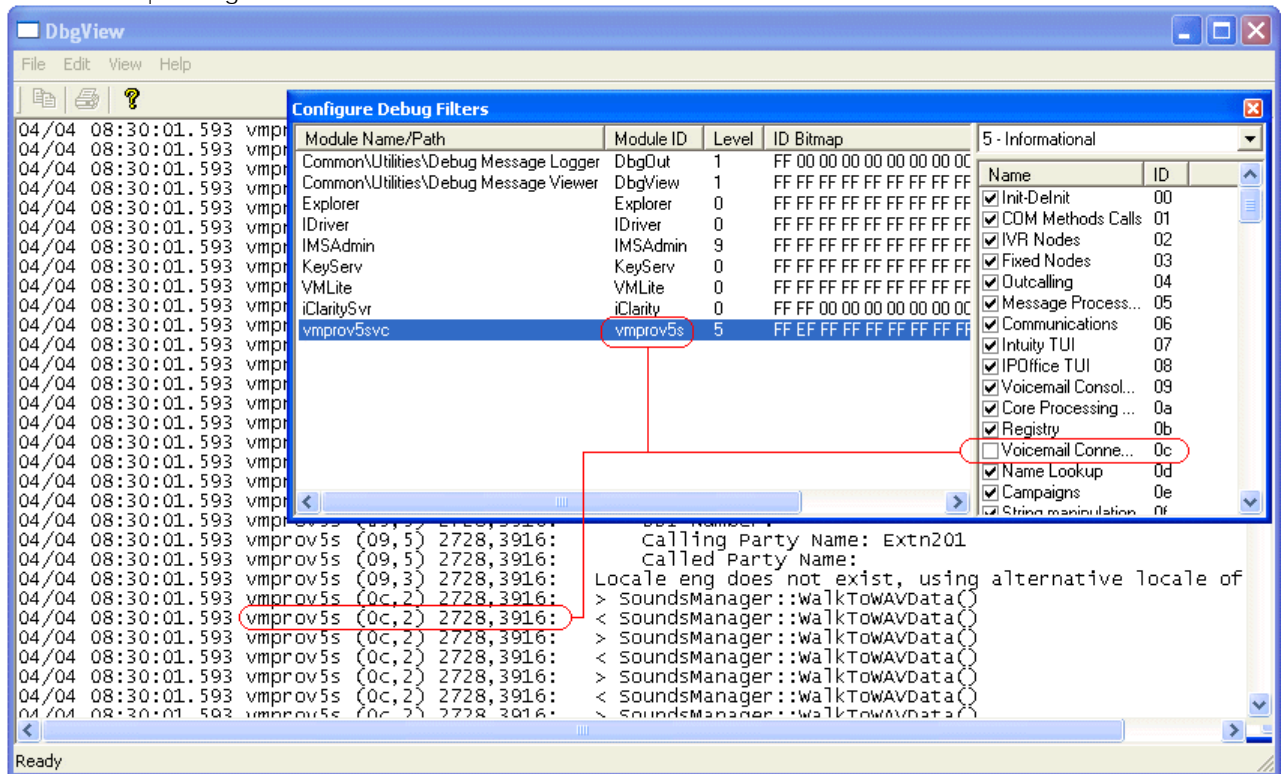
1. Run DbgView.exe.
2. Select File | Log Preferences.



3. Set the logging details are required and click OK.
4. While DbgView is running the viewable trace is also copied to the specified file.
5. The debug log files can be opened in programs such as WordPad.

## Filtering

1. Select View | Debug Filters.



2. Select the module for which you want to increase/decrease reporting.
3. In the right hand panel adjust the level of reporting.
4. Close the Configure Debug Filters window.

## 2.10.4 The Voicemail Console

The voicemail console mode (that is running as the voicemail service in Interact with desktop mode) is no longer used. Running services in this mode is not supported by Microsoft on Vista or Server 2008.

Instead you should use the [debug viewer](#)<sup>[118]</sup> to view voicemail server activity as it occurs.





# Chapter 3.

# Using the Voicemail Pro Client

## 3. Using the Voicemail Pro Client

### 3.1 Logging in to the Voicemail Pro Server

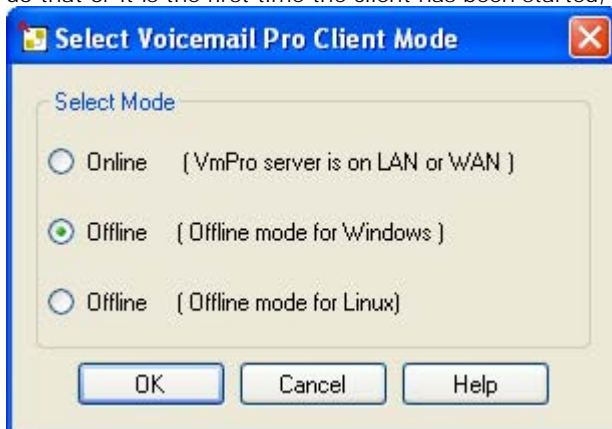
If you start the Voicemail Pro client on the same computer as the voicemail server, it will assume that you wish to manager the server and will automatically load its settings. You will have full access to all the servers settings, you do not need to login with an [administrator account](#)<sup>[13]</sup> name and password. You can [change to offline mode](#)<sup>[13b]</sup> if required or select to login to a remote server using the process below.

To connect to a remote voicemail server you will need to login using the name and password of an [administrator account](#)<sup>[13]</sup> already configured on that server. By default, no administrator accounts are configured on voicemail servers. Therefore initial configuration must be done locally.

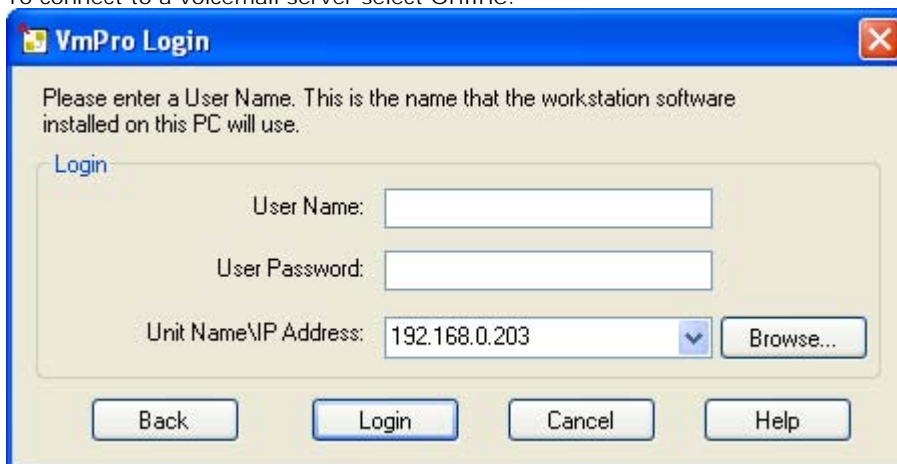
To start the Voicemail Pro Client:

1. From the Start menu, select Programs | IP Office | Voicemail Pro Client.
2. The Voicemail Pro Client window opens.

- If the client has been started before, it will attempt to start in the same mode as it previously used. If it cannot do that or it is the first time the client has been started, the select mode menu is displayed.

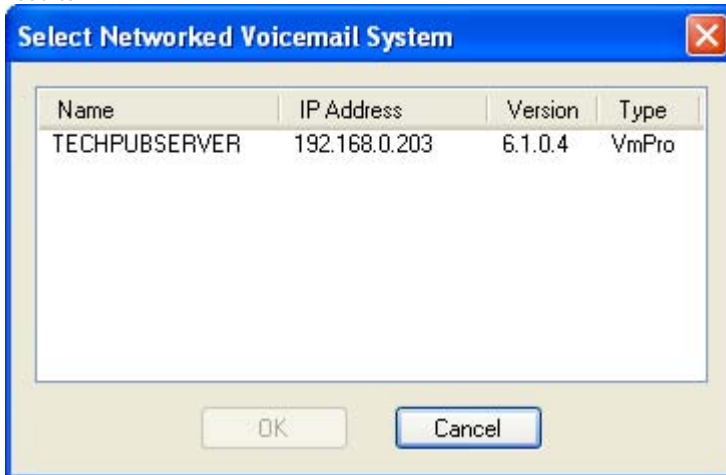


- Select either of the Offline modes in order to [import and export](#)<sup>[14]</sup> voicemail call flow and module files without being connected to any voicemail server. In the Offline mode for Linux, those call flow options not supported by a Linux base voicemail server are grayed out.
- To connect to a voicemail server select Online.

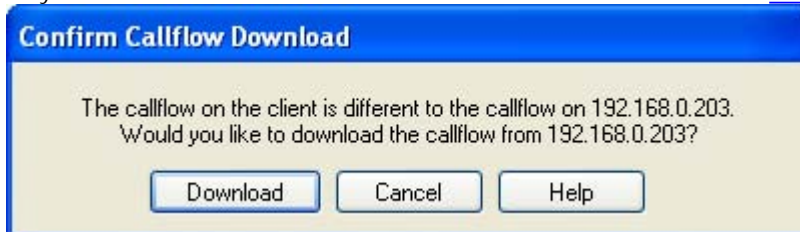


- Enter the name and password for an [administrator account](#)<sup>[13]</sup> on the voicemail server.
  - Note that these are not required is accessing a voicemail server on the same PC as the client.
  - The default account is *Administrator* and *Administrator*. After logging in with this account you should change the password from that default value.
  - If 3 unsuccessful logins are attempted using a particular administrator account name, the account is [locked](#)<sup>[13]</sup> for an hour.
- In the Unit Name\IP Address field enter the DNS name or IP address of the voicemail server.

- Alternatively click on Browse to search the local network for a server and select a server from the results.



3. If connection to a remote server, the following menu may appear. If you select Download, any existing call flow you may have loaded in the client will be overwritten. For more details see [Callflow Download](#)<sup>[124]</sup>.



4. If this is the first time that the voicemail server has been logged into, you should first change the default remote access account.
- If you logged in remotely using the default account, select File | Change Password.
  - If you logged in locally, select Voicemail Pro Administrators in the navigation panel.dd

---

## 3.2 Confirm Call Flow Download Window

When you connect to a server across a LAN or WAN to view or modify the call flow on the server, a check is made to see if the call flow that is stored locally on the client is the same. The call flow on the server might be different to the call flow on the client because:

- The local call flow is older than the version on the server, for example if the call flow on the server has been modified by another Client connection.
- The local call flow is newer than the version on the server, for example if the call flow on the server has been worked on while the local Client was being used in offline mode.
- The local call flow is from a different server, for example if you are connecting to a different server to the one from which the call flow was previously downloaded.

If the call flow is the same, no data will need to be copied from the server to the client. If the call flow is different you can chose to download the call flow from the server or to use the local call flow.



- Download  
Click to download the call flow from the server.
- Cancel  
Click this if you do not want to download the call flow from the server.

To upload the local call flow to the server, use the Save or Save and Make Live options from the File menu. See [Saving Changes and Making them Live](#)<sup>[127]</sup>.

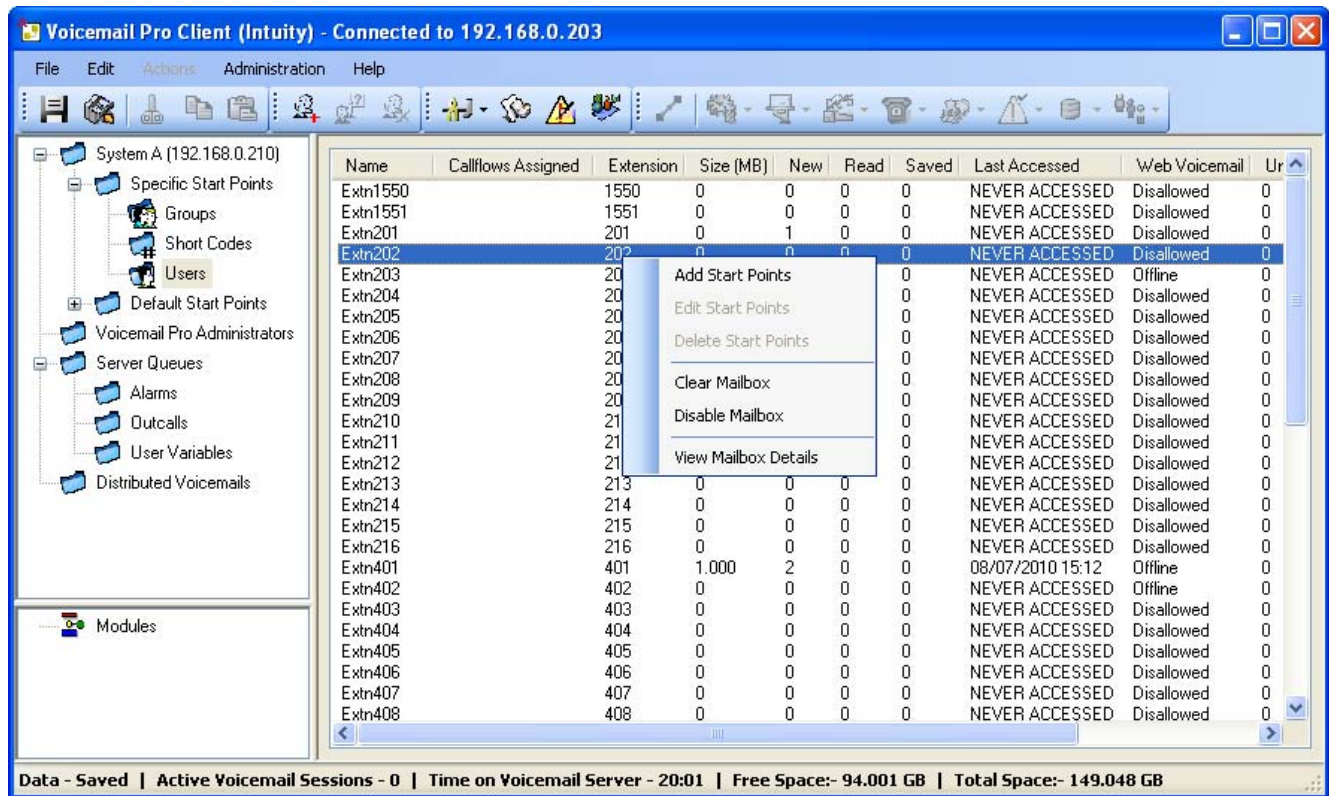
### 3.3 Continue Offline Message Window

Only one Voicemail Pro client can be connected to a voicemail server at any time. To avoid access to the server being blocked by a session of Voicemail Pro client that has been left connected, a [Client/Server Connection Timeout \(mins\)](#) setting is used to disconnect idle client session. By default the timeout is set to 5 minutes.

If your Voicemail Pro client session has timed out, the Voicemail Pro client will prompt you whether it should attempt to re-establish the session or close. You are then able to continue working in offline mode or to close the client.

### 3.4 The Main Voicemail Pro Window

The Voicemail Pro Client is a Windows interface used to customize the Voicemail Pro Server.




The parts of the Voicemail Pro Client window are:

- [Title Bar](#) <sup>[122]</sup>  
The title bar indicates the telephony interface that is being used, namely IP Office or Intuity. If you are working offline, the title bar displays *Offline*. If you are working online, the name of the connected server is displayed.
- [Toolbar](#) <sup>[146]</sup>  
The toolbar across the top of the window provides access to the Voicemail Pro options via icons instead of the menus.
- [Navigation Pane](#) <sup>[133]</sup>  
The upper left Navigation pane contains an expandable/collapsible list of customizable voicemail start points.
- [Modules](#) <sup>[164]</sup>  
The lower left Navigation pane contains a library of voicemail modules.
- [Details Pane](#) <sup>[133]</sup>  
The details pane shows information relating to the option selected in the left-hand panel.

## 3.5 Saving Changes and Making them Live


The call flow settings shown and edited using the Voicemail Pro client are stored in a database file (Vmdata.mdb) on the voicemail server. However, when edited, the changes are not automatically applied to the operation of the voicemail server. Instead the database file must be converted to a separate file (Root.vmp), that being the file that is used by the voicemail server for its current operation.

To save the configuration and make it live

1. Choose  Save & Make Live to save the settings as the Root.vmp file used by the voicemail server.
  - If you are working remotely in Offline mode, you will be prompted to select whether to save your changes to the local database or to the remote server.

To save the configuration to a file without making it live

Call flow settings can be saved to a .vmp file and then [included](#) <sup>[154]</sup> in the operation of another voicemail system.

1. Choose  Save as to save the database as a .vmp file with the name that you specify. You can then copy the file to other systems.

## 3.6 Logging Out

It can be useful to connect to a system to download the current system configuration and then disconnect and make changes offline. You can then test configuration changes offline before applying them to a live system.

To log out:

1. From the File menu, select Log Out.
2. You are logged out of the Voicemail Pro server and placed in offline mode. You can either make configuration changes offline and then [log back in](#) when you are ready or log on to a different server to work. See [Logging in to the Voicemail Pro Server](#) <sup>[122]</sup>.

Notes

- Logging out is not the same as closing down with the Exit option. See [Closing Down](#) <sup>[129]</sup>.
- If the Client and Server are installed on the same machine, the Log Out option is not available.

## 3.7 Voicemail Shutdown or Suspend

You can request that the voicemail server either shuts down or is suspended:

- Suspend  
The IP Office will stop sending calls to the voicemail server until it receives an instruction to resume voicemail or the server is restarted.
- Shut Down  
The IP Office will stop sending calls to the voicemail server until the voicemail [services are restarted](#) <sup>[31]</sup> or the server is restarted. Initially the shut down is a polite shut down
- If a shut down is selected, the voicemail server will wait for all call to cease before it shuts down. To do this it will first send a request to the IP Office hosting it, requesting that the IP Office stops sending any new calls to voicemail. Once all current calls have ended, the voicemail server will shut down.
- If necessary, an immediate shut down can be selected which will end all calls in progress.
- If the voicemail server is a distributed voicemail server, when shut down, new calls to voicemail are rerouted to the central voicemail server.
- If the voicemail server is a centralized voicemail server with a backup server, when shut down, new calls to voicemail are rerouted to the backup server.

Starting the Shut Down or Call Suspension Process

1. Select File and then Voicemail Shutdown.

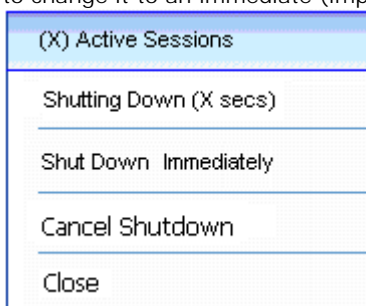
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2. Select one of the options:

- Continue

Selecting this option will start the polite shutdown process for the server. Once the server is shut down it can only be restart by restarting the Voicemail Pro service or restarting the voicemail server computer.

- While the server is shutting down, selecting File again will display Voicemail Shutdown (In Progress...) . Clicking on this will show a menu showing the status of the shut down and options to either cancel it or to change it to an immediate (impolite) shut down.

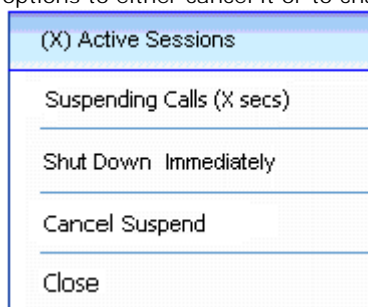


- Active Sessions  
Displays the number of sessions (calls) currently in progress. The shut down will only occur when this reaches zero.
  - Shutting Down  
Displays the time for which the shutting down process has been running.
  - Shut Down Immediately  
Change the shut down to an immediate impolite shut down. Any current calls are disconnected.
  - Cancel Shut Down  
Cancel the shutting down process.
- Once the shut down is complete, the Voicemail Pro clients are the same as for off-line mode. To restart the server the server PC must be restarted.

- Suspend Calls

Selecting this option will start the call suspension process for the sever. Once the server is suspended, it can be restarted by selecting File | Resume Voicemail.

- While the server is suspending calls, selecting File again will display Voicemail Suspend (In Progress...). Clicking on this will show a menu showing the status of the call suspension process and options to either cancel it or to change it to an immediate (impolite) shut down.



- Active Sessions  
Displays the number of sessions (calls) currently in progress. The shut down will only occur when this reaches zero.
  - Suspending Calls  
Displays the time for which the shutting down process has been running.
  - Shut Down Immediately  
Change the shut down to an immediate impolite shut down. Any current calls are disconnected.
  - Cancel Suspend  
Cancel the shutting down process.
- Once the server has suspended calls, selecting File again will display Voicemail Resume. Clicking on this will request the IP Office to resume routing calls to the voicemail server.



## 3.8 Closing Down

When you have finished working, you can close down the Voicemail Pro Client.

To close the Voicemail Pro Client:

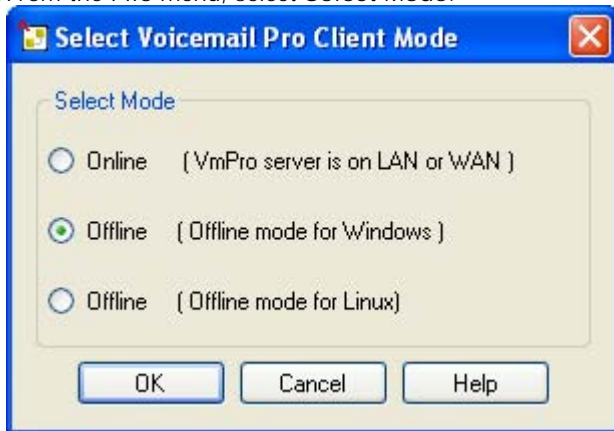
1. From the File menu, select Exit.
2. If you have not made any changes, the Voicemail Pro Client closes and you are returned to the desktop. If you have made changes, a message is displayed to ask whether you want to save them.
3. If you do not want to save your changes, click No. No changes are saved. If you want to save your changes, click Yes. Your changes are saved but not yet made live.
4. If you are ready to make your changes live, click Save & make Live.

### 3.9 Changing Between Offline and Online Mode

It can be useful to connect to a system to get the current system configuration and then disconnect and make changes offline. If the Voicemail Pro client and server are on the same machine, you can switch between online and offline mode without having to log out.

To switch between online and offline mode:

1. From the File menu, select Select Mode.



- Online  
If this option is selected, the client will display the menus for selecting the voicemail server to which it should then connect. If the server is remote, i.e. not on the same PC as the client, the name and password of any [administrator account](#)<sup>[13]</sup> configured on the server will be required for access. The account used will determine the range of actions that can be performed on that server.
- Offline (Offline mode for Windows)  
Select this option to use the client without connecting to a voicemail server. This mode can be used to view, edit and create call flows imported from a voicemail server or for export to a voicemail server.
- Offline (Offline mode for Linux)  
This mode is similar to the Windows offline mode above. However, those call flow actions not available to a voicemail server running on a Linux based platform are grayed.

2. Select [Offline](#) to work offline or [Online](#) to connect to the server and work online. If you select [Online](#), the [normal login process](#)<sup>[12]</sup> continues.

## 3.10 Administrator Accounts

When the Voicemail Pro client is used on the same PC as the server, it connects automatically to that local server without needing a name or password, no specific Voicemail Pro client user account is used. However, when connecting remotely, the name and password of an server administrator account are required. The account used determines what actions can be performed using the client.

The different types of account are:

- **Basic** (*Voicemail Pro 6.0+*)  
A basic account user can view most of the voicemail settings but can only edit alarms.
- **Standard**  
A standard account can perform administration of call flows using the client. A standard administrator can change their own password using [File | Change Password](#)<sup>[13]</sup> but they cannot add, remove or modify other administrator accounts.
- **Administrator**  
An administrator account can administer all settings including other server administrator account settings.

### Default Administrator Account

For a newly installed server, a default Standard administrator account is created with the user name and password of *Administrator* and *Administrator*. The password for this account must be changed after installation.

### Unlocking an Administrator Account

If an administrator tries unsuccessfully to log in 3 consecutive times, their administrator account is locked and cannot be used for an hour. You can release a locked account by changing its Status from *Locked* back to *Inactive*.

### 3.10.1 Change Password

If you have logged in remotely using either a Standard or Administrator admin account, you can change your own account password using the following method. This option is not available if you logged locally or if you logged in remotely using a Basic admin account.

If logged in locally or if you logged in remotely with an Administrator account, you can also change the password of any account, including your own, through the [Voicemail Pro Administrator](#)<sup>[13]</sup> settings.

To change your password:

1. From the File menu, select Change Password.



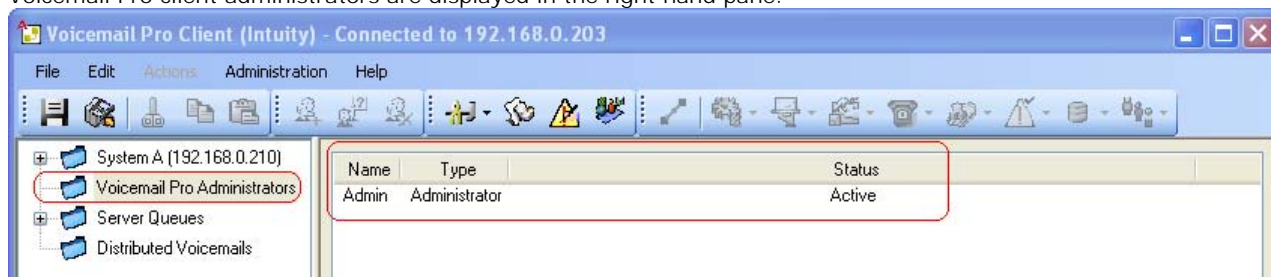
2. In the New Password box, type the new password.
3. In the Confirm Password box, retype the new password.
4. Click OK.

### 3.10.2 Create/Edit Admin Accounts

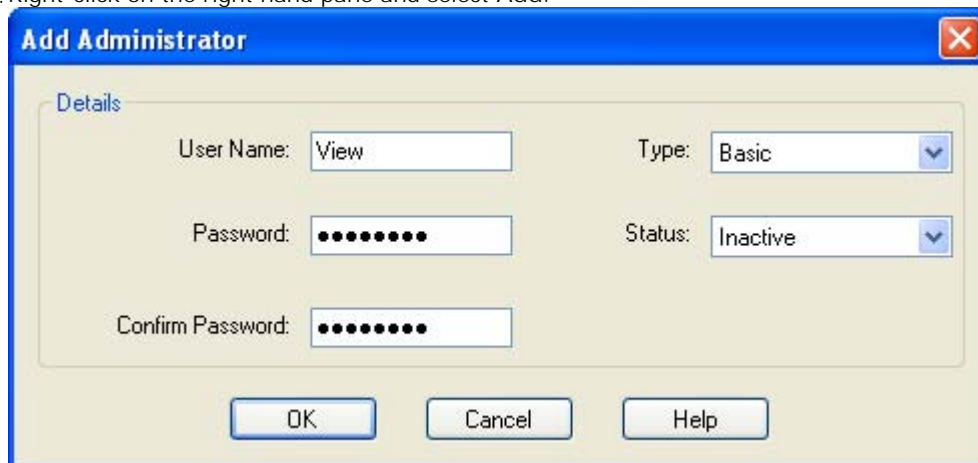
If you log in locally or if you log in remotely using an Administrator account, you can view and edit the administrator accounts. Note that if logged in remotely you cannot change the details of the account used for the login (you can still use [File | Change Password](#)<sup>[13]</sup> to change your own password).

To add a Voicemail Pro Client User Account

1. In the left hand navigation pane, select Voicemail Pro Administrators. The name, type and status of any existing Voicemail Pro client administrators are displayed in the right hand pane.




2. Right-click on the right hand pane and select Add.



3. Enter the details for the new client user:

- User Name  
Enter a unique name for the administrator account. The name must be at least 5 characters long and must not contain spaces or any of the following characters: \ / : \* ? < > | , ; .
- New Password / Confirm Password  
Enter and confirm the password for the account. The password must be at least 5 characters long and must not contain spaces or any of the following characters: \ / : \* ? < > | , ; .
- Type  
Select the type of account:
  - Basic (*Voicemail Pro 6.0+*)  
A basic account user can view most of the voicemail settings but can only edit alarms.
  - Standard  
A standard account can perform administration of call flows using the client. A standard administrator can change their own password using [File | Change Password](#)<sup>[13]</sup> but they cannot add, remove or modify other administrator accounts.
  - Administrator  
An administrator account can administer all settings including other server administrator account settings.
- Status  
By default new users are created as *Inactive*. Their status changes to *Active* when they connect to a Voicemail Pro server.

4. Click OK.

5. Click  Save and Make Live to save the changes. The user created can now log into the Voicemail Pro Client Server, for more information, see [Logging in to the Voicemail Pro Server](#)<sup>[12]</sup>.

To modify an account

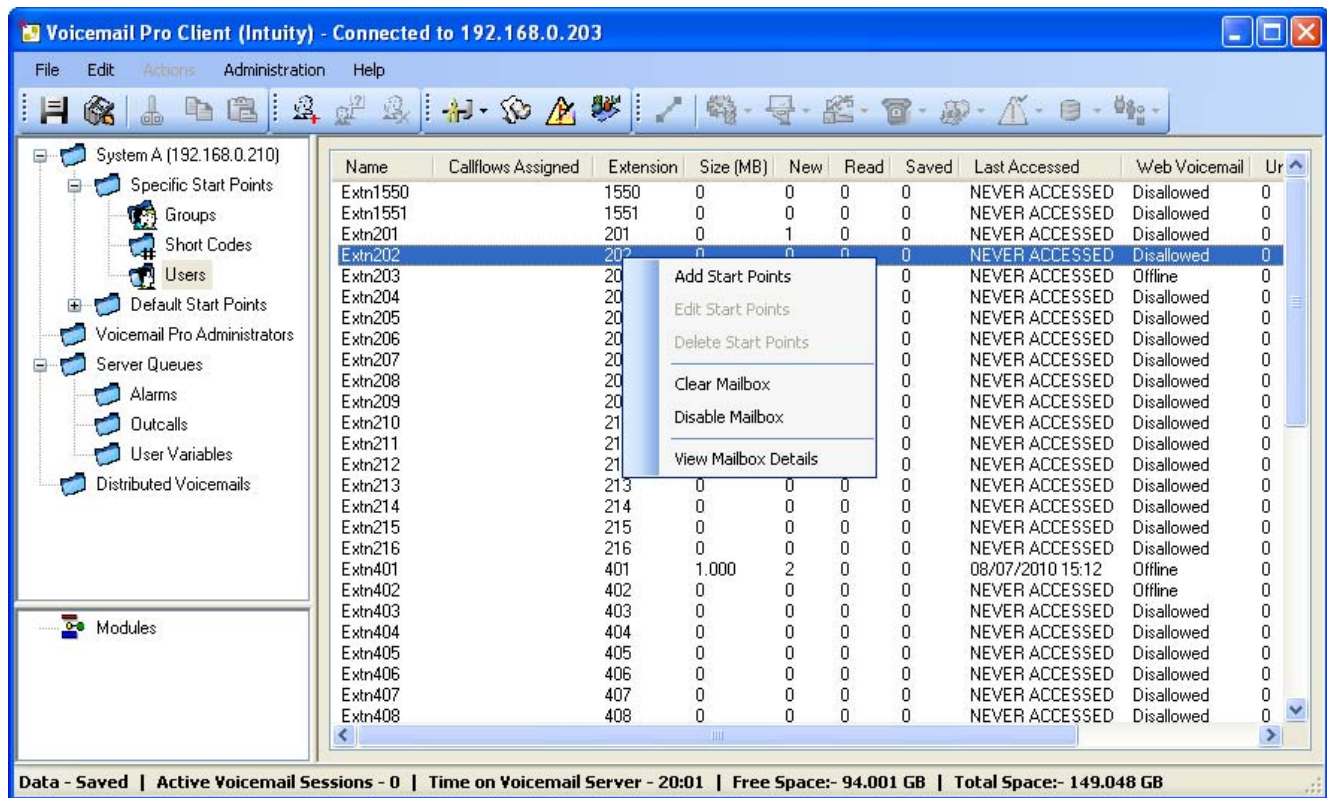
1. Either double click on the account in the display of administrators or right click on the account and select Modify.

To delete an account

1. Right-click on the account and select Delete.

### 3.11 Using the Navigation and Details Panes

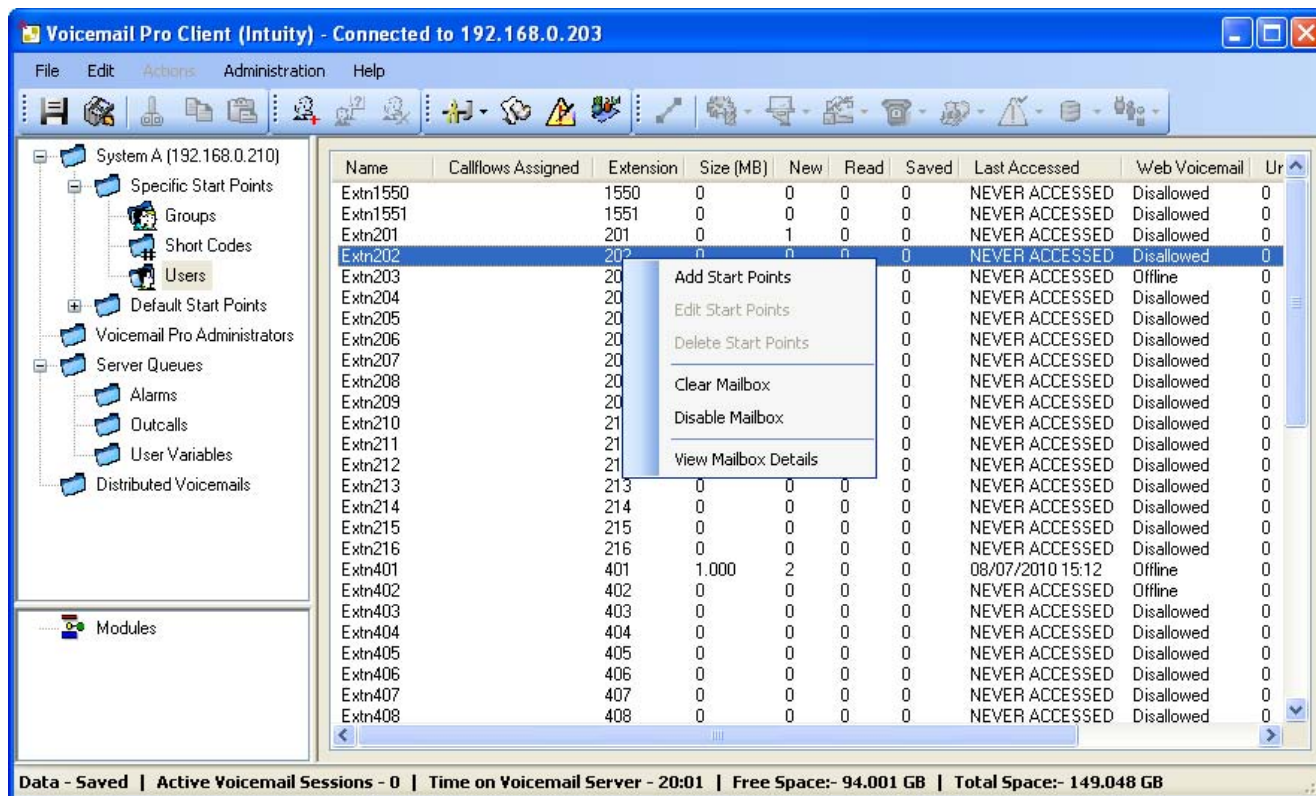
The information displayed in the main right-hand window of the Voicemail Pro client depends on what is currently selected in the left-hand navigation windows. For instance, if Users is selected, details of all the user mailboxes and the messages in those mailboxes is displayed.



- [Specific Start Points](#) <sup>[156]</sup>  
The start points are used to create and edit call flows. Each of the different types of call flow created are group under icons for users, groups and short codes. Double-clicking on those icons will expand or collapse the list of individual start points of that type.
  - [Users/ Groups](#) <sup>[134]</sup>  
Clicking on these icons will display a summary of the user or group mailboxes on the voicemail server. Information about the size and contents of the mailbox is displayed and some key settings. You can right click on the mailbox to perform various actions.
  - Short Codes  
Clicking on this icon will display a list of the short code start points configured on the server.
- [Default Start Points](#) <sup>[157]</sup>  
These icons are used to display the default call flows for different types of voicemail operations.
- [Voicemail Pro Administrator](#) <sup>[141]</sup>  
Clicking on this icon will display a list of administrator accounts configured on the voicemail server. These are accounts used for remote access to the server.
- [Server Queues](#) <sup>[142]</sup>
  - [Alarms](#) <sup>[142]</sup>  
Click on this icon will display a list of outgoing alarm calls that the voicemail server is current scheduled to make. The list can be used to edit, delete and add alarms.
  - [Outcalls](#) <sup>[144]</sup>  
Clicking on this icon will display a list of calls (other than alarms) that the voicemail server is currently scheduled to make. These are typically calls to inform users of new messages in their mailbox. The list can be used to edit the call settings.
  - [User Variables](#) <sup>[145]</sup>  
User variable are values stored by the voicemail server which can be written to and read by actions within call flows. Clicking on the icon will display a list of the user variables and their current values. The list can be used to manually change the value of a variable.

### 3.11.1 Users / Groups

When you click on Users or Groups in the left-hand navigation pane, the right-hand pane displays information about the user or group mailboxes.



The information can be sorted by clicking on the column headers. The information available is:

- Name  
The user or group name used for the mailbox creation.
- Callflows Assigned  
The customized call flows created for the mailbox.
- Extension  
The associated extension number for the mailbox.
- Size (MB)  
The current size for the mailbox messages, recordings and prompts.
- New  
The number of new messages in the mailbox.
- Read  
The number of read messages in the mailbox.
- Saved  
The number of messages marked as saved in the mailbox.
- Last Accessed  
The date and time the mailbox was last accessed.
- Web Voicemail  
Whether the mailbox is accessible via UMS Web Voicemail and whether it is currently being accessed.
- Unopened  
The number of messages in the mailbox that have never been opened. This is different from new as messages can be changed from being read or saved to being marked as new.
- Exchange Messages  
Whether the mailbox is configured to forward messages to an exchange server email account.

When you right-click on a mailbox a number of options are available:

- **Add Start Points / Edit Start Points / Delete Start Points**  
If the mailbox has any customized call flow start points setup, they are listed in the Callflows Assigned column. These options allow you to add additional start points. A list of start point types is displayed which you can then select or deselect. Selecting an option will create a matching start point for the mailbox. Deselecting an option will delete the matching start point and any content.
- **Clear Mailbox (*Voicemail Pro 5.0+*)**  
This option will reset the mailbox. All existing messages and recordings are deleted and any prompts such as the user name and greeting prompts. The mailbox password is not reset. This action is not applied to messages for users using Exchange 2007 as their message store.
- **Disable Mailbox (*Voicemail Pro 5.0+*)**  
This option will stop the mailbox from being used to receive messages. This includes the forwarding of messages to the mailbox and manual or automatic recording placing recordings into the mailbox. If selected we recommend that the Voicemail On setting within the IP Office configuration is also disabled, that will stop the IP Office from attempting to use the mailbox. This option does not affect any existing messages in the mailbox. Disabled mailboxes are listed as *DISABLED* in the Last Accessed column. See [Disabling a Mailbox](#)<sup>[332]</sup>.
- **View Mailbox Details (*Voicemail Pro 6.0+*)**  
This option is available for user mailboxes. It allows you to view and edit various user mailbox settings including the user's alternate numbers, outcalling settings and personal distribution lists.

### 3.11.1.1 Account

Right-clicking on a user mailbox and selecting View Mailbox Details displays a menu with a number of tabs. These can be used to view and if necessary edit some of the user's mailbox settings.

#### Account

This tab display basic mailbox user settings.

Destination	Number	Timeout (Secs)
Desk	201	15
Home	9123	15
Mobile	923456	15
Delegate		
Other		

- **Enabled**  
This check box indicates whether the user's voicemail mailbox is currently enabled or not.
- **Numbers**  
These numbers are used for [outcalling](#) if configured for the user. Each number specified can then be used as a target for outcalling calls or in an escalation list of targets for outcalling. The Timeout is used to set how long an outcalling attempt should ring the number before stopping. If the target number has its own voicemail system, the timeout should be set lower than the time it takes for that voicemail system to answer unanswered calls.

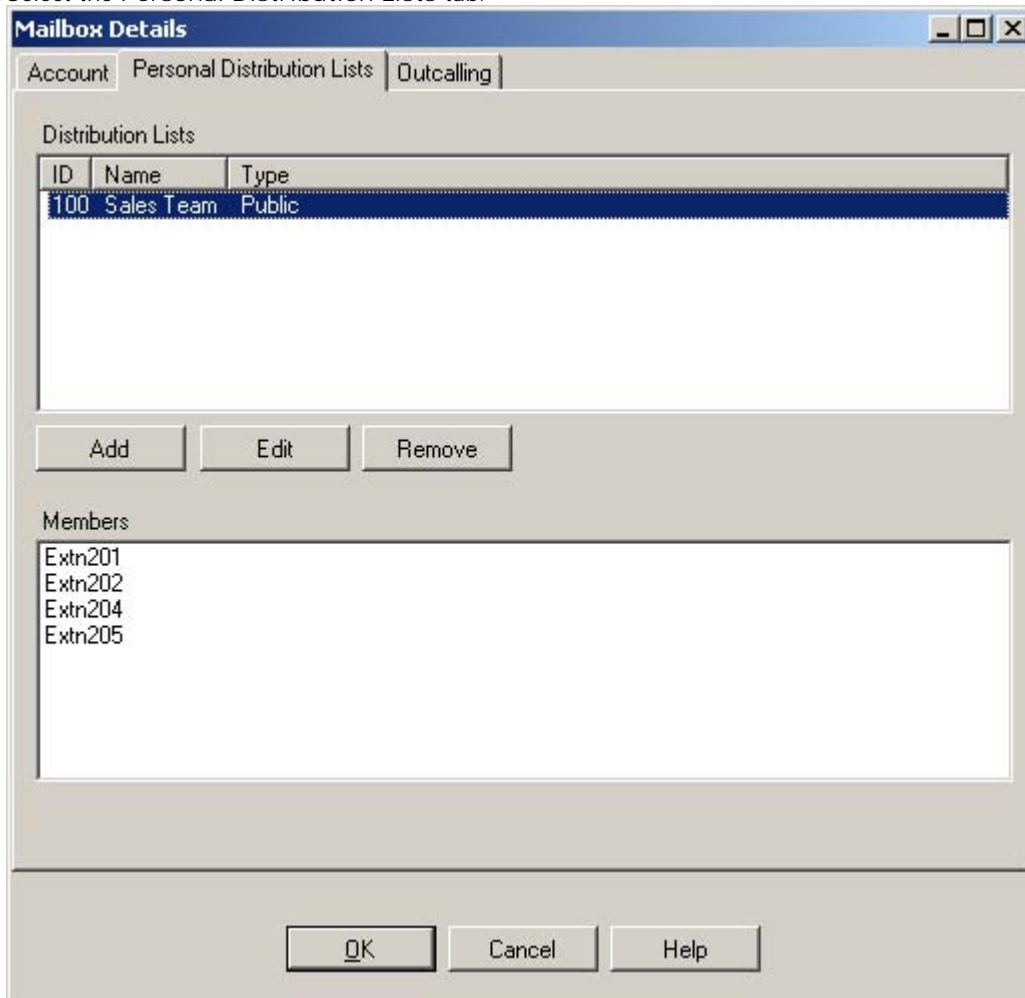


## Personal Distributions Lists

Intuity mode mailbox users can use personal distribution lists as the destination for voicemail messages they are sending or forwarding to other mailbox user. This saves them having to enter the individual mailbox numbers each time. Users can configure their distribution lists through the mailbox's telephone user menus or using IP Office Phone Manager. Voicemail Pro 6.0+ allows you to view and edit each user's distribution lists.

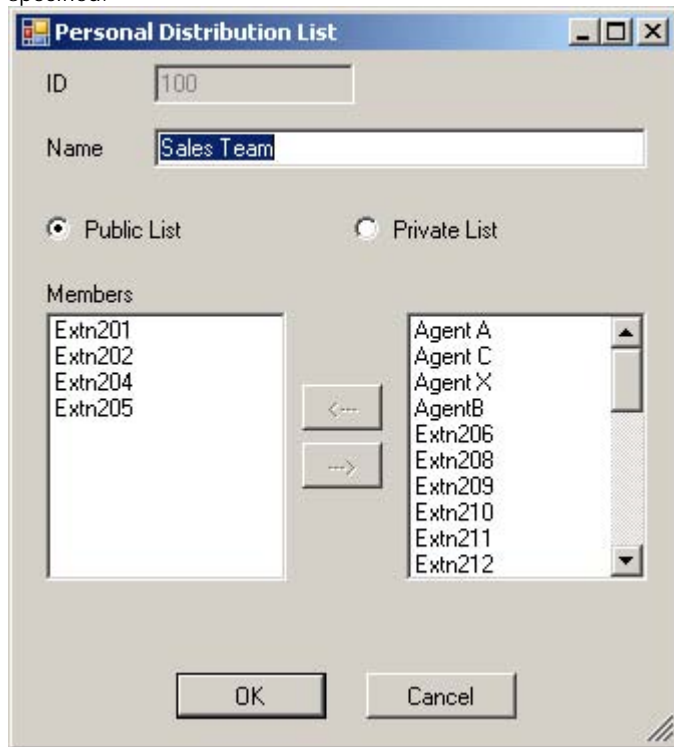
Each user mailbox can have up to 20 distribution lists. Each list can contain up to 360 mailboxes and can be set as either public or private. Private lists can be used only by the mailbox user. Public lists can be used by other mailbox users when they forward a message. However, public lists can not be modified by other users.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it. Select the option Mailbox Administration.
3. Select the Personal Distribution Lists tab.



4. To show the mailboxes in an existing list click on the list. The existing members are shown in the bottom panel.

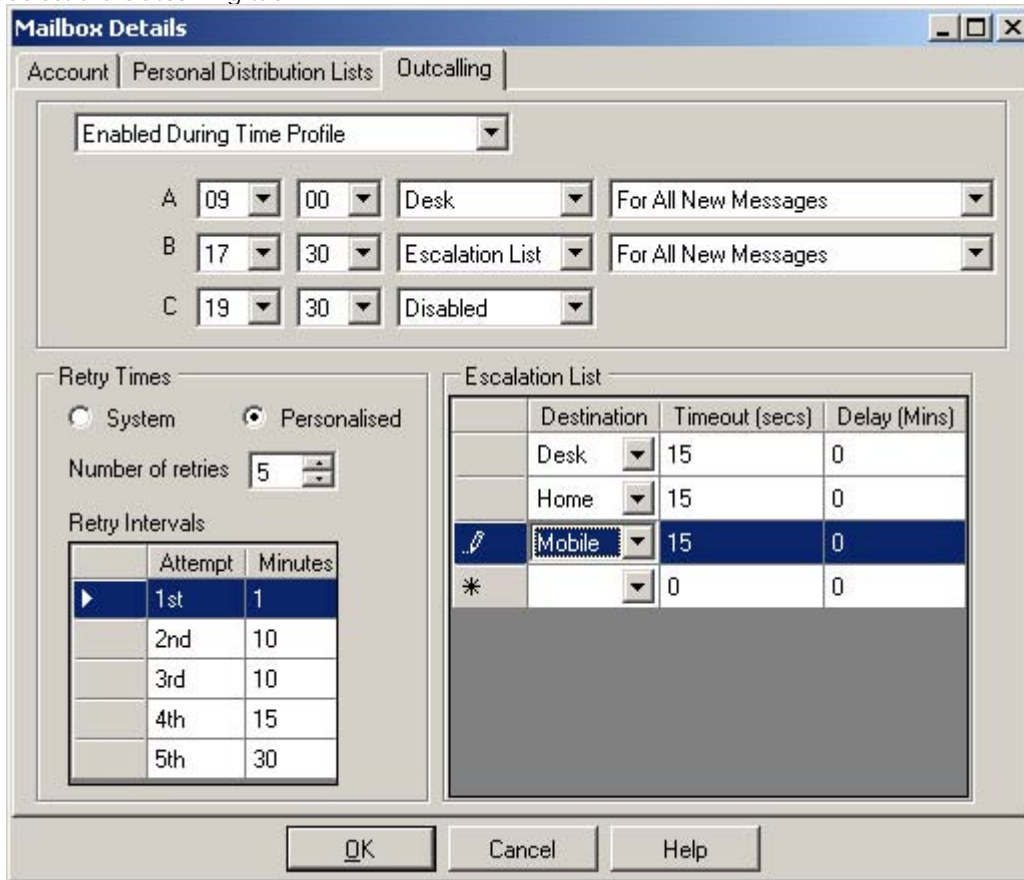
5. When adding or editing a list a separate menu is displayed allowing the list name, type and members to be specified.



## Outcalling

Using the Voicemail Pro client you can view and edit a user's [outcalling](#) settings.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it. Select the option Mailbox Administration.
3. Select the Outcalling tab.



**Mailbox Details**

Account | Personal Distribution Lists | **Outcalling**

Enabled During Time Profile

A 09 00 Desk For All New Messages

B 17 30 Escalation List For All New Messages

C 19 30 Disabled

Retry Times

System  Personalised

Number of retries: 5

Retry Intervals

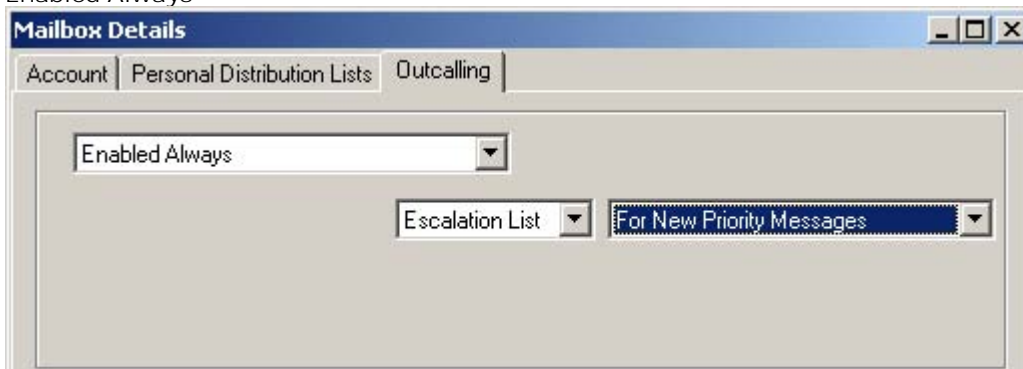
Attempt	Minutes
1st	1
2nd	10
3rd	10
4th	15
5th	30

Escalation List

Destination	Timeout (secs)	Delay (Mins)
Desk	15	0
Home	15	0
Mobile	15	0
*	0	0

OK Cancel Help

- The top drop-down is used to select the type of outcalling and the destination for outcalling. For each the outcalling destination and the type of message for which outcalling should be used can be selected
  - Disabled  
Switch off outcalling for the user.
  - Enabled Always



**Mailbox Details**

Account | Personal Distribution Lists | **Outcalling**

Enabled Always

Escalation List For New Priority Messages

- Enabled During Time Profile  
Allows a user specific time profile for outcalling to be specified.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. Below it, three rows (A, B, C) are visible. Row A has time 09:00, destination 'Desk', and action 'For All New Messages'. Row B has time 17:30, destination 'Escalation List', and action 'For All New Messages'. Row C has time 19:30, destination 'Disabled', and action 'For All New Messages'.

- Enabled During Peak Time  
Use outcalling during the [peak time](#) <sup>[116]</sup> period defined on the voicemail server.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Peak Time' dropdown is set to 'Enabled'. Below it, the 'Escalation List' dropdown is set to 'Escalation List' and the action dropdown is set to 'For New Priority Messages'. A text box below indicates 'Peak Time from 09:00 to 17:30'.

- Enabled During Prime Time  
Use outcalling during the [prime time](#) <sup>[325]</sup> period defined on the voicemail server.

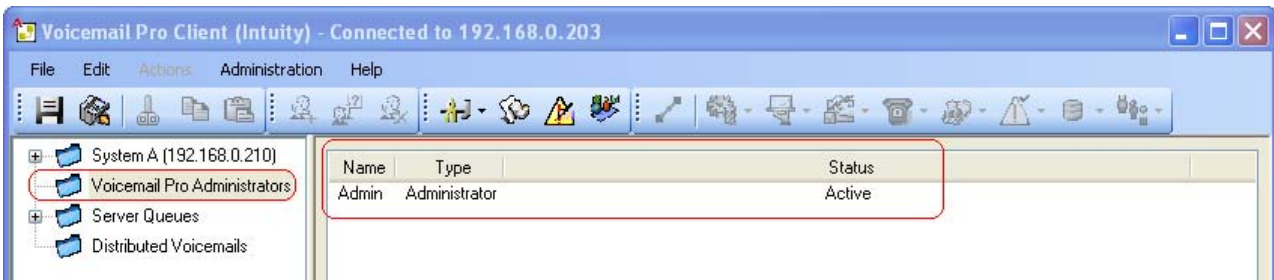
The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. Below it, three rows (A, B, C) are visible. Row A has time 09:00, destination 'Desk', and action 'For All New Messages'. Row B has time 17:30, destination 'Escalation List', and action 'For All New Messages'. Row C has time 19:30, destination 'Disabled', and action 'For All New Messages'.

- Retry Times

- System  
Use the [default retry settings](#) <sup>[116]</sup> configured on the voicemail server.
- Personalized  
Use the options below to configure user specific retry settings.
  - Number of Retries  
Up to 10 retries can be specified.
  - Retry Intervals  
These values set the interval between one notification attempt and the next (not including the actual outcalling ringing time for the outcalling destination). The first 5 retries can be given varying intervals between 0 and 60 minutes. To change a value click on it and enter the new value. When more than 5 retries are selected, the default value is used for all retries after the fifth retry.
- Escalation List  
An escalation list can be used as the destination for an outcalling attempt. The list can contain up to 9 entries selected from the user's account settings. The same number can be used more than once if required. For each number in the list you can set how long it should be rung and also the delay before trying the next number in the escalation list. If multiple retries have been configured, the full escalation list must be completed before the next retry begins.

### 3.11.2 Voicemail Pro Administrators

If you log in locally or if you log in remotely using an Administrator account, you can [view and edit the administrator accounts](#). Note that if logged in remotely you cannot change the details of the account used for the login (you can still use [File | Change Password](#) to change your own password).



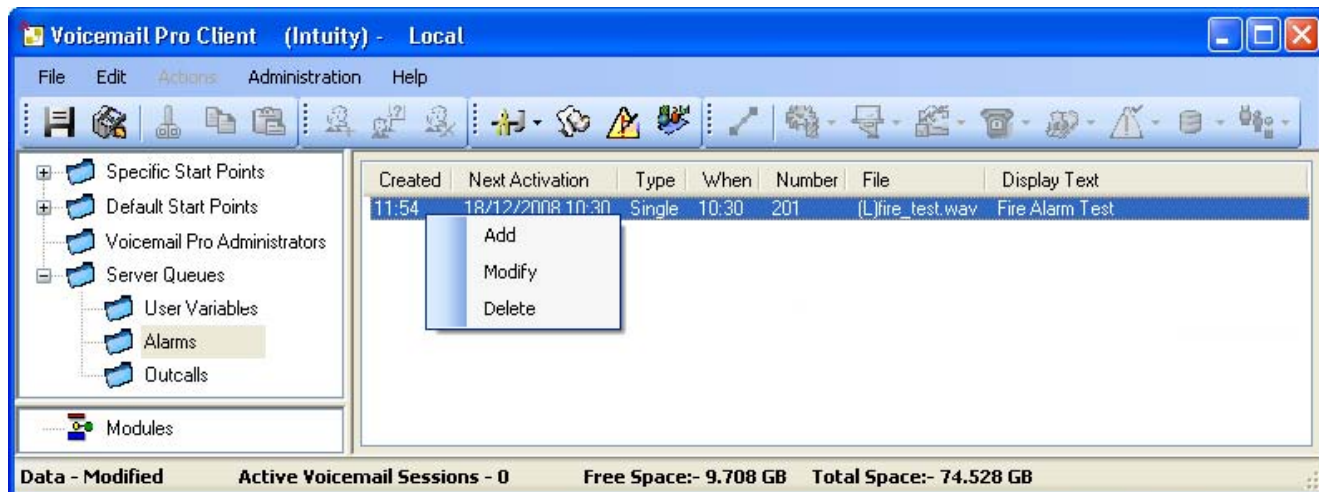
### 3.11.3 Server Queues

The following options are new in Voicemail Pro 5.0+.

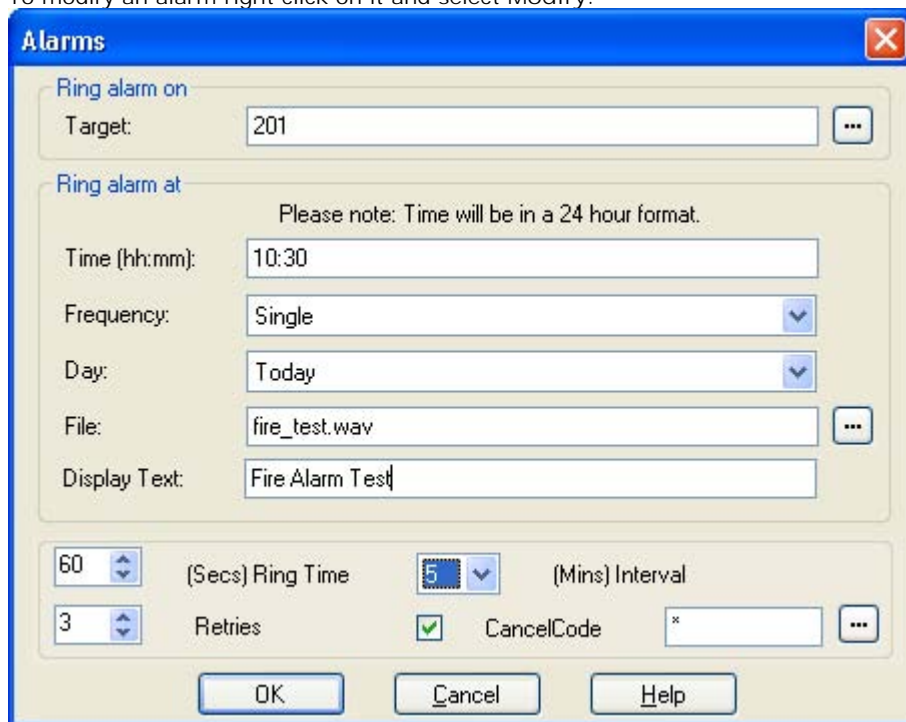
#### 3.11.3.1 Alarms

The Voicemail Pro client can display the alarm calls that have been configured for the Voicemail Pro to perform. These can be setup through call flows using the [Alarm Set](#) <sup>[248]</sup> action or directly through the Voicemail Pro client.

- The Voicemail Pro is limited to 2 outgoing alarm calls at the same time (subject to voicemail port availability). Any additional alarm calls are delayed until the existing alarm calls have been completed.



- To delete an existing alarm, right click on it and select Delete.
- To add an alarm right click and select Add, then use the settings below.
- To modify an alarm right click on it and select Modify.



- Time (hh:mm)  
Set the alarm time in 24-hour format (*hh:mm* or *hhmm*). A time value can be entered or a [call variable](#) <sup>[162]</sup> can be used. If left blank or if the call variable used is not a valid time value, the call flow user will be asked to enter a time the same as if Ask Caller was selected.
- Frequency  
Sets how often the alarm should occur. The options are *Single*, *Daily* or *Weekly*. A variable with value 1, 2 or 3 respectively can be used.
- Day  
Useable with *Single* and *Weekly* alarms. Set the day for the alarm. The option *Today* is also available for alarms where the Frequency is set as *Single*.

- File  
This field is optional. If a file is specified here it is used for the alarm call. If no file is specified the default alarm message ( *"This is an alarm call, please hang up"* ) is used.
- Display Text  
By default the alarm will display *"Alarm"* on the target if it is an Avaya display phone. This field can be used to customize the text used.

The following additional settings are available with Voicemail Pro 6.0+.

- Ring Time: *Default = 60 seconds. Range = 5 to 120 seconds.*  
This field set the length of ring time used for the alarm call if not answered.
- Retries: *Default = 0 (Off). Range = 0 to 10.*  
This field can be used to specify how many times the alarm should be repeated if it is not answered and cleared. When a value other than 0 is selected, the Interval option becomes available to specify the interval between repeats.
- Interval: *Default = None (Off).*  
If a number of retries is specified, this option can be used to select the number of minutes between repeated alarm attempts until the alarm is cleared.
- Cancel Code: *Default = Off.*  
When off, the alarm is cleared if the alarm call is answered. If on, a dialing code can be specified. If the correct code is not dialed in response to an alarm, the alarm is not cleared and will repeat if retries have been specified.
  - Cancel Code: *Default = \* , Range = Up to 4 digits.*  
This field is used to enter the dialing required to clear the alarm call. The value \* will match any dialing.

---

### 3.11.3.2 Outcalls

When you click on Outcalls in the left hand navigation pane, details of any currently set calls are displayed in the right hand pane. These are calls being made by the voicemail server.

The types of calls that are displayed are listed below. The voicemail server may also be configured for alarm calls, those are displayed on a separate [alarms page](#)<sup>[142]</sup> on which they can also be configured. The information displayed for the calls are:

- **Type**  
The type of outgoing call.
  - **Conference**  
These are conference invite calls being made by the voicemail server on behalf of the IP Office Conferencing Center application.
  - **Callback**  
These are new message notification calls being made for mailbox users configured for [remote callback](#)<sup>[326]</sup>.
  - **Outbound Alert**  
These are new message notification calls being made for mailbox users configured for [outcalling](#)<sup>[322]</sup>.
- **Created**  
The time and data at which the outgoing call was configured on the voicemail server.
- **State**  
The current state of the outgoing call. The options are: Failed, IN Progress, Conference, Queued and Suspended.
- **Attempts**  
The number of times the voicemail server has attempted to place the alert call.
- **Next Attempt**  
The time and data of the next outgoing call attempt.
- **Target**  
The target number for the next call attempt.


#### Channel Restrictions

- The Voicemail Pro server has restrictions on the number of channels it can use for different types of outgoing calls that it can make. These limits are separate for each of the cal types. When a limit is reached, further calls of that type are delayed until one of the existing calls is completed. These limitations are not controlled by [Voicemail Channel Reservation](#)<sup>[96]</sup> settings.
  - Outcalling can use up to 5 channels at any time.
  - Conference center invitation calls can use up to 5 channels at any time.
  - Callback calls can use up to 2 channels at any time.
  - Alarm calls can use up to 2 channels at any time.



### 3.11.3.3 User Variables

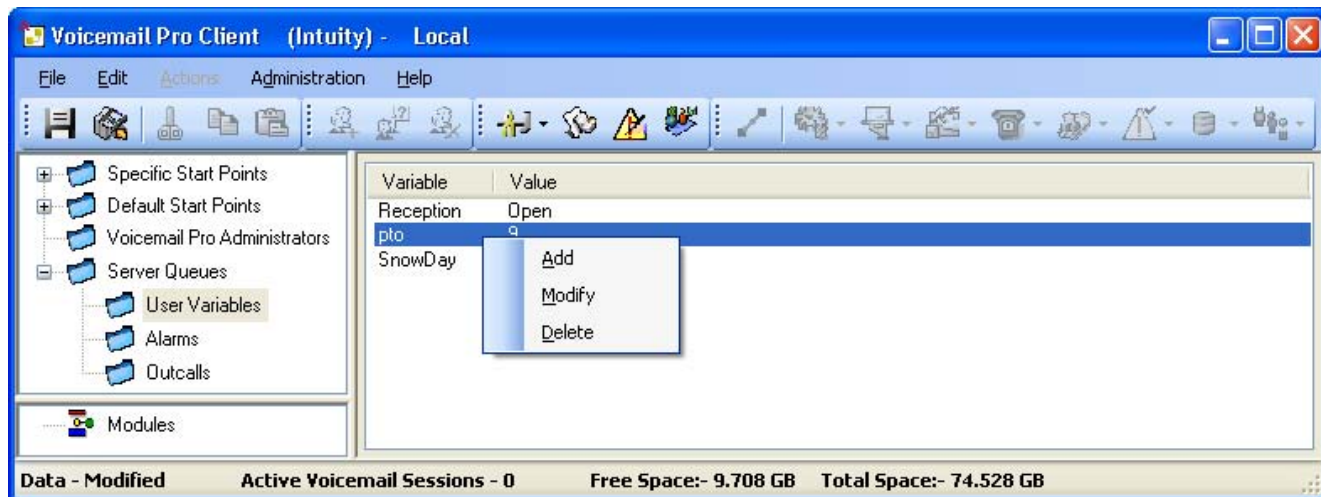
The Voicemail Pro client allows you to define user variables for the system that are then useable within any call flows. User variables differ from call variables in that they are system wide values that can be shared between all calls while call variable values differ from call to call.

Within a call flow a  [Set User Variable](#) <sup>(253)</sup> action can be used to set or change the value of a user variable. This includes using the current value of a [call variable](#) <sup>(162)</sup> to set as the new value for the user variable.

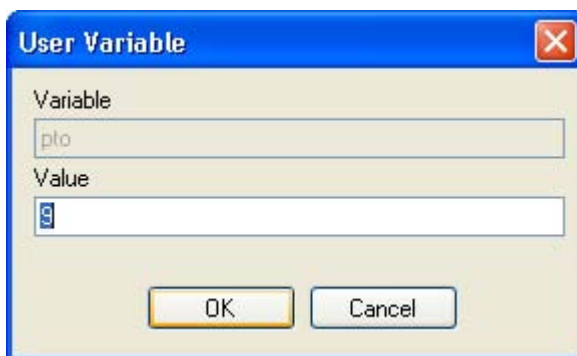
Call flows can also be branched using a  [Test User Variable](#) <sup>(254)</sup> action to check the current value of the variable against a required value.

The existing value of a user variable can also be obtained using the variable \$REG[ <variable\_name>] in call flows.

By clicking on User Variable in the left-hand pane, you can view all the existing user variables and their current values.



To add and delete user variables and to change the current value you can right-click on the variable and select the required option. For example select Modify to change the value.

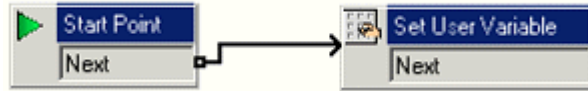


## Example of Using User Variables

1. Add a variable called Reception.
2. Two start points need to be created, one for indicating when the reception is open, the other for when the reception is closed. When completed the call flows will look similar to the examples shown.

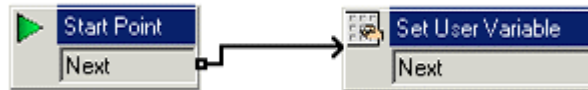
- Create a start point called ReceptionOpen and connect it to a Set User Variable action. The Set User Variable action needs to have the user variable Reception assigned with the value Open.

### Modules > ReceptionOpen



- Create a start point called ReceptionClosed and connect it to a Set User Variable action. The Set User Variable action needs to have the user variable Reception assigned with the value Closed.

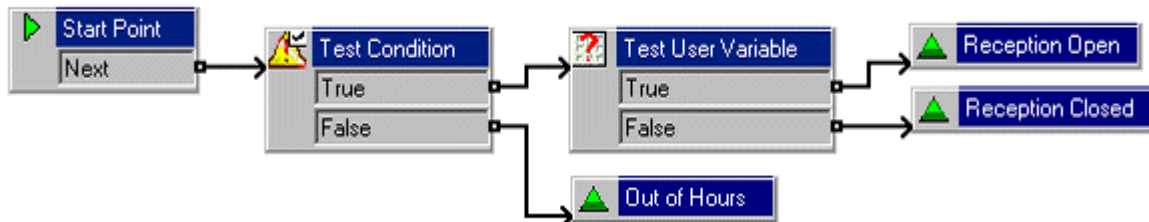
### Modules > ReceptionClosed



3. Create the matching short codes on the telephone system.

4. For calls using another start point, you can now use the Test User Variable action to test whether the value of reception is open. The action has true and false results which you can link to the appropriate following actions, for example transferring calls to the reception desk or to a mailbox.

### Modules > OpenHours



### 3.11.4 Distributed Voicemails

This screen displays information about the other voicemail servers when [distributed voicemail](#) <sup>55</sup> is being used in an IP Office Small Community Network.















The screenshot shows the Voicemail Pro Client interface with the following components:

- Window Title:** Voicemail Pro Client (Intuity - Centralized) Local
- Menu Bar:** File, Edit, Actions, Administration, Help
- Toolbar:** Contains various icons for navigation and management.
- Left Navigation Pane:**
  - Specific Start Points
  - Default Start Points
  - Voicemail Pro Administrators
  - Server Queues
  - Distributed Voicemails** (Selected)
- Bottom Left Pane:** Modules
- Main Content Area:** A table listing distributed voicemail servers.
 

Name	IP Address	Version	Type	Last Activity
EN3000VMTEST1	192.168.42.201	5.0.15.0	VmPro	12:15
EN3000VMTEST2	192.168.42.202	5.0.15.0	VmPro	12:14
EN3000VMTEST3	192.168.42.203	5.0.16.0	VmPro	12:16
EN3000VMTEST4	192.168.42.204	5.0.15.0	VmPro	12:16
-----				
EN3000VMTEST5	192.168.42.205	5.0.15.0	VmPro	10:33
EN3000VMTEST6	192.168.42.206	5.0.16.0	VmPro	17:45 10th Jun 2009
- Status Bar:**
  - Data - Saved
  - Active Voicemail Sessions - 0
  - Free Space:- 75.258 GB
  - Total Space:- 149.048 GB

## 3.12 Toolbar Icons

The Voicemail Pro screen includes the following icons. These may be grayed out according to which area of the Voicemail Pro screen is currently active.

-  [Save as](#) [127]
-  [Save and Make Live](#) [127]
-  Cut
-  Copy
-  Paste
-  [Add Start Point](#) [158]
-  [Edit Start Point](#) [158]
-  [Delete Start Point](#) [158]
-  [Preferences](#) [98]
-  [User Defined Variables](#) [168]
-  [Conditions Editor](#) [168]
-  [Campaigns](#) [398]
-  Connection
-  [Basic Actions](#) [213]
-  [Mailbox Actions](#) [213]
-  [Configuration Actions](#) [228]
-  [Telephony Actions](#) [228]
-  [Miscellaneous Actions](#) [242]
-  [Condition Actions](#) [252]
-  [Database Actions](#) [259]
-  [Queue Actions](#) [264]

## 3.13 Importing and Exporting

You can import or export the voicemail call flow as a .mdb database file. Exporting the configuration is a recommended step when [upgrading a voicemail system](#).

You can also import and export selected modules as a .mod file. This allows you to develop and test modules on one system before moving them to another.

Voicemail Pro 5.0+ also allows you to import and export selected conditions as a .con file.


### Important

- Importing and exporting does not apply to prompts. Prompts must be moved as separate items or re-recorded.
- When you import a database file the contents of the existing database are replaced.
- When you import modules or conditions, any existing module or condition with the same name is overwritten.

To export a file:

1. From the File menu, select Import or Export.
2. Select Export Data and click Next.
3. Enter the name of the file that you want to export. Add the extension *.mdb* for the whole database, *.mod* for modules or *.con* for conditions. Alternatively, click Browse, select the type of file to export.
4. Click Open. and click Next.
5. Module and condition files can contain several modules or conditions, select the ones required. Click Next.
6. Click Finish. The selected file is exported.
7. Click Close.

To import a file:

1. From the File menu, select Import or Export.
2. Select Import Data and click Next.
3. Enter the name of the file that you want to import or click Browse to select the file.
4. Click Open and click Next.
5. Module files can contain several modules, select the module required. Click Next.
6. Click Finish. The selected file is imported.
7. Click Close.
8. Click  Save & Make Live before you close the Voicemail Pro Client to apply the imported file. The existing database is overwritten and a backup copy is saved in the folder DB Backup.

---

## 3.14 Backup and Restore Settings

The voicemail server can be configured to do automatic backups of settings, messages and recordings. Separate settings for daily, weekly and monthly backups can be configured. The Voicemail Pro client can also be used to manually run one of the backups when required.

By default the backup files are sent to a *Backup* sub-directory where the voicemail server has been installed. However the location can be specified when configuring the backup options. Each backup is labeled with its type (*Immediate*, *Daily*, *Weekly* or *Monthly*) plus the date and time.

- [Backup Configuration](#) <sup>[151]</sup>.
- [Doing a Manual Backup](#) <sup>[152]</sup>.
- [Restoring a Previous Backup](#) <sup>[153]</sup>.

### Linux and Windows Based Servers

The Voicemail Pro client's backup and restore functions cannot currently be used to move voicemail data between a Linux based server and a Windows based server or vice versa. The client functions for importing and exporting module and the call flow database can be used.

### 3.14.1 Backup Configuration

From the Administration menu, select Preferences > General.

1. Click the Housekeeping tab. A summary of the last run backup and the next scheduled backup are listed at the bottom of the menu.
2. Click on Configure to access the configuration type settings.

**Voicemail Data Backup (- Local)**

Start: 08:00

Daily Every 1 day(s)

Voicemails  Callflows, Modules & Conditions  
 User Settings & Greetings  Module Recordings  
 Campaigns  System Settings

Location: ice\Voicemail Pro\WM\Backup\Scheduled\Daily

Weekly Every Sunday

Voicemails  Callflows, Modules & Conditions  
 User Settings & Greetings  Module Recordings  
 Campaigns  System Settings

Location: \Voicemail Pro\WM\Backup\Scheduled\Weekly


Monthly The First Sunday of every 1 month(s)

Voicemails  Callflows, Modules & Conditions  
 User Settings & Greetings  Module Recordings  
 Campaigns  System Settings

Location: \Voicemail Pro\WM\Backup\Scheduled\Monthly

OK Cancel Help

- The options for the daily, weekly and monthly backups are shown. Adjust each as required. Note that if two backups would occur at the same time, only one backup will occur, with priority being given to weekly over daily and monthly over weekly.
- The Location field for a backup can be a local file path or a remote file path (specified in UNC format, ie. *\\server\filepath*). Remote drives mapped to the server cannot be used.

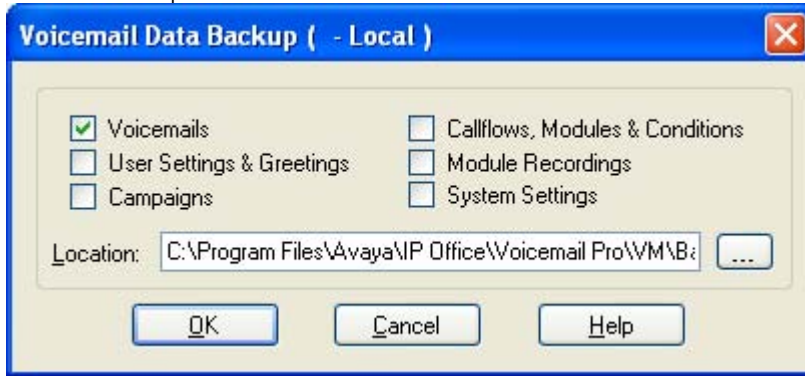
3. Click OK to close the backup settings menu.
4. Click OK to close the housekeeping preferences.
5. Click  Save and Make Live and select Yes.

---

### 3.14.2 Doing a Manual Backup

From the Administration menu, select Preferences > General.

1. Click the Housekeeping tab. A summary of the last run backup and the next scheduled backup are listed at the bottom of the menu.
2. Click on Backup Now.



3. Select the options to include in the backup and the location for the backup folder.
  - The Location field for a backup can be a local file path or a remote file path (specified in UNC format, ie. *\\server\filepath*). Remote drives mapped to the server cannot be used.
4. Click OK to start the backup.
5. The housekeeping screen will show that a backup is active. The Abort button can be used to abandon the backup.

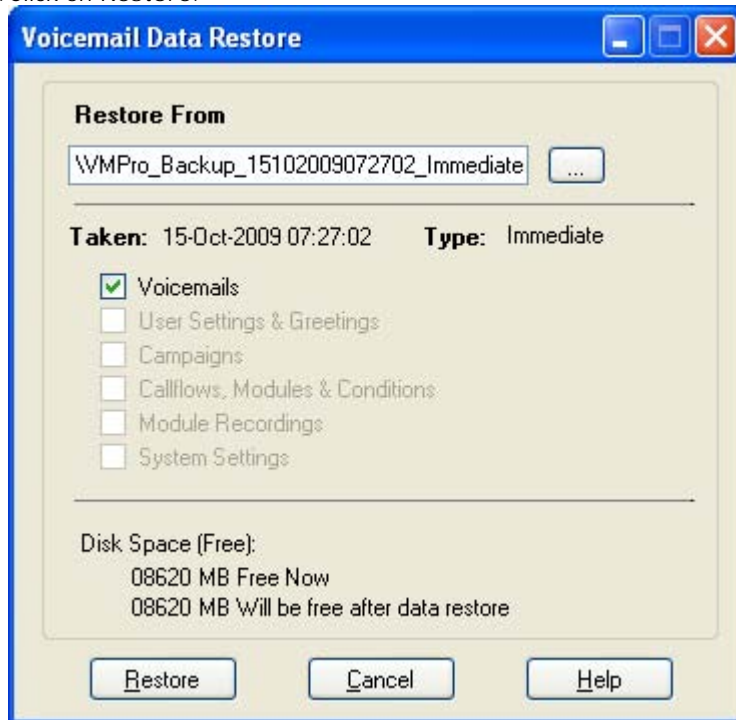


### 3.14.3 Restoring a Previous Backup

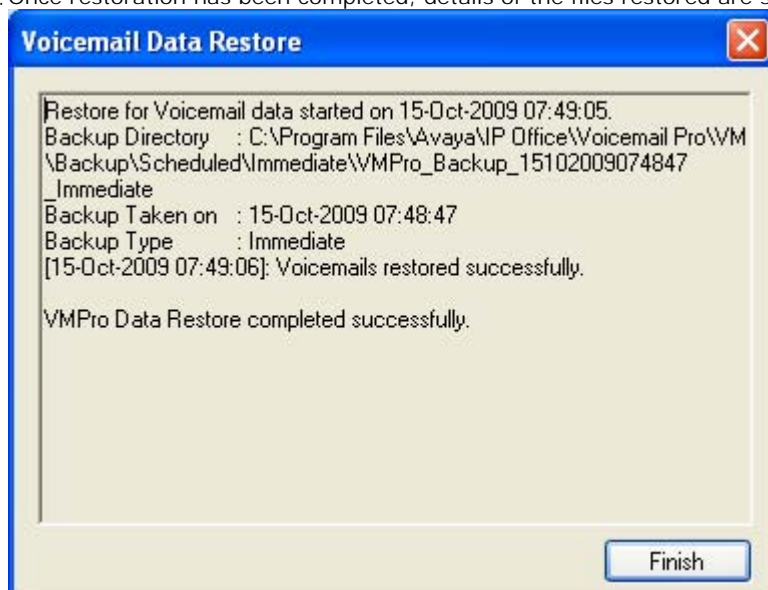
When you select to do a restore, the voicemail server will first suspend calls before it starts restoring files. Once the restoration has been complete, normal server operation is resumed.

The Voicemail Pro client's backup and restore functions cannot currently be used to move voicemail data between a Linux based server and a Windows based server or vice versa. The client functions for importing and exporting module and the call flow database can be used.

1. From the Administration menu, select Preferences > General.
2. Click the Housekeeping tab. A summary of the last run backup and the next scheduled backup are listed at the bottom of the menu.
3. Click on Restore.



4. Use the Restore from field to select the folder containing the backup. By default the backup files are sent to a sub-directory where the voicemail server has been installed, typically *c:\Program Files\Avaya\IP Office\Voicemail Pro\VM\Backup*. However the location can be specified when configuring the backup options. Each backup is labeled with its type (*Immediate, Daily, Weekly or Monthly*) plus the date and time.
5. Details of the items available to be restored and the space required are displayed.
6. Click on Restore to begin the restoration process.
7. Once restoration has been completed, details of the files restored are shown.



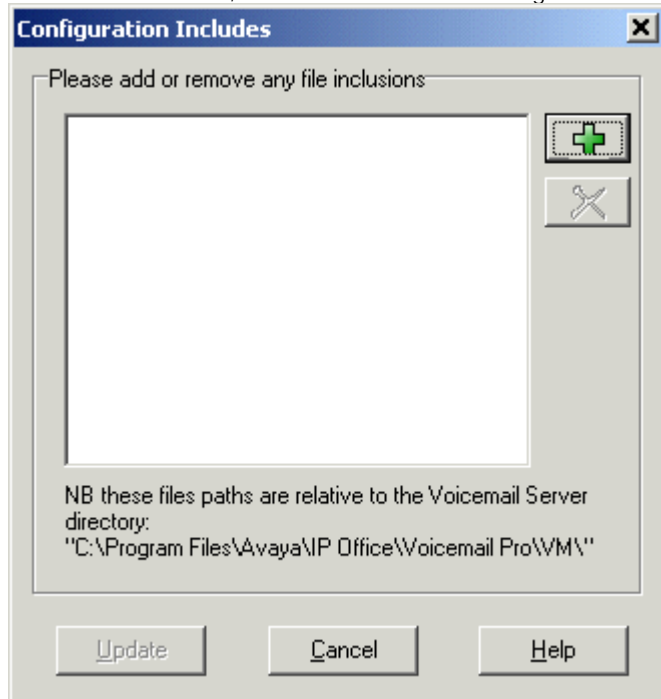
- 
- If the restored settings include call flow changes or server settings different from those currently being used by the sever, the restored settings are not used until after a Save and Make Live action.


## 3.15 Including Other Files

In some special circumstances it may be necessary to include the settings of an existing .vmp file into the Voicemail Pro settings.


To include other files:

- From the File menu, select I Includes. The Configuration Includes window opens.



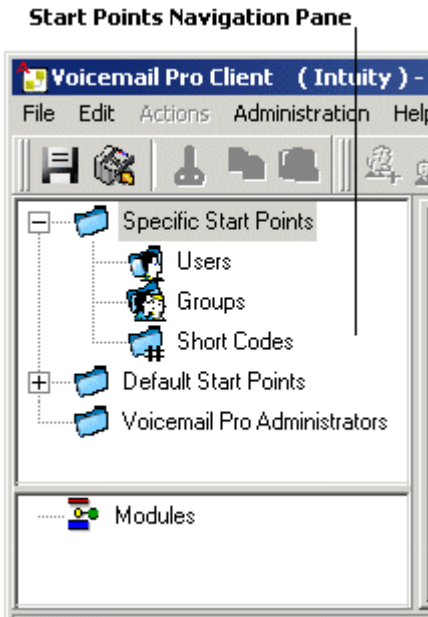
- Click , the New I Include File opens.
- Select a file to include.
- Click Open.
- Click Update to update the Voicemail Pro file settings.

### Notes













- If you use included files, the Voicemail Pro database contains only a pointer to the name and location of the files and not the actual files. Therefore you should not move or rename an included file. It is strongly recommended that before you include a file, you place it in the same folder as Root.vmp.
- Click  if you need to remove an included file. The highlighted file is removed but not deleted.

## 3.16 Start Points

Voicemail Pro consists of a number of start points. When the voicemail server receives a call, it looks for a matching start point and if it finds one it then provides a series of actions linked to that start point. If no match is found then it provides standard voicemail functions to the call.



The Navigation pane contains an expandable and collapsible list of start points. These can be start points for individual users, hunt groups, short codes and default start points.

-  **Specific Start Points**  
This folder contains the start points for users, groups and short codes.
-  **Users** <sup>[134]</sup>  
This folder contains start points set up for individual users. When selected a list is shown in the details pane containing the mailbox owners names and the names of any call flows that have been assigned to the selected mailbox.
  -  This is a user who has one or more start points configured. It can be expanded to show the different start points.
    -  Collect - Used when the user rings voicemail.
    -  Leave - Used for calls to the user that are redirected to voicemail.
    -  Callback - Used when voicemail rings a user to inform them of messages in the user's mailbox. See [Setting up Voicemail Pro Callback](#) <sup>[320]</sup>.
    -  Queued & Still Queued - Used when calls to the user are queued. See [Personal Announcements](#) <sup>[306]</sup>.
-  **Groups** <sup>[134]</sup>  
This folder contains start points set up for hunt groups. When selected a list is shown in the details pane containing the mailbox owners names and the names of any call flows that have been assigned to the selected mailbox.
  -  This is a group that has one or more start points configured. It can be expanded to show the different start points.
    -  Collect - Used when someone accesses the group's mailbox.
    -  Leave - Used when calls to the hunt group are redirected to voicemail.
    -  Queued & Still Queued - Used when calls to the group are queued. See [Customizing a Hunt Group Call Flow](#) <sup>[290]</sup>.


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-  Short Codes

This folder contains any start points set up for particular short codes. Short code start points require the Telephone Number entry of the matching short code in the IP Office Manager to be set up in a particular way. For example, if a Start Point for short code \*88 is set up, the settings for short code \*88 in the IP Office Manager application must be as follows:

- Short Code: \*88
- Telephone Number: \*88
- Feature: Voicemail Node.

The above will allow internal callers to access the start point. To allow external callers access, an Incoming Call Route should be set up with the destination \*88.

-  An individual short code on the IP Office. This requires a matching special short code to be set up in Manager.

-  Default Start Points

Rather than set up individual start points for every user and group, you can also program actions against the default start points. These will then be used for all calls received by the Voicemail Server that don't match a specific start point. See [Default Start Points](#)<sup>[157]</sup>.

-  [Voicemail Pro Administrators](#)<sup>[141]</sup>

When the Voicemail Pro Administrators folder is selected a list is displayed in the details pane. The list contains the name, type and status of the administrators. Details can be added, amended or deleted.

-  [Server Queues](#)<sup>[142]</sup>

These option allow you to view listing of a range settings.






- [User Variables](#)<sup>[145]</sup>
- [Alarms](#)<sup>[142]</sup>
- [Outcalls](#)<sup>[144]</sup>

-  [Modules](#)<sup>[164]</sup>

Modules are reusable sets of actions. They allow you to create a sequence of actions that you can then use within any other start point's call flow. Any changes to the module will affect all the start points using that module. This simplifies the programming of actions if a number of start points use the same sequence of actions. Using modules also reduces the size of the call flow.

### 3.16.1 Default Start Points

The default start points can be used to create a sequence of actions that will be applied to all suitable calls unless a specific start point exists.

-  Collect  
Used when a caller attempts to access a mailbox.
-  Leave  
Used when a caller is redirected to voicemail.
-  Callback  
Used when the voicemail calls a user to inform them about messages in a mailbox. See [Setting up Callback](#) <sup>320</sup>.
-  Queued  
Used for callers queuing for a hunt group or user. See [Customizing Queue Announcements](#) <sup>288</sup>.
-  Still Queued  
Used for callers queuing for a hunt group or user. See [Customizing Queue Announcements](#) <sup>288</sup>.

When a default start point is used, the following actions can attempt to recognize who the presumed user is (the internal user calling or being called) and access the matching mailbox for that user unless the action specifies another mailbox.

- Get Mail Action.
- Leave Mail Action.
- Play Configuration Menu.
- Listen Action.
- Record Name Action.
- Edit Play List Action.

The following actions will automatically recognize who the presumed user is and then use that user's voicemail reception settings unless the action specifies another mailbox.






- Transfer Action.
- Assisted Transfer Action.
- Whisper Action.

---




## 3.16.2 Using Start Points

Start points can be for individual users, hunt groups, short codes or default start points. All start points can be added, [edited](#) [158], [renamed](#) [158] or [deleted](#) [158].


To add a start point for a User or Group:

1. Either click  Users or  Groups and then . The Adding a new window opens. Alternatively, right-click  Users or  Groups and select Add.
2. Select the name that matches the user or group on the telephone system. To add all users or groups check the option Add all users.
3. Select the types of start points required. The start points Collect, Leave, Callback, Queued and Still Queued are available for both users and groups.
4. Click OK.


To add a start point for a short code:

1. Click  Short Codes and then . The Adding a new short code window opens. Alternatively, right-click  Short Codes and select Add.
2. Enter the short code.
  - Short code start points require the telephone number entry of the matching short code in the IP Office Manager application to be set in a specific way. For example, if a start point for short code \*88 is set up the settings for short code \*88 in the manager application must be as shown below. The short code will allow internal callers to access the start point. To allow external callers access, an Incoming Call Route should be setup with the extension \*88.
    - Short code: \*88
    - Telephone number: \*88
    - Feature: Voicemail Node.
3. Click OK.

To edit a start point:

1. In the Navigation pane of the main Voicemail Pro window, select the start point to edit and click . The Editing start point window opens. Alternatively, right-click the start point and select Edit.
2. Make the required changes.
3. Click OK.

To delete a start point:

1. In the Navigation pane, select the start point to delete and click . Alternatively, right-click the start point and then select Delete.
2. You are asked if you are sure that you want to delete the selected start point.
  - Click Yes to delete the start point.
  - Click No to cancel the deletion.

To rename a user, group or short code start point:

1. In the Navigation pane, right-click the user, group or short code and select Rename. The New start point name window opens.
2. Type the new name.
3. Click OK. The start point is renamed.

### 3.16.3 Viewing Call Flows as Text


For support calls and diagnostic purposes it can be useful to view Voicemail Pro modules and start points as text files. You can then display the contents of the text file on the screen. The file can be changed as you would change any other text file.

To view a start point or module as text:

1. Select File menu | View as Text. A Notepad window opens. The txt file contains information of all Conditions and Campaigns as well as all call flow details.

## 3.17 User Variables

The Voicemail Pro client allows you to define user variables for the system that are then useable within any call flows. User variables differ from call variables in that they are system wide values that can be shared between all calls while call variable values differ from call to call.


Within a call flow a  [Set User Variable](#)<sup>[253]</sup> action can be used to set or change the value of a user variable. This includes using the current value of a [call variable](#)<sup>[162]</sup> to set as the new value for the user variable.

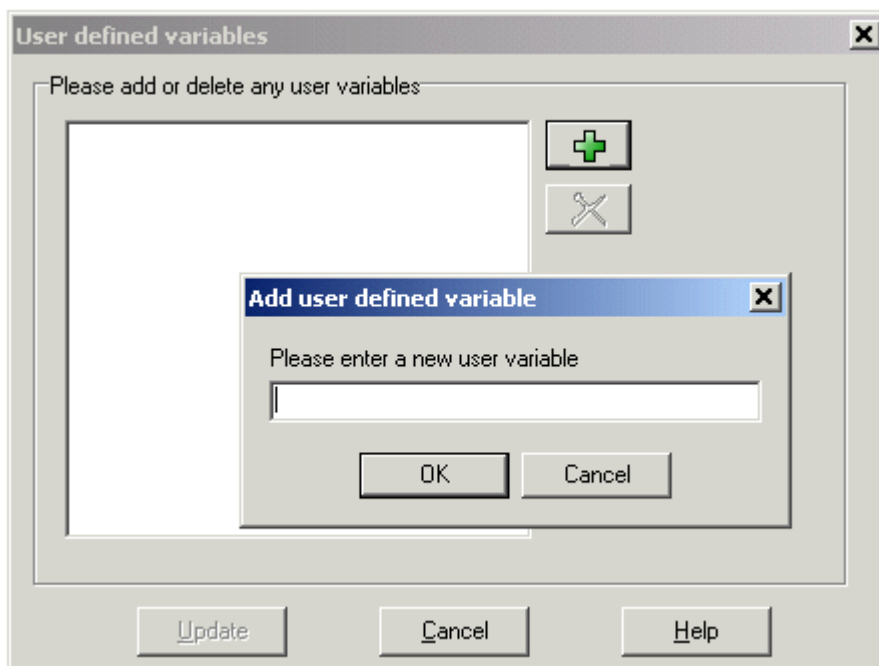
Call flows can also be branched using a  [Test User Variable](#)<sup>[254]</sup> action to check the current value of the variable against a required value.


The existing value of a user variable can also be obtained using the variable \$REG[ <variable\_name>] in call flows.

By clicking on [User Variables](#)<sup>[145]</sup> in the left hand navigation pane you can view all the user variables and their current values. This pane can also be used to add and modify the user variables including changing their values.

To add a user defined variable:

1. Click  or press F8. The User defined variables window opens.



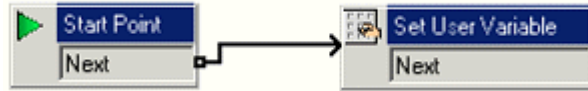
2. Click . The Add user defined variable window opens.
3. Type a name for your new variable.
4. Click OK. The new variable is added to the list.



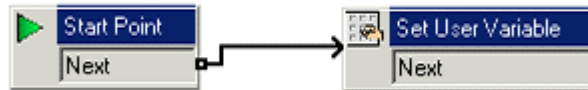
## Example of Using User Variables

1. Add a variable called Reception.
2. Two start points need to be created, one for indicating when the reception is open, the other for when the reception is closed. When completed the call flows will look similar to the examples shown.

- Create a start point called ReceptionOpen and connect it to a Set User Variable action. The Set User Variable action needs to have the user variable Reception assigned with the value Open.

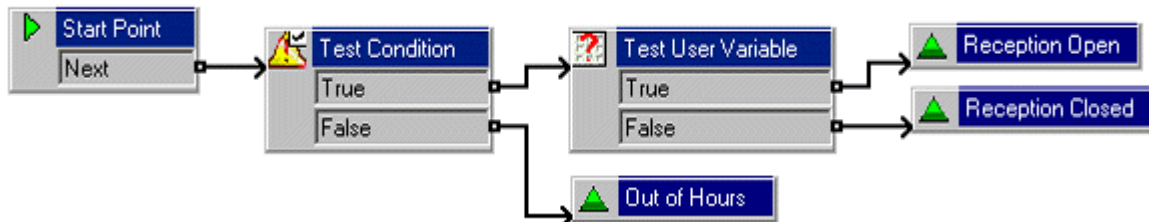
**Modules > ReceptionOpen**

- Create a start point called ReceptionClosed and connect it to a Set User Variable action. The Set User Variable action needs to have the user variable Reception assigned with the value Closed.

**Modules > ReceptionClosed**

3. Create the matching short codes on the telephone system.

4. For calls using another start point, you can now use the Test User Variable action to test whether the value of reception is open. The action has true and false results which you can link to the appropriate following actions, for example transferring calls to the reception desk or to a mailbox.

**Modules > OpenHours**

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## 3.18 Call Variables

A number of call variables exist which can be used to perform tasks. For example, *\$NAM* can be used to speak the user's name within an action's entry prompt. Call variables can also be checked by the compare element in a condition and then branch the call flow according to the variables value.

Unless otherwise stated, call variables are session based. This means that the variable values are specific to a particular call within Voicemail Pro and does not persist between calls, including calls transferred from the Voicemail Pro which then return. Also unless otherwise stated the values are 'read-only'.

- When accessing voicemail prompts, [voicemail variables](#)<sup>[162]</sup> can be used in both the path and filename for the prompt. For example, if prompts Greeting1.wav, Greeting2.wav etc. are recorded, an action set to play *Greeting\$KEY.wav* would play the greeting prompt that matched the current value of \$KEY.

### Speaking Variables to Callers

Call variables can be used as prompts. The value of the call variable will then be spoken. This applies to all variables that are numeric values. It also applies to \$NAM which will play the mailbox users recorded name prompt.

Numbers are spoken as a series of single digits. For example 123 is spoken as "one two three". To speak 123 as "one hundred and twenty-three" requires TTS to be installed and a [Speak Text](#)<sup>[207]</sup> action used.

Some call variables can be played as prompts, for example:

- \$NAM  
Plays the mailbox's name prompt if one has been recorded.
- \$CLI  
Speaks the caller's CLI.
- \$RES  
Plays the current result if it is a .wav file.
- \$VAR  
Plays the variable as a list of digits.

### Variable Length

The length of the value stored within a variable is limited. For Voicemail Pro 4.2+ this limit has been increased from 64 characters to 512 characters.

## Available Variables

Variable	Write	Description
\$CID	✗	Contains a unique call ID assigned to the call. This is not the same call ID as shown in IP Office SMDR records.
\$CLI	✓	Holds the CLI of the caller if available to the IP Office.
\$COUNTER	✓	Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using <a href="#">Generic</a> <sup>[192]</sup> action commands for <a href="#">Set Counter</a> <sup>[202]</sup> , <a href="#">Clear Counter</a> <sup>[198]</sup> , <a href="#">Counter Decrement</a> <sup>[199]</sup> and <a href="#">Counter Increment</a> <sup>[200]</sup> . They can also be used with the <a href="#">Decrement and Test Counter</a> <sup>[257]</sup> and <a href="#">Increment and Test Counter</a> <sup>[258]</sup> actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.
\$CP	✓	The 16 variables \$CP0 to \$CP15 are used to store values (call parameters) for the duration of a call within the call flow. Values can be written into these variables using the <a href="#">Generic</a> <sup>[192]</sup> action command CPx: <value> where x is 0 to 15 and <value> is the value to be stored. The formats \$CPx or \$CP[x] are both supported.
\$DBD	✗	A set of 6 variables \$DBD[0] to \$DBD[5] for fields extracted from a current database record. See <a href="#">Database Actions</a> <sup>[259]</sup> . The formats \$DBDx or \$DBD[x] are both supported.
\$DDI	✓	Holds the DDI of the call if available. ( <i>Voicemail Pro 4.1+</i> )
\$ETA	✗	Holds the expected time to answer in seconds for a queued caller. This time is based on the last 5 queued and answered calls for the same target in the last hour. The variable can be used to speak the value as a prompt or to test the value in a condition. Only available when using hunt group <i>Queued</i> and <i>Still Queued</i> start points.
\$KEY	✓	Holds the last DTMF key series entered. For more information, see <a href="#">Example Call Flow</a> <sup>[275]</sup> .
\$LOC	✗	Holds the locale setting for the call passed by the IP Office system. See <a href="#">Changing the Language of Custom Prompts</a> <sup>[314]</sup> .
\$NAM	✗	Holds the name of the mailbox user (blank for short codes). If used as a prompt, the mailbox's recorded name prompt is played.
\$POS	✗	Holds the position of a queued caller. Can be used to speak the position as a prompt or test the value in a condition. Only available when using <i>Queued</i> and <i>Still Queued</i> start points.
\$QTIM	✗	The same as the \$ETA above but returns the estimated time to answer rounded up to the nearest minute. This variable can be used to speak the value as a prompt or to test the value in a condition.
\$REG[ <i>name</i> ]	✗	When used, this variable returns the current value of the named user variable.
\$RES	✓	Holds the value of the result of the previous action. For example when a call flow has been branched by an action that has True and False results, on one branch the value of \$RES is "True", on the other "False".
\$SAV	✓	Holds the last saved result. This can be entered using the following entry in a <a href="#">Generic</a> <sup>[192]</sup> action, Save: <value>, for example Save:\$KEY or Save:1234.
\$TARGET	✓	For calls sent by the IP Office to a mailbox, this variable contains the original target of a call, ie the original target user or hunt group. ( <i>Voicemail Pro 4.2+</i> )
\$TimeQueued	✗	Holds the length of time, in seconds, that the call has been part of a particular hunt group queue. Only available when using <i>Queued</i> and <i>Still Queued</i> start points. ( <i>Voicemail Pro 4.1+</i> )
\$TimeSystem	✗	Holds the length of time, in seconds, since the call was presented to the IP Office system. Only available when using <i>Queued</i> and <i>Still Queued</i> start points. ( <i>Voicemail Pro 4.1+</i> )
\$UUI	✗	Available when a recording is triggered by auto-recording. Holds the user name, hunt group name or account code that triggered the auto-recording process. See <a href="#">Customizing Auto Recording</a> <sup>[304]</sup> .
\$VAR	✓	A general variable which can hold amongst other things DTMF key sequences.

- Write

This column indicates those call variables where the existing value can be changed using methods such as VBScript or generic action commands. Other call variables have a fixed value set when the call is received by the voicemail server or, for \$DBD values, the value is requested by the voicemail server.

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## 3.19 Creating Modules

Modules are reusable sets of actions. They allow you to create a sequence of actions that can be reused in another call flow.

Any changes to a module will affect all other start points that are using that module. This simplifies the programming of actions if a number of start points use the same sequence of actions. Using modules also reduces the size of a call flow.

- To create connections from a module to other actions you must use the Module Return action within the module, see [Module Return Action](#)<sup>[212]</sup>.

To create a module

1. Click Modules and then . The Adding a new start point window opens. Alternatively, right-click Modules and select Add.
2. Enter a name for the module. This should not match any user or group name on the IP Office.
3. Click OK. You can now add actions and connections to the module in the same way as for any start point.

To add a module to a start point

1. Select the start point to which you want to add the module action and then click the right-hand panel.
2. Click and drag the module required from the Navigation pane to the Details pane.

For support calls and diagnostic purposes it can be useful to view Voicemail Pro modules and start points as text files. See [Viewing Call Flows as Text](#)<sup>[159]</sup>.

### 3.19.1 Running a Module

Modules can be run internally using short codes or can be configured for external calls.

Run a module from a short code

You can use modules directly in conjunction with short codes. The short code must call the name of the module. This example short code will run the module called *Special* when a user dials \*97. The service that the user receives will depend on the actions in the module.

- Short code: For example \*97
- Telephone Number: "Special" (*include quotation marks*)
- Line Group ID: 0
- Feature: Voicemail Collect

Run a module for an external call

A module can be applied directly to an incoming (external) call from within the IP Office Manager application. Within the appropriate Incoming Call Route entry, set the Destination to the module name prefixed with "VM: ".

For example, enter VM:AutoAttend to route a call to a module called AutoAttend. Note that the maximum entry length is 15 characters. This means that the module name is limited to 12 characters.

- If there is a hunt group on the system whose name matches the module name, calls will be routed to that group when the voicemail server is not running.





## 3.20 The Conditions Editor

Conditions are constructed from a set of basic elements. These elements can be combined within a single condition to create complex rules. For example, the week planner can be used to define a company's standard working hours and then combined with the calendar to define exception days such as public holidays.

Within the voicemail call flow, conditions can be checked by a test condition action and, according to whether the condition is currently true or false, callers can be routed to different actions. See [Test Condition Action](#) <sup>[252]</sup>.

### Condition Elements

The following different types of elements can be added to a condition.

-  [Calendar](#) <sup>[168]</sup>  
Select days from the calendar (up to 255 days) which, if the current date matches a selected day, cause the element to be 'true'.
-  [Week Planner](#) <sup>[169]</sup>  
Select days of week, and then a time period on each of those days, that should cause the element to be 'true'.
-  [Condition](#) <sup>[170]</sup>  
Select an existing condition that is then used as an element within another condition.
-  [Compare](#) <sup>[171]</sup>  
Compare one value to another using a selected criteria such as "*Is equal to*" or "*Is greater than or equal to*" and return 'true' when the criteria is met. The values compared can be the current value of [call variables](#) <sup>[162]</sup> and or number values entered directly.

### Logic Settings


Logic settings can be applied to both the whole condition and to the elements in a condition. These can alter when a condition is true or false.

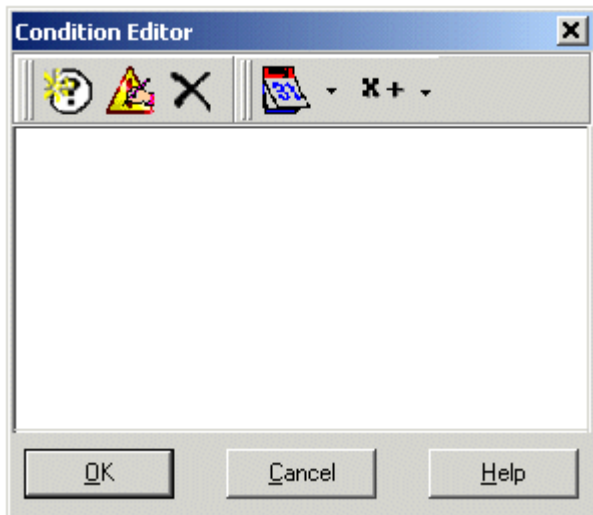
- **X+ AND**  
The condition is true when all the elements within it are true, for example both A and B are true.
- **X|| OR**  
The condition is true when any element within it is true, for example if the day is Monday or Tuesday.
- **X! NOT**  
This logic element can be used to reverse the value (e.g. return false when true) of individual elements or of the whole condition.

### 3.20.1 Using the Condition Editor

You can [add elements](#)<sup>[166]</sup> to existing conditions, [change the logic](#)<sup>[167]</sup> of a condition and [delete](#)<sup>[167]</sup> elements and conditions.



To start the Condition Editor:

1. Click the  icon. You can also open the Condition Editor by pressing F6 or click Administration > Condition Editor.
2. When the Condition Editor is started, any existing conditions are shown. In the example there are no conditions.

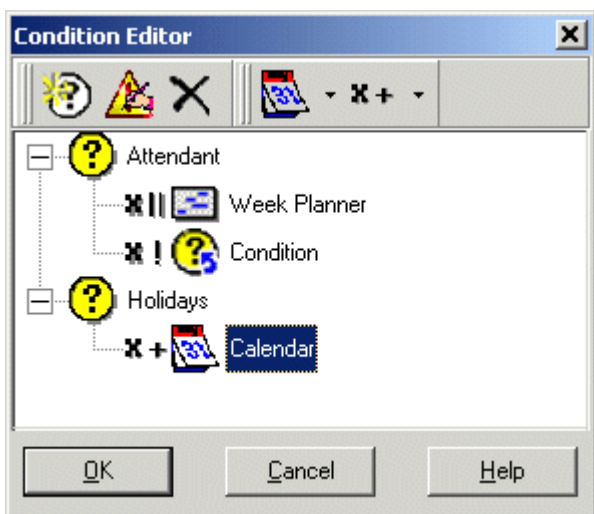


To add a new condition







Note: A maximum of 255 conditions can be added.

1. Click the  icon in the toolbar. The New Condition window opens.
2. Enter the name for the condition and then click OK.
3. The new condition is placed in the Condition Editor window. The condition is represented by the icon  followed by the condition name.


When a condition has been created, elements can be added and altered. A condition can consist of multiple elements, including several elements of the same type. In the example there are conditions added complete with elements.




To add elements to a condition:

1. Click the  Element List icon in the toolbar.
2. Click the type of element required.
  -  Calendar - See [Calendar](#) <sup>[168]</sup>.
  -  Week Planner - See [Week Planner](#) <sup>[169]</sup>.
  -  Compare - See [Compare](#) <sup>[171]</sup>.
  -  Condition - See [Condition](#) <sup>[170]</sup>.
3. Click  *Condition Name* in the Condition Editor window. The element icon is added.
4. You can now edit the element's settings.


To edit elements:

1. Select the element, click  Edit icon in the toolbar. The element's properties window opens. Alternatively, double click the element to open the properties window.
2. Make any changes.
3. Click OK to save the changes and close the properties window.


To change the logic setting of a condition:

1. Click  Logic icon in the toolbar.
2. Select the required logic.
  - x|| (OR)
  - x+ (AND)
  - x! (NOT).
3. In the Condition Editor window, click the element to apply the logic to. The logic indicator changes.

To change the name of a condition:

1. Select the condition, click  Edit icon in the toolbar. The Rename condition window opens.
2. Amend the condition's name.
3. Click OK.

To delete elements and conditions:

1. Select the condition or element to be deleted.
2. Click  icon in the toolbar. The selected condition or element is deleted.

## 3.20.2 Calendar



Select days from the calendar (up to 255 days) which, if the current date matches the selected day, return 'true'.

Double-click a day to select or deselect the day. Selected days are shown with a green background, for example

17



Note that a grey background  indicates weekend days, not whether the day is selected or not.

- Multiple Day Logic

By default a logical OR  $X||$  is applied to this condition element. This allows the element to be true if any of the selected days is true. If a logical AND  $X=$  is used and more than one day is selected, the element cannot return true.

Note that days that are selected and are now in the past are not automatically deselected.

To add a calendar element:


1. Click the  Element List icon in the toolbar.
2. Click  Calendar.
3. Click on the condition to which the element should be added.
4. Double-click on the element to view its settings.



5. Double-click on the individual dates to select or deselect them.
6. Click OK.





### 3.20.3 Week Planner

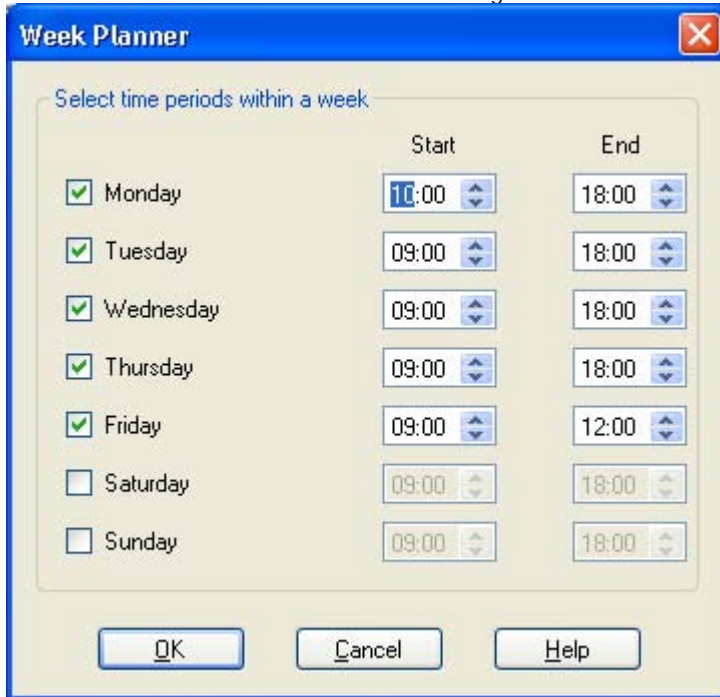
 The Week Planner element is used to set which time periods during a normal week return 'true'. It consists of an entry for each day of the week and a start and end time for the 'true' period on each day.

- Multiple Day Logic

By default a logical OR  $X||$  is applied to this condition element. This allows the element to be true if any of the selected days is true. If a logical AND  $X=$  is used and more than one day is selected, the element cannot return true.

To add a Week Planner element:

1. Click the  Element List icon in the toolbar.
2. Click  Week Planner.
3. Click on the condition to which the element should be added.
4. Double-click on the element to view its settings.




	Start	End
<input checked="" type="checkbox"/> Monday	11:00	18:00
<input checked="" type="checkbox"/> Tuesday	09:00	18:00
<input checked="" type="checkbox"/> Wednesday	09:00	18:00
<input checked="" type="checkbox"/> Thursday	09:00	18:00
<input checked="" type="checkbox"/> Friday	09:00	12:00
<input type="checkbox"/> Saturday	09:00	18:00
<input type="checkbox"/> Sunday	09:00	18:00



Buttons:

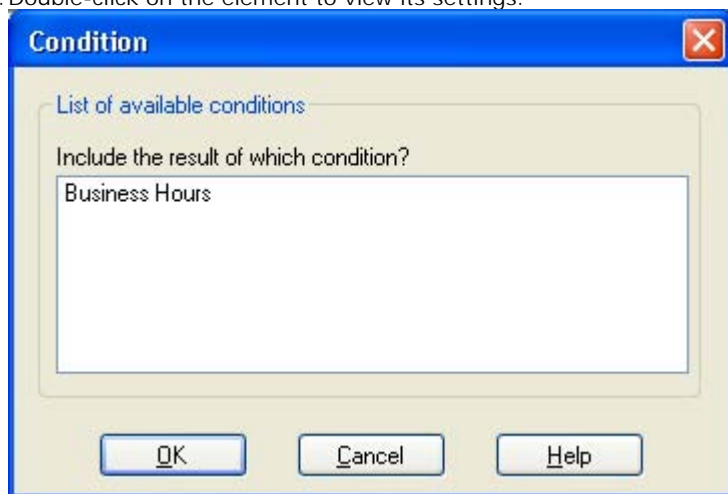
5. Select the days required and the time period during each day that will return 'true'.
6. Click OK.

### 3.20.4 Condition

 The Condition element is used to combine the value of an already existing condition. When selected the element displays a list of the other conditions from which to select.

To add a condition element:

1. Click the  Element List icon in the toolbar.
2. Click  Condition.
3. Click on the condition to which the element should be added.
4. Double-click on the element to view its settings.










5. Select the existing condition that you want to use.
6. Click OK.

Example:

Two conditions have been created:

- Using a [Week Planner](#)<sup>169</sup> element, a condition is created so that calls received between 09:00 and 18:00, Monday to Friday are treated differently to calls received outside of these hours. For more information.
- Using a [Calendar](#)<sup>168</sup> element, a condition is created so that calendar dates such as public holidays can be accounted for.
- The two conditions need to be combined so that the call flow treats calls during working hours differently to calls received outside working hours and on bank holidays.



1. Click the  Element List icon in the toolbar.
2. Click  Condition.
3. Click the Week Planner in the Condition Editor window. The  condition is placed in the Condition Editor window.
4. Open the properties of the condition element by double-clicking .
5. Select the Calendar condition result.
6. Click  logic options and select a  NOT action. Click  Condition to apply the logical option.
7. Click OK. The condition is now true when it is between 09:00 and 18:00, Monday to Friday and not a holiday.

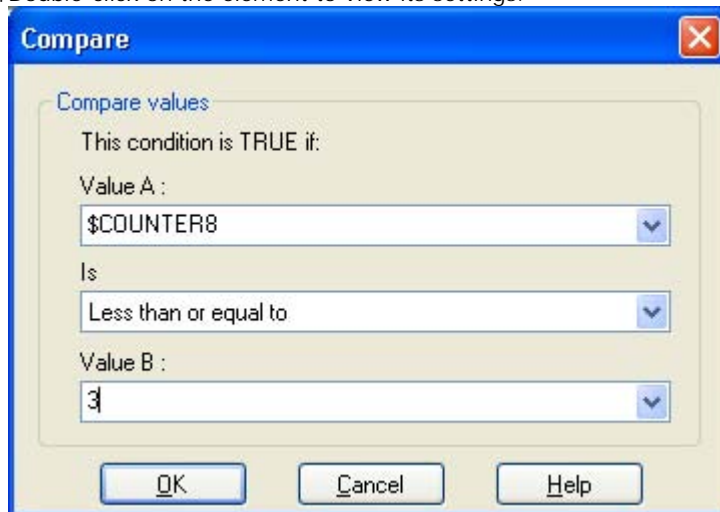
### 3.20.5 Compare



The Compare element is used to add a variable that will be used to determine the call flow to be presented to the caller. You can compare Voicemail Pro [call variables](#)<sup>[162]</sup>, for example \$POS or \$ETA, against each other or against a value you enter.

To add a condition element:

1. Click the  Element List icon in the toolbar.
2. Click  Compare.
3. Click on the condition to which the element should be added.
4. Double-click on the element to view its settings.

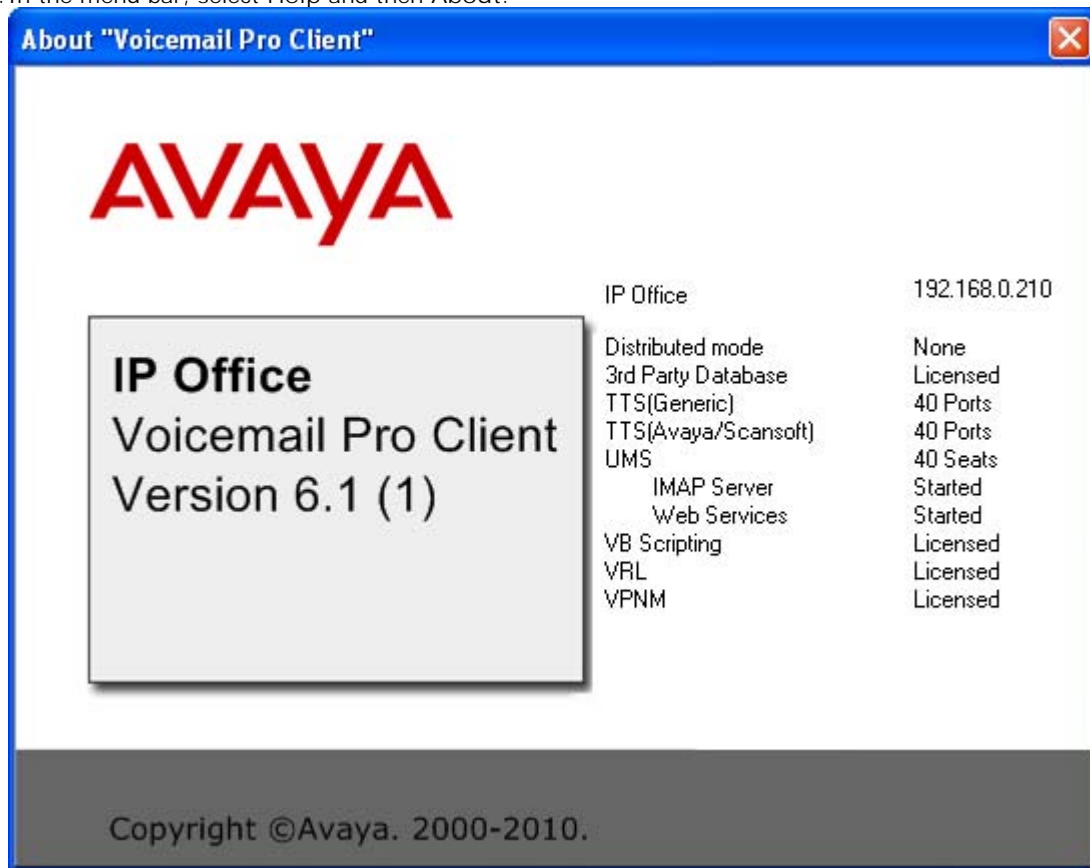


- Value A  
Enter a value or use the drop down to select a [call variable](#)<sup>[162]</sup>.
  - Is  
Select the criteria which should be used to determine whether the element is currently 'true' or 'false'. Options are:
    - *Equal to*  
True if value A equals values B ( $A = B$ ).
    - *Not equal to*  
True if value A does not equal value B ( $A \neq B$ ).
    - *Less than*  
True if value A is less than value B ( $A < B$ ).
    - *Greater than*  
True if value A is greater than value B ( $A > B$ ).
    - *Less than or equal to*  
True if value A is less or equal to value B ( $A \leq B$ ).
    - *Greater than or equal to*  
True if value A is greater than or equal to value B ( $A \geq B$ ).
  - Value B  
Enter a value or use the drop down to select a [call variable](#)<sup>[162]</sup>.
5. Click OK.

### 3.21 About

The about screen displays information about the IP Office to which the Voicemail Pro server is connected and the licenses it has received from that IP Office.

1. In the menu bar, select Help and then About.



2. The menu displays information from the voicemail server. This includes the address of the IP Office with which it is working and the licenses it has received from that IP Office.

3. To close the information window click the top-right X button.





# Chapter 4.

## Voicemail Pro Actions

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## 4. Voicemail Pro Actions

When a [start point](#)<sup>[155]</sup> has been added, it can be linked to an action. Each action can have one or several results, depending on the type of action, and each result can be linked to a subsequent action. In this way you can build up a call flow.

Each action can have a number of results (true, false, no answer, busy). The types of results depend of the type of action, most actions having just a 'Next' result. Each result can be used as a connection point to another action. See [Connections](#)<sup>[177]</sup>.

A set of actions and connections can be combined and reused as a module. [Modules](#)<sup>[164]</sup> are reusable sets of actions. They allow you to create a sequence of actions that you can then use within any other start point's call flow. Changes to the module will affect all start points using that module. This simplifies the programming if a number of start points need the same sequence of actions.

You can double-click an action to display the properties in a series of tabs. Many actions share the same standard tabs but each usually also has a specific tab that contains options unique to that action's function.

The standard tabs of an action are:

- [General](#)<sup>[182]</sup>  
Set a name for the action in the call flow and whether a PIN code is required by callers to use the action.
- [Entry Prompts](#)<sup>[183]</sup>  
Sets the prompts that should be played to callers that reach the action.
- [Reporting](#)<sup>[188]</sup>  
Use to provided reporting on calls that use the action. The reporting is done through the IP Office Customer Call Reporter applications.
- [Results](#)<sup>[189]</sup>  
Displays the results configured for the action. Each result can be connected to a further action in the call flow.

To add an action:

1. Select the start point to which you want to add an action.
2. Click in the Details pane.
3. Click Actions and select the type of action that you want to add from the list, for example Basic Actions.
4. From the submenu, select the required action. For example, if you selected Basic Actions, you might choose Speak Text. The cursor changes to show that you have selected an action to add. Alternatively on the toolbar, click the icon for the required type of action and then select an action from the submenu.
5. Click in the details pane, where you want to place the action. The new action is added. You can now edit the action and add connections to it.

You can change the properties of an action. For example, If you selected the Speak Text action you can specify the actual text to be spoken when an action is taken.

To edit an action:

1. Double-click the action in the details pane or right-click it and select Properties. The Properties window opens. Details of the selected action are contained in a set of tabs.
2. Select a tab and change the action properties as required.
3. Click OK when you have finished.

To delete an action:

1. In the Details pane where the actions are displayed, click the action to delete.
2. From the Edit menu, select Delete or right-click the action and select Delete.
3. The selected action is deleted.




## 4.1 Connections

The actions that are added to a start point must be connected before they can be used. The sequence of the connections determines how the call is routed through voicemail.

Each action can have a number of results (for example True, False, No Answer and Busy). The types of results depend of the type of action. For each result, a connection can be added.

- Most actions only have a Next result, i.e. a single connection to the next action.
- Other actions may have two results, for example True or False. Each of these results represents a connection point for different following actions.
- Some actions may have multiple results. For example, the Assisted Transfer action has results for Next, No Answer and Busy. Each of these results represents a connection point for different following actions.
- If a result occurs, for which no connection to a following action has been set, either the call is disconnected or, if it came from a hunt group queue, it is transferred back to the queue.
- Within modules, all connections should end in another action or in a Module Return action.

To add a connection:

1. Click the  icon.
2. Click and drag the cursor from action's result that triggers the connection to the action that should follow the connection.


To delete a connection:

1. Click the connection to delete. It is displayed in red.
2. Press Delete. The connection is removed. Alternatively, either select Edit and then Delete or right-click and then select Delete.

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## 4.2 Available Actions








Once a start point has been added, it can be linked to an action. The available actions are divided into the following groups:

-  [Start Point](#) <sup>[155]</sup>  
This special action is present by in all call flows. It is simply the start point for the call flow to which other actions can be linked. While this action has General, Entry Prompts, Reporting and Results tabs they should not be used. Any settings added to those tabs will be ignored and should be applied through the tabs of the first additional action added to the call flow and linked to the Start Point.
  - For Voicemail Pro 6.1, the Specific tab has options for post-call completion actions.



### Basic Actions

These actions are chiefly used to control the routing of a call between actions.

-  [Generic Action](#) <sup>[192]</sup>  
Can be used to simply play a prompt to the caller through its Entry Prompts tab. It can also be used to enter custom commands for the voicemail server.
-  [Speak Text Action](#) <sup>[207]</sup>  
Allows text to entered and then played to the caller. Requires TTS to be installed and licensed.
-  [Menu Action](#) <sup>[209]</sup>  
Branch the call flow according to the phone buttons presses made by the caller.
-  [Goto Action](#) <sup>[211]</sup>  
Go to another start point.
-  [Disconnect Action](#) <sup>[212]</sup>  
Disconnect the call.
-  [Home Action](#) <sup>[212]</sup>  
Return to the start point.
-  [Module Return Action](#) <sup>[212]</sup>  
Return to the start of a module.



### Mailbox Actions





These actions relate to the leaving and collecting of messages from a mailbox.

-  [Get Mail Action](#) <sup>[214]</sup>  
Collect messages from a mailbox.
-  [Leave Mail Action](#) <sup>[216]</sup>  
Leave a message in a mailbox.
-  [Listen Action](#) <sup>[217]</sup>  
Record to a mailbox.
-  [Voice Question Action](#) <sup>[218]</sup>  
Record responses to a series of prompts.
-  [Campaign Action](#) <sup>[219]</sup>  
Access a campaign to read or leave messages.



### Configuration Actions











These actions allow a caller to change the settings of a user or hunt group mailbox.

-  [Edit Play List Action](#) [226] Re-record a prompt.
-  [Record Name Action](#) [227] Re-record a mailbox name.
-  [Personal Options Menu Action](#) [222] Change user or group settings.
-  [Select System Prompt Language Action](#) [224] Change the prompt language.










### Telephony Actions

These actions relate to telephony functions such as call transfers.

-  [Variable Routing Action](#) [228] Route on a match to a variable such as the caller's CLI.
-  [Route Incoming Call Action](#) [228] Route a call depending on whether the call is internal or external.
-  [Route by Call Status](#) [229] Calls route is determined by why the reason the call was routed to voicemail.
-  [Transfer Action](#) [230] A blind transfer.
-  [Whisper Action](#) [232] Screened transfer.
-  [Call List Action](#) [234] Transfer to a user selected choice.
-  [Dial by Name Action](#) [235] Select user/group by keypad letters.
-  [Conferencing Center](#) [237] Provides a route for callers to enter the conference ID and their conference PIN code. IP Office Conferencing Center needs to be installed.
-  [Assisted Transfer Action](#) [238] A transfer with assistance for callers.
-  [Alphanumeric Action](#) [240] Allows the caller to input text and numeric values.







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## Miscellaneous Actions

-  [eMail Action](#) <sup>[243]</sup>  
Email a recording.
-  [Open Door Action](#) <sup>[244]</sup>  
Open and/or close a door relay.
-  [Alarm Set Action](#) <sup>[245]</sup>  
Set an alarm call time.
-  [Clock Action](#) <sup>[247]</sup>  
Play the time to the caller.
-  [Post Dial Action](#) <sup>[248]</sup>  
Play a recording to an extension.
-  [VB Script Action](#) <sup>[249]</sup>  
Allows Visual Basic to be used to script call flow events.
-  [Remote Call Flow](#) <sup>[251]</sup>  
Allows call flows developed elsewhere to be included in an existing call flow.

## Condition Actions




These actions are used to create branches in the call routing according to whether a value is true or false.


-  [Test Condition Action](#) <sup>[252]</sup>  
Test whether a condition is true or false.
-  [Set User Variable Action](#) <sup>[253]</sup>  
Set a variable to a particular value.
-  [Test User Variable Action](#) <sup>[254]</sup>  
Test the value of a variable.
-  [Test Variable Action](#) <sup>[255]</sup>  
Check if user dialing matches set digits.
-  [Increment and Test Counter](#) <sup>[256]</sup>  
Increment a \$COUNTER variable and then test whether it matches a specified value.
-  [Decrement and Test Counter](#) <sup>[257]</sup>  
Decrement a \$COUNTER variable and then test whether it matches a specified value.

## Database Actions





These actions relate to retrieving and adding data to a database.

- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#) <sup>[21]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

-  [Database Open Action](#) <sup>[259]</sup>  
Open a database.
-  [Database Execute Action](#) <sup>[261]</sup>  
Perform an action on a database.
-  [Database Get Data Action](#) <sup>[262]</sup>  
Get information from a database.
-  [Database Close Action](#) <sup>[263]</sup>  
Close a database.

 Queue Actions

These actions are associated with hunt group queues and are not available to user and short code start points. The IP Office Manager option Synchronise calls to announcements should not be used when using the queue actions.

-  [Queue ETA Action](#)   
Speak the caller's expected time to answer.
-  [Queue Position Action](#)   
Speak the caller's queue position.

## 4.3 Standard Action Tabs

The standard tabs of an action are:

- [General](#)<sup>[182]</sup>  
Set a name for the action in the call flow and whether a PIN code is required by callers to use the action.
- [Entry Prompts](#)<sup>[183]</sup>  
Sets the prompts that should be played to callers that reach the action.
- [Reporting](#)<sup>[188]</sup>  
Use to provided reporting on calls that use the action. The reporting is done through the IP Office Customer Call Reporter applications.
- [Results](#)<sup>[189]</sup>  
Displays the results configured for the action. Each result can be connected to a further action in the call flow.

### 4.3.1 General

The General tab contains the action name. You can also enter notes about the action and protect a call flow by adding an access code.

This tab is shown for the Start action in calls flows. However it should not be used as settings applied to the Start action are ignored and should instead be applied through the first other added to the call flow.

- **Token Name**  
The name of the action, for example, the token name for the action Menu is 'Menu'. The token name can be changed so the use of the action can be indicated. It could also be confusing having two actions within a module with the same name.
- **Description**  
Use this field to enter notes about why the action is being used or other information that may be needed. For Voicemail Pro 6.0+, the text in the Description field can be used with TTS to automatically generate a prompt, see [Using the Wave Editor](#)<sup>[185]</sup>.
- **Pin**  
Each action can be protected by a PIN number. The PIN number can be the voicemail code of the presumed user. To do this enter a \$ symbol. For example, entering \$ would force the caller to dial their voicemail code, entering 104\$ would force the caller to dial 104 followed by their voicemail code.

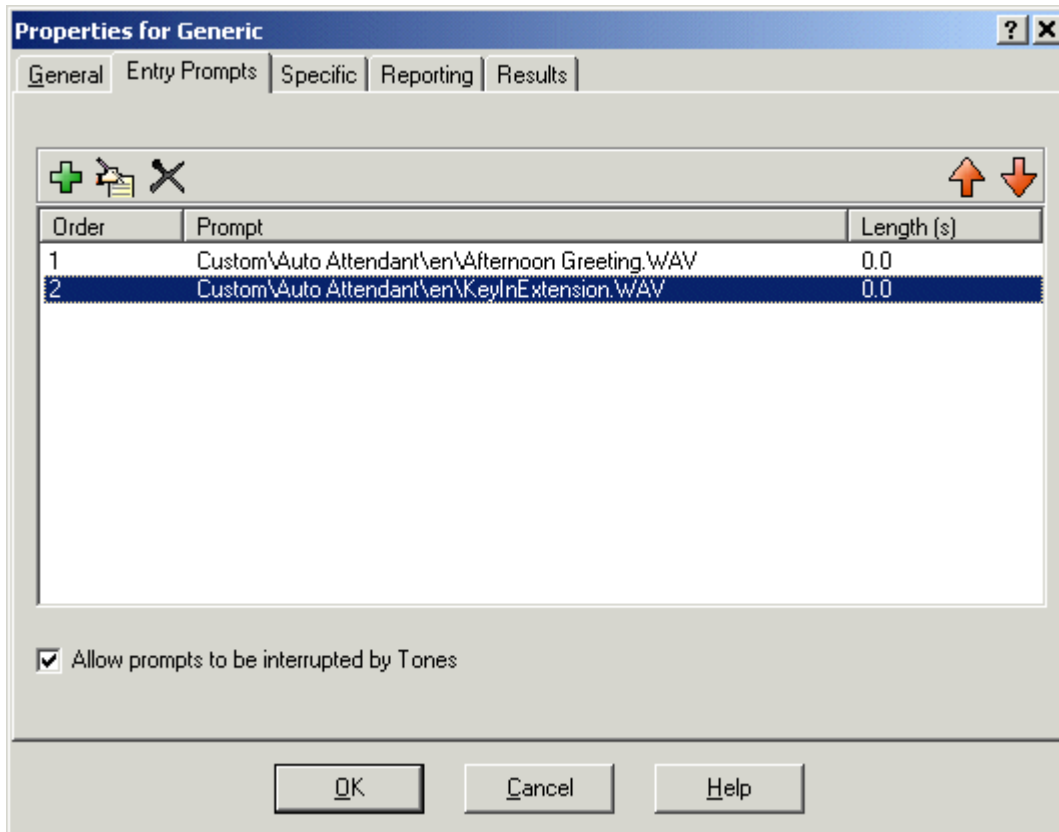
The screenshot shows a dialog box titled "Properties for Generic" with a standard Windows-style title bar containing a question mark and a close button. Below the title bar are five tabs: "General", "Entry Prompts", "Specific", "Reporting", and "Results". The "General" tab is selected and highlighted. The main area of the dialog contains three text input fields. The first is labeled "Token Name" and contains the text "Generic". The second is labeled "Description" and is currently empty. The third is labeled "Pin" and is also empty. At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

### 4.3.2 Entry Prompts

The Entry Prompts tab is used to select the prompts to be played before the action performs its main role. Multiple prompts can be added and the order in which they are played adjusted.

This tab is shown for the Start action in calls flows. However it should not be used as settings applied to the Start action are ignored and should instead be applied through the first other added to the call flow.

- When accessing voicemail prompts, [voicemail variables](#)<sup>[162]</sup> can be used in both the path and filename for the prompt. For example, if prompts Greeting1.wav, Greeting2.wav etc. are recorded, an action set to play *Greeting\$KEY.wav* would play the greeting prompt that matched the current value of \$KEY.



- **+** Add Prompt  
Clicking **+** or double-clicking an existing listed prompt starts the [Wave Editor](#)<sup>[185]</sup>. This tool allows you to record and play prompts through the Voicemail Pro server PC or through an extension on the IP Office system. The dialogue that appears allows the selection of an existing prompt or the ability to specify a new file name and then record the new prompt.
- **✎** Edit Prompt  
Edit the details of the currently highlighted prompt using the [Wave Editor](#)<sup>[185]</sup>.
- **X** Delete Prompt  
Delete the currently highlighted prompt from the play list. Note that the actual prompt file is not deleted from the server.
- **↑↓** Move Prompt  
Move the position of the currently highlighted prompt in the play list.
- Allow prompts to be interrupted by Tones  
Allow the caller to press tone keys to make selections during the playing of the actions entry prompts.

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The [Edit Play List](#) <sup>(220)</sup> action can be used in call flows to record a specified prompt. This allows the creation of call flow options where the voicemail user can record prompts themselves to reflect changes in operation.

#### Speaking Variables to Callers

Call variables can be used as prompts. The value of the call variable will then be spoken. This applies to all variables that are numeric values. It also applies to \$NAM which will play the mailbox users recorded name prompt.

Numbers are spoken as a series of single digits. For example 123 is spoken as "one two three". To speak 123 as "one hundred and twenty-three" requires TTS to be installed and a [Speak Text](#) <sup>(207)</sup> action used.

Some call variables can be played as prompts, for example:


- \$NAM  
Plays the mailbox's name prompt if one has been recorded.
- \$CLI  
Speaks the caller's CLI.
- \$RES  
Plays the current result if it is a .wav file.
- \$VAR  
Plays the variable as a list of digits.

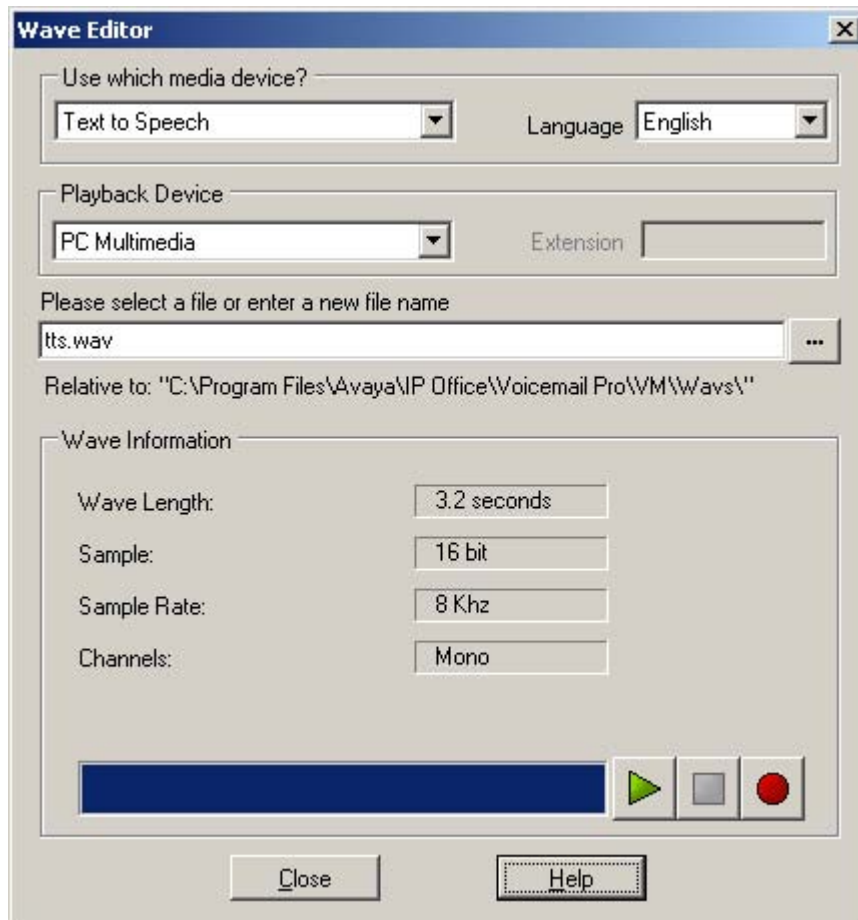


### 4.3.2.1 Using the Wave Editor

The Wave Editor is used by Voicemail Pro to select, record and play prompts. It can be used to select existing prompts or to record new prompts.

The Entry Prompts tab of each call flow action allows prompts to be played before the action performs its main role.


Clicking  or double-clicking a listed prompt starts the Voicemail Pro Wave Editor. This tool allows you to record and play prompts through the Voicemail Pro server PC or through an extension on the IP Office system.



To record a new prompt:


1. First configure the recording and playback devices :

- Use which media device?
  - PC Multimedia  
This option uses the speaker and microphone facilities of the PC on which the Voicemail Pro client is being run.
  - Telephony Handset  
If Telephony Handset is selected, enter the extension of the telephone to be used. When recording is started, the phone will be run and after being answered, will start recording.
  - Text to Speech  
This option is available on systems licensed for TTS operation. Note that the option is also only shown if there is some text in the action's [Description](#) <sup>182</sup> field. When selected, the prompt file is automatically generated from that text. When Text to Speech is selected, the following additional fields are also used.
    - Language  
Select the TTS language engine that should be used for the prompt generation.
    - Playback Device  
Select either *PC Multimedia* or *Telephony Handset* as the device on which to playback the prompt following TTS generation.


2. Enter a file name for the recording. The file will be stored in the path shown. Alternatively use the browse icon  to select an existing prompt file to be recorded.

- When accessing voicemail prompts, [voicemail variables](#) <sup>162</sup> can be used in both the path and filename for the prompt. For example, if prompts Greeting1.wav, Greeting2.wav etc. are recorded, an action set to play *Greeting\$KEY.wav* would play the greeting prompt that matched the current value of \$KEY.


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3. Click the  record button to record the message.

4. Unless using TTS to generate the prompt, speak the message and then click the  stop button when finished.

5. To listen to the recording, press the  play button.

To select a prompt.

There are a large number of standard prompts that can be used. Enter the name of the prompt or use the  button to browse to the required file. For a sample listing of these prompts see [US English Intuity Prompts](#)<sup>[42b]</sup> and [English Non-Intuity Prompts](#)<sup>[43d]</sup>.

Useful files are:

- en\MC\_00 - Plays a bleep.
- en\MC\_01 - Plays 1 second of silence.
- Entering 1234.wav will play "one two three four" (unless a file called 1234.wav has been recorded).

Some [call variables](#)<sup>[16a]</sup> can be played as prompts. For example:

- \$NAM - Plays the user name.
- \$CLI - Speaks the caller's CLI.
- \$RES - Plays the current result if it is a .wav file.
- \$VAR - Plays the variable as a list of digits.

### 4.3.3 Specific

The contents of this tab vary according to the type of action. In some cases this tab may have a different name, for example Touch Tones for the Menu action. Not all actions contain the Specific or Touch Tones tab. Details of the specific tab are covered in the section that describes the available actions.

This tab is shown for the Start action in calls flows. However it should not be used as settings applied to the Start action are ignored and should instead be applied through the first other added to the call flow.

### 4.3.4 Reporting

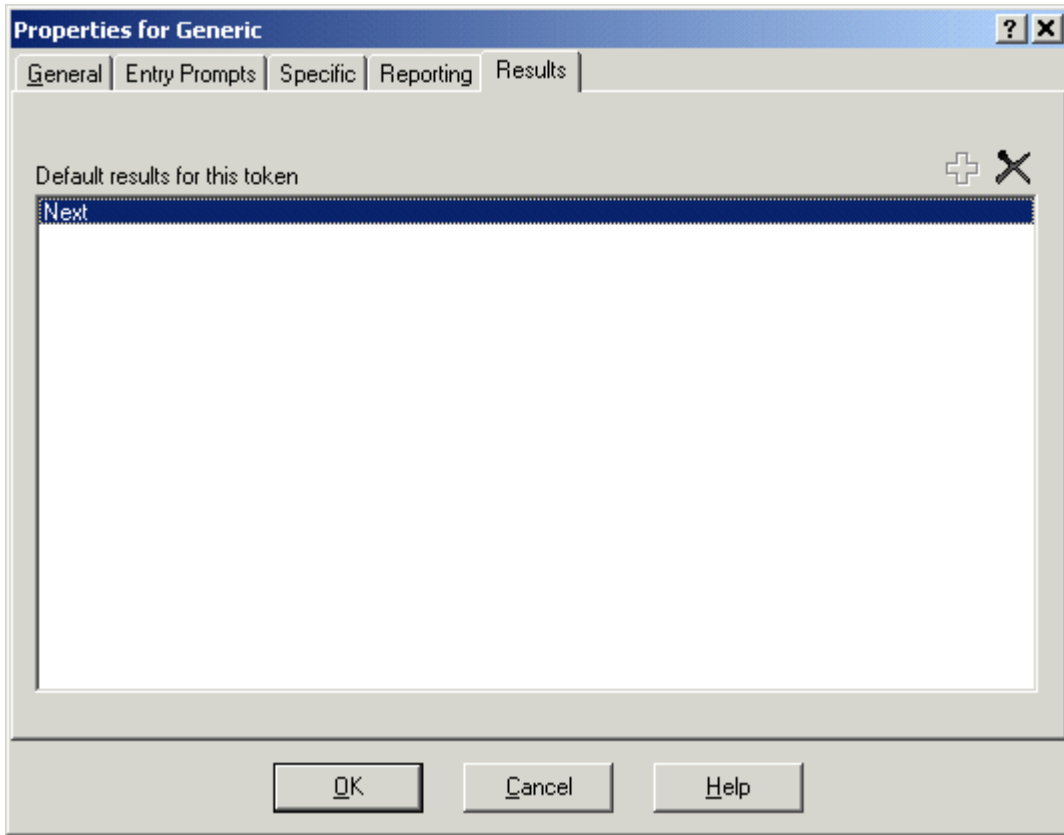
The Reporting tab provides information that is then used by other IP Office applications that can report of calls that use an voicemail call flow.

Setting	Customer Call Reporter
Flag the current call has been answered by Voice Mail	<p>If not selected, the number of calls and the number of times trigger values are incremented by calls that complete the action and are routed to a further action.</p> <p>If selected, the number of calls and the number of times triggered values are increments by calls that reach the action.</p>
Request to call back the current caller	<i>This field is not used.</i>
Send reporting information	If selected, information can be associated with the call. That information then allows reports to be run.
Group Name	Sets the label used by Customer Call Reporter in its Voicemail Report.
Topic	<i>This field is not used.</i>
Annotation	<i>This field is not used.</i>

### 4.3.5 Results

This tab shows the results available from an action. For the majority of actions the results are fixed and appear grayed out, i.e. they cannot be changed. For some actions the results are variable.

This tab is shown for the Start action in calls flows. However it should not be used as settings applied to the Start action are ignored and should instead be applied through the first other added to the call flow.



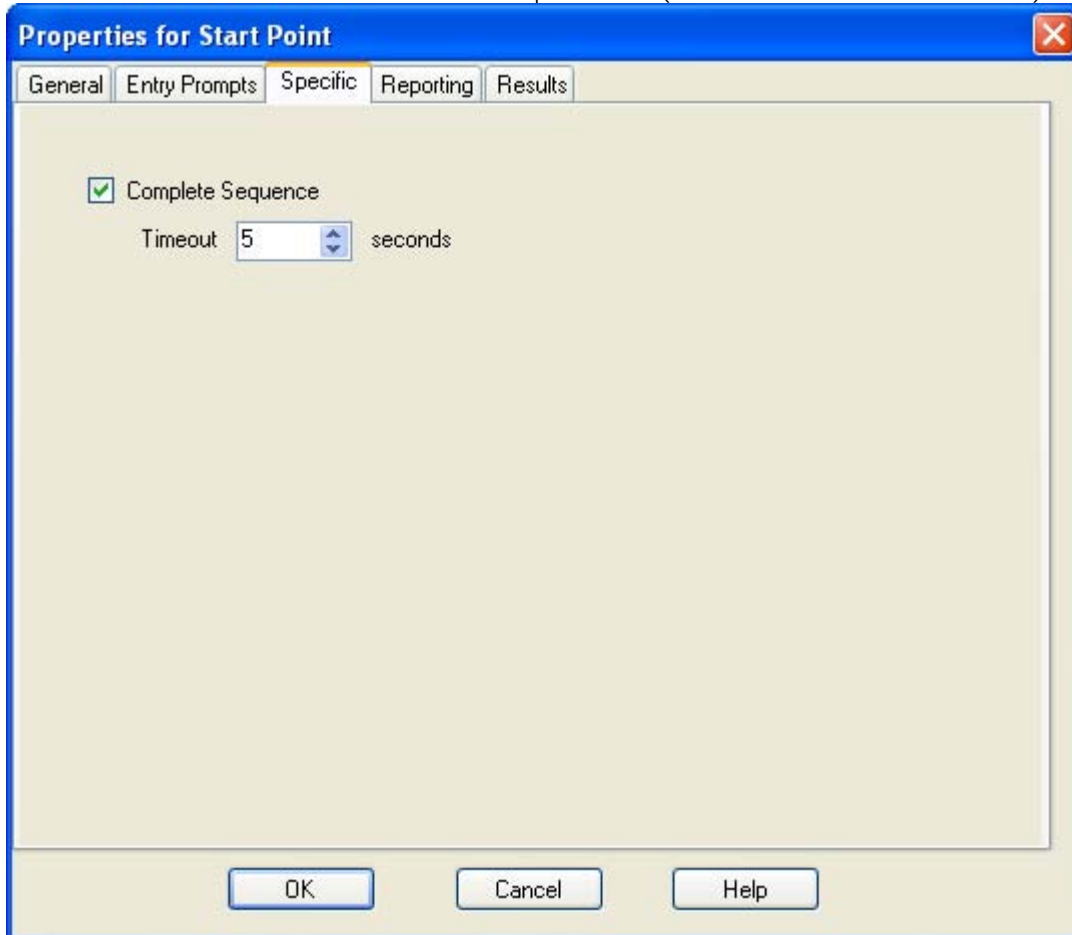
## 4.4 Start Action

▶ This special action is present by in all call flows. It is simply the start point for the call flow to which other actions can be linked. While this action has General, Entry Prompts, Reporting and Results tabs they should not be used. Any settings added to those tabs will be ignored and should be applied through the tabs of the first additional action added to the call flow and linked to the Start Point.

- For Voicemail Pro 6.1, the Specific tab has options for post-call completion actions. Call flows can be configured to continue running even after the caller has disconnected. If the current action which the call had reached has a *Timeout* or *Next* result, the connection from that result is followed immediately until the call flow either reaches a Disconnect action or an unconnected result.

### Settings

1. Double-click on the ▶ Start icon and select the Specific tab (the other tabs should not be used).



- Complete Sequence: *Software level = 6.1*  
When selected, if the caller hangs up during the call flow, the call flow will continue running. If the current action which the call has reached in the call flow has a timeout result, that result connection is followed immediately. The call flow will continue until it either reaches a Disconnect action, a result with no action or the Timeout specified below.
- Timeout: *Default = 5 seconds. Range 0 to 120 seconds.*  
This timeout sets the maximum time the call flow should continue running if Complete Sequence is selected.

### Examples of Using Complete Sequence

In the call flow below, a [Listen](#) <sup>[217]</sup> action is used to record a message and then two following [eMail](#) <sup>[243]</sup> actions are used to distribute copies of the message. Without Complete Sequence enabled in the Start Point, if the caller hangs up after the recording no emails are sent. With the Complete Sequence option enabled in the Start Point, the emails are sent regardless of the caller hanging up.












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## 4.5 Basic Actions



### Basic Actions

These actions are chiefly used to control the routing of a call between actions.

-  [Generic Action](#) <sup>[192]</sup>  
Can be used to simply play a prompt to the caller through its Entry Prompts tab. It can also be used to enter custom commands for the voicemail server.
-  [Speak Text Action](#) <sup>[207]</sup>  
Allows text to be entered and then played to the caller. Requires TTS to be installed and licensed.
-  [Menu Action](#) <sup>[209]</sup>  
Branch the call flow according to the phone buttons presses made by the caller.
-  [Goto Action](#) <sup>[211]</sup>  
Go to another start point.
-  [Disconnect Action](#) <sup>[212]</sup>  
Disconnect the call.
-  [Home Action](#) <sup>[212]</sup>  
Return to the start point.
-  [Module Return Action](#) <sup>[212]</sup>  
Return to the start of a module.

### 4.5.1 Generic



The Generic action can be used to play a prompt to the caller. It can also be used to enter custom commands for the voicemail server. The maximum length for the string is 128 characters.

Voicemail Pro 5.0+ allows generic commands to be entered either as traditional "free format" text strings such as *SAVE: \$KEY* or through using a series of data fields to set the parameters for the required string.

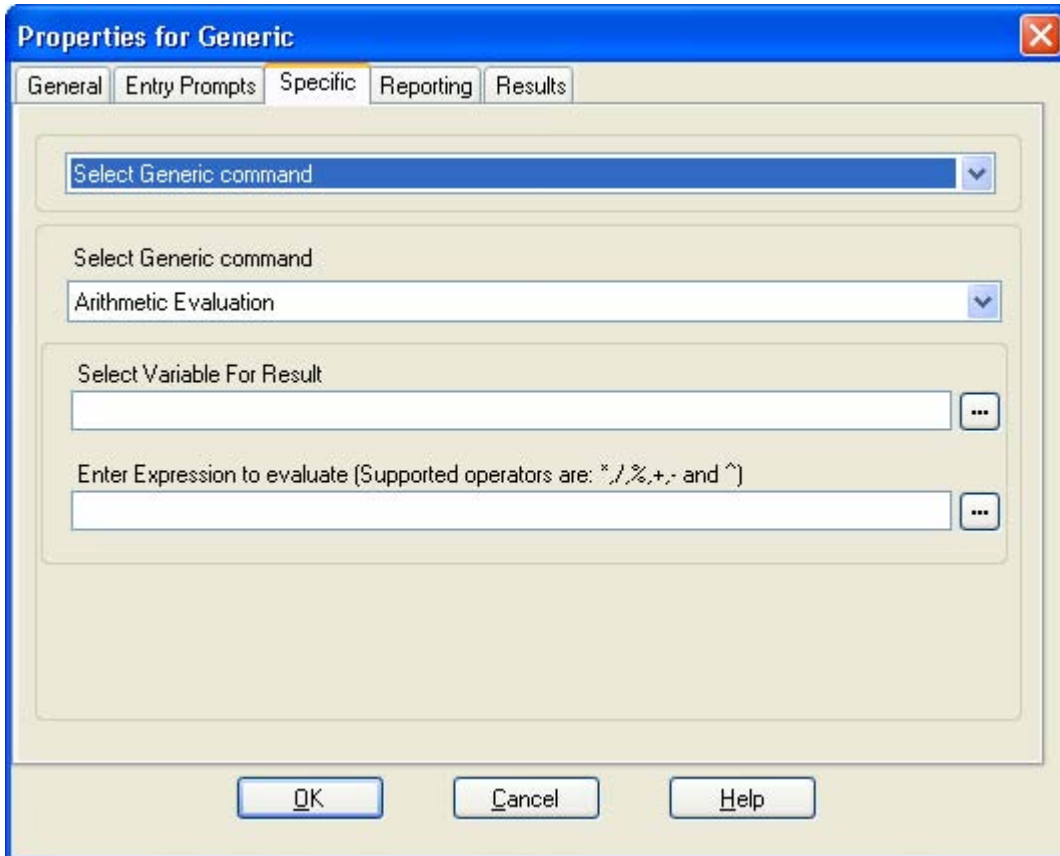
The types of generic command are:

- [Arithmetic Evaluation](#) <sup>[193]</sup>  
Perform a mathematic operation on existing variables and save the result as a call variable.
- [Change Caller's Priority](#) <sup>[194]</sup>  
Change the priority of a call before it is presented to a hunt group.
- [Change User or Group Configuration](#) <sup>[195]</sup>  
Get or change the current status of a range of user and hunt group settings.
- [Clear Counter](#) <sup>[196]</sup>  
Return one of the \$COUNTER variables to 0.
- [Counter Decrement](#) <sup>[199]</sup>  
Decrement one of the 15 \$COUNTER variables.
- [Counter Increment](#) <sup>[200]</sup>  
Increment one of the 15 \$COUNTER variables.
- [Generic "Free Format" Command](#) <sup>[201]</sup>  
Enter a command as a plain text string.
- [Set Counter](#) <sup>[202]</sup>  
Set one of the 15 \$COUNTER variables to a specific value.
- [Set CPxx Value](#) <sup>[203]</sup>  
Set the value of one of the 15 \$CP variables.
- [String Manipulation](#) <sup>[204]</sup>  
Extract or change the string stored in an existing variable and save the result as a call variable.
- [Set Interdigit Delay](#) <sup>[206]</sup>  
Change the delay allowed between the dialing of digits for subsequent actions in a call flow.



### 4.5.1.1 Arithmetic Evaluation

This Generic command allows an arithmetic operation to be performed on call variables. The result is then stored in a selected [call variable](#)<sup>[162]</sup>. For non-numeric values the string can be changed using the [String Manipulation](#)<sup>[204]</sup> option.



- Select Generic command: *Arithmetic Evaluation*
  - Select Variable For Result  
Select the call variable into which the result of the arithmetic calculation should be stored.
  - Enter Expression to evaluate  
The string entered here can include numeric values, other call variables such as \$KEY and the following arithmetic operators in addition to ( and ) brackets:
    - \* = Multiply by.
    - / = Divide by.
    - % = Modulus (remainder after division)
    - + = Add.
    - - = Subtract.
    - ^ = Bitwise exclusive or (XOR). Does a binary comparison of the decimal inputs, returning a 1 for each bit if only one of the corresponding input bits is 1, otherwise returning 0 for the bit.
  - If the values being evaluated are integers (for example 123), the result will be an absolute integer value. For example 123/2 will result in 61.
  - If any value being evaluated is a decimal (for example 123.0), the result will be a 6 decimal place value. For example 123.0/2 will result in 61.500000.

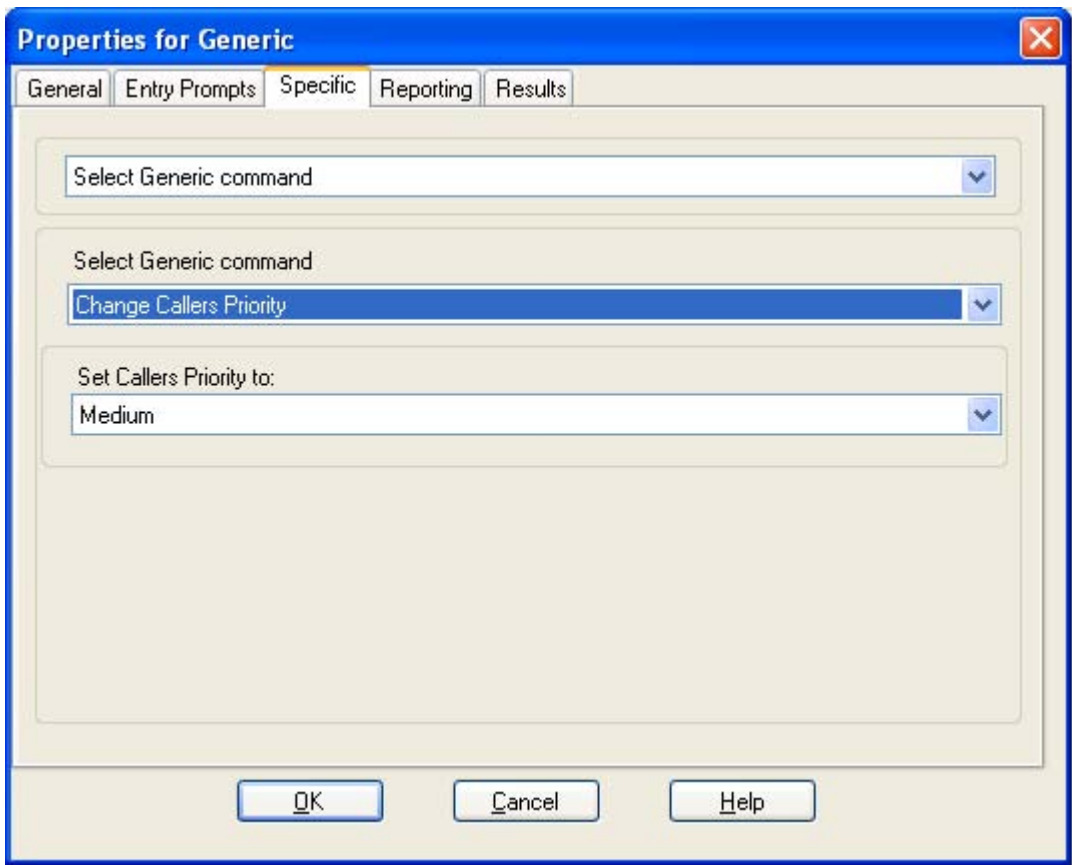
#### Free Format Equivalent

This action creates a free format similar to `IVAL:$CPO=$CP1+$CP2+5`. In this example the current values of `$CP1`, `$CP2` plus 5 are added and then stored as `$CPO`.

### 4.5.1.2 Change Callers Priority

This Generic command allows the call priority of a call to be changed. The priority value is retained when the call is transferred back to the IP Office system.

- When calls are presented to a hunt group on the IP Office, calls waiting to be answered are queue in order of priority and then longest waiting. By default internal caller's have *Low* priority while the priority of external callers is set by the IP Office Incoming Call Route used to route the call (default also *Low*).
- Mixing calls of different priority is not recommended if Voicemail Pro is being used to provide queue estimate time to answer (ETA) and queue position announcements to callers, since those values will no longer be accurate when a higher priority call is placed into the queue. Note also that in such a situation Voicemail Pro will not allow a value already announced to a caller to increase.



- Select Generic command: *Change Callers Priority*
  - Set Callers Priority to:  
The caller's priority can be set to *Low*, *Medium* or *High*. A [call variable](#)<sup>162</sup> set to 1, 2 or 3 can also be used to set *Low*, *Medium* or *High* priority respectively.

#### Free Format Equivalent

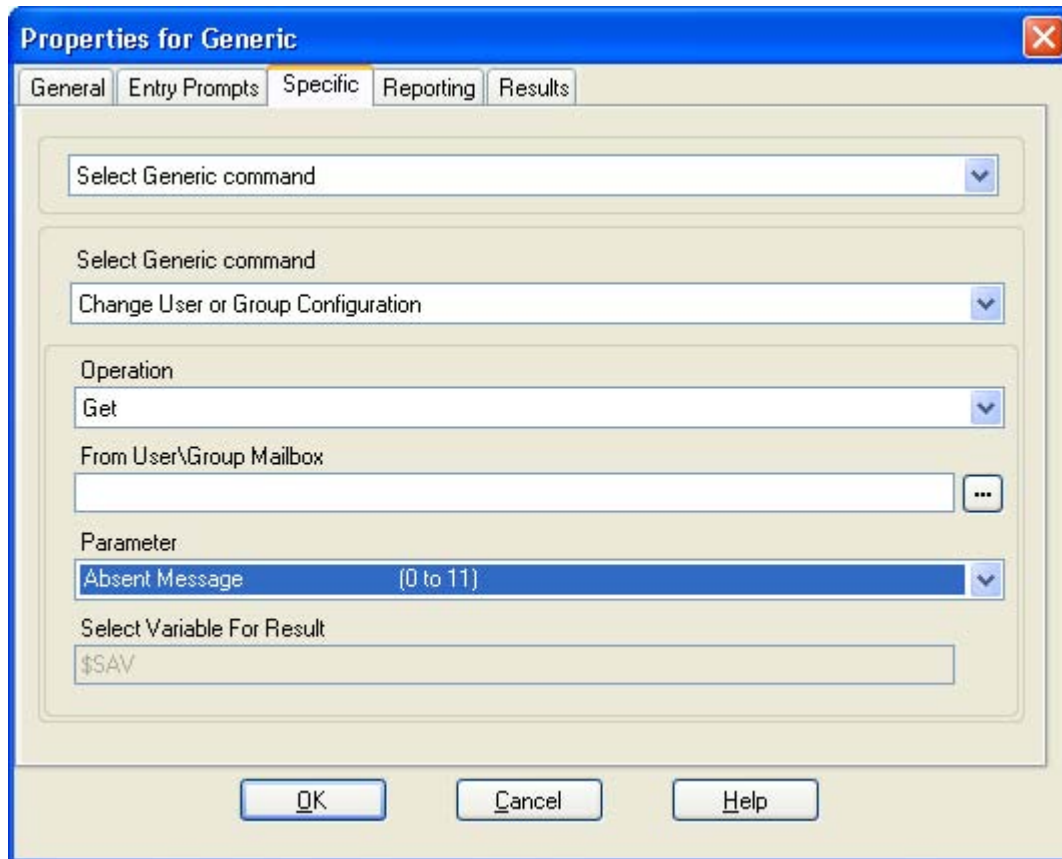
This action creates a free format similar to *CHANGECALLPRIORITY:M*. In this example the caller's priority is set to medium.

### 4.5.1.3 Change User or Group Configuration

This Generic command allows you to create generic commands that either get or set the value of configuration settings in the IP Office system. The IP Office settings are listed in the table below.

Some of these settings as indicated below can be changed using a [Play Configuration Menu](#) action.

Any user or group configuration changes made using this method are written to the file "AuditTrail.txt" on the voicemail server PC (*C:\Program Files\Avaya\IP Office\Voicemail Pro\VMLogs\AuditTrail.txt*). The file includes the time, date, details of the change and the CLI of the caller making the change.



- Select Generic command: *Change User or Group Configuration*
  - Operation  
Select whether the command should *Get* a value from the IP Office configuration or *Set* a value in the configuration. When *Get* is selected, the Select Variable For Result option is shown as a reminder that the value obtained is saved into the Voicemail Pro \$SAV variable.
  - From User\Group Mailbox  
Select the IP Office user or mailbox whose configuration settings the command accesses.

- Parameter  
Select the IP Office configuration setting that is being got or set. For full details of the operation of these settings refer to the IP Office Manager Application documentation.

Parameter	User	Hunt Group	Parameter Values	Free Format Parameter Name	Play Configuration Action
Absent Message	✓	✗	0 ( "None" ), 1 ( "On vacation until" ), 2 ( "Will be back" ), 3 ( "At lunch until" ), 4 ( "Meeting until" ), 5 ( "Please call" ), 6 ( "Don't disturb until" ), 7 ( "With visitors until" ), 8 ( "With cust. til. " ), 9 ( "Back soon" ), 10 ( "Back tomorrow" ), 11 (Custom).	<i>absent_msg</i>	✗
Absent State	✓	✗	0 (Off) or 1 (On).	<i>absent_set</i>	✗
Absent Text	✓	✗	Text added to the end of the Absent Message when the Absent State is on.	<i>absent_text</i>	✗
Announcements	✓	✓	0 (Off) or 1 (On).	<i>enable_comfort_announcements</i>	✗
Do Not Disturb	✓	✗	0 (Off) or 1 (On).	<i>do_not_disturb</i>	✓
Ex Directory	✓	✗	0 (Off) or 1 (On).	<i>exdirectory</i>	✗
Forward Unconditional	✓	✗	0 (Off) or 1 (On).	<i>forward_unconditional</i>	✓
Forward Number	✓	✗	The destination number for the users Forward Unconditional when that option is on.	<i>forward_number</i>	✓
Forward on Busy	✓	✗	0 (Off) or 1 (On).	<i>forward_busy</i>	✗
Forward on No Answer	✓	✗	0 (Off) or 1 (On).	<i>forward_na</i>	✗
Forward Hunt Group Calls	✓	✗	0 (Off) or 1 (On). Used with Forward Unconditional.	<i>forward_hg</i>	✗
Forward on Busy Number	✓	✗	The destination number for the user's Forward on Busy and Forward on No Answer if either option is on.	<i>forward_busy_number</i>	✗
Mobile Twinning Number	✓	✗	The destination number being used for the user's mobile twinning.	<i>mobile_twinning_number</i>	✗
Twinning Type	✓	✗	<i>Mobile</i> indicates or sets twinning on, any other value indicates or sets mobile twinning off.	<i>twinning_type</i>	✗
Voicemail On	✓	✓	0 (Off) or 1 (On).	<i>voicemail_on</i>	✓
Voicemail Reception	✓	✗	0 (Off) or 1 (On).	<i>voicemail_reception</i>	✓
Voicemail Email Mode	✓	✓	0 (Off), 1 (Copy), 2 (Forward), 3 (Alert).	<i>voicemail_emailmode</i>	✓
Voicemail Callback Number	✓	✓	The destination number for <a href="#">voicemail callback</a> <sup>[32b]</sup> .	<i>voicemail_dialback</i>	✓
Group Service Mode	✗	✓	0 (Out of service), 1 (in service) or 2 (night service) mode.	<i>service_mode</i>	

- Select Variable For Result  
If the Operation is a *Get*, a call variable must be selected to store the value returned.

### Free Format Equivalent

This action creates a free format command of the form *CFG:GET "<extension number>" <parameter name> <parameter value>* or *CFG:SET "<extension number>" <parameter name> <parameter value>*. The free format parameter names and values are listed in the table above.

For example, to set announcements on for extension 201, the free format command is *CFG:SET "201" enable\_comfort\_announcements 1*.

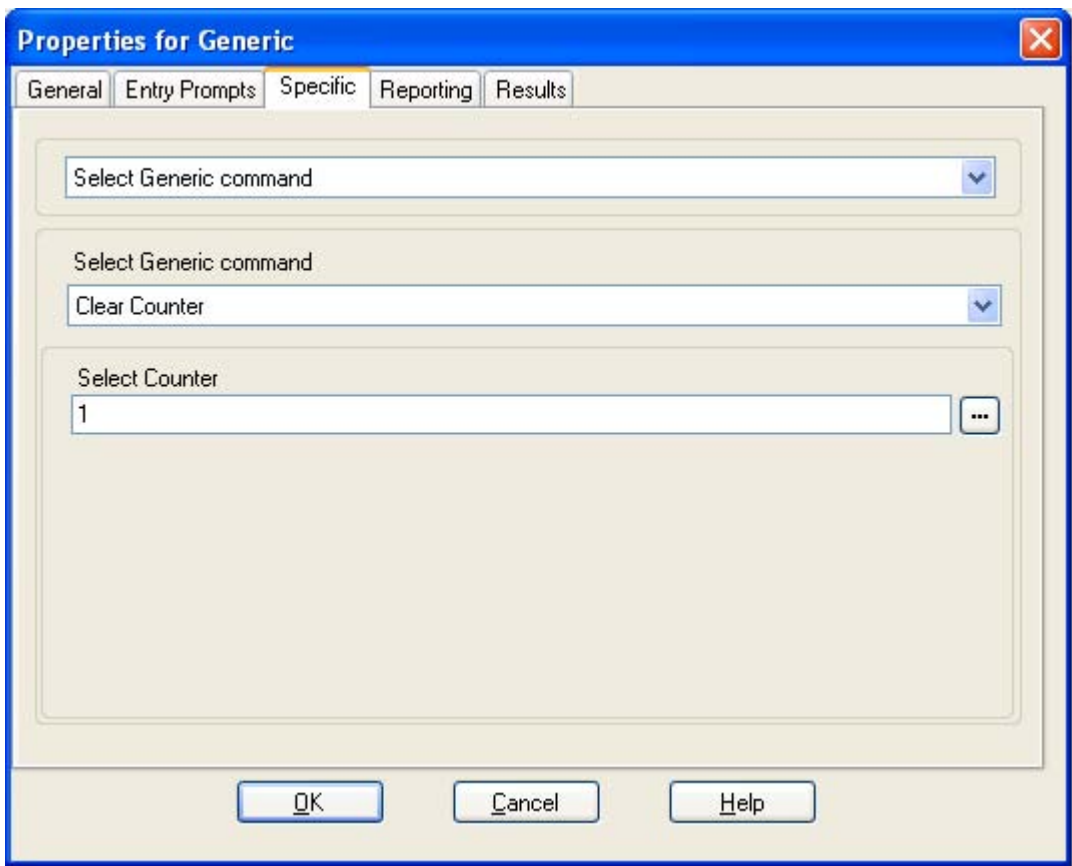
The following additional options exist only as free-format command strings:

Option	User	Hunt Group	Value	Free Format Parameter Name	Play Configuration Action
Follow Me Number	✓	✗	Number	<i>follow_me_number</i>	✓
Voicemail Code	✓	✗	Number	<i>voicemail_code</i>	✓
Off Hook Station	✓	✗	0 (Off) or 1 (On)	<i>off_hook_station</i>	✗
Dial In	✓	✗	0 (Off) or 1 (On)	<i>dial_in_on</i>	✗
Monitor Group	✓	✗	Number	<i>monitor_group</i>	✗
System Phone	✓	✗	0 (Off) or 1 (On)	<i>systemphone</i>	✗

#### 4.5.1.4 Clear Counter

This Generic command allows one of the 15 \$COUNTER call variables to be reset to 0.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) [192] action commands for [Set Counter](#) [202], [Clear Counter](#) [198], [Counter Decrement](#) [199] and [Counter Increment](#) [200]. They can also be used with the [Decrement and Test Counter](#) [257] and [Increment and Test Counter](#) [258] actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.



- Select Generic command: *Clear Counter*
  - Select Counter  
Enter 1 to 15 to select \$COUNTER1 to \$COUNTER15 respectively.

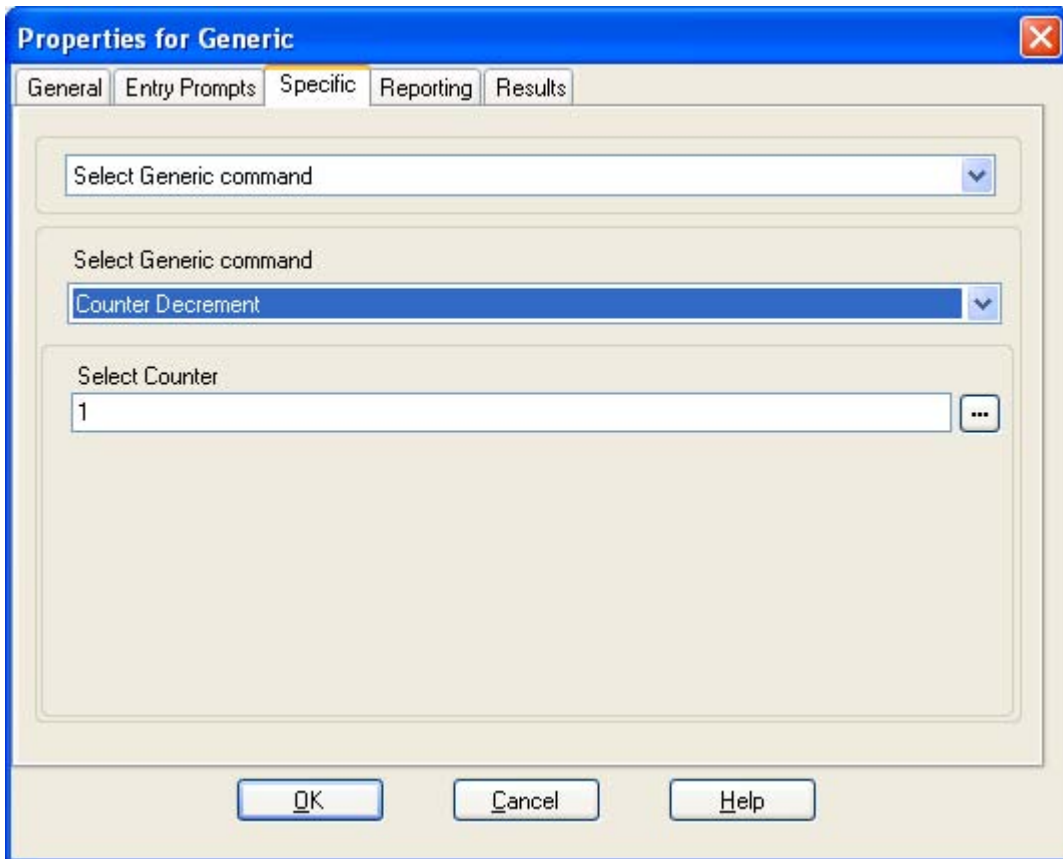
#### Free Format Equivalent

This action creates a command similar to *CLEARCOUNTER1*.

### 4.5.1.5 Counter Decrement

This Generic command allows one of the 15 \$COUNTER call variables to be decreased by 1.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) <sup>[192]</sup> action commands for [Set Counter](#) <sup>[202]</sup>, [Clear Counter](#) <sup>[198]</sup>, [Counter Decrement](#) <sup>[199]</sup> and [Counter Increment](#) <sup>[200]</sup>. They can also be used with the [Decrement and Test Counter](#) <sup>[257]</sup> and [Increment and Test Counter](#) <sup>[258]</sup> actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.



- Select Generic command: *Counter Decrement*
  - Select Counter  
Enter 1 to 15 to select \$COUNTER1 to \$COUNTER15 respectively.

#### Free Format Equivalent

This action creates a command similar to `DECCOUNTER:$COUNTER1`. In this example decrementing the value of `$COUNTER1`.

### 4.5.1.6 Counter Increment

This Generic command allows one of the 15 \$COUNTER call variables to be increased by 1.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) <sup>[192]</sup> action commands for [Set Counter](#) <sup>[202]</sup>, [Clear Counter](#) <sup>[198]</sup>, [Counter Decrement](#) <sup>[199]</sup> and [Counter Increment](#) <sup>[200]</sup>. They can also be used with the [Decrement and Test Counter](#) <sup>[257]</sup> and [Increment and Test Counter](#) <sup>[258]</sup> actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.



- Select Generic command: *Counter Increment*
  - Select Counter  
Enter *1* to *15* to select *\$COUNTER1* to *\$COUNTER15* respectively.

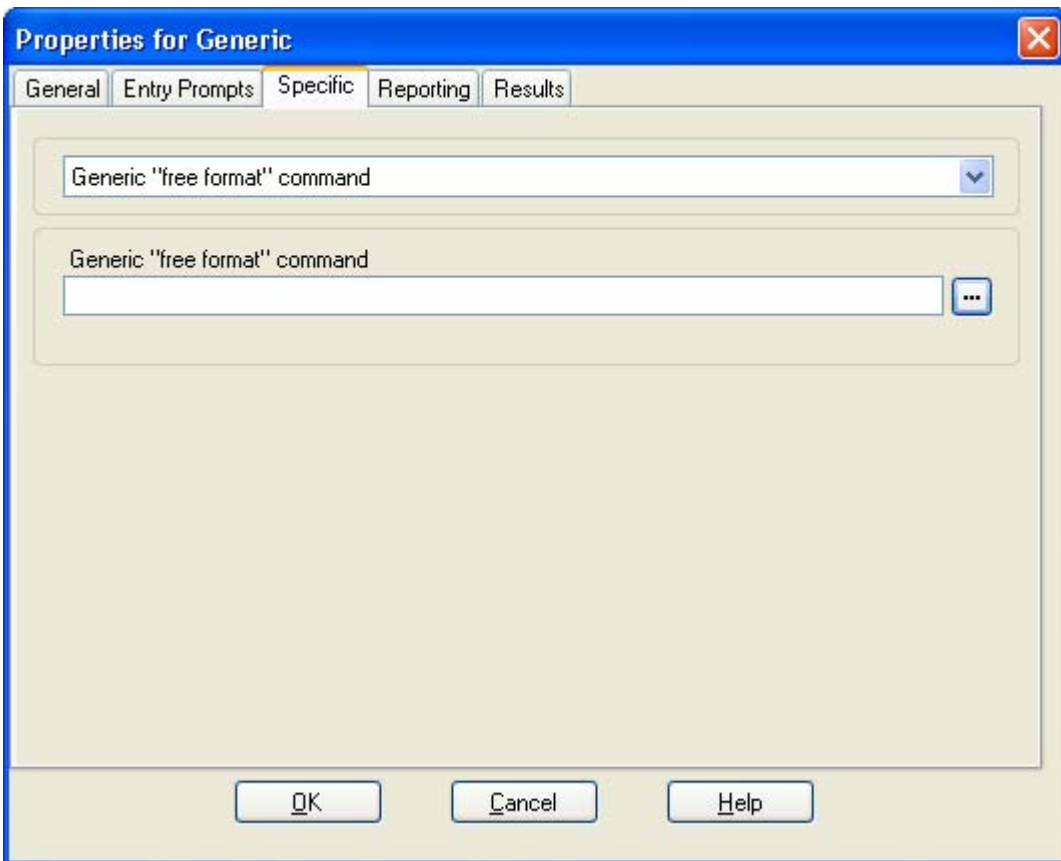
#### Free Format Equivalent

This action creates a command similar to *INCCOUNTER:\$COUNTER1*. In this example incrementing the value of *\$COUNTER1*.



#### 4.5.1.7 Generic Free Format Command

This Generic command allows the direct entry of generic commands. If the action has been previously used to setup using a specific type of generic command, the resulting free format text string for that command is shown and can be edited if required.



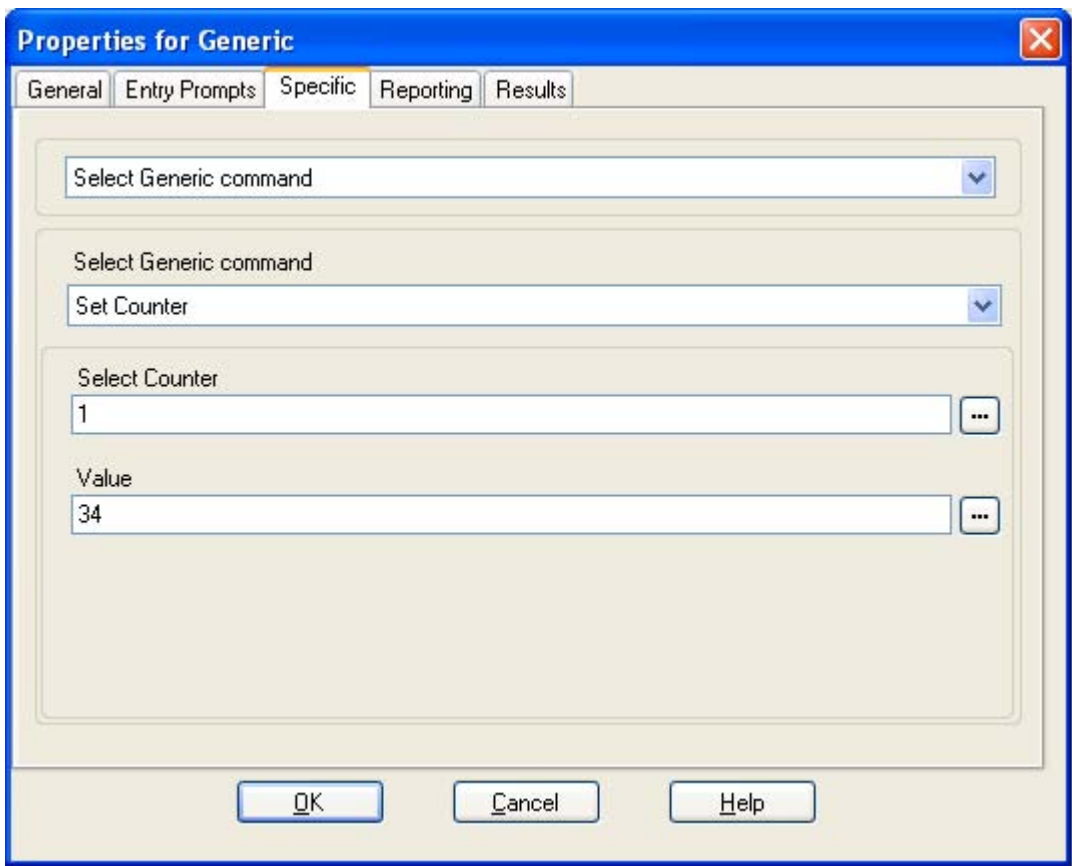
Details for many free format commands are included in the sections on other Generic action commands. In addition the following commands can be used:

- Save a Value: *Save: <value>*  
This generic command can be used to replace the value of the call variable *\$SAV* with a specified value. For example *Save: \$KEY* or *Save: 1234*.
- Forward a Message: *FWD: <ext1>#<ext2>##*  
This option can be used with a generic action that is preceded by an action that records a message such as a Voice Question or Edit Play List action. It then forwards the message to another mailbox or mailboxes. Each extension number should be followed by a # plus an additional # at the end of the string.

### 4.5.1.8 Set Counter

This Generic command allows one of the 15 \$COUNTER call variables to be set to a specific value.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) [192] action commands for [Set Counter](#) [202], [Clear Counter](#) [198], [Counter Decrement](#) [199] and [Counter Increment](#) [200]. They can also be used with the [Decrement and Test Counter](#) [257] and [Increment and Test Counter](#) [258] actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.



- Select Generic command: *Set Counter*
  - Select Counter  
Enter 1 to 15 to select \$COUNTER1 to \$COUNTER15 respectively.
  - Value  
Enter the numeric value for the counter. A call variable such as \$KEY can be entered to set the counter to match the current value of that variable.

#### Free Format Equivalent

This action creates a command similar to `COUNTER1:34` or `COUNTER2:$KEY`. These examples set the value of \$COUNTER1 to 34 and \$COUNTER2 to \$KEY respectively.

### 4.5.1.9 Set CPxx Value

This Generic command allows a value to be stored as one of the 15 \$CPxx [call variables](#)<sup>162</sup>. The value to store can be the value of another variable or a value entered in the action.

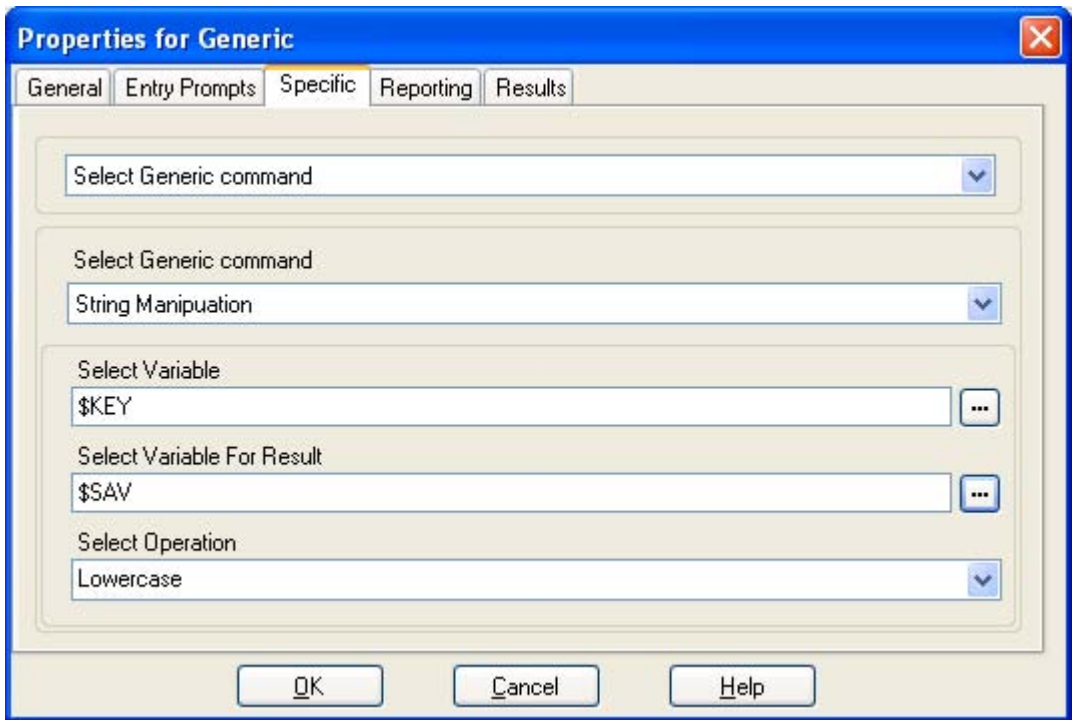
- Select Generic command: *Set CPxx Value*
  - Select Data Variable  
Enter 1 to 15 for call variable *CP1* to *CP15* respectively.
  - With Value  
Enter the value to store. Another call variable such as *\$KEY* can be specified in order to have that variables current value stored.

#### Free Format Equivalent

This action results in a free format command like *CP4:\$KEY*. In that example the current value of *\$KEY* is stored as variable *\$CP4*.

### 4.5.1.10 String Manipulation

This Generic command allows a call variable to be edited in various ways. For example take the full CLI of a call (for example 01555364200) and save just the area code part (in the example 555) as a new value. The action treats variable values as text strings, it does not differ whether the value is numeric or alphabetic. For numeric variables value, the value can also be manipulated using the [Arithmetic Evaluation](#) <sup>[193]</sup> option.



- Select Generic command: *String Manipulation*
  - Select Variable  
Enter the call variable on which the action should perform an operation.
  - Select Variable For Result  
Enter the call variable which should be used to store the result of the operation.
  - Select Operation  
Select the operation to be performed on the selected input. Depending on the selected operation the additional fields Number of Characters and From Position Index may be displayed.

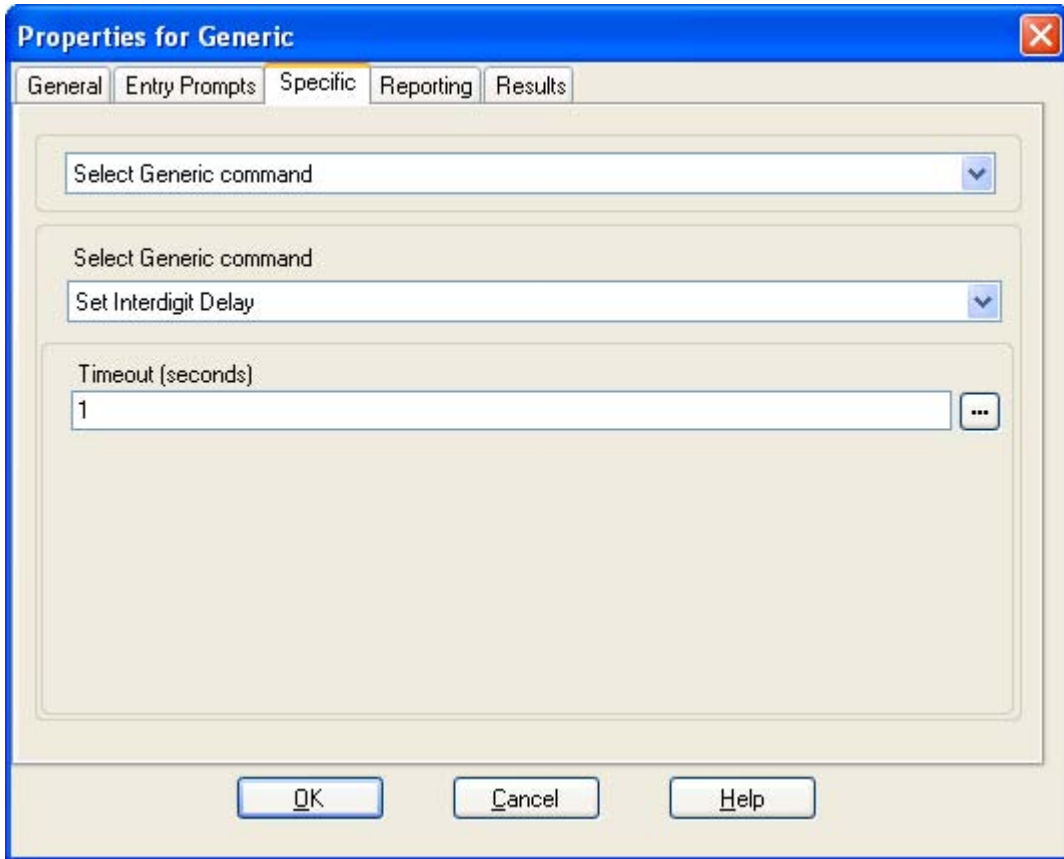
Operation	Description	Example		
		Free Format Command	\$CPO	\$CP1
Copy	Return the portion of the string before or after the first or last occurrence of the indicated character or characters to match. Supported from 6.1.	<i>STRING: \$CP1=copy(\$CPO)</i>	01555364200	01555364200
		<i>STRING: \$CP1=copytofirst(\$CPO, 1)</i>		01
		<i>STRING: \$CP1=copyfromfirst(\$CPO, 5)</i>		555364200
		<i>STRING: \$CP1=copytolast(\$CPO, 5)</i>		01555
		<i>STRING: \$CP1=copyfromlast(\$CPO, 5)</i>		5364200
From Position	Return the selected number of characters starting from the position index and going right.	<i>STRING: \$CP1=mid(\$CPO, 3, 3)</i>	01555364200	555
From the Left	Return the selected number of characters starting from the left end.	<i>STRING: \$CP1=left(\$CPO, 5)</i>	01555364200	01555
From the Right	Return the selected number of characters starting from the right end.	<i>STRING: \$CP1=right(\$CPO, 5)</i>	01555364200	64200
Length	Return the length of the string before or after the first or last occurrence of the indicated character or characters to match. Supported from 6.1.	<i>STRING: \$CP1=length(\$CPO)</i>	01555364200	11
		<i>STRING: \$CP1=lengthtofirst(\$CPO, 1)</i>		2
		<i>STRING: \$CP1=lengthfromfirst(\$CPO, 5)</i>		9

		<i>STRING:\$CP1=lengthtolast (\$CPO,5)</i>		5
		<i>STRING:\$CP1=lengthtolast (\$CPO,5)</i>		7
Lowercase	Change any uppercase characters in the input into lowercase.	<i>STRING:\$CP1=lower(\$CPO)</i>	ABCdef123	abcdef123
Reverse	Reverse the order of characters in the input.	<i>STRING:\$CP1=reverse(\$CPO)</i>	ABCdef123	321fedCBA
Uppercase	Change any lowercase characters in the input into uppercase.	<i>STRING:\$CP1=upper(\$CPO)</i>	ABCdef123	ABCDEF123

- Number of Characters  
This option is displayed for the operations *From Position*, *From the Left* and *From the Right*. It sets the number of characters to be returned.
- From Position Index  
This option is displayed for the operation *From Position*. It sets the start character for set of characters to be returned.
- From  
This option is shown for the *Copy* and *Length* operations. The values set which part of the input variable should be used for the result. The options *To First Occurrence of*, *From First Occurrence of*, *To Last Occurrence of* and *From Last Occurrence of* are used with the Char/String field specifying the occurrence to match. If no match occurs then the full string is used, the same as if From is set to *All*.
- Char/String:  
This option is shown for the *Copy* and *Length* operations. It sets the character or character string match that should be used as the start or end point for the operation.


### 4.5.1.11 Set Interdigit Delay

This Generic command lets the time that the voicemail server allows between entry of digits before assuming that entry has ceased to be adjusted. The setting is then used for the by any following actions within the call flow.



- Select Generic command: *Set Interdigit Delay*
  - Timeout (Seconds)  
Enter the call variable on which the action should perform



## 4.5.2 Speak Text

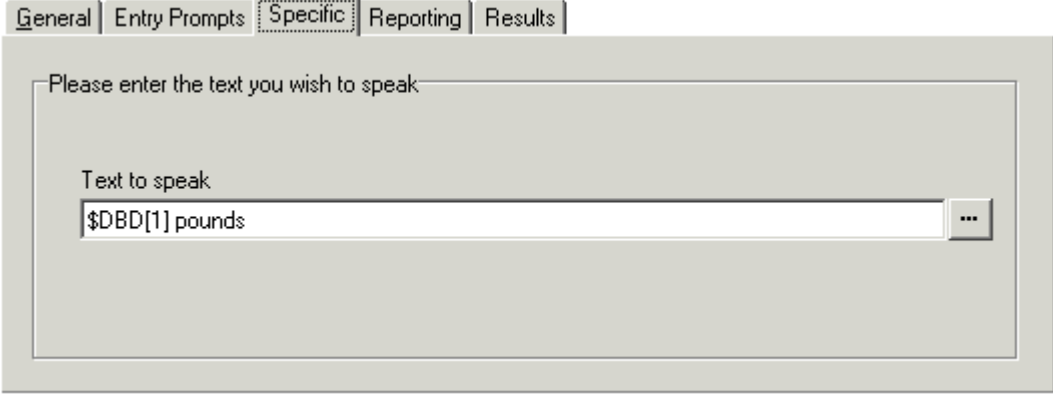
 The Speak Text action allows any text to be spoken to the caller. To be able to use the Speak Text action you require TTS (Text to Speech) to be [installed and licensed](#) <sup>[81]</sup>.

For examples of the action in a call flow, see:

- [Entering Details in to the Database](#) <sup>[384]</sup>.
- [Returning Data from the Database](#) <sup>[382]</sup>.

### Settings

1. Click the  Basic Actions icon and select  Speak Text.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.



- Text to speak  
Enter the text to be spoken in the Text to speak field. this can include:
  - Typed text sentences.
  - Voicemail Pro [Call Variables](#) <sup>[162]</sup>. For example:
    - Entering \$KEY would be replaced when spoken by the last digits dialed within the call flow by the caller.
    - If using database interaction, entering \$DBD[x] would be replaced by the current value of that database field.
    - Entering \$CLI would speak the caller's CLI, if available, back to them.
  - [SAPI 5 XML](#) <sup>[83]</sup> tags can be added to alter how the text is spoken. For example when 123 needs to be spoken as one two three rather than "one hundred and twenty-three", enter `<spell> 123</spell>`.

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[196]</sup> action option Complete sequence has been selected.

#### Speaking Variables to Callers

Call variables can be used as prompts. The value of the call variable will then be spoken. This applies to all variables that are numeric values. It also applies to \$NAM which will play the mailbox users recorded name prompt.

Numbers are spoken as a series of single digits. For example 123 is spoken as "one two three". To speak 123 as "one hundred and twenty-three" requires TTS to be installed and a [Speak Text](#) <sup>[207]</sup> action used.

Some call variables can be played as prompts, for example:

- \$NAM  
Plays the mailbox's name prompt if one has been recorded.

- 
- \$CLI  
Speaks the caller's CLI.
  - \$RES  
Plays the current result if it is a .wav file.
  - \$VAR  
Plays the variable as a list of digits.



## 4.5.3 Menu

The Menu action allows you to specify DTMF tones for which you want to create connections to following actions. For example, a menu can be created that gives callers a choice of transfer locations.

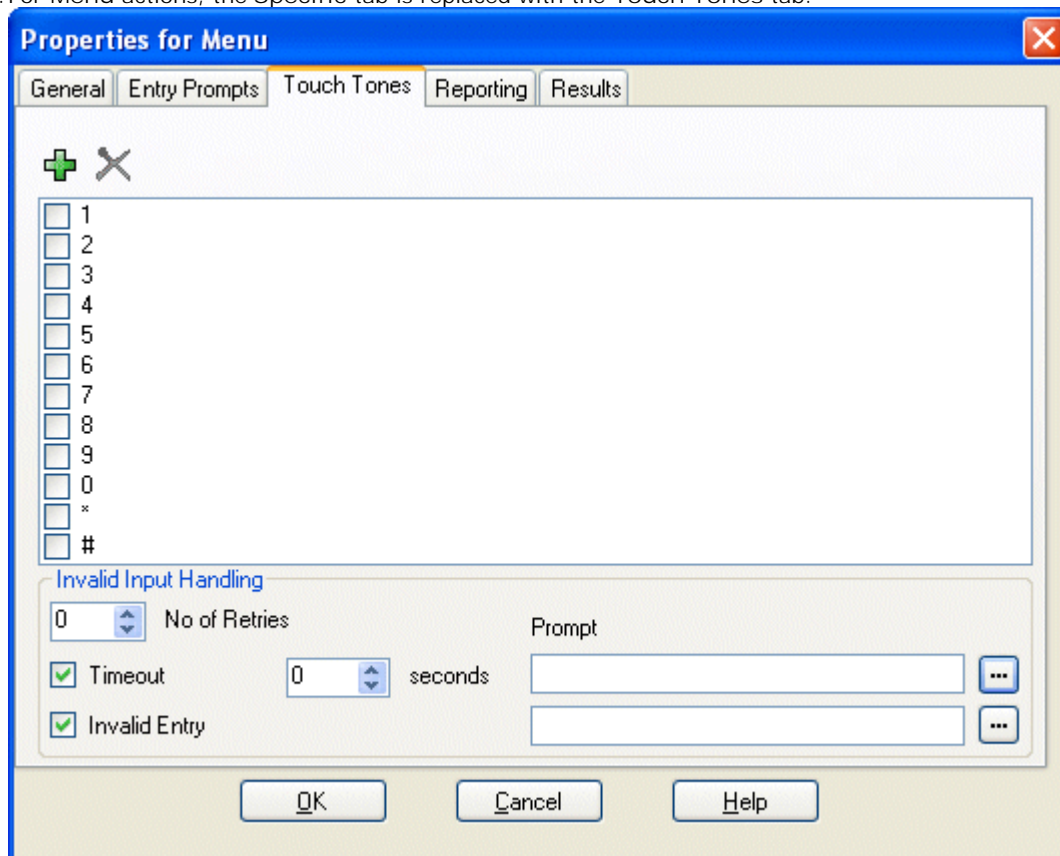
Each Menu action supports a maximum of 15 active touch tone entries.

For examples of the action being used in a call flow, see:


- [Using a Play Configuration Menu Action](#)
- [Example Call Flow for Mobile Twinning](#)
- [Routing Calls to Voicemail, Example Call Flow](#)
- [Changing the Language of System Prompts](#)
- [Changing the Language Setting for a TTY Device](#)

### Settings

1. Click the Basic Actions icon and select Menu.
2. The [General](#), [Entry Prompts](#), [Reporting](#) and [Results](#) tabs are standard tabs available to all actions.
3. For Menu actions, the Specific tab is replaced with the Touch Tones tab.



- 0-9, \*, #  
Use the dialing digits check boxes to indicate the DTMF tones for which connections are required.
- **+** Add  
The **+** icon allows you to add custom sequences of dialing digits. In addition to the standard dialing digits (0 to 9, \*, #) the following special digits can be used. If a sequence is added, ensure that the associated box is checked before you select OK. The sequence must be unique. For example, if 5 is selected, no other sequence that begins with 5 can be used.
  - ? = Any Digit  
The ? character can be used to represent any digit (except \* and #). For example, *123????* can be used for any six digit string starting with 123. See [Example Call Flow: SelfSelect Module](#).
  - \$ = Any Sequence of Digits  
The \$ character can be used to match any sequence of digits for which there is no other match. Key press entry is ended either by the caller pressing # or 5 seconds after the last digit dialed.

- **F = For Fax Calls**  
The F letter can be used to automatically detect any incoming fax calls. Once detected, the calls can be routed to another number. See [Routing Fax Calls Using a Menu Action](#)<sup>[405]</sup>.
- **X Delete**  
Use this icon to delete the currently selected custom dialing sequence.
- **Invalid Input Handling**  
The following options can be used if the caller does not dial or dials an invalid digit.
- **No of Retries (Voicemail Pro 4.2+)**  
This option allows you to specify the number of retries a caller is allowed if they make an invalid entry or the timeout occurs.
- **Timeout**  
If selected, the Voicemail Pro will wait for the specified number of seconds for a valid digit . If the timeout expires, the Voicemail Pro will either allow a retry or if the No of Retries has been reach, it will follow the Timeout result connection within the call flow.
- **Invalid Entry (Voicemail Pro 4.2+)**  
If selected, if the caller enters an invalid digit, the Voicemail Pro will either allow a retry or if the No of Retries has been reach, it will follow the Timeout result connection within the call flow.
- **Prompt (Voicemail Pro 4.2+)**  
You can associate a prompt with the Timeout and or Invalid Entry options. If a prompt is specified, before allowing a retry the Voicemail Pro will play that prompt. Use the  to access the [Wave Editor](#)<sup>[185]</sup>.


## Results

The action can have the following results which can then be connected to further actions:





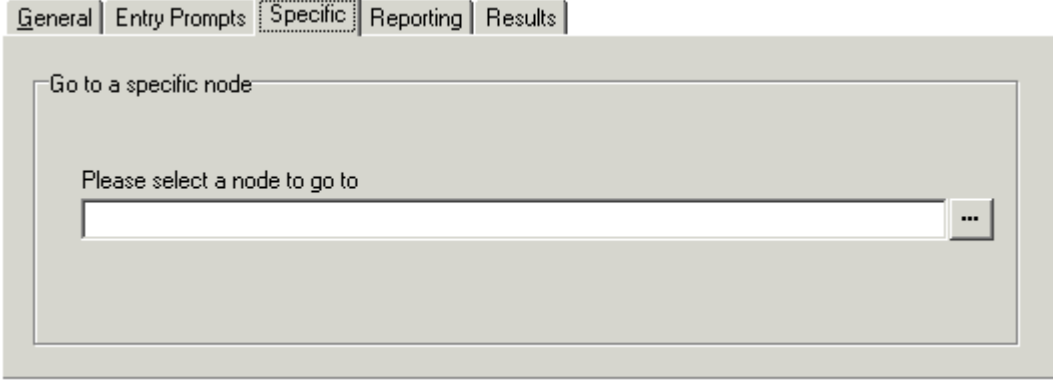
- **Timeout**  
This result is used to connect to a following call flow action if the caller does not make an entry within the specified number of seconds on their last retry.
  - For 6.1+ this connection is followed immediately the caller hangs up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.
- **Invalid**  
This result is used to connect to a following call flow action if the caller makes an invalid entry on their last retry.
- **Others**  
A result for connection to a following call flow action is shown for each select dialing digit sequence.

## 4.5.4 Goto


 The GoTo action will transfer the caller to another call flow start point.

### Settings


1. Click the  Basic Actions icon and select  GoTo.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.



The screenshot shows a configuration window for the 'Goto' action. At the top, there are five tabs: 'General', 'Entry Prompts', 'Specific', 'Reporting', and 'Results'. The 'Specific' tab is currently selected. Below the tabs, the window title is 'Go to a specific node'. Inside the window, there is a text input field with the placeholder text 'Please select a node to go to'. To the right of this input field is a small button with three dots, used for browsing available nodes.


- Please select a node to go to  
Click  to browse to select a start point, module or system defined variable. For short codes, the browse method does not work. Instead enter "Short Codes. xxx" where xxx is the short code key sequence.
  - Select the option Start point or module. Select from the available options.
    - Users - all the users with specific start points are listed.
    - Groups - all the Groups with specific start points are listed.
    - Any default start point.
    - Any available modules.
  - Select the option System defined variables to browse the available call variables. You can also type the name of the start point directly.

### Results

 **Goto** This action does not have any results.



---

## 4.5.5 Disconnect

 The effect of a Disconnect action depends on the type of call flow in which it is used. For calls within a Queued or Still Queued call flow, a Disconnect action will return the call back to the queue. For calls within other types of call flow, the Disconnect action will disconnect the call.

- Note  
Calls reaching a result with no following connection will be treated the same as if they had reached a Disconnect action. However, the use of a Disconnect action allows prompts to be played to the caller prior to the disconnect and the use of the action's [Reporting](#)<sup>[166]</sup> tab options to report on calls disconnected by the voicemail server.

### Settings


1. Click the  Basic Actions icon and select  Disconnect.

### Results

This action does not have any results that can be connected to a following action. The caller is disconnected.



## 4.5.6 Home

 The Home action returns the caller to the start point of the calls entry into voicemail. The PIN option in the General tab is not used for this action.

### Settings

1. Click the  Basic Actions icon and select  Home.


### Results





This action does not have any results that can be connected to a following action. Instead the caller is returned to the start point of the call entry into the voicemail.

For an example of the action being used in a call flow, see [Using a Play Configuration Menu Action](#)<sup>[327]</sup>.

## 4.5.7 Module Return

 The Module Return action is used within modules only. It creates a connection point from the module to subsequent actions within any call flow that uses the module. A module can use several Module Return actions if necessary.

### Settings

1. Click the  Basic Actions icon and select  Module Return.
2. The action has no properties.

### Results



This action does not have any results that can be connected to a following action. Instead it appears as a result in the module icon when the module is inserted into another call flow.

For examples see [Changing the Language of System Prompts](#)<sup>[313]</sup> and [User Defined Variables](#)<sup>[160]</sup>.

## 4.6 Mailbox Actions




### Mailbox Actions

These actions relate to the leaving and collecting of messages from a mailbox.

-  [Get Mail Action](#) <sup>[214]</sup>  
Collect messages from a mailbox.
-  [Leave Mail Action](#) <sup>[216]</sup>  
Leave a message in a mailbox.
-  [Listen Action](#) <sup>[217]</sup>  
Record to a mailbox.
-  [Voice Question Action](#) <sup>[218]</sup>  
Record responses to a series of prompts.
-  [Campaign Action](#) <sup>[219]</sup>  
Access a campaign to read or leave messages.



## 4.6.1 Get Mail

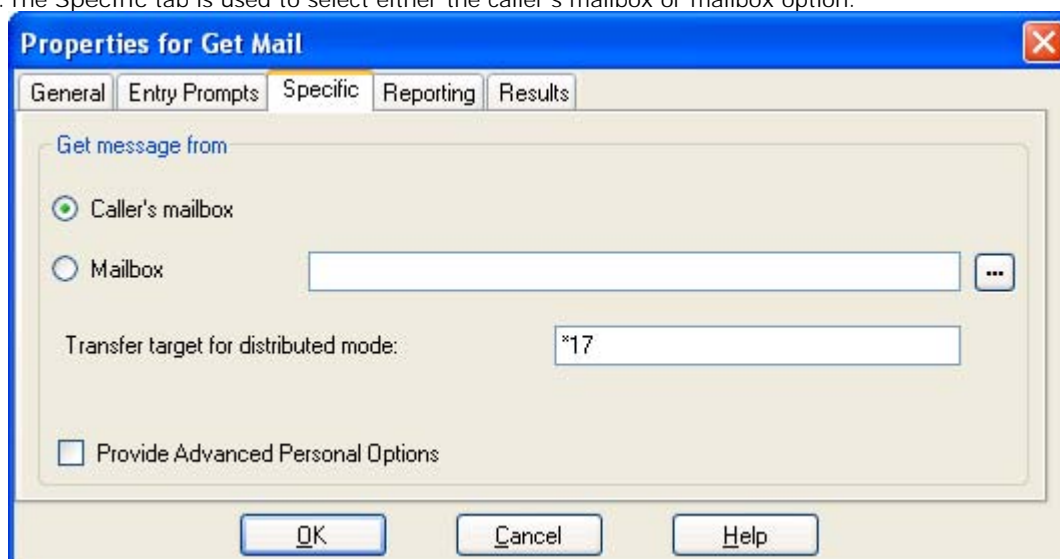
 The Get Mail action allows access to the messages in the caller's mailbox or a specified mailbox. The caller then has access to the standard mailbox features setup for that mailbox. If the extension is a trusted extension, the user does not have to enter their mailbox number and code. See [Creating a Trusted Location](#) <sup>[286]</sup>.

For examples of the action being used in a call flow, see:

- [Using a Play Configuration Menu Action](#) <sup>[327]</sup>.
- [Setting Up Callback](#) <sup>[326]</sup>.
- [Changing the Language of Custom Prompts](#) <sup>[314]</sup>.
- [Changing the Language of System Prompts](#) <sup>[313]</sup>.
- [Enabling Access to Hunt Group Voicemail](#) <sup>[284]</sup>.
- [Changing the Language Setting for a TTY Device](#) <sup>[309]</sup>.

### Settings

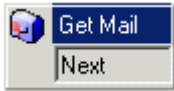
1. Click the  Mailbox Actions icon and select  Get Mail.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. The Specific tab is used to select either the caller's mailbox or mailbox option.



- **Caller's mailbox**  
The mailbox matching the start point of the call.
- **Mailbox**  
Select or enter the name of the target mailbox. If ? is entered, Voicemail will prompt caller's to enter the mailbox number required.
- **Transfer target for distributed mode:** *Default = \*17. Voicemail Pro 6.0+.*  
This option is required for Get Mail actions on voicemail servers acting as a distributed server. The value should match a default voicemail collect short code (telephone number ?U) set within the IP Office configuration.
- **Provide Advanced Personal Options:** *Default = Off. Voicemail Pro 6.0+. Intuity mode only.*  
If selected, the user is able to access a number of additional options with the mailbox telephone user interface.
  - Voicemail on/off.
  - Voicemail email mode.
  - DND on/off.
  - Follow Me.
  - Forwarding.
  - Edit Voicemail.
  - Edit Callback Number.
  - Edit Mobile Twinning.

### Results

The action can have the following results which can then be connected to further actions:





- Next  
This conditions when this option is used depend on the mailbox mode in which the Voicemail Pro is running:
  - IP Office mode  
Users who press 0 while they are logged into their mailbox will be routed to the Next result.
  - Intuity mode  
Users who press \*0 whilst in their mailbox will be routed to their Voicemail Reception number if set. The Next result is not used.

## 4.6.2 Leave Mail

The Leave Mail action allows the caller to leave a message in the start point's mailbox or in a specified mailbox. For examples of the action in a call flow, see:

- [Routing Calls to Voicemail, Example Call Flow](#) [275].
- [Hunt Group Queuing, Example Call Flow using \\$POS.](#) [290]
- [Changing the Language Setting for a TTY Device](#) [309].
- [Example Call Flow: Dial by Name](#) [387].

### Settings

1. Click the  Mailbox Actions icon and select  Leave Mail.
2. The [General](#) [182], [Entry Prompts](#) [183], [Reporting](#) [186] and [Results](#) [189] tabs are standard tabs available to all actions.
3. The Specific tab is used to indicate the target mailbox for the message.



The screenshot shows a configuration window for the 'Leave Mail' action. At the top, there are five tabs: 'General', 'Entry Prompts', 'Specific', 'Reporting', and 'Results'. The 'Specific' tab is currently selected. Below the tabs, there is a section titled 'Leave message to'. This section contains three radio button options: 'Caller's Mailbox', 'Mailbox', and 'VRL'. The 'Mailbox' option is selected. To the right of the 'Mailbox' option is a text input field containing the word 'Sales'. There is also a small icon to the right of the text field.

- **Caller's Mailbox**  
The mailbox matching the start point of the call.
- **Mailbox**  
Select or enter the name of the target mailbox.
- **VRL**  
If selected, specifies that the message should be transferred to a third-party Voice Recording Library (VRL) application. See [Voice Recording Library](#) [294].

### Results


The Leave Mail action has Success and Failure results. The use of these depends on which mailbox mode the Voicemail Pro server is using.



- **IP Office mode:**  
Callers in the mailbox follow the *Failure* or *Success* results depending on whether they press 0 before or after the leave a message tone respectively. This overrides the mailbox user's *Voicemail Reception* setting set in the IP Office configuration.
- **Intuity mode:**  
The results cannot be accessed. Callers pressing 0 will always follow the mailbox user's *Voicemail Reception* setting set in the IP Office configuration.





### 4.6.3 Listen

 The Listen action allows the caller to leave a message in the start point's mailbox or in a specified mailbox. The caller can only leave a message and cannot access any other mailbox features.

For examples of the action in a call flow, see [Customizing Manual Recording](#) <sup>[296]</sup> and [Customizing Auto Recording](#) <sup>[304]</sup>.

#### Settings

1. Click the  Mailbox Actions icon and select  Listen.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, select either the Caller's mailbox or Mailbox option.
  - Caller's Mailbox: The mailbox matching the start point of the call.
  - Mailbox: Select or enter the name of the target mailbox.


#### Results

This action has the following result which can be connected to a further action:





- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[190]</sup> action option Complete sequence has been selected.

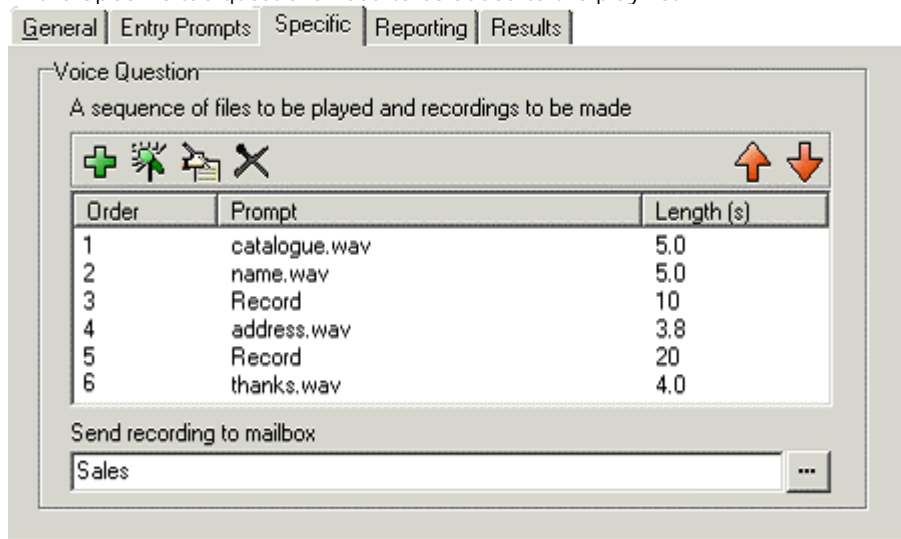
## 4.6.4 Voice Question






 The Voice Question action allows you to create a play list where the caller hears a sequence of prompts and their responses are recorded.

If the play list is completed, a single file containing the recorded responses is created. That file can then be placed into a specified mailbox or passed to an eMail action.

### Settings

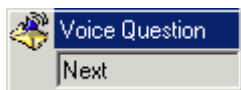
1. Click the  Mailbox Actions icon and select  Voice Question.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab questions need to be added to the play list.



4. Click  Add a Prompt. The [Wave Editor](#) <sup>[185]</sup> window opens. Specify a new file name and then record the new prompt or select an existing prompt.
5. Click  Record a Response. Specify a name and a length in seconds for the recorded response. Click OK.
6. Repeat the above steps to create a series of questions and responses. Use the following controls to adjust the list.
  -  Edit: - Edit the settings of the currently highlighted item.
  -  Delete: - Deletes the currently highlighted item from the play list. This does not delete the actual prompt file.
  -  Shuffle: - Move the currently highlighted item within the play list.
7. Specify a mailbox into which the recorded file of the responses should be stored. If no mailbox is specified the file can be passed to an [eMail action](#) <sup>[243]</sup>.

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[196]</sup> action option Complete sequence has been selected.
  - The recorded message can be passed to a connected eMail action if no mailbox is selected in the Specific tab.



## 4.6.5 Campaign



A campaign is used to ask callers a series of questions and record their spoken or key press responses. Agents can then access the campaign recordings and process the response using their telephone key pad or a web interface. Each campaign can include up to 21 questions.

Campaigns are setup using the [Campaign Wizard](#)<sup>[396]</sup>. The Campaign action can be used to either route a caller into a campaign or to allow an agent to access any messages left for a campaign.

### Settings

1. Click the  Mailbox Actions icon and select  Campaign.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. You need to enter the campaign and select whether to leave or collect campaign information in the Specific tab.

The screenshot shows a dialog box titled 'Campaign' with the following elements:

- Navigation tabs: General, Entry Prompts, **Specific**, Reporting, Results.
- Text: 'Please select a campaign' above a dropdown menu.
- Text: 'Will this action leave or pickup campaign information' above two radio buttons:
  - Leave campaign information (e.g. customers)
  - Pick up campaign information (e.g. agent)

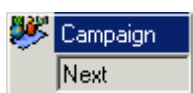
- Please select a campaign  
Enter the campaign that you want to use. Then select one of the following:
  - Leave campaign information (e.g. customers)  
Select if the action should start the campaign to collect the caller's responses.
  - Pick up campaign information (e.g. agent)  
Select if the action should start playing back the response left by callers to the campaign.

When accessing the caller recordings from using a Campaign action or park slot number, the following controls are provided through the telephone keypad.

1	Go to the start of the call.	7	Previous response.
2	Rewind.	8	Start of response.
3	Stop processing the message.	9	Next response.
4	Mark call as processed and delete.	0	Pause.
5	Mark call as processed and save.	#	Fast forward.

### Results

This action has the following result which can be connected to a further action:







- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[196]</sup> action option Complete sequence has been selected.

## 4.7 Configuration Actions



### Configuration Actions

These actions allow a caller to change the settings of a user or hunt group mailbox.



-  [Edit Play List Action](#) <sup>[226]</sup>  
Re-record a prompt.
-  [Record Name Action](#) <sup>[227]</sup>  
Re-record a mailbox name.
-  [Personal Options Menu Action](#) <sup>[228]</sup>  
Change user or group settings.
-  [Select System Prompt Language Action](#) <sup>[229]</sup>  
Change the prompt language.

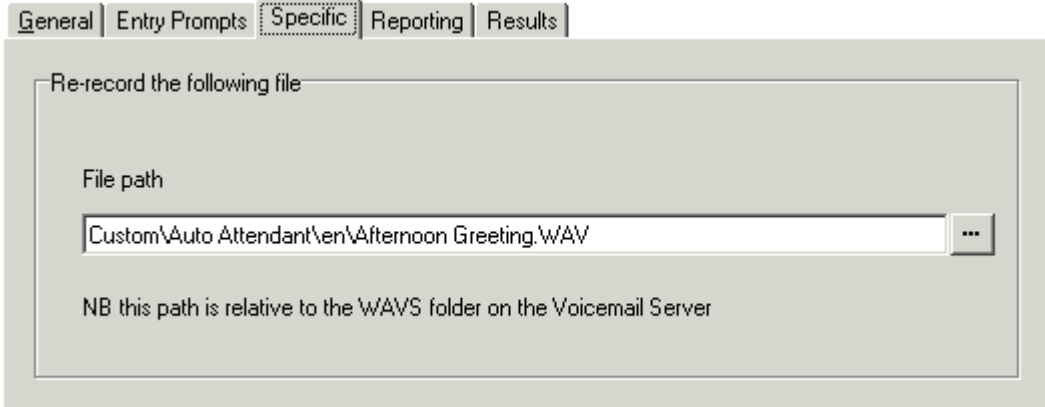
### 4.7.1 Edit Play List




The Edit Play List action can be used to record a specified prompt file held on the voicemail server PC. This allows call flows to be created to change the prompts being used by other call flows.

#### Settings

1. Click the  Configuration Actions icon and select  Edit Play List.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, select the prompt file held on the voicemail server.



- File Path  
This path is relative to the WAVS folder [defined](#) <sup>[100]</sup> for the voicemail server.
  - To browse to a file location click . The [Wave editor](#) <sup>[185]</sup> window opens. Select an existing prompt or define and record a new one.
  - When accessing voicemail prompts, [voicemail variables](#) <sup>[162]</sup> can be used in both the path and filename for the prompt. For example, if prompts Greeting1.wav, Greeting2.wav etc. are recorded, an action set to play *Greeting\$KEY.wav* would play the greeting prompt that matched the current value of \$KEY.
  - For announcements, the formats *[GREETING]\<name>\_Queued* and *[GREETING]\<name>\_StillQueued* can be used, where *<name>* is replaced by the hunt group or user name.


#### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[190]</sup> action option Complete sequence has been selected.



## 4.7.2 Record Name

 The Record Name action is used to allow callers to record a name prompt for their mailbox or a specified mailbox. For an example of the action in a call flow, see [Adding a Record Name Module](#)<sup>[388]</sup>.

The mailbox name prompt is used for the [Dial By Name](#)<sup>[388]</sup> feature and is played to callers who are directed to the mailbox to leave a message. If the voicemail server [mailbox mode](#)<sup>[98]</sup> is set to *Intuity* mode, users can record the name prompt through the telephone prompt interface.

- If it is necessary to have a service for the bulk recording of mailbox name prompts a command called [NameWavsTable](#)<sup>[389]</sup> can be used.

### Settings

1. Click the  Configuration Actions icon and select  Record Name.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[188]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab the mailbox to record that the name is to be recorded for is selected.
  - Caller's mailbox  
The mailbox matching the start point of the call.
  - Mailbox  
Select or enter the name of the target mailbox.


### Results

This action has the following result which can be connected to a further action:





- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.

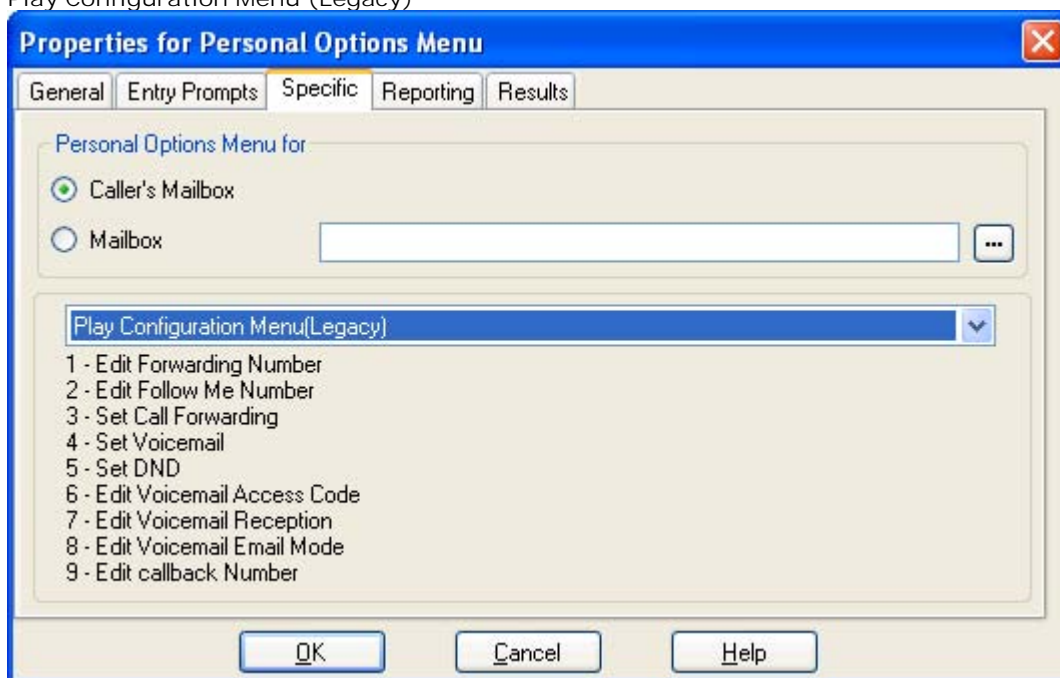
## 4.7.3 Personal Options Menu

 The Play Configuration action allows various users or hunt group settings to be altered. Because of the nature of this action it should always be protected by a PIN code in its General tab. For an example of the action being used in a call flow, see [Using a Play Configuration Menu Action](#)<sup>[32]</sup>.

Any user or group configuration changes made using this method are written the file "AuditTrail.txt" on the voicemail server PC (*C:\Program Files\Avaya\IP Office\Voicemail Pro\VM\Logs\AuditTrail.txt*). The file includes the time, date, details of the change and the CLI of the caller making the change.

### Settings

1. Click the  Configuration Actions icon and select  Play Configuration Menu.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions. In the General tab, enter a PIN code in the PIN field.
3. In the Specific tab, select the mailbox to play the configuration menu for:
  - Caller's mailbox  
The mailbox matching the start point of the call.
  - Mailbox  
Select or enter the name of the target mailbox.
  - Menu Mode  
The drop down box allows selection of the mode used for the menu. For systems running in IP Office mode, only Play Configuration Menu is supported. For systems running in Intuity mode, either Play Configuration Menu or Personal Options Menu can be selected.
  - Play Configuration Menu (Legacy)

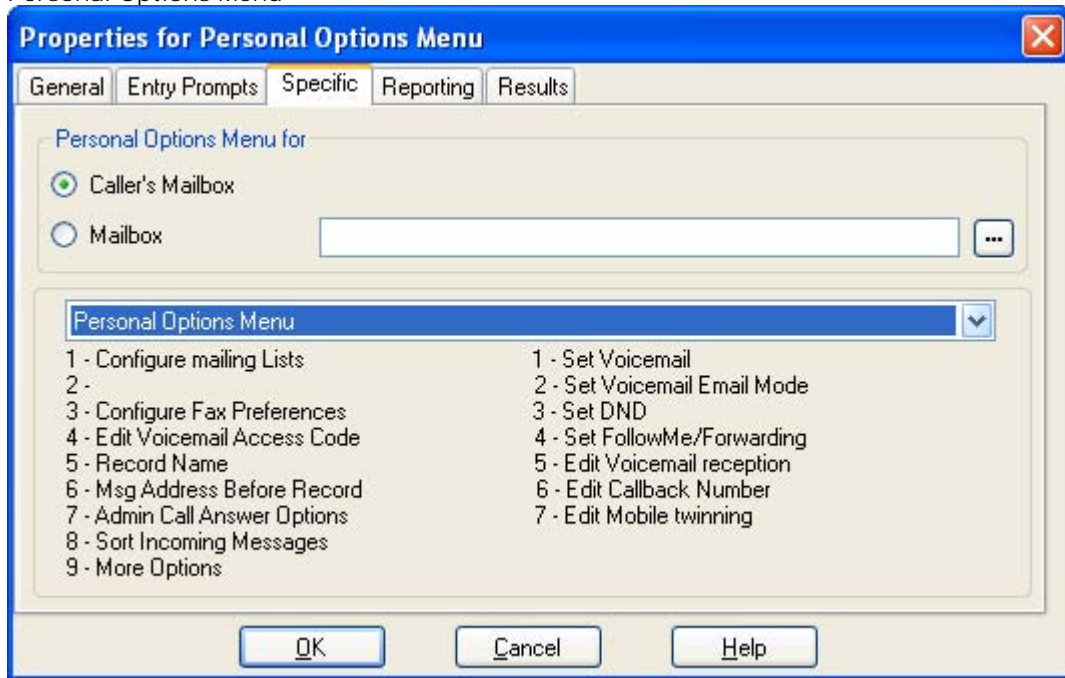


The options given when a caller accesses this action are:

User	Hunt Group
1. Edit forwarding number <sup>[1]</sup> .	1. Set voicemail on/off <sup>[1]</sup> .
2. Edit follow me number <sup>[1]</sup> .	2. Edit voicemail code.
3. Set call forwarding <sup>[1]</sup> .	3. Set voicemail email mode <sup>[1]</sup> .
4. Set voicemail on/off <sup>[1]</sup> .	4. Set service mode <sup>[1]</sup> .
5. Set do not disturb <sup>[1]</sup> .	
6. Edit voicemail code <sup>[1]</sup> .	
7. Edit voicemail reception <sup>[1]</sup> .	
8. Set voicemail email mode <sup>[1]</sup> .	
9. Edit voicemail callback number <sup>[1]</sup> .	

1. For Voicemail Pro 5.0+, those option marked as <sup>[1]</sup> can also be set using [Generic](#)<sup>[195]</sup> action commands.

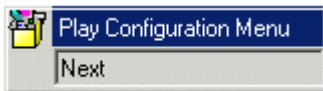
- Personal Options Menu



This option is only supported on Intuity mode voicemail systems.


Results

This action has the following result which can be connected to a further action:





- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) (190) action option Complete sequence has been selected.

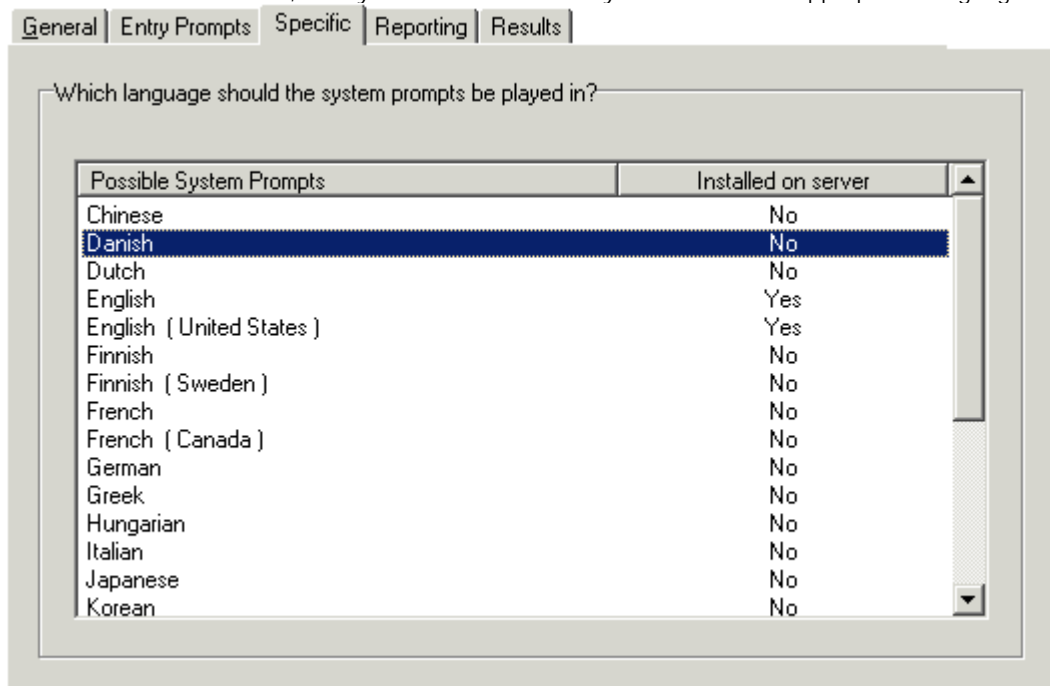
## 4.7.4 Select System Prompt Language

 The Select System Prompt Language action is supported on Voicemail Pro 1.2.6 or higher. It allows the system to alter the language spoken during a call flow. For examples of the action being used in a call flow, see [Changing the Language of System Prompts](#)<sup>[313]</sup> and [Changing the Language Setting for a TTY Device](#)<sup>[309]</sup>.

For details of supported languages see [Supported Languages](#)<sup>[127]</sup>. Not all languages are installed by default. If the selected language is not available the voicemail server will use the next nearest language.

### Settings

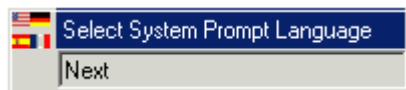
1. Click the  Configuration Actions icon and select  Select System Prompt Language.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[188]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab select the language that the system prompts are to be played in. If a language is selected which is not loaded on the Server, the system will automatically select the most appropriate language.



- Possible system prompts  
List of all prompt languages that could be installed on the system.
- Installed on the Server  
Displays if the prompts for a particular language are installed on the server.

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.













## 4.8 Telephony Actions




### Telephony Actions

These actions relate to telephony functions such as call transfers.



-  [Variable Routing Action](#) <sup>[228]</sup>  
Route on a match to a variable such as the caller's CLI.
-  [Route Incoming Call Action](#) <sup>[228]</sup>  
Route a call depending on whether the call is internal or external.
-  [Route by Call Status](#) <sup>[229]</sup>  
Calls route is determined by why the reason the call was routed to voicemail.
-  [Transfer Action](#) <sup>[230]</sup>  
A blind transfer.
-  [Whisper Action](#) <sup>[232]</sup>  
Screened transfer.
-  [Call List Action](#) <sup>[234]</sup>  
Transfer to a user selected choice.
-  [Dial by Name Action](#) <sup>[235]</sup>  
Select user/group by keypad letters.
-  [Conferencing Center](#) <sup>[237]</sup>  
Provides a route for callers to enter the conference ID and their conference PIN code. IP Office Conferencing Center needs to be installed.
-  [Assisted Transfer Action](#) <sup>[238]</sup>  
A transfer with assistance for callers.
-  [Alphanumeric Action](#) <sup>[240]</sup>  
Allows the caller to input text and numeric values.

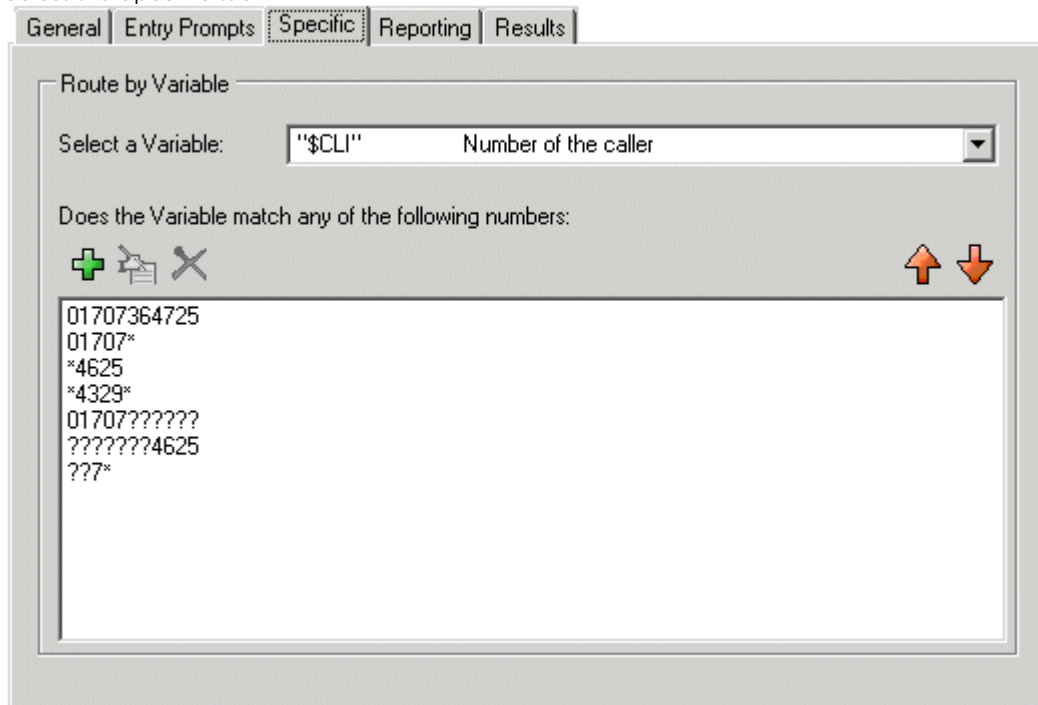
## 4.8.1 Variable Routing





 This action routes calls based on whether a selected [call variable](#) matches any of the numbers specified by the action's settings. This action replaces the previous CLI Routing action but can perform the same function using the `$CLI` variable.

The selected variable is checked for a match against all strings. Where multiple matches occur, the one with the most matching digits (excluding wildcards) is used. If several equal length matches are found, the first one in the list is used.

### Settings

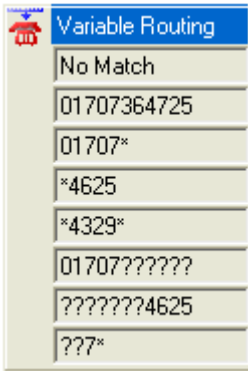
1. Click the  Telephony Actions icon and select  Variable Routing.
2. The [General](#), [Entry Prompts](#), [Reporting](#) and [Results](#) tabs are standard tabs available to all actions.
3. Select the Specific tab.



- **Select a Variable**  
This drop down is used to select the [call variable](#) against which the values are checked for a match.
- **Does the Variable match any of the following numbers**  
The area below lists the numbers against which the selected variable will be selected for a possible match. If the variable matched multiple numbers in the list, the routing for the match nearest the top of the list is used.
  -  Add a new number to the list of numbers. Some examples are listed in the results section below.
    - Numbers can include a ? wildcard to represent any single digit, with multiple ?'s to represent a matching number of digits.
    - Numbers can include a \* wildcard to match any digits including multiple digits.
  -  Edit an existing selected number.
  -  Delete an existing selected number.
  -  Move the position of the currently highlighted string.

Results

This action has a separate result for each number string entered on the action's Specific tab plus a No Match result. Examples are:




Variable Routing
No Match
01707364725
01707*
*4625
*4329*
01707??????
????????4625
???*



- 01707364725 will only match that number exactly.
- *01707\** will match any number beginning with 01707.
- *\*4625* will match any number ending in 4625.
- *\*4329\** any number containing 4329.
- *01707??????* will match any 11 digit number beginning with 01707.
- *????????4625* will match any 11 digit number ending in 4625.
- *???\** will match any number with 7 as the third digit.

---

## 4.8.2 Route Incoming Call

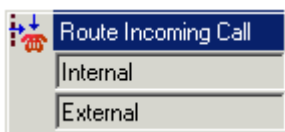
 The Route Incoming Call action allows a call flow to be branched based on whether the call is internal or external.

### Settings

1. Click the  Telephony Actions icon and select  Route Incoming Call.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. There is no Specific tab for this action.


### Results

This action has the following results which can be connected to further actions:





- Internal  
This result is used for internal calls.
- External  
This result is used for external calls.

### 4.8.3 Route by Call Status

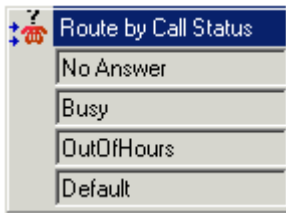
 The Route by Call Status action allows a call flow to be branched based on the reason the original IP Office target for the call did not answer it. .

#### Settings

1. Click the  Telephony Actions icon and select  Route by Call Status.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[188]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. There is no Specific tab for this action.


#### Results

This action has the following results which can be connected to further actions:





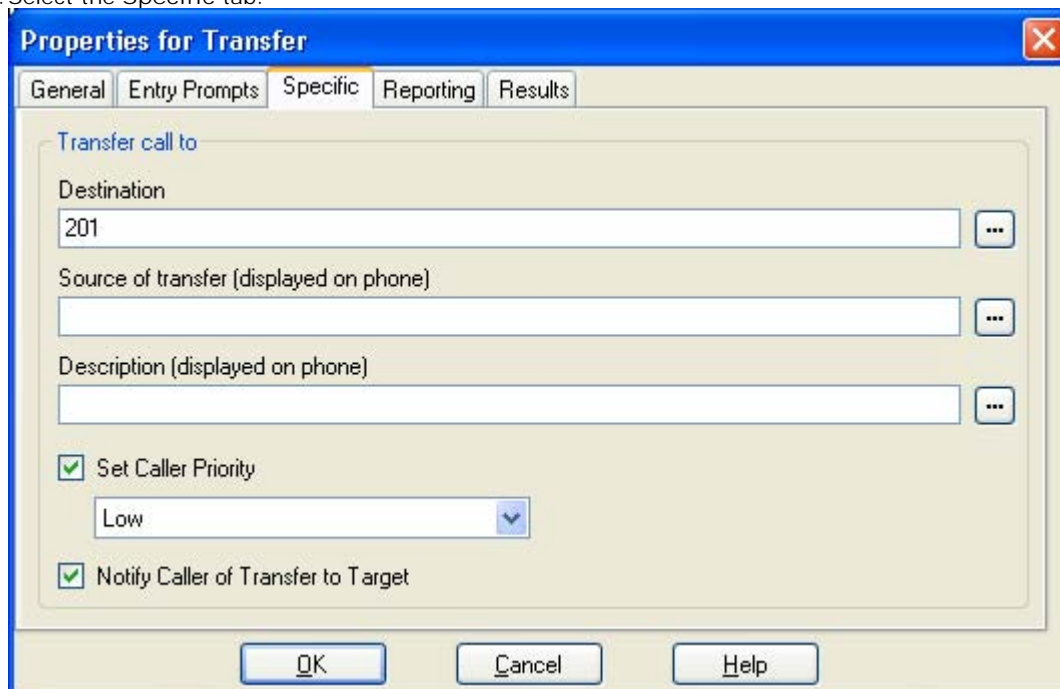
- **No Answer**  
This result is used for calls routed to the voicemail server because the original target user or hunt group was rung but did not answer.
- **Busy**  
This result is used when the call has been routed to the voicemail server because the original target user is busy.
- **Out of Hours**  
This result is used for hunt group calls when the original target hunt group is in night service mode.
- **Default**  
Where the cause for the call being routed to voicemail cannot be determined or does not fit the criteria above, the Default route is used.




## 4.8.4 Transfer

 The Transfer action transfers the caller to the extension that matches the mailbox selected. This is a blind transfer; if the call returns to the voicemail server again, for example if unanswered, it will be treated as a new call. More advanced transfers are done using either a [Call List Action](#)<sup>[183]</sup> or [Assisted Transfer Action](#)<sup>[238]</sup>.

### Settings

1. Click the  Telephony Actions icon and select  Transfer.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[188]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.



- **Destination**  
Enter the number of the destination for the transfer. This can include IP Office short codes or numbers specified by the current value of a Voicemail Pro [call variable](#)<sup>[162]</sup> such as *\$KEY*. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
  - For IP Office 5.0+ operation, a short code can be set as the transfer destination.
- **Source of transfer (displayed on phone)**  
The number to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
- **Description (displayed on phone)**  
The text description to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
- **Set Call Priority (Voicemail Pro 5.0+)**  
If selected, the caller's priority can then be set to *Low*, *Medium* or *High*. A [call variable](#)<sup>[162]</sup> set to 1, 2 or 3 can also be used to set *Low*, *Medium* or *High* priority respectively.
  - When calls are presented to a hunt group on the IP Office, calls waiting to be answered are queue in order of priority and then longest waiting. By default internal caller's have *LOW* priority while the priority of external callers is set by the IP Office Incoming Call Route used to route the call (default also *LOW*).
  - Mixing calls of different priority is not recommended if Voicemail Pro is being used to provide queue estimate time to answer (ETA) and queue position announcements to callers, since those values will no longer be accurate when a higher priority call is placed into the queue. Note also that in such a situation Voicemail Pro will not allow a value already announced to a caller to increase.
- **Notify caller of transfer to target (Voicemail Pro 4.1+)**  
If enabled, the caller hears *"Transferring to"* followed by the associated mailbox name of the destination if available or otherwise the destination number if it matches an internal extension number. This follows any prompts selected in the Entry Prompts list above.

## Results

A Transfer action has no results.

## MS-CRM Call Data Tagging

Call Data Tags enable advanced scenarios to be built around your Microsoft CRM 3.0 and Avaya Microsoft CRM Integration Solution. In situations where CLI/ANI matching is not sufficient, you can add screening and specific data collection interactions with your customers using the Voicemail Pro. The Voicemail Pro Assisted Transfer and Transfer actions can be used to pass data to users and pop matching records based on that data.

Based on your solutions requirements, you could obtain and verify the data collected, and then transfer the call with a data tag, that will utilize your specific criteria to lookup the required, account, contact or case, once the call is offered.

The tags are conformant xml fragments, they are comprised of an element *AV\_M* and two attributes the Microsoft CRM entity (account, contact or incident) and the schema name of the field to match on, in this example '*contactid*' and the data is the record key.

For example:

- `<AV_M O="contact" S="contactid" >{e44e6dbf-bd2a-da11-badb-505054503030} </AV_M>`

where

- `<AV_M` = element name.
- `O="contact"` = crm entity.
- `S="contactid"` = attribute to search on.
- `>` = end of element attributes
- `{e44e6dbf-bd2a-da11-badb-505054503030}` = the data to match on, this should be unique.
- `</AV_M>` - Closing tag.

The xml element name, attributes names and Microsoft CRM entity and schema names are case sensitive.

## Additional Examples

- Account – Account Number: `<AV_M O="account" S="accountnumber" >TL00001</AV_M>`
- Case – Ticket Number: `<AV_M O="incident" S="ticketnumber" >CAS-01001</AV_M>`



## 4.8.5 Whisper

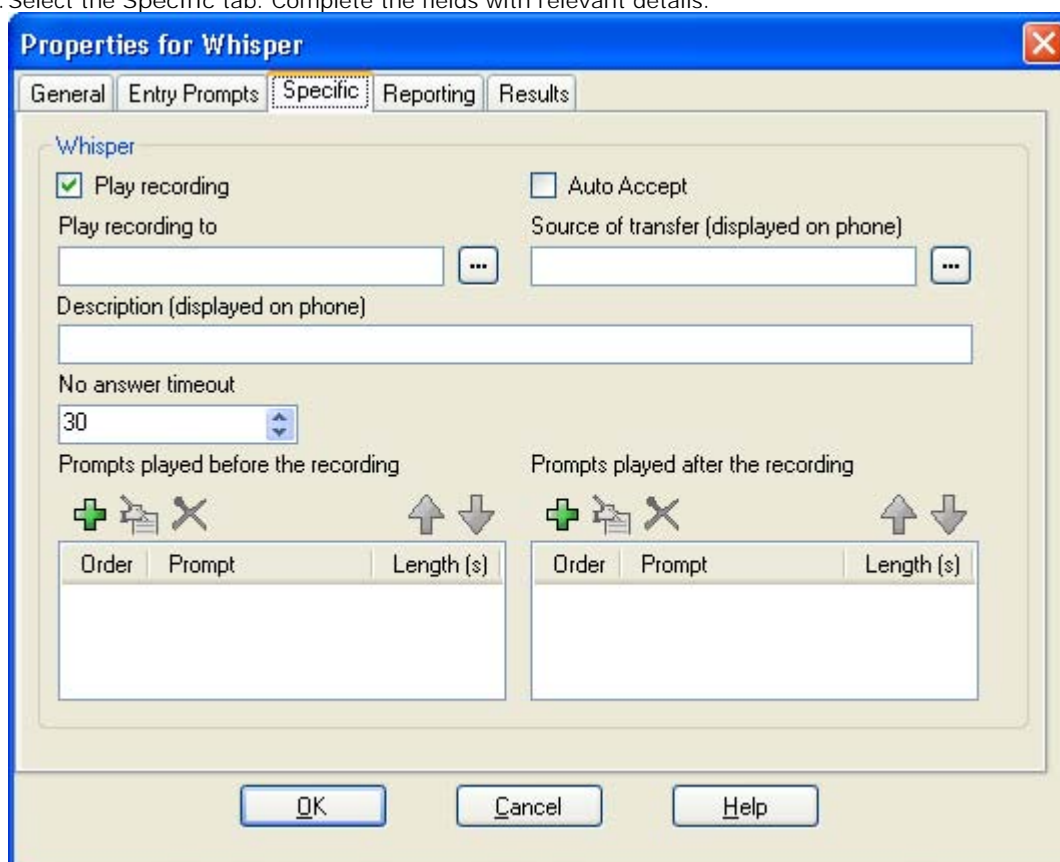
The Whisper action allows a recording made by the caller to be played to a transfer target while the caller is held. While listening to the recording and prompts the transfer target can either accept the call by pressing 1 or reject the call by pressing any other key or hanging up.

The caller recording is obtained by a Voice Question or Listen action preceding the Whisper action. The Whisper action also allows several text items to be set for display on the transfer target extension and for prompts to be played before and after the caller's recording.

Voicemail Pro 5.0+ allows the action to be used without requiring a recording. The transfer target decides whether to accept or reject the call based on the displayed information and the prompts if they have been setup. Voicemail Pro 5.0+ also allows the whisper call transfer to be automatically accepted after the recording (if any) and prompts have been played to the transfer target.

### Settings

1. Click the  Telephony Actions icon and select  Whisper.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. Complete the fields with relevant details.




The screenshot shows the 'Properties for Whisper' dialog box with the 'Specific' tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with 'General', 'Entry Prompts', 'Specific', 'Reporting', and 'Results' tabs. The 'Specific' tab contains the following fields and controls:

- Whisper** section:
  - Play recording
  - Auto Accept
  - Play recording to: [Text Field] [Dropdown Arrow]
  - Source of transfer (displayed on phone): [Text Field] [Dropdown Arrow]
  - Description (displayed on phone): [Text Field]
  - No answer timeout: [Spin Box] (set to 30)
- Prompts played before the recording** section:
  - Controls: +, [Document Icon], X, [Up Arrow], [Down Arrow]
  - Table with columns: Order, Prompt, Length (s)
- Prompts played after the recording** section:
  - Controls: +, [Document Icon], X, [Up Arrow], [Down Arrow]
  - Table with columns: Order, Prompt, Length (s)

At the bottom of the dialog are three buttons: OK, Cancel, and Help.

- **Play Recording** (*Voicemail Pro 5.0+*)  
If not selected, the call is presented to the target without playing the caller's recording. This allows the action to be used without requiring a recording from the caller. The prompts before and prompts after recording are still played if they have been setup.
- **Auto Accept** (*Voicemail Pro 5.0+*)  
If selected, after the recording has been played the caller is automatically connected without the target extension having to accept the call. If this option is used, the *Reject* result connection is not useable. If the user extension is set to auto-answer, the whisper call is answered, the recording and prompts played and the call connected without any action by the target.
- **Play recording to**  
Enter the extension that is rung with the caller's recording.
- **Source of transfer**  
Displayed in the caller's number field on Avaya phones.
- **Description**  
Displayed in the caller's name field on Avaya phones.




- No answer timeout  
Select how long the voice mail server should wait for an answer before following the No Answer connection. The whisper action will not go to the target extension voicemail.
- Prompts played before the recording and Prompts played after the recording  
Click . The Wave Editor window opens. Select the prompts that are to be played to the target extension when they answer the call. The prompts played after the caller's recording should include the instruction *"Press 1 to accept or hang up to reject"*.

## Results

This action has the following results which can be connected to further actions:






- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)  action option Complete sequence has been selected.
- No Answer  
This result connection is used if the transfer target does not answer the whisper call. The time out for no answer is set by the action's No answer timeout setting.
- Busy  
This result connection is used if the transfer target returns busy to the whisper call.
- Reject  
This result connection is used if the transfer target rejects the call by pressing any key other than 1 or by hanging up.



## 4.8.6 Call List

Using a Call List action, a caller can indicate the extension to which they want to be transferred. If selected the caller can be restricted to selecting an extension within a particular group. The transfer in this case is not blind, if unanswered the action can link to actions for no answer or busy .

### Settings

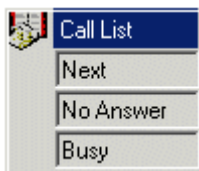
1. Click the  Telephony Actions icon and select  Call List.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. Complete the fields with relevant details.



- Transfer to group  
Enter a group name if you want to restrict the caller to a particular group.
  - Prompt user with a list of group members  
If this option is selected, the voicemail server will list the group members for the caller.
- Source of transfer (displayed on phone)  
The number to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
- Description (displayed on phone)  
The text description to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
- No answer timeout  
The value selected is how long the voicemail server waits for an answer before following the *No Answer* connection.


### Results

This action has the following results which can be connected to further actions:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.
- No Answer  
This connection result is used if the transfer target does not answer the call.
- Busy  
This connection result is used if the transfer target returns busy.

## 4.8.7 Dial by Name

 The Dial by Name action enables callers to enter the name of the person or group they want to contact by dialing on a keypad. The caller is then played a list of matching names from which they make a selection. The list uses the name prompts recorded by the mailbox users. For an example of the action in a call flow, see [Example Call Flow: Dial by Name](#).

The action assumes that the telephone uses the ITU standard alphabet markings as shown below.

<b>1</b>	ABC <b>2</b>	DEF <b>3</b>
GHI <b>4</b>	JKL <b>5</b>	MNO <b>6</b>
PQRS <b>7</b>	TUV <b>8</b>	WXYZ <b>9</b>
*	<b>0</b>	#



- The action prompts the caller to dial the name they require and then press #. Callers can also press \*# to exit without making a selection. For example, dialing 527 matches names starting with JAS (for example "Jason") and KAR (for example "Karl").
- If no matches are found, the caller is given the option to retry.
- If 10 or less matches are found, the matching mailbox name greetings are played as part of a selection list, i.e. *"Press 1 for ..., press 2 for ..., ..."*.
- If more than 10 matches are found, the caller is prompted to either press # to hear the first 10 or to dial more characters to reduce the number of matches. If they select to play the list, after each set of 10 matches they can either make a selection or follow the prompts for other options.

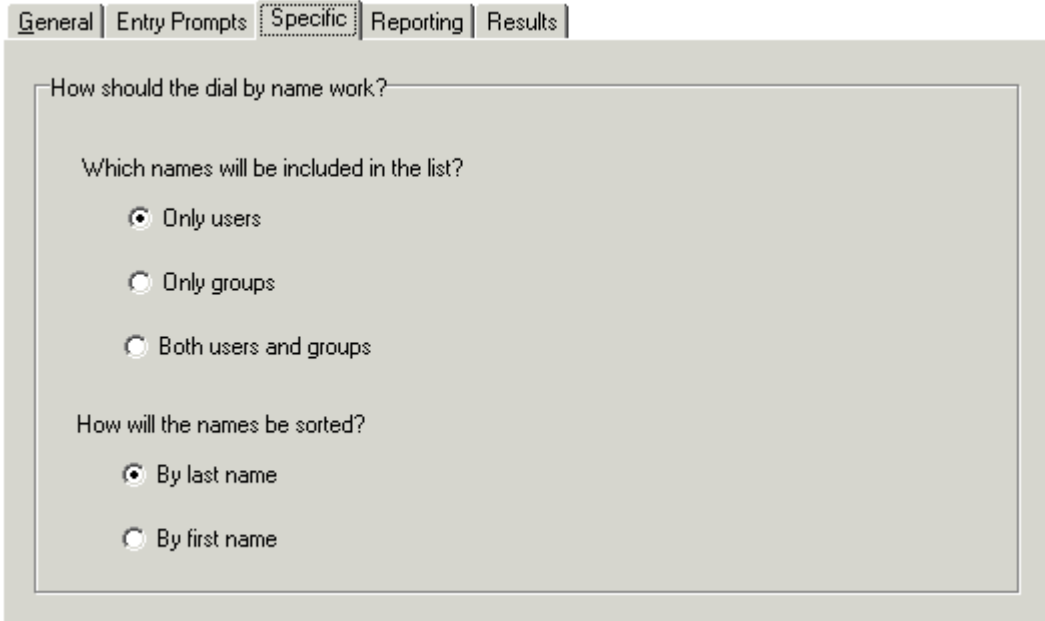
For a user to be included in the dial by name list, they must:

- Have recorded a mailbox name.
- Not be marked as ex-directory in the IP Office configuration.

---

## Settings

1. Click the  Telephony Actions icon and select  Dial by Name.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab you can select from three types of names that will be included in the list. Users set to ex-directory through the Manager application are not included. You can also select how the names will be sorted.



General | Entry Prompts | **Specific** | Reporting | Results

How should the dial by name work?

Which names will be included in the list?

Only users

Only groups

Both users and groups

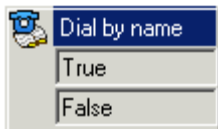
How will the names be sorted?

By last name

By first name

## Results

This action has the following results which can be connected to further actions:



- True  
If the caller makes a selection, the matching extension number is stored as in the \$KEY variable that can then be used by any following action linked to the True result .
- False  
This result is used if the caller does not make a selection.

## 4.8.8 Conferencing Center



The Conferencing Center action is used in conjunction with the Avaya IP Office Conferencing Center application. It provides a route for callers to enter the conference ID and their conference PIN code.

- IP Office Conferencing Center is not supported with IP Office Release 6 and higher. The action is retained to allow the importation and maintenance of existing call flows when upgrading from pre-IP Office Release 6 systems.

### Results

1. Click the Telephony Actions icon and select Conferencing Center.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.

- Gather conference and pin information before validation  
If selected, the caller is prompted to enter both the conference ID and then their PIN before the values are checked. If either entry is invalid the caller is notified but not told which entry is incorrect. If this option is not selected, the caller is prompted to enter the conference ID first and told if the ID is not valid. If valid they are then prompts to enter their PIN and then told if the PIN is not valid.
- Allow the delegate to try and enter the conference ID a total of  
Up to 10 re-tries can be allowed. If the ID is entered incorrectly the result failure is returned.

### Results

This action has the following results which can be connected to further actions:

Conferencing Center
Invalid Conference or Password
Conference Not Started
Conference Finished
Conference Full
Failure



- Invalid Conference or Password
- Conference Not Started
- Conference Finished
- Conference Full
- Failure

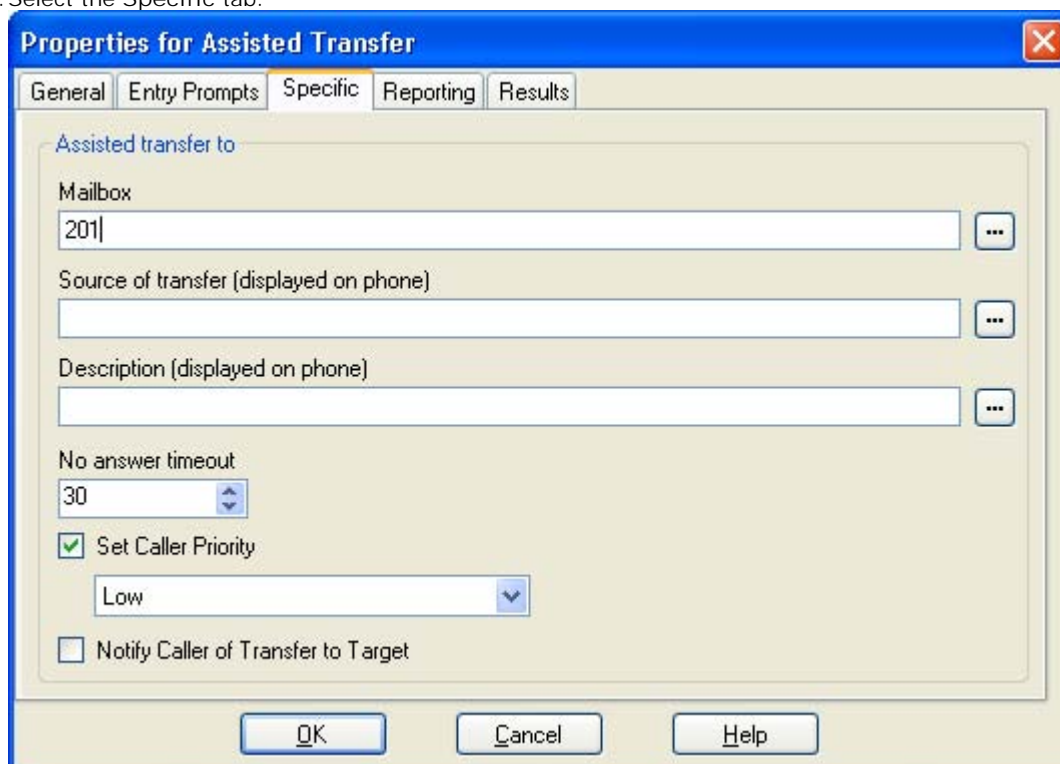
## 4.8.9 Assisted Transfer



The Assisted Transfer action transfers the caller to the specified number which can include IP Office short codes. The caller hears either music on hold if installed. The transfer is not blind, if the call receives busy or no answer then it returns to follow the appropriate connection.

- This action is intended primarily for use with internal transfer destinations for which the IP Office can track the status of the call. If used with external transfer destinations, the ability to detect whether the call has been answered or not depends on the signalling provided. For example if the call is transferred using an analog line, the IP Office can only assume that the call has been answered.
- On systems with IP trunks and extensions and especially within an IP Office Small Community Network there may be a short delay to connect the speech path when an assisted transfer is answered.

### Settings

1. Click the  Telephony Actions icon and select  Assisted Transfer.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.

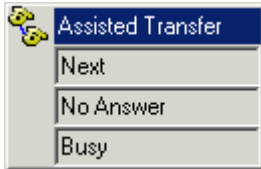


- Mailbox  
Enter the number of the destination for the transfer. This can include IP Office short codes or numbers specified by the current value of a Voicemail Pro [call variable](#) <sup>[162]</sup> such as *\$KEY*.
- Source of transfer (displayed on phone)  
The number to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#) <sup>[162]</sup>.
- Description (displayed on phone)  
The text description to display on the destination phone if internal. Type the required text directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#) <sup>[162]</sup>.
- No answer timeout  
Sets how long in seconds the voicemail server should wait for the transferred call to be answered before following the No Answer results connection.
- Set Call Priority: *Voicemail Pro 5.0+*.  
If selected, the caller's priority can then be set to *Low*, *Medium* or *High*. A [call variable](#) <sup>[162]</sup> set to 1, 2 or 3 can also be used to set *Low*, *Medium* or *High* priority respectively.
  - When calls are presented to a hunt group on the IP Office, calls waiting to be answered are queue in order of priority and then longest waiting. By default internal caller's have *Low* priority while the priority of external callers is set by the IP Office Incoming Call Route used to route the call (default also *Low*).

- Mixing calls of different priority is not recommended if Voicemail Pro is being used to provide queue estimate time to answer (ETA) and queue position announcements to callers, since those values will no longer be accurate when a higher priority call is placed into the queue. Note also that in such a situation Voicemail Pro will not allow a value already announced to a caller to increase.
- Notify caller of transfer to target: *Voicemail Pro 4.1+*.  
If enabled, the caller hears "Transferring to" followed by the associated mailbox name of the destination if available or otherwise the destination number if it matches an internal extension number. This follows any prompts selected in the Entry Prompts list above.

**Results**

This action has the following results which can be connected to further actions:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>190</sup> action option Complete sequence has been selected.
- No Answer  
This connection result is used if the transfer target does not answer the call.
- Busy  
This connection result is used if the transfer target returns busy.

**MS-CRM Call Data Tagging**

Call Data Tags enable advanced scenarios to be built around your Microsoft CRM 3.0 and Avaya Microsoft CRM Integration Solution. In situations where CLI/ANI matching is not sufficient, you can add screening and specific data collection interactions with your customers using the Voicemail Pro. The Voicemail Pro Assisted Transfer and Transfer actions can be used to pass data to users and pop matching records based on that data.

Based on your solutions requirements, you could obtain and verify the data collected, and then transfer the call with a data tag, that will utilize your specific criteria to lookup the required, account, contact or case, once the call is offered.

The tags are conformant xml fragments, they are comprised of an element *AV\_M* and two attributes the Microsoft CRM entity (account, contact or incident) and the schema name of the field to match on, in this example 'contactid' and the data is the record key.

For example:


- `<AV_M O="contact" S="contactid" >{e44e6dbf-bd2a-da11-badb-505054503030} </AV_M>`  
where
  - `<AV_M` = element name.
  - `O="contact"` = crm entity.
  - `S="contactid"` = attribute to search on.
  - `>` = end of element attributes
  - `{e44e6dbf-bd2a-da11-badb-505054503030}` = the data to match on, this should be unique.
  - `</AV_M>` - Closing tag.

The xml element name, attributes names and Microsoft CRM entity and schema names are case sensitive.

**Additional Examples**

- Account – Account Number: `<AV_M O="account" S="accountnumber" >TLO0001</AV_M>`
- Case – Ticket Number: `<AV_M O="incident" S="ticketnumber" >CAS-01001</AV_M>`

## 4.8.10 Alphanumeric



 The Alphanumeric action allows callers to input text and numeric values directly from the telephone keypad. When completed the entry is stored in the call variable \$KEY which can be used by following actions. For an example of the action being used in a call flow, see [Example Call Flow for Mobile Twinning](#)<sup>[316]</sup>.

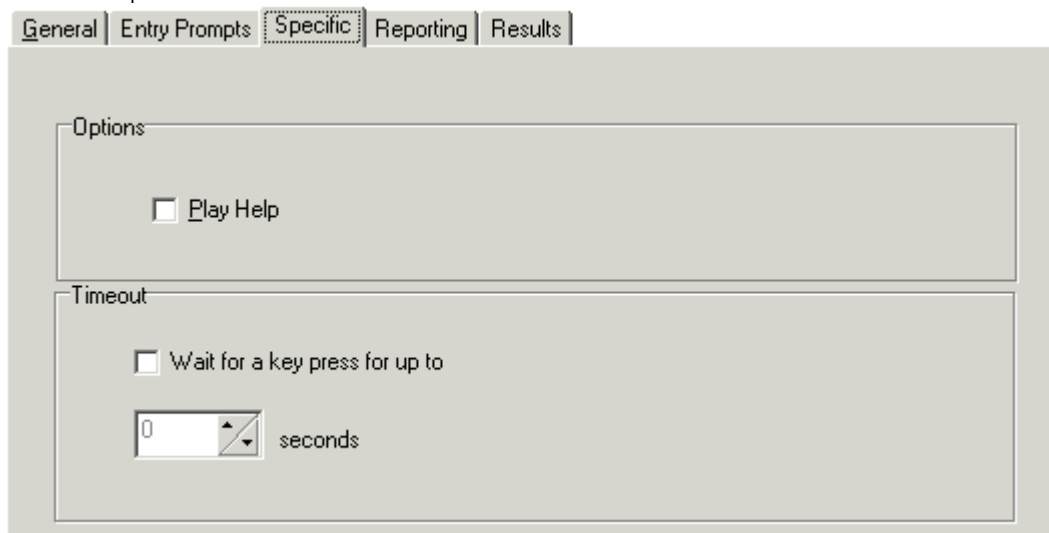
The action assumes that the telephone uses the ITU standard alphabet markings as shown below.



- Users enter data by pressing the key marked with the character required. For keys with multiple marking several key presses are required. For example, to enter C the user must press the 2 key three times. After each key press, the associated letter or number is spoken.
- To move on to entering the next character, the user should press whichever other key is marked with the required character or first press # if the required character is on the key just used.
- Controls available are:
  - # - Accept last character and begin entry of next character if the required character is on the key just used.
  - \*1 - Hear the characters entered so far.
  - \*2 - Delete all characters entered so far.
  - \*3 - Delete the last character entered.
  - \*# - Accept the set of characters entered and go to next call flow action.

### Settings

1. Click the  Telephony Actions icon and select  Alphanumeric.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.



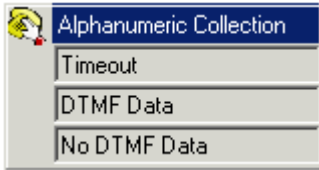
The screenshot shows the 'Specific' tab of the Alphanumeric action settings. It features two sections: 'Options' and 'Timeout'. The 'Options' section contains a checkbox labeled 'Play Help'. The 'Timeout' section contains a checkbox labeled 'Wait for a key press for up to' followed by a numeric input field set to '0' and the text 'seconds'.

- Check the option Play Help if you want instruction to be given to the caller explaining how to enter information.
- If you want to use a timeout result from the action, check the option Wait for a key press for up to and set the number of seconds for the timeout period.



## Results

This action has the following results which can be connected to further actions:










- **Timeout**  
This result connection only available if the option Wait for a key press for up to is selected on the Specific tab.
  - For 6.1+ this connection is followed immediately the caller hangs up if the [Start](#) [190] action option Complete sequence has been selected.
- **DTMF Data**  
This result connection is used if the caller enters some data and then presses \*#.
- **No DTMF Data**  
This result connection is used if the caller presses \*# without entering any data.


---

## 4.9 Miscellaneous Actions



### Miscellaneous Actions

-  [eMail Action](#) <sup>[243]</sup>  
Email a recording.
-  [Open Door Action](#) <sup>[244]</sup>  
Open and/or close a door relay.
-  [Alarm Set Action](#) <sup>[245]</sup>  
Set an alarm call time.
-  [Clock Action](#) <sup>[247]</sup>  
Play the time to the caller.
-  [Post Dial Action](#) <sup>[248]</sup>  
Play a recording to an extension.
-  [VB Script Action](#) <sup>[249]</sup>  
Allows Visual Basic to be used to script call flow events.
-  [Remote Call Flow](#) <sup>[251]</sup>  
Allows call flows developed elsewhere to be included in an existing call flow.

## 4.9.1 eMail

 The eMail action is used to send a recording to a specific email address.

### Settings

1. Click the  Miscellaneous Actions icon and select  eMail.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. Complete the fields with relevant details.



General | Entry Prompts | **Specific** | Reporting | Results

Send e-mail

Send e-mail to

Subject

Content

Attach file to e-mail

NB Path is assumed to be on the Voicemail Server

- **Send e-mail to**  
Enter the email address of the recipient.
- **Subject**  
In the Subject field, type the subject line for the email.
- **Content**  
In the Content field, type the text to be placed in the email.
- **Attach file to e-mail**  
In the Attach file to email field the recorded file to be attached to the email needs to be selected.
  - If just \$ is entered then the action will use the recording collected by a preceding [Leave Mail](#) <sup>[216]</sup> action or [Voice Question](#) <sup>[218]</sup> action.


### Results

This action has the following result which can be connected to a further action:





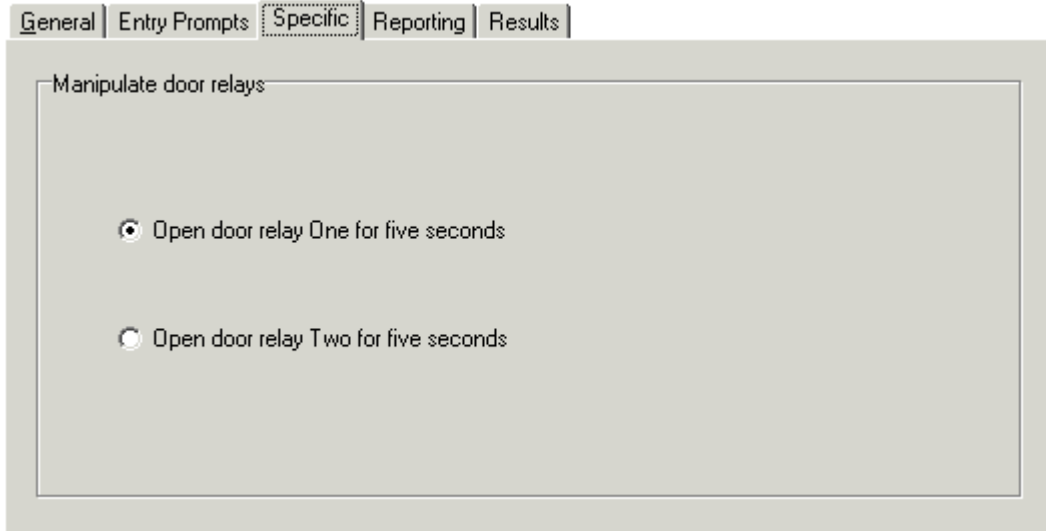
- **Next**  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[190]</sup> action option Complete sequence has been selected.

## 4.9.2 Open Door

 The Open Door action activates either of the door entry switches provided on IP Office telephone system control units. These can be used to activate door entry relays.

### Settings

1. Click the  Miscellaneous Actions icon and select  Open Door.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, check either of the two door relay options.

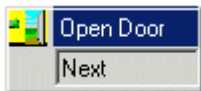


The screenshot shows the configuration window for the 'Open Door' action, specifically the 'Specific' tab. The window has a title bar with tabs for 'General', 'Entry Prompts', 'Specific', 'Reporting', and 'Results'. The 'Specific' tab is active. Inside the window, there is a section titled 'Manipulate door relays' with two radio button options:

- Open door relay One for five seconds
- Open door relay Two for five seconds


### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.

### 4.9.3 Alarm Set



 The Alarm Set action allows an alarm call to be setup to be played to a specified extension at a specified time. By default the alarm call displays *ALARM* and plays the prompt *"This is an alarm call, please hang up."*

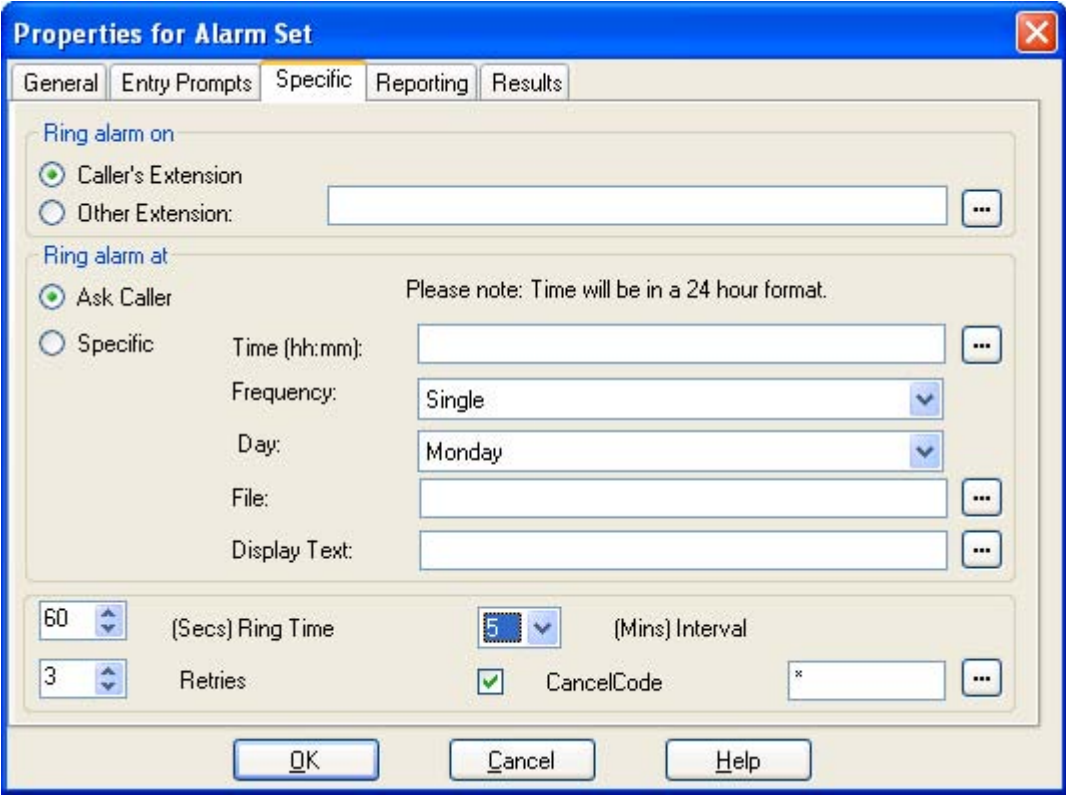
On pre-5.0 Voicemail Pro systems this action only allowed internal callers to setup an alarm calls for themselves. Voicemail Pro 5.0+ allows the action to be used by to setup alarms for other extensions. It also allows preset alarms to be configured including regular repeating alarms.

Voicemail Pro 6.0+ allows the length of the alarm call ringing to be adjusted and the alarm call to be repeated if not responded to. The number of repeats can be adjusted. Previously the alarms was cleared when it was answered. For Voicemail Pro 6.0+ a dialing digit can be required to clear the alarm.

- Alarm calls that have been setup can be [viewed in the Voicemail Pro client](#)<sup>[142]</sup>. They can then be edited or deleted.
- The Voicemail Pro is limited to 2 outgoing alarm calls at the same time (subject to voicemail port availability). Any additional alarm calls are delayed until the existing alarm calls have been completed.

#### Settings

1. Click the  Miscellaneous Actions icon and select  Alarm Set.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[185]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, complete the fields with relevant details.



**Properties for Alarm Set**

General | Entry Prompts | **Specific** | Reporting | Results

Ring alarm on

Caller's Extension

Other Extension:

Ring alarm at

Ask Caller Please note: Time will be in a 24 hour format.

Specific

Time (hh:mm):

Frequency:

Day:

File:

Display Text:

60 (Secs) Ring Time      5 (Mins) Interval

3 Retries       CancelCode      \*

OK      Cancel      Help

- Ring alarm on: *Default = Caller's Extension.*  
These options set the target for the alarm when set.
  - Caller's Extension  
This option sets the alarm target as the caller's own extension number.
  - Other Extension  
This option allows a specific number to be used for the alarm target or a [call variable](#)<sup>[162]</sup> that contains the number to use.
- Ring alarm at: *Default = Ask Caller.*  
These options set the time and frequency of the alarm being set.
  - Ask Caller  
The call flow user is asked to dial the required time in 24-hour clock format. This will set a single use alarm for that time.
  - Specific  
Allow a specific alarm time to be defined. This also allows a single use or a repeated alarm to be specified.

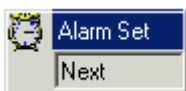
- Time (hh:mm)  
Set the alarm time in 24-hour format (*hh:mm* or *hhmm*). A time value can be entered or a [call variable](#)<sup>[162]</sup> can be used. If left blank or if the call variable used is not a valid time value, the call flow user will be asked to enter a time the same as if Ask Caller was selected.
- Frequency  
Sets how often the alarm should occur. The options are *Single*, *Daily* or *Weekly*. A variable with value 1, 2 or 3 respectively can be used.
- Day  
Useable with *Single* and *Weekly* alarms. Set the day for the alarm. The option *Today* is also available for alarms where the Frequency is set as *Single*.
- File  
This field is optional. If a file is specified here it is used for the alarm call. If no file is specified the default alarm message (*"This is an alarm call, please hang up"*) is used.
- Display Text  
By default the alarm will display *"Alarm"* on the target if it is an Avaya display phone. This field can be used to customize the text used.

The following additional settings are available with Voicemail Pro 6.0+.

- Ring Time: *Default = 60 seconds. Range = 5 to 120 seconds.*  
This field set the length of ring time used for the alarm call if not answered.
- Retries: *Default = 0 (Off). Range = 0 to 10.*  
This field can be used to specify how many times the alarm should be repeated if it is not answered and cleared. When a value other than 0 is selected, the Interval option becomes available to specify the interval between repeats.
- Interval: *Default = None (Off).*  
If a number of retries is specified, this option can be used to select the number of minutes between repeated alarm attempts until the alarm is cleared.
- Cancel Code: *Default = Off.*  
When off, the alarm is cleared if the alarm call is answered. If on, a dialing code can be specified. If the correct code is not dialed in response to an alarm, the alarm is not cleared and will repeat if retries have been specified.
  - Cancel Code: *Default = \*, Range = Up to 4 digits.*  
This field is used to enter the dialing required to clear the alarm call. The value \* will match any dialing.


## Results

This action has the following result which can be connected to a further action:





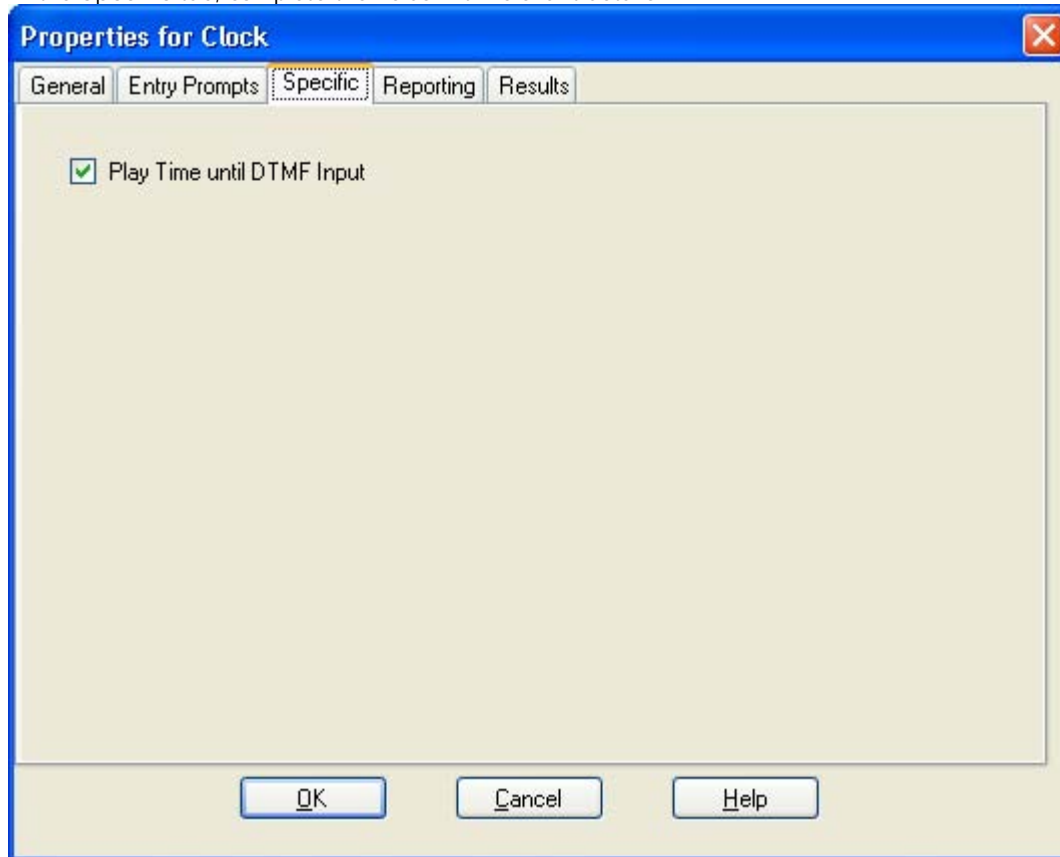
- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[196]</sup> action option Complete sequence has been selected.

## 4.9.4 Clock

 The Clock action plays the current time on the voicemail server PC.

### Settings

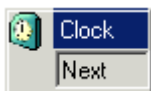
1. Click the  Miscellaneous Actions icon and select  Clock.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, complete the fields with relevant details.



- Play Time Until DTMF Input: *Software level = 5.0+.*  
If not selected the time is played to the caller once. If selected the time is repeated until the caller presses a DTMF key or hangs up.


### Result

This action has the following result which can be connected to a further action:





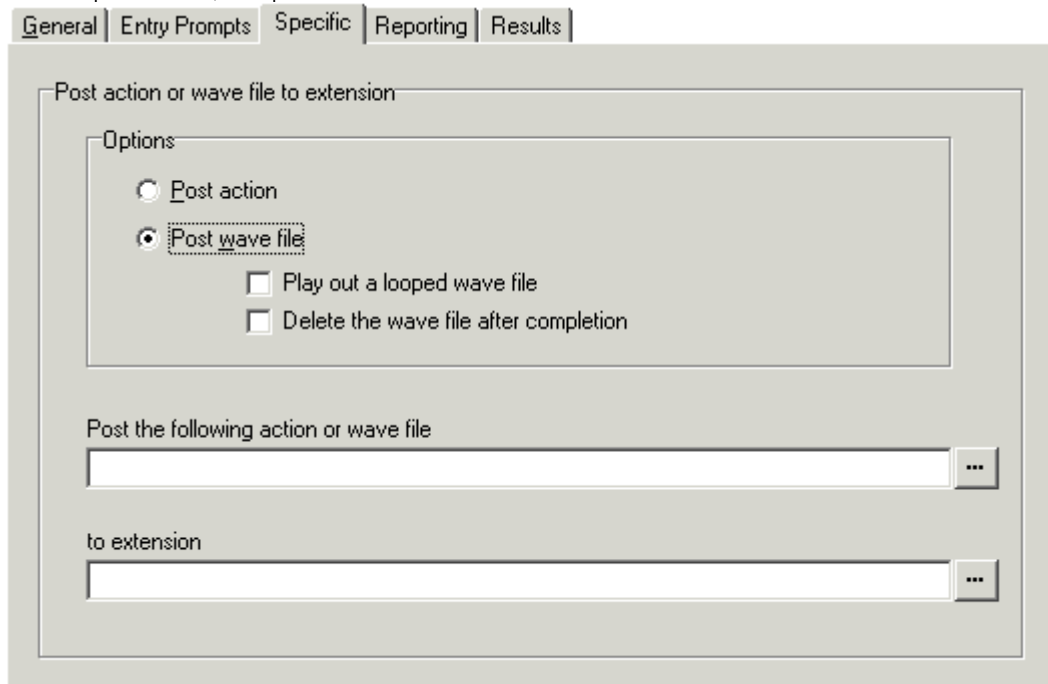
- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[190]</sup> action option Complete sequence has been selected.

## 4.9.5 Post Dial

 The Post Dial action can be used to connect another extension to a specified call flow start point or to play a recording to that extension.

### Settings

1. Click the  Miscellaneous Actions icon and select  Post Dial.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, complete the fields with relevant details.



General | Entry Prompts | **Specific** | Reporting | Results

Post action or wave file to extension

Options

Post action

Post wave file

Play out a looped wave file

Delete the wave file after completion

Post the following action or wave file

to extension

- Post action  
Select this option if you want the connect a target extension to a selected call flow.
- Post wave file  
Select this option if you want the target extension to be played a selected wav file. When Post wave file is selected there are two options which can be selected.
  - Play out a looped wave file  
The wav file will be played in a continuous loop.
  - Delete the wave file after completion  
The wav file will be deleted after it has been played.
- Post the following action or wave file  
Enter the name of the required start point or use the browse button to select the start point. To play a recording, enter c:\mywavs\hello.wav (substitute the appropriate file path and file name for the .wav file you want played).
- To extension  
Enter or select the extension to which the call should be made. The voicemail server will attempt to make the call every 5 minutes for the next hour until successful. The Post Dial action can be used to page a .wav file to an extension number, including group extension numbers. This is done by entering PAGE: followed by the target extension number. In this case the wav file will not loop if selected.

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#)<sup>[190]</sup> action option Complete sequence has been selected.



## 4.9.6 VB Script





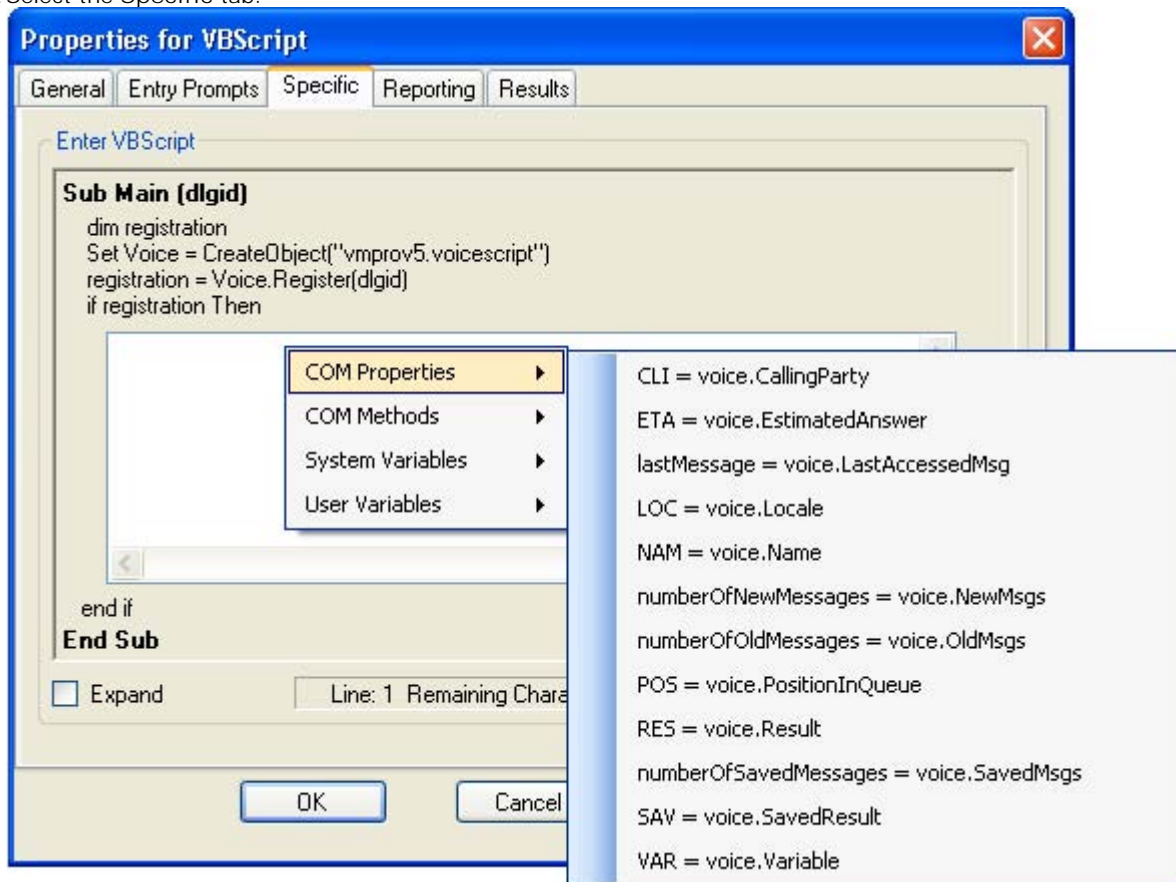
The VB Script action allows an administrator to construct additional call flow logic using VBScript commands and various [properties](#) [356] and [methods](#) [362].

When a VBScript action is executed, the voicemail server allows the script up to 1 minute to complete execution. If execution of the script takes longer then it is terminated by the voicemail server and the action's Failure result path is used.

- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#) [21], use of VBScript requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro VB Script licenses can still be used.

### Settings

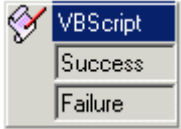
1. Click the  Miscellaneous Actions icon and select  VB Script.
2. The [General](#) [182], [Entry Prompts](#) [183], [Reporting](#) [186] and [Results](#) [189] tabs are standard tabs available to all actions.
3. Select the Specific tab.



- Enter VBScript  
In the script area enter the VBScript as required. Strings for the variables and methods provided for VBScript by Voicemail Pro can be selected and inserted by right clicking on the script area. This script can contain a maximum of 10000 characters.
- Expand  
Check Expand to view a larger script area.
- Syntax Check  
Click the Syntax Check button to check your input for any errors.

### Results

This action has the following results which can be connected to further actions:




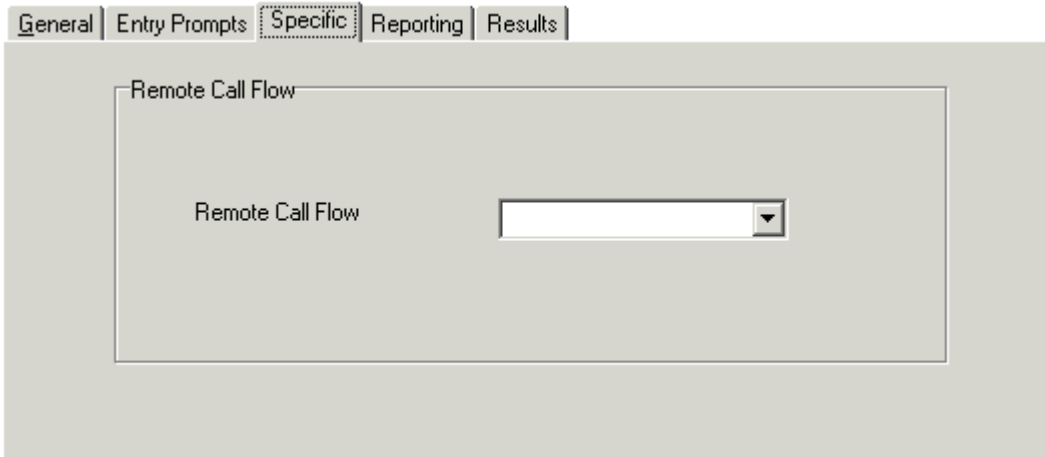
This action has two results, *Success* or *Failure*.

## 4.9.7 Remote Call Flow

➔ The Remote Call Flow action allows a call flow, in the form of a .vmp file, developed elsewhere to be included in an existing call flow. The aim of this action is to allow call flows developed by other applications to be placed on the Voicemail Pro server and included in its customized call flows.


### Settings

1. Click the  Miscellaneous Actions icon and select ➔ Remote Call Flow.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, the field Remote Call Flow will show a list of remote call flow files downloaded to the Voicemail Pro server.



The screenshot shows a configuration window with five tabs: General, Entry Prompts, Specific, Reporting, and Results. The 'Specific' tab is selected. Inside the window, there is a large rectangular area labeled 'Remote Call Flow' at the top left. Within this area, there is a text label 'Remote Call Flow' followed by a white rectangular input field with a downward-pointing arrow on its right side, indicating a dropdown menu.

### Results







➔  The Remote Call Flow action has no results. Any follow on call handling is determined by the actions in the remote call flow.

## 4.10 Condition Actions



### Condition Actions

These actions are used to create branches in the call routing according to whether a value is true or false.



-  [Test Condition Action](#) <sup>[252]</sup>  
Test whether a condition is true or false.
-  [Set User Variable Action](#) <sup>[253]</sup>  
Set a variable to a particular value.
-  [Test User Variable Action](#) <sup>[254]</sup>  
Test the value of a variable.
-  [Test Variable Action](#) <sup>[255]</sup>  
Check if user dialing matches set digits.
-  [Increment and Test Counter](#) <sup>[256]</sup>  
Increment a \$COUNTER variable and then test whether it matches a specified value.
-  [Decrement and Test Counter](#) <sup>[257]</sup>  
Decrement a \$COUNTER variable and then test whether it matches a specified value.

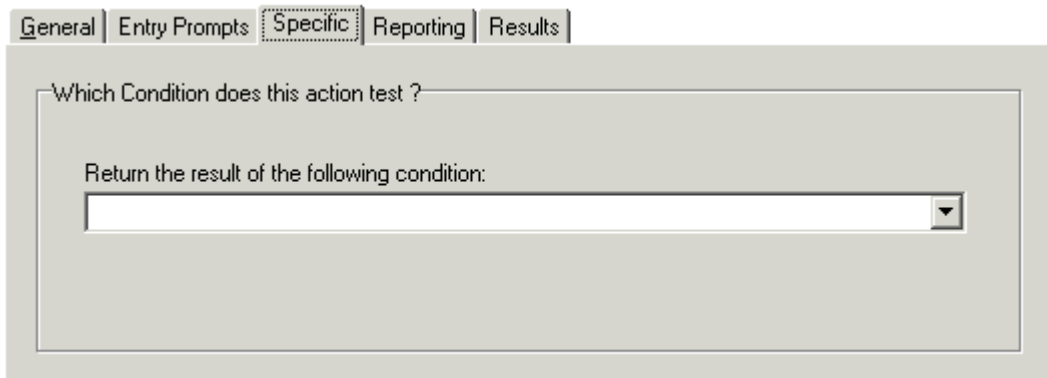
### 4.10.1 Test Condition



The Test Condition action allows the current state (*True* or *False*) of a condition setup through the [Conditions Editor](#) <sup>[165]</sup> to be checked.

#### Settings

1. Click the  Conditions Actions icon and select  Test Condition.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. In the Specific tab, complete the fields with relevant details.



General | Entry Prompts | **Specific** | Reporting | Results

Which Condition does this action test ?

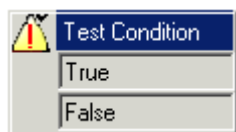
Return the result of the following condition:

[Dropdown menu]

- Return the results of the following condition  
Allows a selection to be made from the conditions currently setup.

#### Results

This action has the following results which can be connected to further actions:




- True  
This result connection is used by the call if the tested condition is currently true.
- False  
This result connection is used by the call if the tested condition is currently false.

For examples of the Test Condition action in a call flow, see:



- [Customizing a Hunt Group Call Flow](#) <sup>[290]</sup>.
- [User Defined Variables](#) <sup>[160]</sup>.

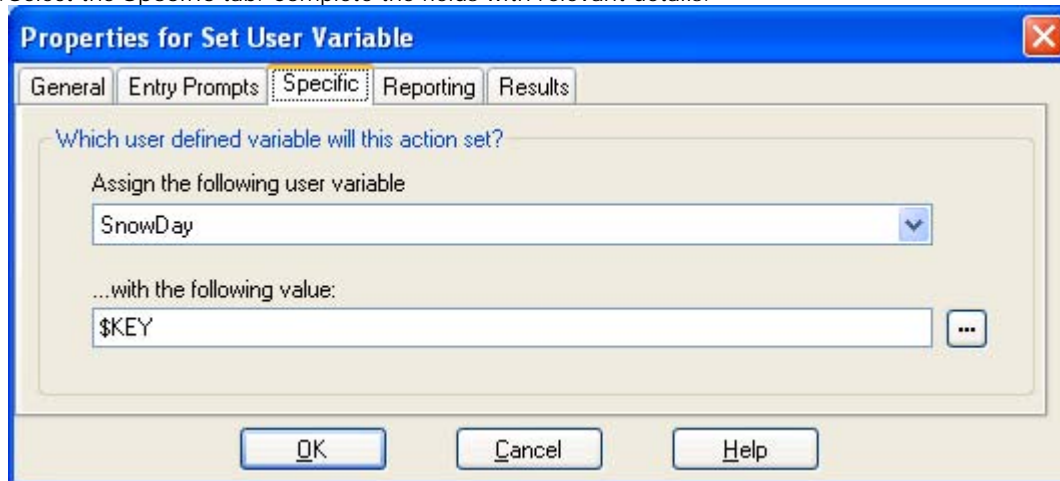
## 4.10.2 Set User Variable


 The Set User Variable action sets a user variable to a particular value. Other call flows can then use [Test User Variable](#) <sup>[254]</sup> actions to check whether the variable has a particular value.

The variable must first be created using the [User Defined Variable](#) <sup>[160]</sup> menu or [User Variables](#) <sup>[142]</sup> panel. For an example of the action in a call flow, see [User Defined Variables](#) <sup>[160]</sup>.

### Settings

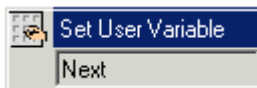
1. Click the  Conditions Actions icon and select  Set User Variable.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. Complete the fields with relevant details.



- Assign the following user variable  
The name for the existing user variable. The variable must first be created using the [User Defined Variable](#) <sup>[160]</sup> menu or [User Variables](#) <sup>[142]</sup> panel.
- With the following value  
The value of the variable. Type the required value directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#) <sup>[162]</sup>.

### Results

This action has the following result which can be to a further action:





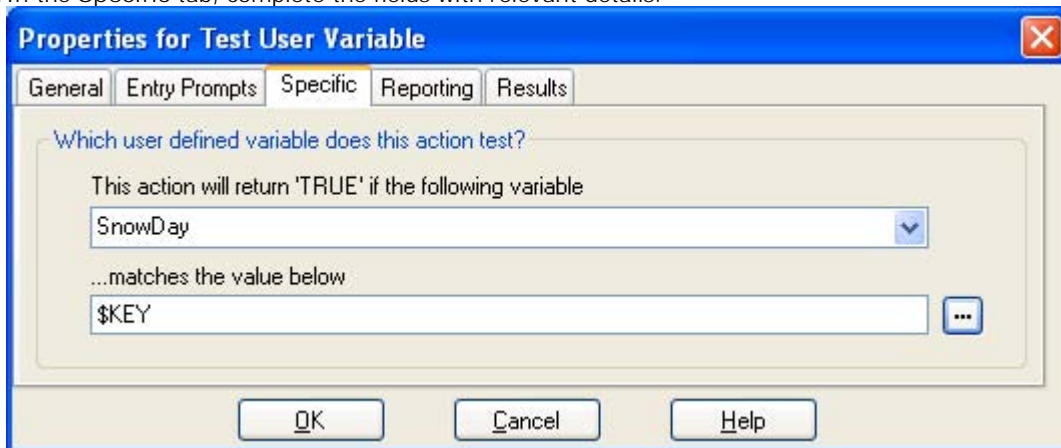
- Next  
We strongly recommend that this action is connected to another action (if necessary just a Disconnect action), whose entry prompt confirms to the caller that the value has been set. In some situations, such as where the Set User Variable action is accessed by the user dialing a short code, if the user hangs-up too quickly the variable may not actually be set. Having a following action with a confirmation message encourages users not to hang up too quickly.
- For 6.1, the Complete sequence option in the Start action can be used to ensure that the variable is set even if the caller hangs up prior to hearing any confirmation.


### 4.10.3 Test User Variable

The Test User Variable action has true and false connections that are followed according to whether the selected [user variables](#) current value matches a particular value. The Set User Variable action can be used in other calls to set the value of the variable. For an example of the action in a call flow, see [User Defined Variables](#).

#### Settings

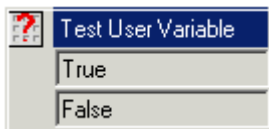
1. Click the  Conditions Actions icon and select  Test User Variable.
2. The [General](#), [Entry Prompts](#), [Reporting](#) and [Results](#) tabs are standard tabs available to all actions.
3. In the Specific tab, complete the fields with relevant details.



- This action will return "TRUE" if the following variable The name of the existing user variable to be checked.
- Matches the value below The value of the variable that will return a true result. Type the required value directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#).

#### Results

This action has the following results which can be connected to further actions:





The action can have the following results which can then be connected to further actions:

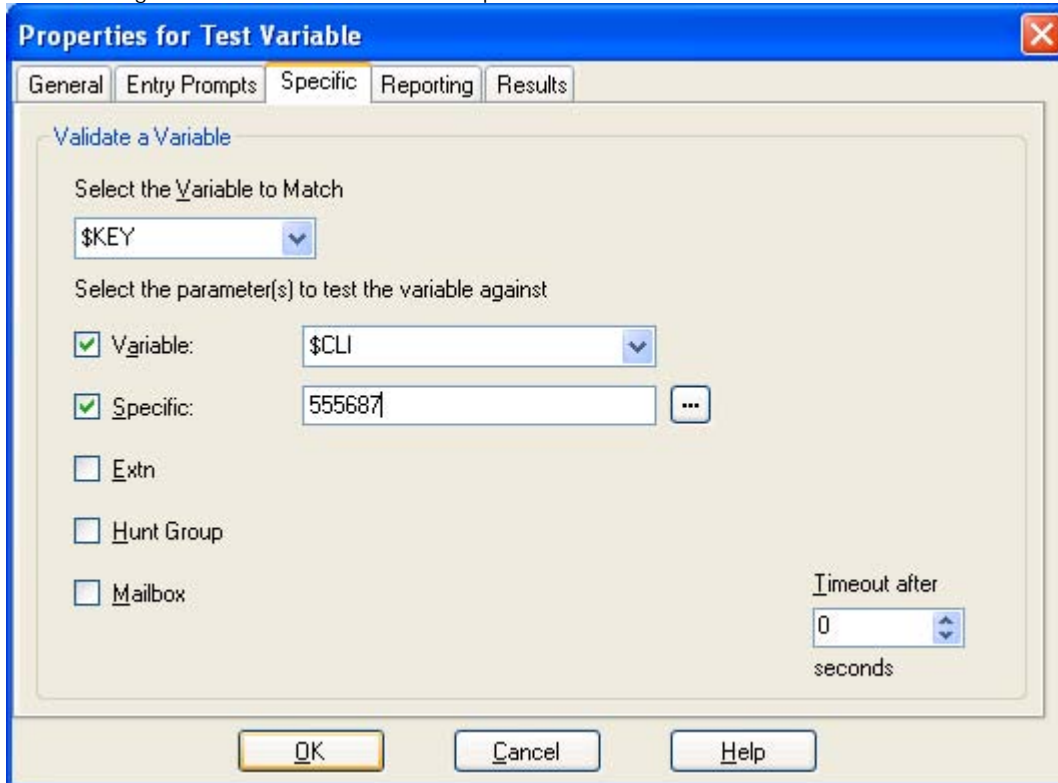
- True This result connection is used by the call if the tested condition is currently true.
- False This result connection is used by the call if the tested condition is currently true.


## 4.10.4 Test Variable

For Voicemail Pro 4.2+, the Test Variable action has been added and replaces the previous Check Digits action. It allows calls to be routed based on matching the value of a call variable to a specified value.

### Settings

1. Click the  Conditions Actions icon and select  Test Variable.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. The following controls are available on the Specific tab:

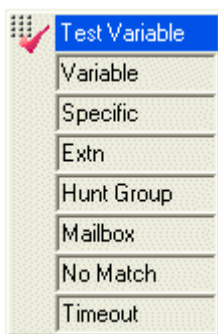


- Select the variable to Match  
This drop-down list is used to select which Voicemail Pro [call variable](#)<sup>[162]</sup> should be checked for a match, see below.
- Select the parameter(s) to test the variable against  
Select the types of values that should be checked for a match and if necessary entry the value. If several options are selected, the Voicemail Pro checks for a match starting from the top and working down until a match occurs.
  - Variable  
Check for a match against the value of another selected [call variable](#)<sup>[162]</sup>. Type the required value directly or use the  browse button to select the text that should be used including using a the value of a [call variable](#)<sup>[162]</sup>.
  - Specific  
Check for a match against the value entered in the adjacent field.
  - Ext'n  
Check for a match against valid extensions on the IP Office.
  - Hunt Group  
Check for a match against hunt group extension numbers.
  - Mailbox  
Check for a match against mailboxes.
- Timeout after  
The timeout value is used only if *\$KEY* is selected as the variable to match. In this case, if the Voicemail Pro will wait for the specified timeout period for the caller to dial a new value of *\$KEY*. To enter a value without waiting for the timeout to expire the user can be prompted to enter a value and then press #.

---

## Results


This action will have results for connection to following actions in the call flow based on the selected options on its Specific tab plus a No Match and Timeout result:



- No Match  
This result is used if no match is found.
- Timeout  
This result is used when *\$KEY* is specified as the variable to match and no match occurs within the specified timeout period.
  - For 6.1+ this connection is followed immediately the caller hangs up if the [Start](#) <sup>190</sup> action option Complete sequence has been selected.





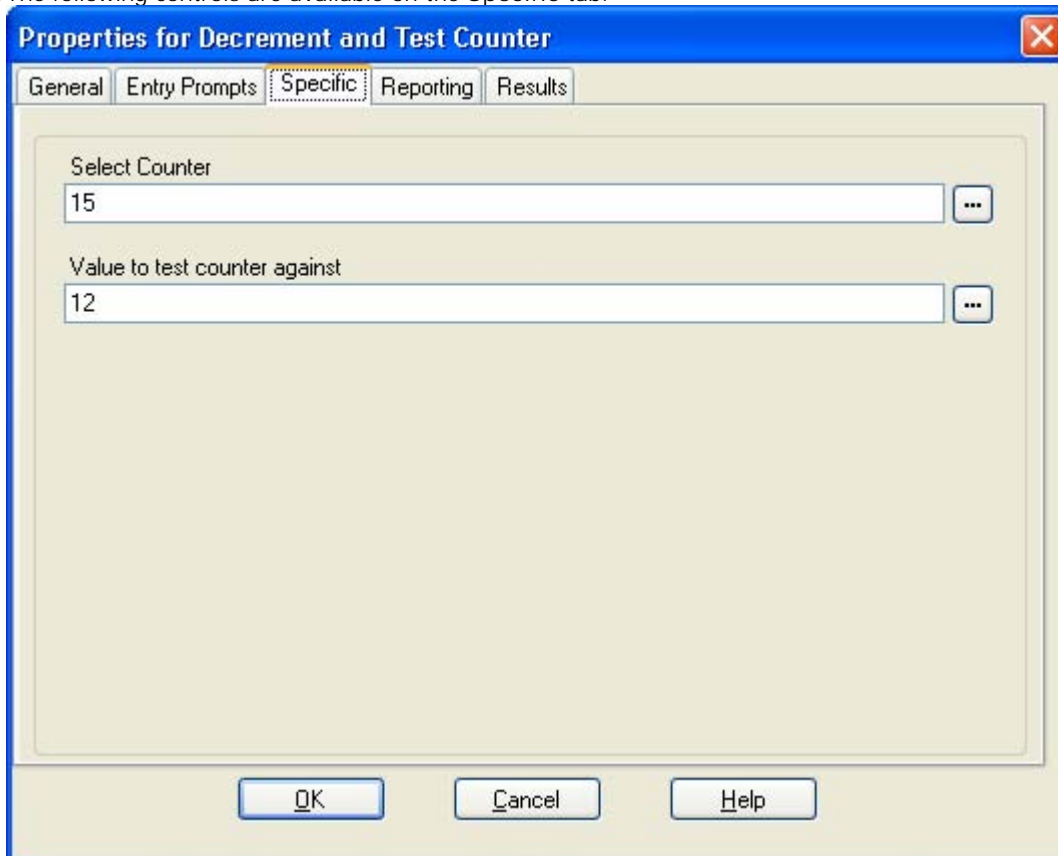
## 4.10.5 Decrement and Test Counter

 Decrease the values of a \$COUNTER variable by 1 and then test whether its new value matches a target value.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) [192] action commands for [Set Counter](#) [202], [Clear Counter](#) [198], [Counter Decrement](#) [199] and [Counter Increment](#) [200]. They can also be used with the [Decrement and Test Counter](#) [257] and [Increment and Test Counter](#) [258] actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.

### Settings

1. Click the  Conditions Actions icon and select  Decrement and Test Counter.
2. The [General](#) [182], [Entry Prompts](#) [183], [Reporting](#) [188] and [Results](#) [189] tabs are standard tabs available to all actions.
3. The following controls are available on the Specific tab:

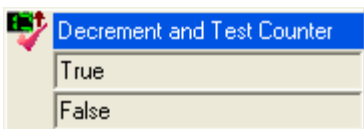


The dialog box titled "Properties for Decrement and Test Counter" has a blue title bar and a close button (X) in the top right corner. It contains five tabs: "General", "Entry Prompts", "Specific" (which is selected and highlighted with a dotted border), "Reporting", and "Results". The "Specific" tab contains two text input fields. The first field is labeled "Select Counter" and contains the value "15". The second field is labeled "Value to test counter against" and contains the value "12". Both fields have a small "..." button to their right. At the bottom of the dialog box are three buttons: "OK", "Cancel", and "Help".

- **Select Counter**  
Select the \$COUNTER variable to decrement and then test. *\$COUNTER1* to *\$COUNTER15* can be selected by entering 1 to 15 respectively.
- **Value to test counter against**  
This can be a number or another call variable. When the counter matches the value the *True* result connection is used, otherwise the *False* result connection is used.

### Results


This action has the following results which can be connected to further actions:



Decrement and Test Counter	
True	
False	



- **True**  
This result connection is used if the counter value matches the test value.
- **False**  
This result connection is used if the counter value does not match the test value.

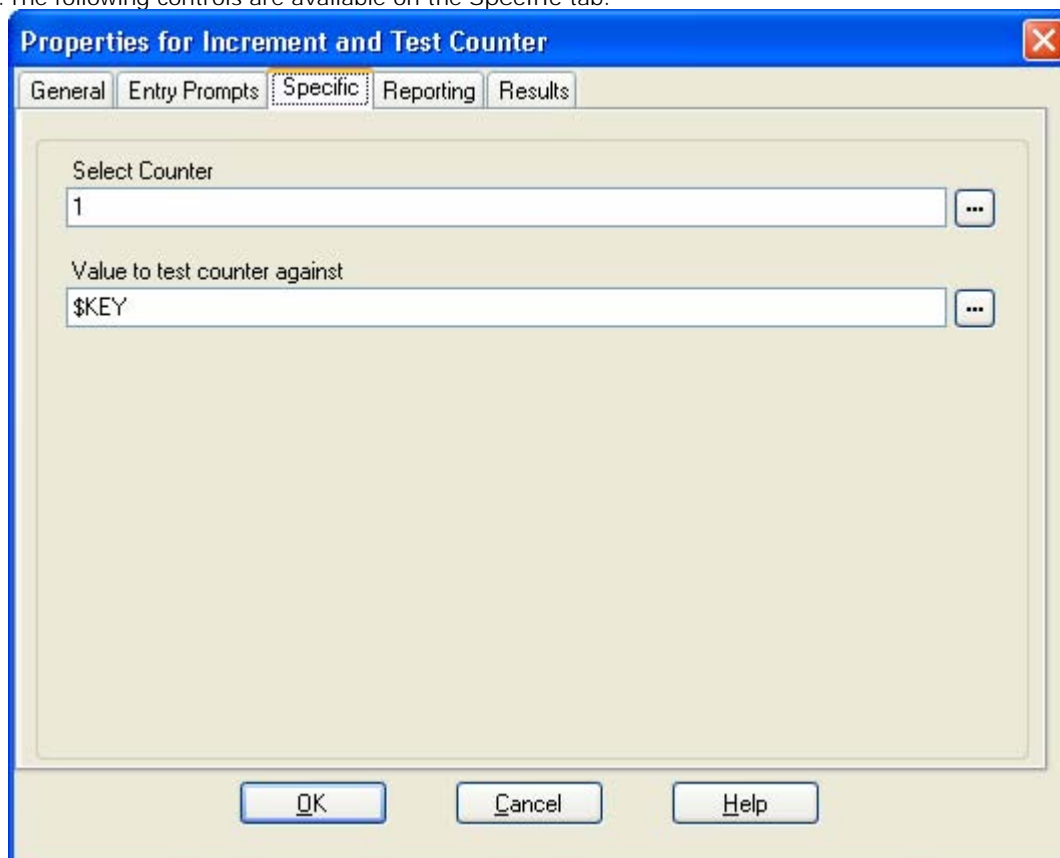
## 4.10.6 Increment and Test Counter

 Increase the values of a \$COUNTER variable by 1 and then test whether its new value matches a target value.

Voicemail Pro 5.0+ provides counter variable \$COUNTER1 to \$COUNTER15. These can be used in the same way as other variables. They can also be manipulated using [Generic](#) action commands for [Set Counter](#), [Clear Counter](#), [Counter Decrement](#) and [Counter Increment](#). They can also be used with the [Decrement and Test Counter](#) and [Increment and Test Counter](#) actions. By default the initial value of a counter variable is 0. The formats \$COUNTERx or \$COUNTER[x] are both supported.

### Settings

1. Click the  Conditions Actions icon and select  Increment and Test Counter.
2. The [General](#), [Entry Prompts](#), [Reporting](#) and [Results](#) tabs are standard tabs available to all actions.
3. The following controls are available on the Specific tab:

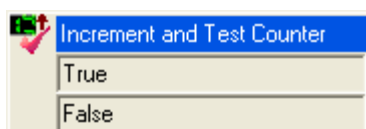


The dialog box titled "Properties for Increment and Test Counter" has five tabs: General, Entry Prompts, Specific, Reporting, and Results. The "Specific" tab is selected. It contains two text input fields. The first field is labeled "Select Counter" and contains the value "1". The second field is labeled "Value to test counter against" and contains the value "\$KEY". Both fields have a small "..." button to their right. At the bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

- **Select Counter**  
Select the \$COUNTER variable to increment and then test. *\$COUNTER1* to *\$COUNTER15* can be selected by entering *1* to *15* respectively.
- **Value to test counter against**  
This can be a number or another call variable. When the counter matches the value the *True* result connection is used, otherwise the *False* result connection is used.

### Results

This action has the following results which can be connected to further actions:



Increment and Test Counter
True
False

- **True**  
This result connection is used if the counter value matches the test value.
- **False**  
This result connection is used if the counter value does not match the test value.

## 4.11 Database Actions



### Database Actions

These actions relate to retrieving and adding data to a database.

- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#)<sup>[21]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

- [Database Open Action](#)<sup>[259]</sup>  
Open a database.
- [Database Execute Action](#)<sup>[261]</sup>  
Perform an action on a database.
- [Database Get Data Action](#)<sup>[262]</sup>  
Get information from a database.
- [Database Close Action](#)<sup>[263]</sup>  
Close a database.

### 4.11.1 Database Open



The Database Open action opens a link to a database. If there is a connection to the database already then the current connection is closed and the new one requested will be opened. For an example of the action in a call flow, see [IVR Database Connection Example, Retrieving Data From the Database](#)<sup>[378]</sup>.

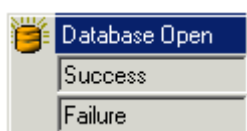
- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#)<sup>[21]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

### Settings

- Click the Database Actions icon and select Database Open.
- The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
- Select the Specific tab. The connection string to open the database can be entered directly into the field. For help on constructing the connection string, click . The Data Link Properties window opens.
  - Provider Tab  
Select the OLE DB Provider of the data that is to be connected to. Click Next to move to the Connection Tab.
  - Connection Tab  
Specific information relating the Database provider needs to be completed. Help of the information required for each of the fields can be obtained by clicking the Help button. Fields available will be dependant on the type of provider. Test that the information entered will allow entry into the database, click the Test Connection button. A message Test Connection Succeeded will show if successfully connected to the database.
  - Advanced Tab  
Network and other settings, for example access permissions. Fields showing will be dependant on the type of provider selected. Click help for specific information about any of the fields.
  - All  
The properties that have been selected on the previous tabs are shown in the All Tab. Amendments can be made as required by selecting the Name and click Edit Value.

### Results


This action has the following results which can be connected to further actions:



- Success  
This result connection is used once the database is opened.
- Failure  
This result connection is used if the database cannot be opened.





## 4.11.2 Database Execute

 The Database Execute action performs an SQL query on a database opened on a preceding Database Open action. An SQL query that is generated by the Database Execute Action does not support spaces in field or table names. To avoid problems in a Microsoft Access database, it is advisable to avoid using a field name that has the same name as its field type. For example, you should avoid using the name *Number* for a number field.

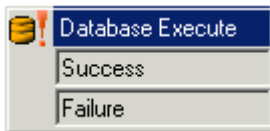
- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#)<sup>[214]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

### Settings

1. Click the  Database Actions icon and select  Database Execute.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. The SQL Wizard window opens. Use the wizard to construct the SQL query.
  - You must ensure that any data included in the query matches the data type (number, integer or text) of the field it is being used to query. Values being used to query a text field should be enclosed by quotation marks. This applies whether using query values entered directly or using Voicemail Pro variables. For example, if using *\$KEY* as a query value, for a text field query ensure that you enter "*\$KEY*".

### Results

This action has the following results which can be connected to further actions:



- Success  
The action has been successful and has returned a set of records from the database.
- Failure  
The action has not returned any data.

The Database Execute action results can only be Success or Failure. Add connections to relevant actions. For an example of the action in a call flow, see [IVR Database Connection Example, Retrieving Data From the Database](#)<sup>[376]</sup> and [Entering Details in to the Database](#)<sup>[384]</sup>.

### 4.11.3 Database Get Data

Once a [Database Execute](#) action has been used, it may return a set of records from the database. A Database Get Data action or actions are then used to select which record is the currently selected record whose values are placed into the call flow's \$DBD variables.

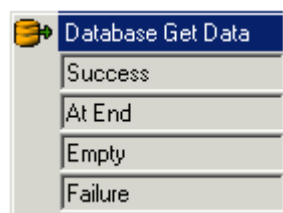
- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#), use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

#### Settings

- Click the Database Actions icon and select Database Get Data.
- The [General](#), [Entry Prompts](#), [Reporting](#) and [Results](#) tabs are standard tabs available to all actions.
- Select the Specific tab. Chose which record should be selected by selecting one of the following options:
  - Retrieve the next item in the list  
Select the next record returned by the Database Execute action as the currently selected record.
  - Retrieve the previous item in the list  
Select the previous record returned by the Database Execute action as the currently selected record.
  - Retrieve the first item in the list  
Select the first record returned by the Database Execute action as the currently selected record.
  - Retrieve the last item in the list  
Select the last record returned by the Database Execute action as the currently selected record.

#### Results

This action has the following results which can be connected to further actions:



- The Database Get Data action has four possible results.
- Success  
The selected records values have successfully been assigned to the \$DBD variables.
  - At End  
There are no further records in the set of data.
  - Empty  
The execute method returned no data, the \$DBD variable contains no information.
  - Failure  
There was a problem trying to retrieve the next data record, the \$DBD variable contains no information.

Examples of using the database actions are given in the IVR database Connection section. For an example of the action in a call flow, see [IVR Database Connection Example, Retrieving Data From the Database](#).



## 4.11.4 Database Close



The Database Close action will close the current database connection. If the database is open when a call terminates, then a Database Close action is run automatically.

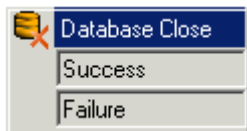
- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#)<sup>[21]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

### Settings

1. Click the  Database Actions icon and select  Database Close.
2. The [General](#)<sup>[182]</sup>, [Entry Prompts](#)<sup>[183]</sup>, [Reporting](#)<sup>[186]</sup> and [Results](#)<sup>[189]</sup> tabs are standard tabs available to all actions.
3. There is no Specific tab for this action.

### Results

This action has the following results which can be connected to further actions:



- Success  
The database connection has been closed.
- Failure  
The database connection has not been closed. This action is useful during testing and development of the database call flow to validate correct operation.



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## 4.12 Queue Actions




### Queue Actions

These actions are associated with hunt group queues and are not available to user and short code start points. The IP Office Manager option Synchronise calls to announcements should not be used when using the queue actions.

-  [Queue ETA Action](#) [265]  
Speak the caller's expected time to answer.
-  [Queue Position Action](#) [266]  
Speak the caller's queue position.



## 4.12.1 Queue ETA



 The Queue ETA action plays the estimated time to answer (ETA) in minutes to a caller in the queue of calls for a hunt group. It is not used for calls queued for a user.

The ETA is supplied by the IP Office when it requests a queue or still queued announcement message to be played to a caller. It is calculated based on the queued time in the previous hour of the last 5 queued and answered calls. It is always rounded up to the nearest minute. For an example, see [Customizing Queuing](#) <sup>[286]</sup>.

Normally a simply announcement is used that does not include queue position and estimated time to answer. However if required the *Queued* and *Still Queued* call flow start points can be added and customized using actions including this one.

- When calls are presented to a hunt group on the IP Office, calls waiting to be answered are queue in order of priority and then longest waiting. By default internal caller's have *Low* priority while the priority of external callers is set by the IP Office Incoming Call Route used to route the call (default also *Low*).
- Mixing calls of different priority is not recommended if Voicemail Pro is being used to provide queue estimate time to answer (ETA) and queue position announcements to callers, since those values will no longer be accurate when a higher priority call is placed into the queue. Note also that in such a situation Voicemail Pro will not allow a value already announced to a caller to increase.
- The IP Office Manager option Synchronize calls to announcements should not be used with call flows that include this action.

### Settings

1. Click the  Queue Actions icon and select  Queue ETA.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab. This tab may include any further prompts to be played to the caller after they hear their ETA.

**General** | **Entry Prompts** | **Specific** | **Reporting** | **Results**

Queue (estimated time to answer)

The prompts will be played in the following order:

- 1) Any items defined in the Entry Prompt page
- 2) The estimated time of answer
- 3) Any prompts defined below

Order	Prompt	Length (s)
1	Offer.wav	0.0

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[196]</sup> action option Complete sequence has been selected.



## 4.12.2 Queue Position

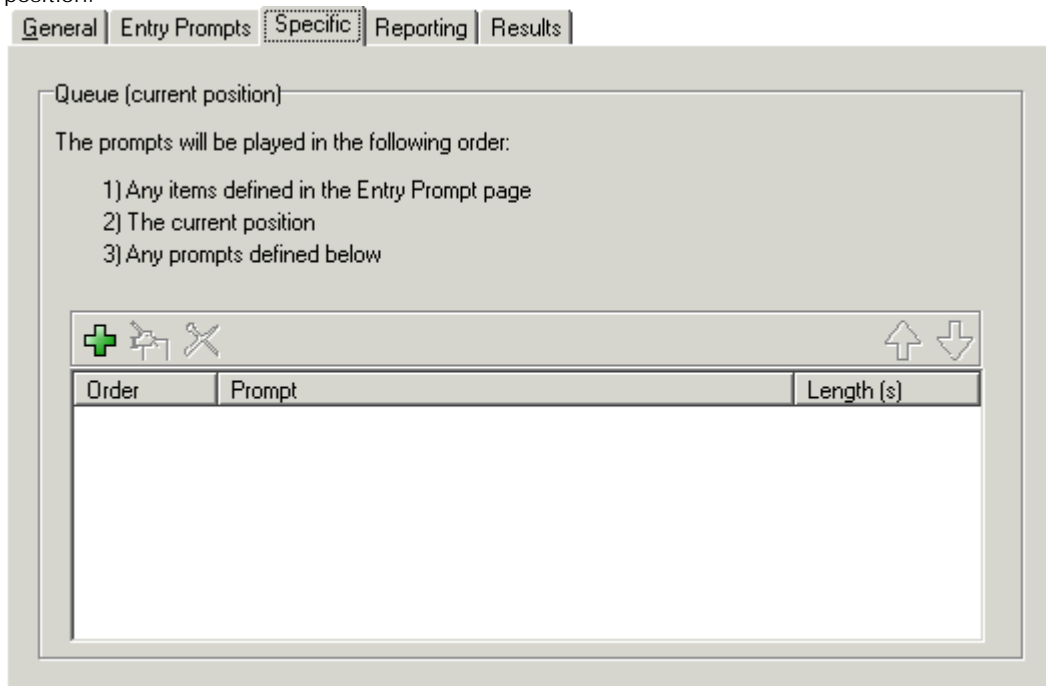
The Queue Position action plays the caller their position within the queue of calls for a hunt group. It is not used for calls queued for a user. The queue position is supplied by the IP Office when it requests a queue or still queued announcement message to be played to a caller.

Normally a simply announcement is used that does not include queue position and estimated time to answer. However if required the *Queued* and *Still Queued* call flow start points can be added and customized using actions including this one.

- When calls are presented to a hunt group on the IP Office, calls waiting to be answered are queue in order of priority and then longest waiting. By default internal caller's have *LOW* priority while the priority of external callers is set by the IP Office Incoming Call Route used to route the call (default also *LOW*).
- Mixing calls of different priority is not recommended if Voicemail Pro is being used to provide queue estimate time to answer (ETA) and queue position announcements to callers, since those values will no longer be accurate when a higher priority call is placed into the queue. Note also that in such a situation Voicemail Pro will not allow a value already announced to a caller to increase.
- The IP Office Manager option Synchronize calls to announcements should not be used with call flows that include this action.

### Settings

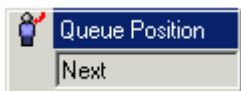
1. Click the  Queue Actions icon and select  Queue Position.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[188]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions. The Entry Prompts tab should include any prompts to play to the caller before they hear their position. See [Entry Prompts Tab](#) <sup>[183]</sup>.
3. Select the Specific tab. This tab may include any further prompts to be played to the caller after they hear their position.



The screenshot shows the configuration window for the Queue Position action, specifically the 'Specific' tab. At the top, there are five tabs: 'General', 'Entry Prompts', 'Specific' (which is selected and highlighted), 'Reporting', and 'Results'. Below the tabs, the text reads 'Queue (current position)' and 'The prompts will be played in the following order:'. A numbered list follows: '1) Any items defined in the Entry Prompt page', '2) The current position', and '3) Any prompts defined below'. Below the list is a table with three columns: 'Order', 'Prompt', and 'Length (s)'. The table is currently empty. Above the table are icons for adding (+), deleting (X), and moving (arrows) items.

### Results

This action has the following result which can be connected to a further action:



- Next  
Route the call to a following action in the call flow. For 6.1+ this connection can be followed even after the caller has hung up if the [Start](#) <sup>[190]</sup> action option Complete sequence has been selected.





# Chapter 5.

# Administration

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## 5. Administration

### 5.1 Routing Calls to Voicemail

There are different methods by which callers can be transferred to voicemail. The transfer can be used to route the caller to a specific mailbox to leave or collect messages or to a particular Voicemail Pro start point.

The sections that follow describe the use of Voicemail Collect short codes and VM: paths as telephone numbers. These can then be applied to dialing, DSS keys SoftConsole and Phone Manager buttons.

An example Voicemail Pro module is included which allows the transferred caller to select the extension to which they want to talk or leave a message.

- VM: versus Short Codes?

The VM: method is easier to deploy. For IP Office applications such as SoftConsole and Phone Manager, it can be used without the need to access and change the IP Office configuration using IP Office Manager. However, the disadvantage is that VM: cannot be dialed from a physical phone. Short codes have the advantage that they can be dialed at an extension once set up through IP Office Manager.

### 5.1.1 Routing Calls to Voicemail

If a user has voicemail switched on, calls will be automatically routed to voicemail if either:

1. The extension is busy and call waiting has not been enabled.
2. The user has do not disturb set or the extension is not answered within the No Answer Time as set in IP Office Manager program (default 15 seconds).

The caller hears the standard greeting message ' *Your call is being answered by IP Office. <Name> is not available. To leave a message, wait for the tone.* '. A user can record their own greeting messages if required.

When new messages are received, the user's telephone call display or IP Office Phone Manager application is updated to show the number of new messages waiting.

If Voicemail Ringback is enabled, the Voicemail Server calls the user's extension to attempt to deliver new messages when the user next uses the telephone.

All messages are stored until they have been listened to and are then automatically deleted after a set time period. The default time period for IP Office mode is 36 hours. In IP Office mode users can designate a message as saved so that it is not automatic deleted.

A mailbox owner can turn voicemail and voicemail ringback on or off using Phone Manager. The default short codes can also be used. The default short codes are:

- \*18 - To turn voicemail on.
- \*19 - To turn voicemail off.
- \*48 - To turn voicemail ring back on.
- \*49 - To turn voicemail ring back off.

### 5.1.2 Forward Unconditional to Voicemail

For IP Office 5.0+, the option To Voicemail is available for Forward unconditional on the User | Forwarding tab within the IP Office configuration. When selected, the Forward Number set for Forward Unconditional is overridden and calls are sent direct to the user's mailbox.

The option Forward Hunt Group calls is also overridden if To Voicemail is selected.

### 5.1.3 Transferring Calls to Voicemail

The facility to transfer a call directly to a user's voicemail is available using the SoftConsole or Phone Manager applications. For users who are not using these applications, you can create a short code for them.

For example:

Field	Setting
Code	*201
Feature	Voicemail Collect
Telephone Number	"#Extn201"
Line Group I d	0

When creating short codes for use with voicemail, the ? indicates "collect voicemail" and the # indicates "deposit voicemail". The telephone number entry must also be enclosed by quotation marks as shown in the example.

---

## 5.1.4 Using Short Codes to Access Voicemail

The short code Voicemail Collect feature can be used to route callers to voicemail. The voicemail service they receive is set by the telephone number field which should be enclosed in quote marks. See [Voicemail Telephone Numbers](#) [274].

- The examples use \*80 but any available short code could be used.

### Example 1: Access to the Mailbox Main

The following short code will access the mailbox for Main. The ? indicates that it is to collect messages. A # is used to indicate leave a message in the mailbox.

Field	Setting
Code	*80
Feature	Voicemail Collect
Telephone Number	"?Main"
Line Group Id	0

### Example 2: Access a Voicemail Pro Module

If a Voicemail Pro module has been created and called TimeCheck, the following short code could be used to access it.

Field	Setting
Code	*80
Feature	Voicemail Collect
Telephone Number	"TimeCheck"
Line Group Id	0

The Voicemail Node short code feature can also be used to access short code start points. It uses the short code start point name as the telephone number without surrounding brackets.



## 5.1.5 Using VM: to Access Voicemail

Another method for accessing voicemail is the VM: option, where VM: is followed by the name of the mailbox or Voicemail Pro start point required.

This can be used in the telephone number field of IP Office applications such as SoftConsole, Phone Manager and Manager.

- Example 1: SoftConsole access to the mailbox Main

The user wants single click access to check for messages in the hunt group mail box Main (extension ID 200).

1. Start SoftConsole.
2. Click one of the BLF panel tabs.
3. Right-click and select New > BLF Group Member.
4. Type a Name, for example *Messages*.
5. Type a Number, in this case enter *VM:?Main* or *VM:?200*.
6. Click OK. The operator can now check for messages in that group mailbox with a single click.

- Example 2: Accessing a Module from Phone Manager

The user wants to access a particular Voicemail Pro module, for this example one called TimeCheck.

1. Start Phone Manager.
2. Click the Speed Dials tab.
3. Right-click and select New.
4. Type a Name, for example *Time Check*.
5. Type a Number, in this case enter *VM:TimeCheck*.
6. Click OK.

- Example 3: Incoming Call Routing

The VM notation can be used in the Destination field of a Manager Incoming Call Route. This enables you to route calls that match the Incoming Call Route's criteria to a particular mailbox or Voicemail Pro module.

## 5.1.6 Voicemail Telephone Numbers

This section describes the options that can be used with VoicemailCollect short codes and with VM: to access a mailbox or Voicemail Pro start point.

	Short Code	Application Number Field
Collect Messages	?200	VM: ?200
	"?Main"	VM: ?Main
Leave Messages	#200	VM: #200
	"#Main"	VM: #Main

A user attempting to collect mail from user mailboxes will be prompted for the voicemail PIN code if not accessing from a trusted source. See [Creating a Trusted Location](#) (286).

### Voicemail Pro Start Points

The following only apply when a matching start point has been set up. If a short burst of ringing is required then # should be inserted before the start point name. This is useful if transferring callers as it allows the transfer to be completed before the Voicemail Prompts begin.

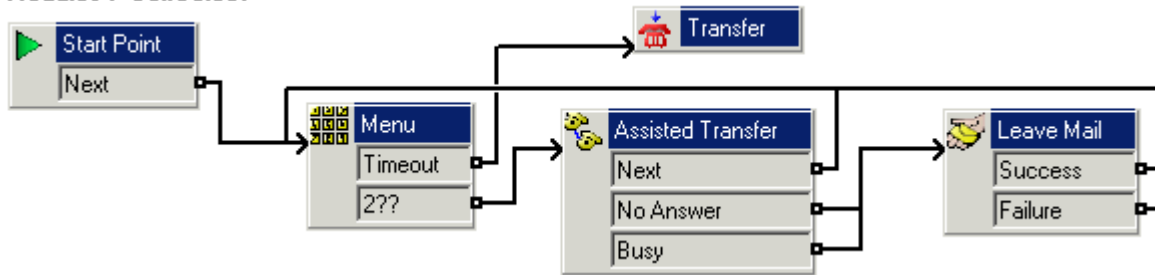
	Short Code	Application Number Field
User Start Points	for examples a user called Extn205.	
Collect	"Extn205.Collect"	VM: Extn205.Collect
Leave	"Extn205.Leave"	VM: Extn205.Leave
Callback	"Extn205.Callback"	VM: Extn205.Callback
Queued	-	-
Still Queued	-	-
Group Start Points	for example a group called Main.	
Collect	"Main.Collect"	VM: Main.Collect
Leave	"Main.Leave"	VM: Main.Leave
Queued	-	-
Still Queued	-	-
Default Start Points		
Collect	"Default.Collect"	VM: Default.Collect
Leave	"Default.Leave"	VM: Default.Leave
Queued	-	VM: Default.Queued"
Still Queued	-	VM: Default.Still Queued"
Short Code Start Points (see also Voicemail Node)	for example a shortcode start point called DVM.	
	"Short Codes.DVM"	VM: Short Codes.DVM
Module Start Points	for these examples a module called Attend...	
	"Attend"	VM: Attend
Campaigns	for example a campaign called Catalogue.	
Leave	-	VM: Catalogue
Collect	-	VM: Catalogue.Collect

The Voicemail Node short code feature can also be used to access short code start points. It uses the short code start point name as the telephone number without surrounding brackets.

## 5.1.7 Example Call Flow

This example creates a Voicemail Pro module that allows callers to select the extension to which they want to be connected. If that extension is busy or does not answer they can then leave a message in the target mailbox.

### Modules > SelfSelect



### The Voicemail Pro Module

1. In Voicemail Pro, a module was added named SelfSelect.
2. A Menu action was added. The properties were set as:
  - On the Touch Tones tab the Wait for a key press for option was set to 5 seconds. This gives the action a Timeout result which can be used if the caller does nothing or does not have DTMF dialing.
  - Our IP Office has extensions and groups numbered in the 200 to 299 range. The touch tone sequence 2?? was added to match any dialing in that range.
  - In Entry Prompts a prompt was recorded along the line of *"Dial the number you want or wait for reception"*.
3. A Transfer action was added. In its properties, on the Specific tab the Destination was set to Main, the hunt group containing our receptionists.
4. A connection was added from the Menu action's Timeout result to the Transfer action.
5. An Assisted Transfer action was added. In its properties, on the Specific tab \$KEY was added in the Mailbox field.
6. A connection from the Menu action's 2?? result to the Assisted Transfer action was added.
7. A Leave Mail action was then added. In its properties, on the Specific tab \$KEY was again added in the Mailbox field.
8. The Assisted Transfer action's No Answer and Busy result was connected to the leave Mail action.
9. Connections were then added from the Assisted Transfer action's *Next* result and the Leave Mail action's Success and Failure results back to the Menu action.
  - The Success and Failure results in a Leave Mail action are only used if the caller presses 0 when in the mailbox.
10. The call flow was then saved and made live.

---

### Creating a Matching Short Code

A short code was needed that could be used to route callers to the SelfSelect module.

1. Start IP Office Manager and receive the configuration.
2. A new system short code was added so that it would be available to all callers. The short code \*80 was set up as shown in the table.

Field	Contains...
Code	*80
Feature	Voicemail Collect
Telephone Number	"#SelfSelect"
Line Group Id	0

3. The entry "#SelfSelect" indicates the name of the Voicemail start point for the call, in this case the VoicemailProSelfSelect module
4. For a module start point the # is optional. Using it provides a short period of ringing before the module actions start. This is useful if manually transferring a caller as otherwise they may miss the start of the module's entry prompts.
5. The new configuration was merged.
6. At any extension the routing can be tested by dialing \*80. We can then wait to be transferred to reception or dial the extension or group that we want.

### Using the Module

The short code \*80 can now be assigned or the path VM:SelfSelect to whichever method the user wants to transfer callers to the voicemail service.

A further suggestion is to provide a system short code to deal with callers who dial an invalid extension number. For our example, a short code 2??/./"SelfSelect" /VoicemailCollect would reroute such callers back to the SelfSelect module.

## 5.2 User Voicemail Access

By default, a user can dial \*17 to access their voicemail from their own extension.

A user mailbox cannot be accessed from any other location (internal or external) until a voicemail code has been set for the mailbox. This access code is set in the IP Office Manager. Voicemail can be configured for each individual user in IP Office Manager. See [Configuring Voicemail for Individual Users](#)<sup>[90]</sup>.

If IP Office Manager has been configured, users can also collect their voice messages by using one the following methods.

- Using the Messages button on their telephone  
If their extension is a trusted extension they can access their messages without entering a voicemail code by pressing the Messages button. See [Creating a Trusted Location](#)<sup>[280]</sup>.
- Using a Voicemail Collect button.  
A button can be programmed to allow a user to collect voice messages from their telephone. If their extension is a trusted extension they can access their messages without entering a voicemail code See [Giving Users Button Access to Voicemail](#)<sup>[278]</sup>.
- Using Visual Voice  
A user can be given a display menu to user for access to their mailbox. The menu provides the user with options to listen to messages, send messages, change their greetings and password. See [Giving Users Button Access to Voicemail](#)<sup>[278]</sup>.
- Using a short code.  
Short codes can be created so a user can be given access to their mailbox from locations other than their office desk. When they call the mailbox, they will be prompted to enter the access code. See [Giving Users Access from Any Extension](#)<sup>[279]</sup> and [Voicemail Telephone Numbers](#)<sup>[274]</sup>.

If direct access is required a specified location can be set up as a *trusted location*. The caller then does not need to enter an access code. Access can be from the users own extension or another location. See [Creating a Trusted Location](#)<sup>[280]</sup>.

If users need to access their voicemail messages when they are away from the office, you can set up an Incoming Call Route in IP Office Manager with the destination as Voicemail. [Giving Users Access from an External Location](#)<sup>[280]</sup>.

Users can also receive notification of new voicemail messages at either their own extension or at another location. To receive notification of new messages a user needs to configure their outcalling. See [Outcalling](#)<sup>[322]</sup>.

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## 5.2.1 Giving Users Button Access

A user's telephone can have buttons programmed to allow access to voicemail. Not all telephones support this feature, refer to the relevant guide for more information.

Buttons can be programmed for:



- [Visual Voice](#) <sup>[278]</sup>
- [Voicemail Collect](#) <sup>[278]</sup>.

### Voicemail Collect Button

Users can collect their voice messages from their own extension using a button programmed for voicemail collect. If their extension is a trusted extension they will not need to enter their voicemail code. See [Creating a Trusted Location](#) <sup>[286]</sup>.

A button on the user's telephone will display the label VMCoI. The extension number or voicemail code do not need to be entered if the extension is a trusted extension.

To add a voicemail collect button:



1. Start IP Office Manager and receive the IP Office configuration.
2. Click  User to display the list of existing users.
3. Click the required user.
4. Click the Button Programming tab.
5. Click the button line that you want to change.
6. Right-click in the Action field.
7. Select Advanced > Voicemail > Voicemail Collect.
8. Click OK to save the button details for the selected user.
9. Repeat for any other users.
10. Click  to merge the changes back to the IP Office system.

### Visual Voice Button

A Voicemail Pro user can be given a display menu for access to their mailbox. The menu provides the user with options to listen to messages, send messages, change their greetings and password.

- The Visual Voice feature is not available on all telephones. Please refer to the user's telephone guide for more information.
- Visual voice is only available when in Intuity mode.
- For IP Office 4.2+, the MESSAGES button on phones can be set to access visual voice. This is done using the Messages Button Goes to Visual Voice (System | Voicemail) option in IP Office Manager.

To give a user access to Visual Voice:

1. Start IP Office Manager and receive the IP Office configuration.
2. Click  User to display the list of existing users.
3. Click the required user.
4. Click the Button Programming tab.
5. Click the button line that you want to change.
6. Right-click in the Action field.
7. Select Emulation > Visual Voice.
8. Click OK to save the button details for the selected user.
9. Repeat for any other users.
10. Click  to save the changes back to the IP Office system.

## 5.2.2 Giving Users Access from Any Extension

Access to voicemail from any extension can be given to either:

- An individual user  
So that a specified user can log in to their voicemail from any extension, you need to set up a short code and associate it with the user's extension number. For example, a short code \*90 could be associated with extension number 201. The user with extension 201 can then dial \*90 from any extension and enter their voicemail code to collect their voicemail messages.

To give a specific user access from any extension:

1. Open IP Office Manager.
2. Set up a short code, for example \*90.

Field	Contains...
Code	*90
Feature	Voicemail Collect
Telephone Number	"?Extn201"
Line Group ID	0

- All users  
To give all users access to voicemail from any extension you need to set up a short code. When a user dials the short code from any extension they will be prompted for their mailbox number (extension number) and voicemail code.

To give all users access from any extension:

1. Open IP Office Manager.
2. Set up a short code, for example \*98:



Field	Contains...
Code	*98
Feature	Voicemail Collect
Telephone Number	?Anonymous
Line Group ID	0

---

## 5.2.3 Giving Users Access from an External Location

If users need to access their voicemail messages when they are away from the office, you can set up an Incoming Call Route in IP Office Manager with the destination as Voicemail. See the IP Office Manager help or guide.



To give users access from an external location:

1. Open IP Office Manager.
2. In the Navigation pane, click  Incoming Call Route and add a new call route.
3. In the destination field, select the option Voicemail. When an incoming call is matched the call is passed to voicemail to enable remote mailbox access. Callers are asked to enter the extension ID of the mailbox required and then the mailbox access code.
4. Click OK to save the changes.
5. Click  to merge the configuration back to the IP Office.

## 5.2.4 Creating a Trusted Location

If a user regularly accesses their voicemail messages from another extension or a number that presents a CLI, such as their mobile or home number, this extension or number can be set up as a trusted location.

To configure a trusted location:

1. Open IP Office Manager.
2. In the Navigation pane, click  User and select the individual user.
3. View the Source Numbers tab.
4. Add a V source number.
  - Enter the users extension number.  
For example, a user whose extension number is 214 wants to be able to collect their voicemail without entering their voicemail code. A source number V214 would be entered.
  - Enter a different extension number.  
For example, a user whose extension is 214 wants to be able to collect their voicemail from extension 204. A source number V204 would be entered. From now on when the user of extension 214, dials a short code from extension 204 they will not be prompted for their voicemail code. Not supported for Intuity mailbox users.
  - Add a V source number containing the external telephone number.  
For example, VO1923 38383 would be entered if the external number was 01923 38383. When the user dials the number set up as the Incoming Call Route to Voicemail from the "trusted location", they will not be prompted for their mailbox number or Voicemail Code. See [Giving Users Voicemail Access from an External Location](#)<sup>[280]</sup>. Not supported for Intuity mailbox users.
5. Click OK to save the changes.
6. Click  to merge the configuration back to the IP Office.



## 5.3 Hunt Group Voicemail

Hunt groups must first be set up in IP office. You can then use Voicemail Pro to configure the way in which voicemail works for a hunt group.

Voicemail Provides a number of services for hunt groups.

- **Announcements**

If a caller is waiting to be answered, queuing or the hunt group is in out-of-hours mode, the voicemail server can provide appropriate greetings to callers. These greetings can be changed through the normal mailbox controls. Mailbox users can find out more in the IP Office or Intuity Mailbox user guides. See [Out of Hours Operation](#)<sup>[283]</sup>. See [Configuring Announcements](#)<sup>[286]</sup>.

- Voicemail Pro allows the actions available to a queued caller to be customized as well as the greeting messages.
- Voicemail Pro does not control the queuing of calls. Queuing is controlled by the IP Office switch that presents queued and still queued calls at the appropriate times and provides the queue position and ETA data.

- **Messaging**

If voicemail for a hunt group is on (the IP Office default), calls to the hunt group are automatically routed to voicemail if all available extensions have been called for the number of seconds defined in the IP Office No Answer Time parameter. The default time setting is 15 seconds.

- **Message Waiting Indication**




By default there is no indication on the handset when a hunt group mailbox contains messages and no direct access method to a hunt group mailbox.

- For hunt group members to receive message indication, an appropriate H source number entry needs to be added. See [Configuring Hunt Group Message Waiting Indication](#)<sup>[282]</sup>.
- For access by other users an access short code can be used. See [Enabling Access to Hunt Group Voicemail with a Short Code](#)<sup>[284]</sup>.

### 5.3.1 Configuring Message Waiting Indication


By default no message waiting indication (MWI) is provided for hunt groups. If required indication can be enabled for specific users including users who do not belong to the hunt group. If the user is not a member of the hunt group, a voicemail code is also required. This is entered in the Voicemail Code field on the Hunt Group > Voicemail tab in the IP Office's configuration. Alternatively the user can be made a member of the group but have their membership set to disabled. This allows them to access the group mailbox without receiving group calls.

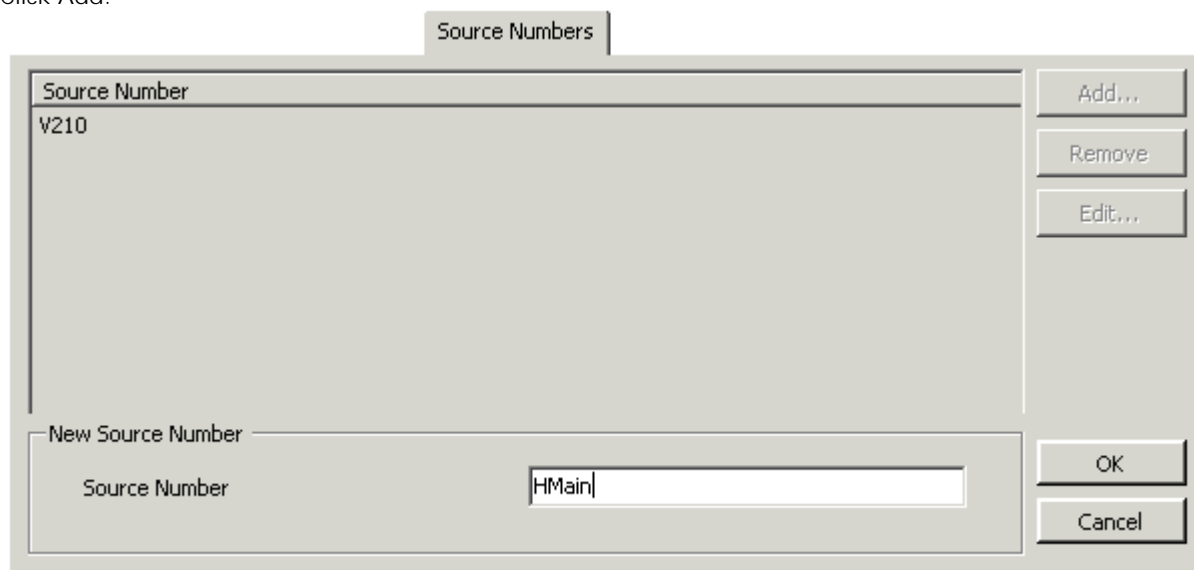
Depending on the type of telephone phone or IP Office application they are using, users who receive hunt group message waiting indication can choose any of the following methods to collect messages.


- **Phone Manager**  
If Phone Manager is used, the group name and number of new messages is displayed in the Messages tab. Users click the Messages tab to access the group mailbox.
- **4400 Series Phones**  
On phones with a Menu  button, press Menu  | Menu  | Msgs | Voice. The group name is shown along with the number of new messages. Press the display button to access the group mailbox.
- **Voicemail Ringback**  
If a user has voicemail ringback enabled, ringback will occur for new group messages as well as new personal messages. Ringback for personal messages takes place before any ringback for new group messages.

This method of configuring hunt group message waiting indication allows individuals, including users who are not members of the group, to receive hunt group message waiting indication.

To configure message waiting indication:

1. Open IP Office Manager.
2. In the Navigation pane, click  User and select the individual user.
3. View the Source Numbers tab.
4. Click Add.



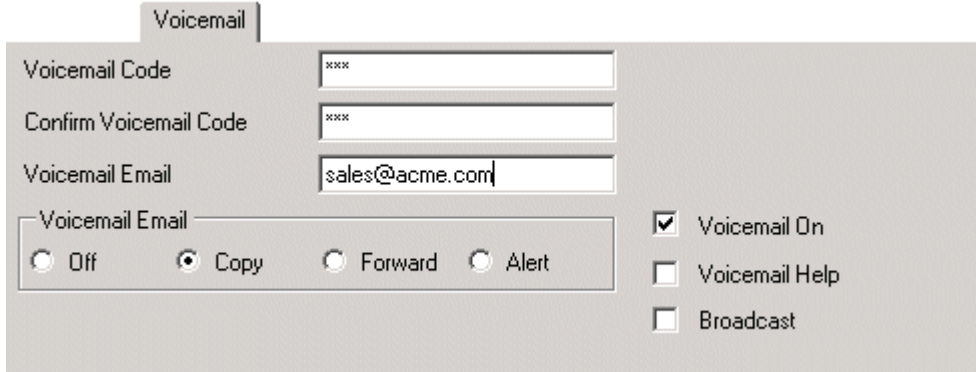
5. In the Source Number field, enter H followed by the hunt group name. For example, to receive message waiting indication from a hunt group called Main, enter HMain.
6. Click OK.
7. Click  to merge the configuration change back to the IP Office.

## 5.3.2 Configuring Group Broadcast

If the Broadcast option is enabled, a message for a hunt group is copied to the individual user mailboxes of each hunt group member. A call flow can be created that includes the Generic Action. See [Generic Action](#)<sup>[192]</sup>. If messages need to be forwarded to the same group a Personal Distribution List could be created. See [Personal Distribution Lists](#)<sup>[336]</sup>.

To configure Group Broadcast:

1. Open IP Office Manager.
2. In the Navigation pane, click  HuntGroup and select the required group.
3. Click the Voicemail tab.



Voicemail

Voicemail Code: \*\*\*\*


Confirm Voicemail Code: \*\*\*\*

Voicemail Email: sales@acme.com

Voicemail Email:

Off  Copy  Forward  Alert

Voicemail On  
 Voicemail Help  
 Broadcast

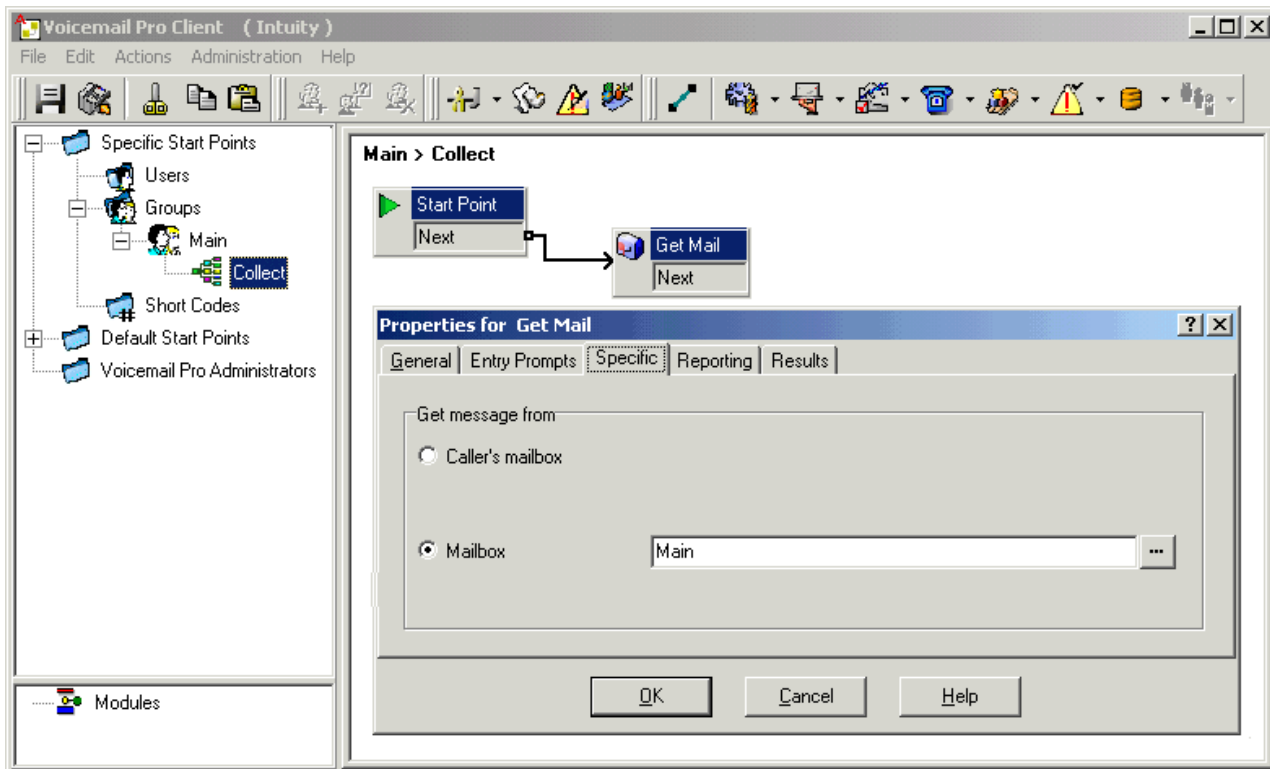
4. Check Broadcast.
5. Click OK.
6. Click  to merge the configuration change back to the IP Office.

### 5.3.3 Using a Short Code to Collect Voicemail

To access messages for a hunt group, a short code can be created. For example, for a group called Main a short code can be added with the following properties.

Field	Contains...
Code	*99
Feature	Voicemail Collect
Telephone Number	"?Main"
Line Group Id	0

For systems running in Intuity mode, the above will work only if the user is a member of the group and a custom call flow has also been set up for the collect start point to that hunt group.



Members of the hunt group Main can now dial \*99 from their own extensions to access hunt group messages. In IP Office mode, to use this short code for access from an extension that is not a member of the hunt group, a voicemail code should be configured for the group.

### 5.3.4 Out of Hours Operation

Voicemail Provides a number of greetings for groups. One of these is an Out of Hours Greeting.

Through IP Office Manager or using a short code a hunt group can be taken in or out of service. When the group is Out of Service, callers are played the group's "Out of Hours" greeting and can then leave a message. Alternatively, if an Out of Service Fallback Group has been configured, callers are passed to that group.


Similarly, a group can be taken in or out of Night Service by using Manager, short codes or an associated time profile. When the group is in Night Service, callers are played the group's "Out of Hours" greeting and can then leave a message. Alternatively, if an Out of Hours Fallback Group has been configured, callers are passed to that group.

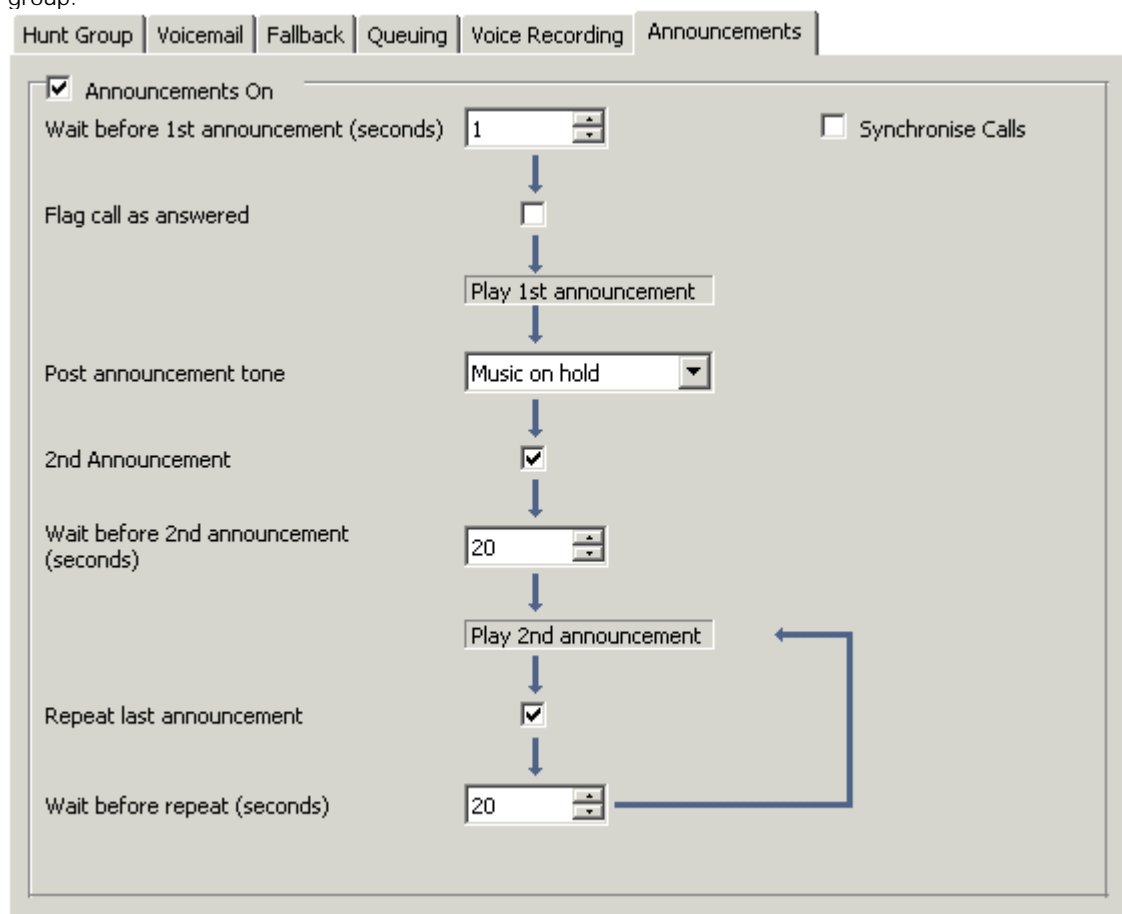
### 5.3.5 Configuring Announcements


When a caller is waiting to be answered or queuing, announcements can be played to the caller. The announcements are activated in IP Office Manager.

The standard announcement used is *"I am afraid all the operators are busy at the moment but please hold and you will be transferred when somebody becomes available."* This can be replaced by separate recordings for the 1st and 2nd announcements if required (see [Recording the Announcements](#)<sup>[287]</sup> below) or by custom call flows (see [Customizing Announcements](#)<sup>[288]</sup>).

#### Enabling Announcements

1. Open IP Office Manager and receive the configuration from the IP Office system.
2. In the Navigation pane, click  HuntGroup and select the hunt group.
3. View the Announcements tab.
4. Check Announcements On. Announcements will be played to a caller who is in a queued or waiting for the hunt group.



5. Select the amount of time for the caller to be queued or waiting before they hear the first announcement. The Wait before 1st announcement (seconds) default is 10.
6. Select the Post announcement tone. The options are *Ringing*, *Music on Hold* or *Silence*. The default selection is *Music on hold*.
7. (Optional) Check 2nd announcement to play another message to the caller.
8. (Optional) Select the amount of time between the first and second announcements. The default time is 20 seconds.
9. (Optional) If the second announcement is to be repeatedly played to the caller until their call is answered, check Repeat last announcement.
10. Click OK to save the changes.
11. Click  to merge the configuration back to the IP Office.

## Recording the Announcements

The standard announcement used is *"I am afraid all the operators are busy at the moment but please hold and you will be transferred when somebody becomes available."* This can be replaced in a number of ways, depending on the

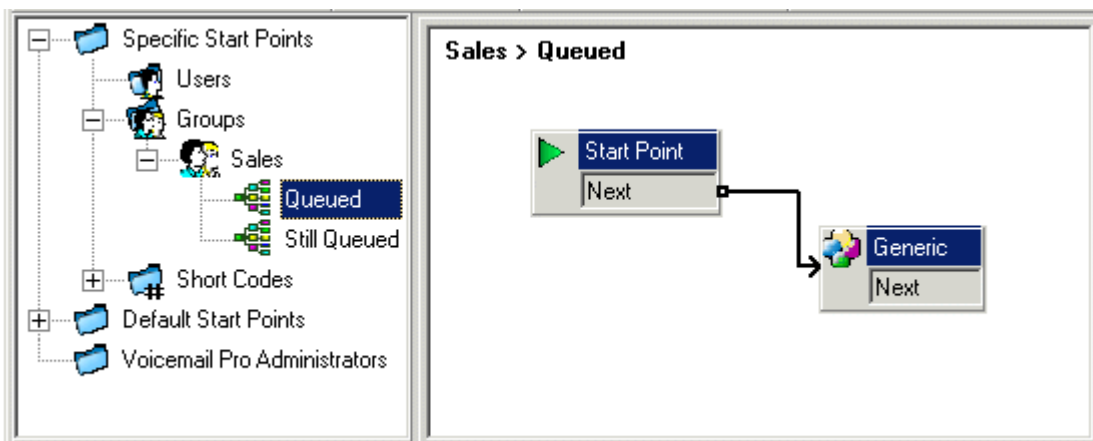
The maximum length for announcements is 10 minutes. New announcements can be recorded using the following methods:

- Voicemail Pro - IP Office Mode  
Access the hunt group mailbox and press 3. Then press either 3 to record the 1st announcement for the hunt group or 4 to record the 2nd announcement for the hunt group.
- Voicemail Pro - Intuity Emulation Mode  
There is no default mechanism within the Intuity telephony user interface to record hunt group announcements. To provide one a custom call flow containing an [Edit Play List](#) <sup>[220]</sup> action should be used. In the file path enter *[GREETING]\<hunt\_group\_name>\_Queued* or *[GREETING]\<hunt\_group\_name>\_StillQueued*. where *<hunt\_group\_name>* is replaced by the hunt group name.
  - [GREETING] is a variable that points to the current location of the voicemail servers greeting folder (by default *c:\Program Files\Avaya\IP Office\Voicemail Pro\VM\Greetings*).

## 5.3.6 Customizing Announcements

The announcements and actions provided to a caller can be customized using the Queued and Still Queued start points.



- The Queued start point replaces the default Announcement 1.
- The Still Queued start point replaces the default Announcement 2.



It is important to note that unconnected results in Queued and Still Queued call flows will return the caller to the queue rather than disconnect them. An attempt to return the caller using a Transfer or similar action places the caller at the back of the queue as a new call.

- Use of customized start point call flows for Queued and Still Queued is not recommended if the Synchronize Calls option is enabled for the hunt group in the IP Office configuration. If this is the case, the only options supported by Voicemail Pro is the playing of prompts.

To customize announcement 1 for a specific group:

1. In the Start Points Navigation pane, select  Groups. If necessary add a [Queued start point](#)<sup>158</sup> for the required group.
2. Select the group's Queued start point.
3. Add the required actions to the call flow and link them. To just play a message use a Generic action.
  - Use of customized start point call flows for Queued and Still Queued is not recommended if the Synchronize Calls option is enabled for the hunt group in the IP Office configuration. If this is the case, the only options supported by Voicemail Pro is the playing of prompts.
4. Double on the actions added and on the Entry Prompts tab add the prompts required using the [Wave Editor](#)<sup>185</sup>.
5. Click OK to save the changes.
6. Click  Save and make live.
7. Any caller queuing for the selected group will hear the new announcement when they first join the queue.

To customize announcement 2 for a specific group:

1. As above but use the Still Queued start point.



### 5.3.7 Hunt Group Queuing

If hunt group queuing options are enabled, a call will be held in a queue when all available extensions in the hunt group are busy. Using Voicemail Pro you can define custom actions and prompts for the queuing sequence.

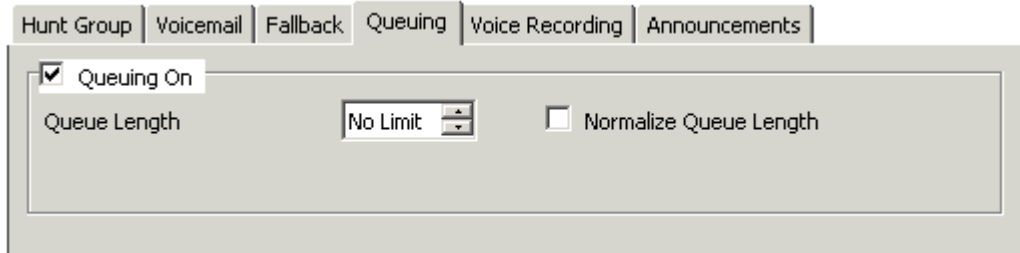
- The Still Queued message is not played if the hunt group name exceeds 13 characters.

To configure queuing for a hunt group:

1. Open IP Office Manager.

2. In the Navigation pane, click  HuntGroup and select the hunt group.

3. View the Queuing tab.



The screenshot shows a configuration window with several tabs: Hunt Group, Voicemail, Fallback, Queuing (selected), Voice Recording, and Announcements. Below the tabs, there is a section for 'Queuing On' with a checked checkbox. Underneath, there is a 'Queue Length' field with a dropdown menu set to 'No Limit' and a 'Normalize Queue Length' checkbox which is unchecked.



- **Queuing On** : *Default = On*  
If selected, queuing will be available for the hunt group.
- **Queue Length**: *Default = No Limit*  
This feature sets the number of calls that will be held in the queue at any one time. If this number is exceeded the caller will receive the busy tone or be passed to voicemail.
- **Normalize Queue Length**: *Default = Blank*  
This facility selects whether to include calls that are ringing but not answered in the queue length.

When queuing is selected, announcements can be played to the queued caller. See [Configuring Queue Announcements](#) <sup>286</sup>


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## 5.3.8 Customizing a Hunt Group Call Flow

Voicemail Pro allows for customization of queuing operation through the use of Queued and Still Queued start points, either specific to a particular hunt group or default for all groups.

The  Queue ETA and  Queue Position actions can be used to provide callers with queue information and then place them back in the queue. Within a Queue or Still Queued start points call flow, the default action for any unlinked results is to place the caller back in to the queue rather than disconnect the caller.

- **Incoming Call Route 'Priority'**  
The IP Office supports a configurable Priority setting (1, 2 or 3) on Incoming Call Routes. Calls assigned a high priority are moved up any call queue ahead of those with a lower priority. The use of this feature is not compatible with Queue ETA and Queue Position messages as the spoken queue positions and ETA for some callers may be overridden by calls with a higher priority. For example, a caller might hear that their queue position is 5. If a call is received on an Incoming Call Route with a higher priority, the next time the queue position is heard their queue position could be 6, further back in the queue.
- **Synchronized Announcements**  
If the option Synchronize Calls is enabled for the hunt group announcements within the IP Office configuration, actions other than speaking recorded prompts are not supported in custom Queued and Still Queued start points.

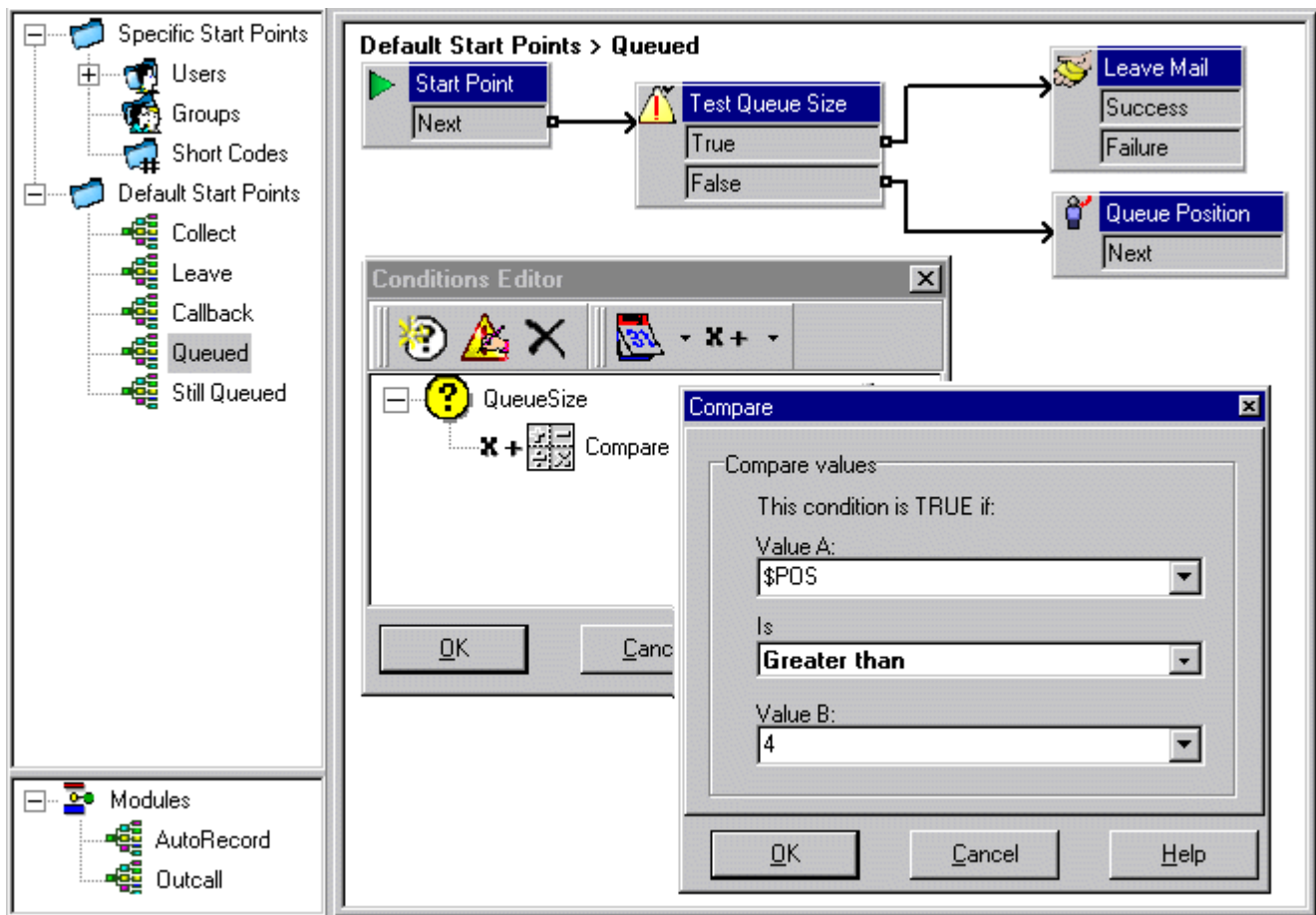
Further customization can be applied using actions such as a  Menu action to let the caller select, for example, to leave a message, be transferred to another number or return to the queue.

The Voicemail Pro variables, [\\$QTIM](#), and [\\$POS](#)<sup>162</sup>, can be used to further customize the Queued and Still Queued call flows.

- **\$QTIM: Queued Callers Estimated Time to Answer**  
If used in a prompt list, will speak the callers' estimated time to answer (ETA). For example, *"Your estimated time to answer is 5 minutes."* If used elsewhere, such as in a condition, returns the ETA in minutes as a simple numeric value.
- **\$POS: Queued Callers Queue Position**  
If used in a prompt list, will speak the caller's queue position, for example, "You are in queue position 2." If used elsewhere, such as in a condition, returns the caller's queue position as a numeric value.
- **\$TimeQueued**  
IP Office 4.1+ and Voicemail Pro 4.1+. Holds the length of time, in seconds, that the call has been part of a particular hunt group queue. Only available when using Queued and Still Queued start points.
- **\$TimeSystem**  
IP Office 4.1+ and Voicemail Pro 4.1+. Holds the length of time, in seconds, since the call was presented to the IP Office system. Only available when using Queued and Still Queued start points.

The importance of these variables is that, instead of or in addition to customizing the queue call flow for all queued callers, you can customize the actions for callers whose ETA or position match selected criteria.

The screen below shows an example of a queued call flow that uses a condition to test the value of \$POS for the queued caller.



- When the caller is in queue positions 1 to 4, they are passed to a Queue Position action and hear their queue position before returning to the queue.
- When the caller is in queue position 5, they are asked to leave a message.
- Instead of using a Leave Mail action, the caller could be taken through a Voice Question or Campaign action to collect required information and the caller's responses could be saved as a message.

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## 5.4 Recording Calls

As well as providing messaging services, Voicemail Pro can provide a call recording service. Call recording can be turned on manually. See [Starting Manual Call Recording](#)<sup>[293]</sup>. Alternatively, call recording can be configured to take place automatically for specified users, hunt groups, incoming call routes or out going calls with account codes. See [Automatic Call Recording](#)<sup>[299]</sup>.

- If a conference call is being recorded, recording continues when a new party joins the conference. However, the advice of call recording is repeated.
- If a call that is being recorded is put on hold or parked, the recording is paused. When the call is reconnected the recording is resumed.
- By default, a recording is placed in a user's own mailbox. However that location can be changed.
- A recording by an agent that is intruding on to a call will keep recording after the intruded call has ended. This is to allow the recording to be annotated.
  
- **Conference Capacity**  
Call recording uses conferencing capacity and so is subject to the available conferencing capacity of the IP Office system.
- **IP Trunks and Extensions**  
When the direct media path option is used with IP trunks and or an extension, it is not possible to guarantee call recording.
- **Call Recording Warning**<sup>[293]</sup>  
In many locations, it is a local or national requirement to warn those involved in a call that they are being recorded. The Voicemail Pro does this by playing an Advice of Call Recording prompt which can be switched off. On automatically recorded call, some telephones may also display a recording symbol.
- **Recording Duration**<sup>[294]</sup>  
Call recording is limited to the maximum length of 1 hour.
- **Voice Recording Library (VRL)**<sup>[294]</sup>  
Recordings are normally placed into standard mailboxes. VRL operation allows recordings to be transferred to a specialist archiving application. This allows both longer recording and the sorting and searching of recordings.

## 5.4.1 Call Recording Warning


In many locations, it is a local or national requirement to warn those involved in a call that they are being recorded. One method for doing this is to enable the Advice of Call Recording (AOCR) message provided by the Voicemail Pro server.

- The 'advice of recording' will always be played if the Advice of Call Recording message is enabled.
- It can not be guaranteed that a caller will hear an 'advice of recording' announcement when the call is using analogue trunks. Analogue trunks do not support call status signalling so the 'advice of recording' announcement is played as soon as the trunk is seized even if the call is ringing and has not been answered.
- The Play Advice on Call Recording option is on by default.

### The Advice of Call Recording Message


This message is provided in the file *aor\_00.wav*. For each language installed on the Voicemail Pro server, a copy is located in the sub-folders of *c:\Program Files\Avaya\IP Office\Voicemail Server\WAVS*.

To switch the recording warning on or off:

1. From the Voicemail Pro Client, click  or select Administration > Preferences > General.
2. Click Play Advice on Call Recording to switch this option on (checked) or off (unchecked).
3. Click OK.
4. Click Save & Make Live.

### To hide the auto record indication

In addition to the audible advice of call recording prompt, some Avaya terminals display REC to show that the call is being recorded. The display can be suppressed.


1. Open IP Office Manager and load the configuration from IP Office.
2. In the Navigation pane, click  System.
3. In the System Configuration window, click the System tab.
4. Check Hide auto recording. The terminal display REC will be suppressed.
5. Save the configuration back to the IP Office system.

---

## 5.4.2 Changing the Recording Time

For recordings being placed into a Voicemail Pro mailbox, the maximum recording time is 1 hour.

To change the recording length:

1. Start the Voicemail Pro Client.
2. Click  or select Administration > Preferences > General.
3. The Max. VRL Record Length (secs) setting is used only for calls being recorded to VRL. The maximum record length is 3600 seconds (60 minutes).
4. Click OK.
5. Click Save & Make Live.

## 5.4.3 Voice Recording Library (VRL)

Voice Recording Library (VRL) operation allows the Voicemail Pro to transfer specific users who are automatically or manually recording calls to a third-party application. It can also be selected as the destination for calls recorded via a Leave Mail action in a call flow.

Currently this mode of operation is only supported with Avaya IP Office ContactStore. This application provides tools to sort, search and playback recordings. It also supports the archiving of recordings to DVD.



- Installation and configuration of VRL with IP Office ContactStore is documented separately.
- VRL is a licensed feature. It requires entry of either an Advanced Edition licence or a legacy VMPro Recording Administrators license into the IP Office configuration of the IP Office requiring use of ContactStore (regardless of whether that IP Office is hosting the Voicemail Pro server).
- The VRL application must be configured to store recording on a separate partition, drive or PC from the Voicemail Pro. This is necessary to ensure that the long term storage or recording archives and space available for mailbox messages do not conflict.

## 5.4.4 Manual Call Recording

There are several ways to start manually recording a telephone call.


### Phone Manager Pro

Users can initiate call recording using Phone Manager Pro when they are working in Agent Mode. The recording feature is active during a telephone call and when call recording is available.

- Press  on the toolbar to start recording. Press  on the toolbar to stop the recording.
- Select Actions > Start Recording. The call will be recorded. Press Actions > Stop Recording to finish recording the call.

### SoftConsole

The SoftConsole operator can manually record all or part of a current telephone call.

- Press the  button on the toolbar. The button acts as a toggle. Press the button again to stop recording.
- Select Actions > Record Call. This action toggles and so is also used to stop recording.
- Press F5 to start recording. Press F5 again to stop the recording.

### 4400 Series




Telephones in the 4400 Series with a Menu key can manually trigger call recording by:

- Press Menu  | Menu  | Func | Recor.

### Using DSS Keys

The call record function can be programmed against a DSS key. When a DSS key has been programmed it can be pressed during a call to record the conversation.

To set a DSS key for manual recording:

1. Open IP Office Manager and load the configuration from IP Office.
2. In the Navigation pane, click  User and select the individual user.
3. Select the Button Programming tab.
4. Select the required DSS key and click Edit.
5. Click  browse for the Action. The Button Programming window opens.
6. Select Advanced | Call | Call Record. Click OK.
7. In the Action Data field, enter a description that will appear on the telephone display.
8. Click OK.
9. Click  to save the configuration file.

A call is recorded if the user presses the programmed DSS key during any call. The caller will hear an announcement that the call is being recorded if the mandatory call recording warning is active. See [Call Recording Warning](#)<sup>[293]</sup>.

### Using Short Codes

The short code feature "Call Record" can be used to trigger recording of calls into the user's designated mailbox. The example short code (\*95) can be set up as a user short code or a system short code. In either case it will trigger recording

Field	Contains...
Code	*95
Feature	Call Record
Telephone Number	[Leave blank]
Line Group Id	0

To use the short code

---

1. During a call, put the caller on hold.


2. Dial the short code. The call is automatically reconnected and recording begins.

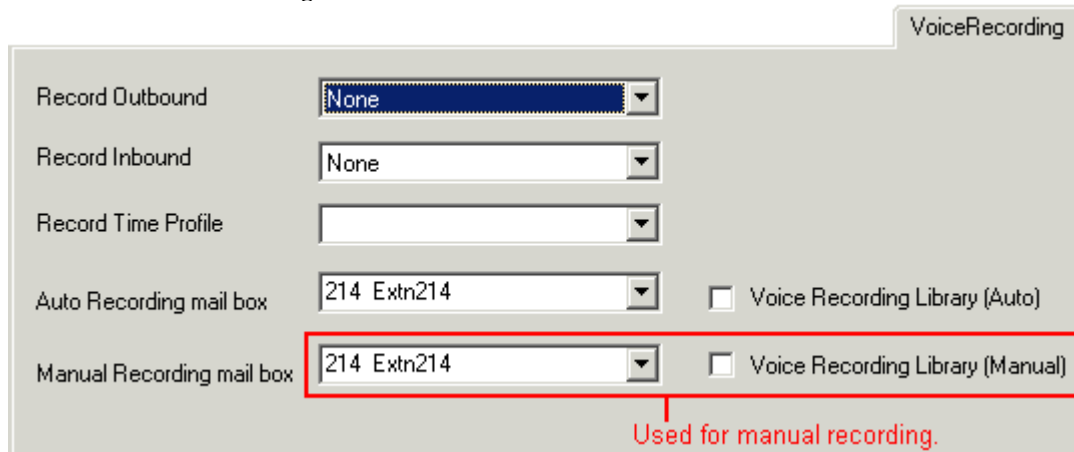


### 5.4.4.1 Setting Manual Recording Options

The IP Office Manager can be used to specify where recordings triggered by a user are placed:

To configure a user's recording options:

1. Open IP Office Manager and load the configuration from IP Office.
2. In the Navigation pane, click  User and select the individual user.
3. Select the Voice Recording tab.



Record Outbound: None


Record Inbound: None

Record Time Profile: [Empty]

Auto Recording mail box: 214 Extn214  Voice Recording Library (Auto)

Manual Recording mail box: 214 Extn214  Voice Recording Library (Manual)

Used for manual recording.

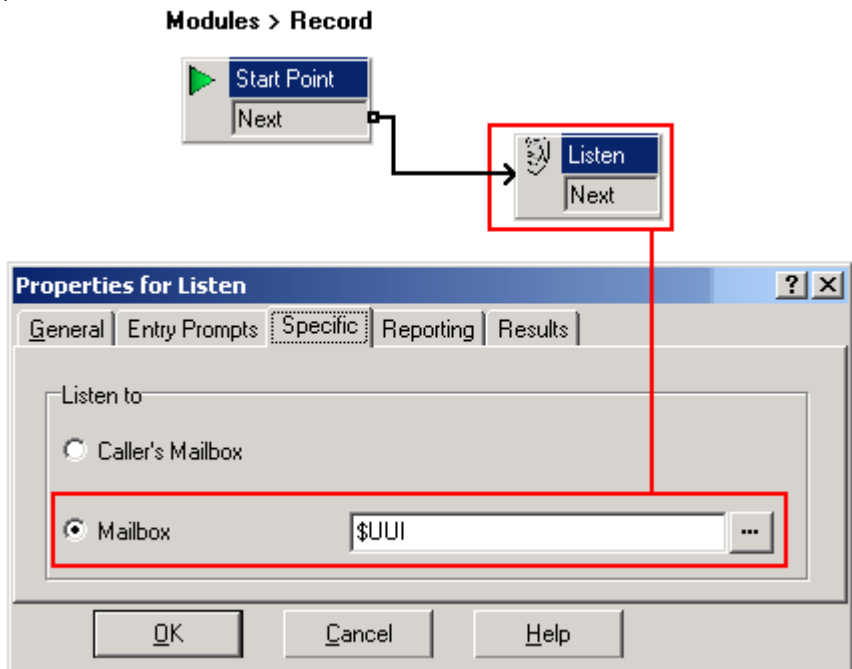
4. In Manual Recording Mailbox, select from the list the mailbox that is to be used to contain recordings triggered by the user.
  - The Voice Recording Library options can be used only if a VRL application has been installed and licensed. See [Voice Recording Library](#) <sup>[294]</sup>.
  - Click OK.
  - Click  to merge the configuration change back to the IP Office.

### 5.4.4.2 Customizing Manual Recording

Normally recording is performed by the Voicemail Pro server as a default task. However, a module named Record can be used to customize the operation of auto-recording.

#### Notes

- If a Record module is created, it overrides the default record operation. Therefore it must at minimum emulate the default manual recording process of placing recordings into the mailbox of the user who triggered recording. For example, in the module call flow shown below, the Listen action is set to `$UUI`.
- Whenever recording is triggered, `$UUI` contains the user name of the user who that triggered the recording process.



## 5.4.5 Automatic Call Recording

The IP Office system can be configured to automatically record calls based on the user, hunt group, incoming call route or account code.

Trigger	Incoming	Outgoing	Default Recording Destination	Duration
Incoming Call Route	✓	✗	None	For the call duration or up to 1 hour.
Hunt Group	✓	✗	Hunt group mailbox	Until ended or transferred to a user outside the hunt group or its overflow group.
User	✓	✓	User mailbox	Until the user ends or transfers call.
Account Code	✗	✓	User mailbox	Until the user ends or transfers calls.

- Individual calls may match several recording criteria. Where that is the case the following applies:
  - If the destinations for the recordings are different, separate recordings occur with the durations are indicated above.
  - If the destinations for the recordings are the same, a single recording is made using either the incoming call route, hunt group or user duration in that order or priority.
- Multiple recordings of the same call use multiple voicemail channels.
- Time profiles can be used to control when automatic call recording is used.
- For inbound calls recording will not take place if the call goes to normal voicemail.
- Different frequency settings, set in percentage terms, can be applied to the automatic recording of inbound and outbound calls.
- A mandatory setting can be used to return a busy tone when call recording is triggered but no voicemail ports are available.
- Where calls have been answered using a Line appearance button, the call recording goes to the mailbox setting of the original call route destination.


### 5.4.5.1 Setting Automatic Recording Options

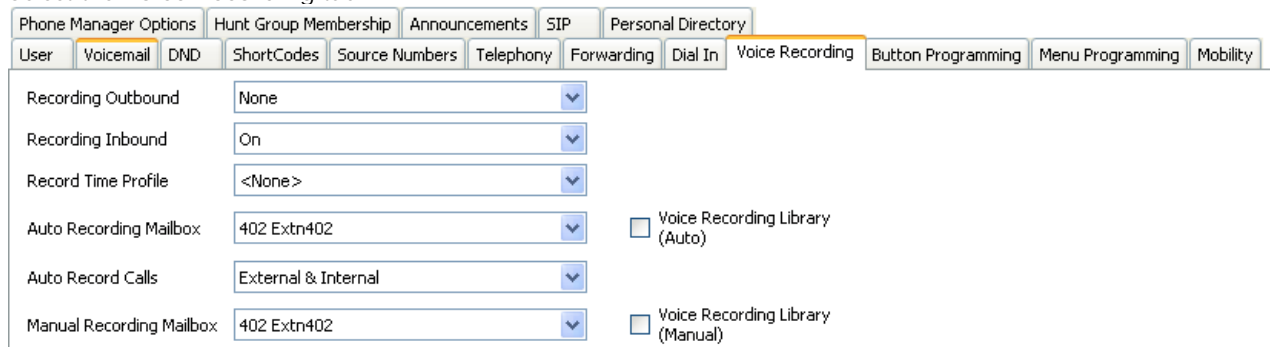
Automatic recording can be configured for:

- [Calls received and/or made by a user](#) <sup>[300]</sup>.
- [Calls on a specific incoming call route](#) <sup>[302]</sup>.
- [Calls to a specific hunt group](#) <sup>[301]</sup>.
- [Outgoing calls associated with a specific account code](#) <sup>[303]</sup>.

The calls that are to be auto-recorded are selected through IP Office Manager.


To set automatic call recording for a user:

1. Open IP Office Manager and load the configuration from IP Office.
2. In the navigation pane, click  User. Select the required user.
3. Select the Voice Recording tab.




The screenshot shows the 'Voice Recording' configuration window. At the top, there is a navigation bar with tabs: Phone Manager Options, Hunt Group Membership, Announcements, SIP, Personal Directory, User, Voicemail, DND, ShortCodes, Source Numbers, Telephony, Forwarding, Dial In, Voice Recording (highlighted), Button Programming, Menu Programming, and Mobility. Below the navigation bar, the configuration options are as follows:

Recording Outbound	None	<input type="checkbox"/>	Voice Recording Library (Auto)
Recording Inbound	On	<input type="checkbox"/>	Voice Recording Library (Manual)
Record Time Profile	<None>		
Auto Recording Mailbox	402 Extn402		
Auto Record Calls	External & Internal		
Manual Recording Mailbox	402 Extn402		

4. From the Record Inbound and Record Outbound drop-down lists select the recording frequency required.
  - None: Do not record.
  - On: Record all calls if possible.
  - Mandatory: Record all calls. If recording is not possible, return busy tone to the caller.
  - xx%: Record calls at intervals matching the set percentage, eg. for every other call for 50%.
  - For inbound calls, recording will not take place if the call also goes to normal voicemail.
5. Use the Auto Record Mailbox to specify the destination for the recordings. By default, this is a user's own mailbox.
6. Use the Auto Record Calls option to select whether just external calls or internal and internal calls should be recorded.
7. The Voice Recording Library (Auto) option can be used only if a VRL application has been installed and licensed. For more information, see [Voice Recording Library](#) <sup>[294]</sup>.
8. Click OK.
9. Click  to send the configuration back to the IP Office.

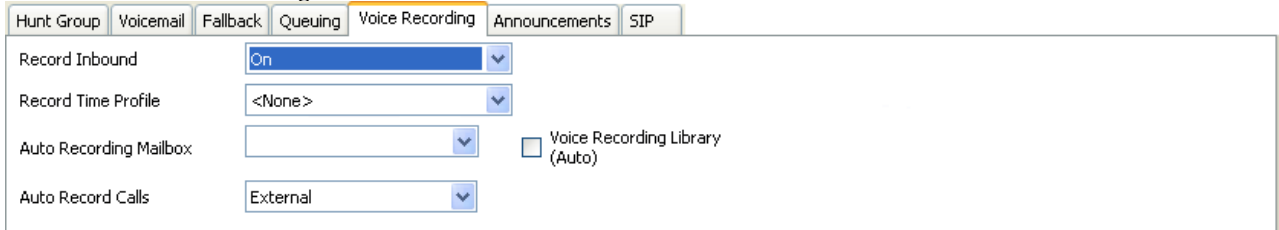
To set automatic call recording for a hunt group:

1. Open IP Office Manager and load the configuration from IP Office.

2. In the Navigation pane, click  HuntGroup.

3. Select the required hunt group.

4. Select the Voice Recording tab.



5. From the Record Inbound drop-down lists select the recording frequency required.

- None: Do not record.
- On: Record all calls if possible.
- Mandatory: Record all calls. If recording is not possible, return busy tone to the caller.
- xx%: Record calls at intervals matching the set percentage, eg. for every other call for 50%.
- For inbound calls, recording will not take place if the call also goes to normal voicemail.


6. Select the Recording Time Profile is required. If not set, recording is applied at all times.

7. The Recording Mailbox option is available for IP Office 4.1+. For previous releases the destination is always the mailbox of the user making the call.

8. Use the Auto Record Calls option to select whether just external calls or internal and internal calls should be recorded.


9. The Voice Recording Library (Auto) option can be used only if a VRL application has been installed and licensed. For more information, see [Voice Recording Library](#) <sup>[294]</sup>.

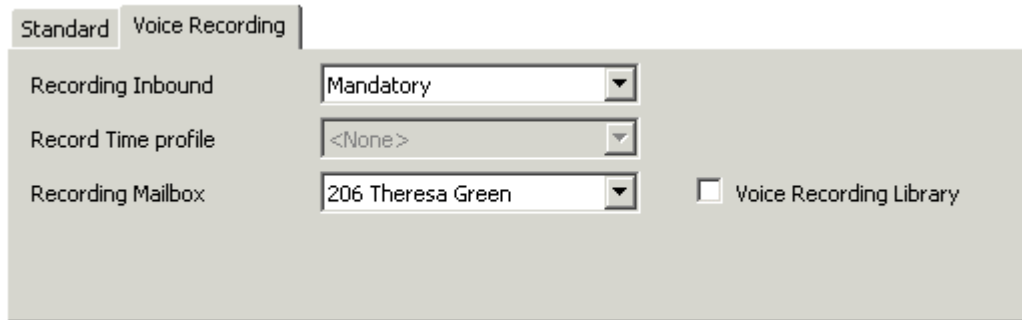
10. Click OK.

11. Click  to send the configuration back to the IP Office.


---

To set automatic call recording for an incoming call route:


1. Open IP Office Manager and load the configuration from IP Office.
2. In the Navigation pane, click  Incoming Call Route.
3. Select the required incoming call route.
4. Select the Voice Recording tab.

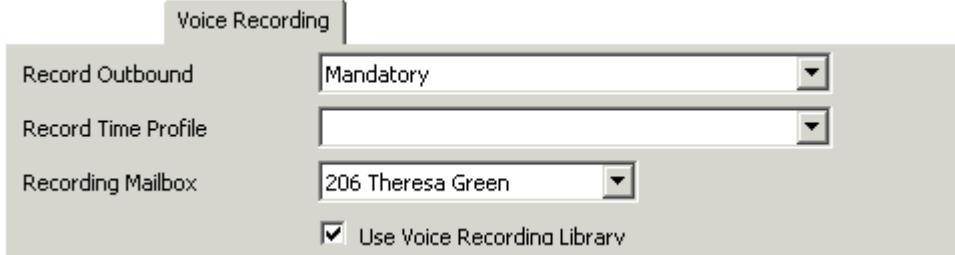


Standard	Voice Recording
Recording Inbound	Mandatory
Record Time profile	<None>
Recording Mailbox	206 Theresa Green
	<input type="checkbox"/> Voice Recording Library

5. From the Record Inbound drop-down lists select the recording frequency required.
  - None: Do not record.
  - On: Record all calls if possible.
  - Mandatory: Record all calls. If recording is not possible, return busy tone to the caller.
  - xx% : Record calls at intervals matching the set percentage, eg. for every other call for 50%.
6. For inbound calls, recording will not take place if the call also goes to normal voicemail.
7. Select the Recording Time Profile is required. If not set, recording is applied at all times.
8. Specify the destination for the recordings or select the option to place the recordings in the voice recording library.
9. The Voice Recording Library options can be used only if a VRL application has been installed and licensed. For more information, see [Voice Recording Library](#)<sup>[294]</sup>.
10. Click OK.
11. Click  to send the configuration back to the IP Office.

To set automatic call recording for an outgoing account call:

1. Open IP Office Manager and load the configuration from IP Office.
2. In the Navigation pane, click  Account Code.
3. Select the required account code.
4. Select the Voice Recording tab.



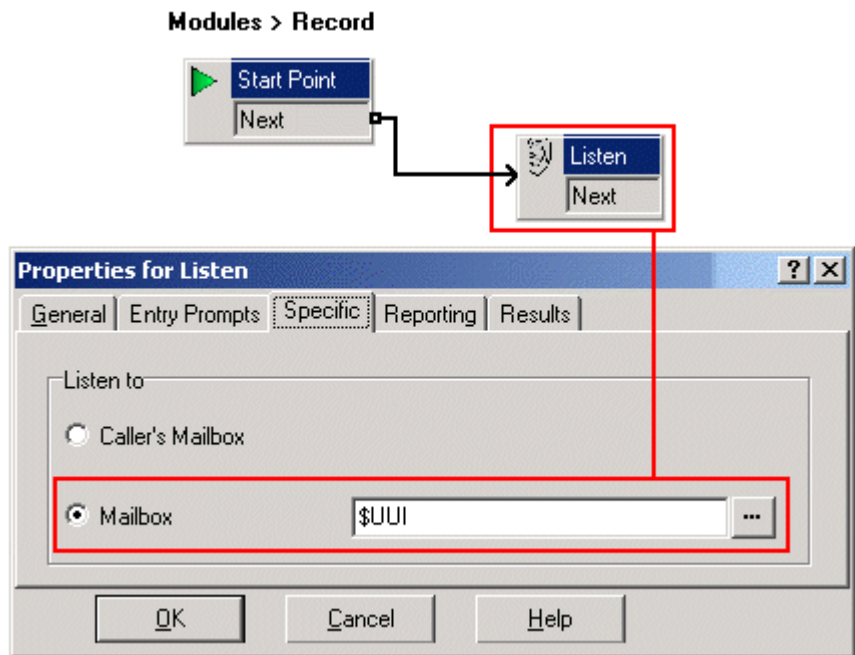
Record Outbound	Mandatory
Record Time Profile	
Recording Mailbox	206 Theresa Green
<input checked="" type="checkbox"/> Use Voice Recording Library	

5. From the Record Outbound drop-down lists select the recording frequency required.
  - None: Do not record.
  - On: Record all calls if possible.
  - Mandatory: Record all calls. If recording is not possible, return busy tone to the caller.
  - xx%: Record calls at intervals matching the set percentage, eg. for every other call for *50%*.
6. For inbound calls, recording will not take place if the call also goes to normal voicemail.
7. Select the Recording Time Profile is required. If not set, recording is applied at all times.
8. The Recording Mailbox option is available for IP Office 4.1+. For previous releases the destination is always the mailbox of the user making the call.
9. Select the option to place the recordings in the voice recording library.
  - The Voice Recording Library options can be used only if a VRL application has been installed and licensed. For more information, see [Voice Recording Library](#) <sup>[294]</sup>.
10. Click OK.


### 5.4.5.2 Customizing Auto Recording

Normally auto-recording is performed by the Voicemail Pro server as a default task. However, a module named AutoRecord can be used to customize the operation of auto-recording. If an AutoRecord module is created, it overrides the default auto-record operation.


Whenever auto recording is triggered, *\$UII* contains either the account code, user name or hunt group name that triggered the auto recording.

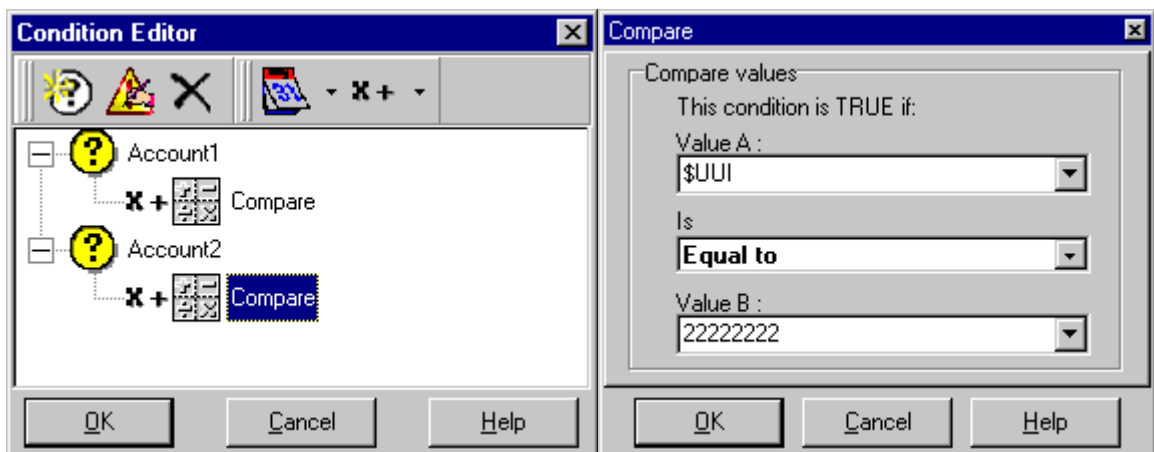



The value of condition *Account1* is checked using a  Test Condition action.

If found *True*, the call is recorded using a  Listen action, which specifies the mailbox for the recording.

If found *False*, the next condition test is tried.

The conditions, created within the  Condition Editor, compare the variable *\$UII* against possible account code values.



The final  Listen action, used if none of the condition tests are True, has its Mailbox set to *\$UII*. If *\$UII* hasn't matched any account code being used for auto recording, then its value will be either the user name or hunt group name that triggered the auto recording.



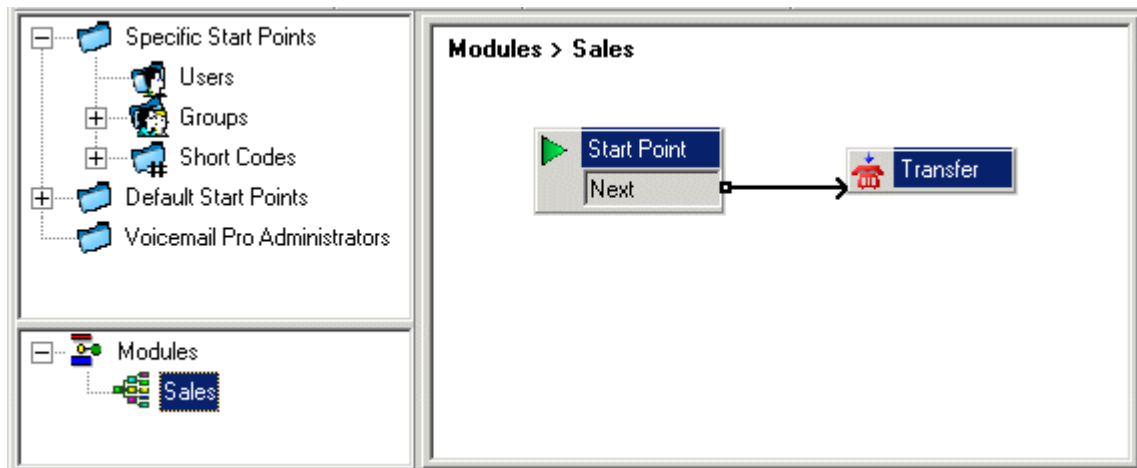
## 5.5 Announcements

Announcements can be played when:

- Callers are waiting to be answered or queued against a hunt group  
With Voicemail Pro, the announcements and actions provided to a caller held in a group's queue can be customized using the Queued and Still Queued start points for that group. The call can be answered at any stage of the announcement. See [Configuring Announcements](#) [286].
- Calls are going to be recorded  
In many locations, it is a local or national requirement to warn those involved in a call that they are being recorded. See [Call Recording Warning](#) [293].
- Calls are received  
A call flow containing an announcement can be created so that all callers hear a mandatory announcement. The announcement is played before the call is answered. See [Mandatory Announcement Example](#) [305].
- Calls are queuing against an user's extension  
User's can configure their personal announcements. When the user's extension is busy any new calls are held in a queue against the busy extension until the No Answer Time is reached. The caller will hear the user's personal announcement before being transferred to voicemail, if available. See [Personal Announcements](#) [306].

### 5.5.1 Mandatory Announcement Example

The screen below shows an example of a call flow that plays an announcement to any caller to the sales hunt group. Callers entering at this start point can not bypass the announcement.



The Entry Prompt of the transfer action contains the announcement. After the announcement is played the caller is transferred to the sales hunt group as specified in the Specific tab. See [Transfer Action](#) [230].

Once the call flow has been created, IP Office needs to be configured so that callers are transferred to the call flow.

In IP Office Manager the destination for the incoming call route is entered as VM:Sales. The incoming call route targets the voicemail module 'Sales'. As the call flow module name is the same as the hunt group name, if voicemail is unavailable the call will automatically be routed to the hunt group. The calls will not be lost but the callers will not have heard the announcement.

If calls are required to only be answered after they have heard the announcement, make sure that the call flow module name is different from the hunt group name. If voicemail is unavailable the call will not be transferred to the target hunt group.

---

## 5.5.2 Personal Announcements

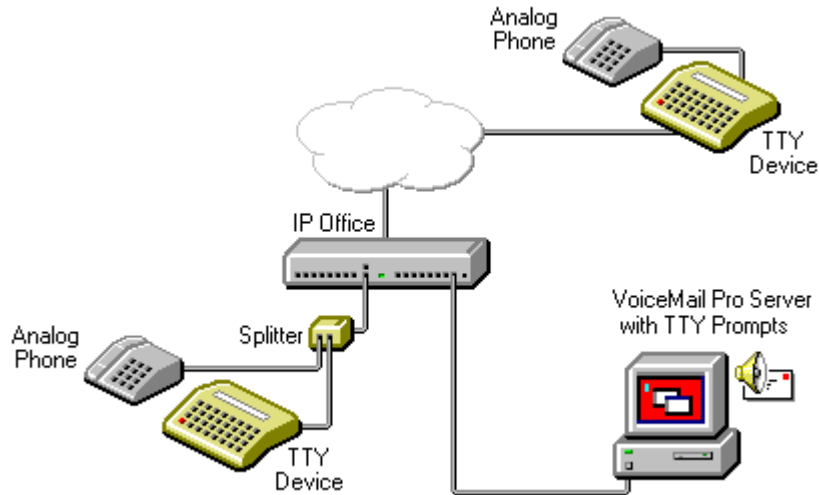
Voicemail Pro 4.0+ supports personal announcements that are played when a caller is queuing against a user's extension number. A call will be held in a queue when the user's extension is busy before passing to voicemail, if voicemail is available. Personal announcements are enabled in the same way as [hunt group announcements](#)<sup>[286]</sup>, but using the User | Announcements tab in IP Office Manager.

- If the user requires announcements only, voicemail should be turned off for the user.
  - Start points can be amended to include other actions. Voicemail Pro 4.0+ allows personal announcements to be customized using user Queued and Still Queued start points in the same ways as [customizing hunt group announcements](#)<sup>[286]</sup>. For example, a menu action could be added to the Still Queued start point giving users the option to continue to hold for the caller or to transfer to reception.
- If voicemail is on the announcements are played until the No Answer Time is reached. The caller is then transferred to the user's voicemail. The system default setting for No Answer Time is 15 seconds, however it can be set for individual users.

## 5.6 Support for Callers with Impaired Hearing

TTY is a method of sending and receiving text messages within the speech path of telephone calls. The text is entered and displayed through a TTY device, such as a text phone, connected in parallel with the user's normal telephone. Due to its widespread usage and support it has become the standard used by devices for the users with impaired hearing or vision.

Voicemail Pro 1.4 and higher supports the addition of TTY prompts for leaving messages in and collecting messages from Intuity mode mailboxes. Callers with a TTY device can see the TTY prompts and leave TTY format messages. The mailbox user, also with a TTY device, can collect and display those messages by following the prompts that are displayed on the TTY device.



The TTY device and associated analog telephone (linked either by a pass-through port on the TTY device or a telephone splitter) are connected to an analog extension port (POT) on the IP Office system. During calls the TTY can be used to display and send TTY messages. The analog telephone can be used to send dialing digits and provide a speech path during calls.

---

## 5.6.1 Installing Voicemail Pro TTY Prompts

You can select TTY prompts from the list of language options when you install Voicemail Pro. See [Installation Overview](#)<sup>[18]</sup>. When the prompts have been installed, the user settings must be configured so that the IP Office recognizes the TTY device.



There are two ways to configure a user so that they can use a TTY device with Voicemail Pro.

1. The simplest method is to change the user locale in IP Office Manager. This method requires no customization of a user's mailbox. See [Changing User Locale](#)<sup>[308]</sup> or refer to the IP Office Manager help or User Guide.
2. An alternative to changing the user locale to TTY is to change the language setting in the Voicemail Pro call flows for the user who needs TTY prompts. See [Changing the Language Setting for a Text Phone](#)<sup>[309]</sup>.

## 5.6.2 Changing User Locale

The locale setting *tty* is not actually recognized by IP Office Manager. Therefore all aspects of a user's telephony operation on the IP Office will default to the system's locale setting (System > System > Locale). However, the user locale setting is transferred to the Voicemail Pro server during mailbox access and so will affect the prompts that are provided.

To change the user locale:

1. Open IP Office Manager.
2. In the Navigation pane, click  User and select the individual user.
3. Select the User tab.
4. Select the option Teletype (Textphone) in the Locale field.
5. Click OK.
6. Click  to merge the configuration change back to the IP Office.

## 5.6.3 Advice for Mailbox Owners Using a TTY Device

To log into their mailbox with a TTY device, such as a text phone, mailbox owners must dial \*17 and then take the analog telephone handset off hook.

When they are connected, users see prompts on the display of the text phone.


For requests such as "Press 1 for ..." users should dial from the keypad of the telephone. For messages followed by *GA* (go ahead) users are required to type text using their text device.

For more information, refer to the document "User Guide for Audix TTY Interface" (555-300-710).

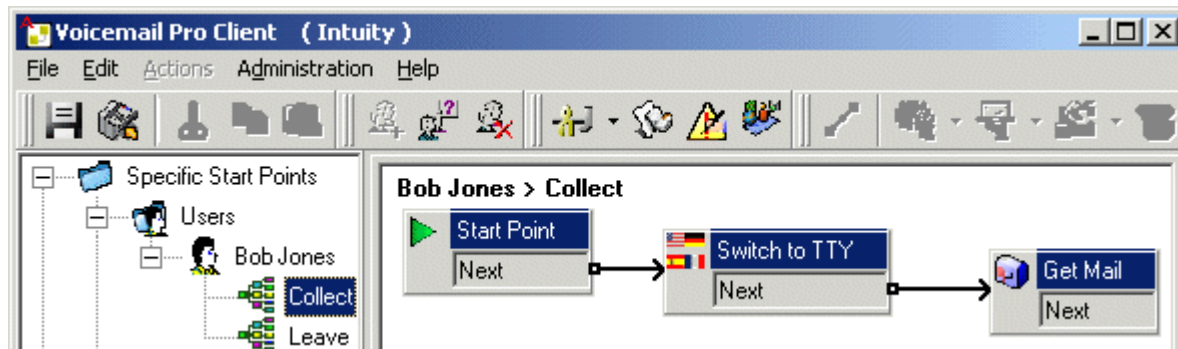
## 5.6.4 Changing the Language Setting for a TTY Device


An alternative to setting the user locale as TTY is to change the user's language setting in the Voicemail Pro call flows for that user. Here are two examples.

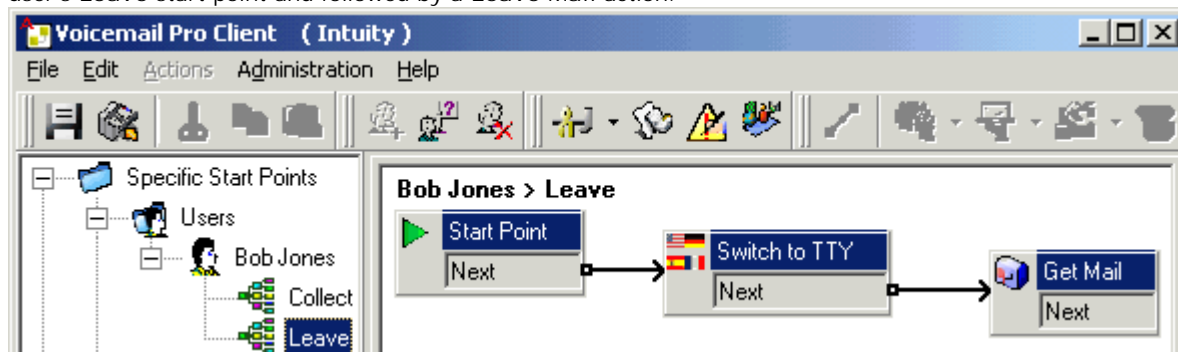
An Example of Customizing a Simple Mailbox Call Flow

The  Select System Prompt Language action can be used to change the prompt language used by subsequent actions in a call flow. Once the TTY Maintenance Patch has been installed, TTY is one of the selectable languages provided by the action.

In the simplest form, a  Select System Prompt Language action set to *TTY (Teletype (Textphone))* would be added to the user's Collect start point and followed by a Get Mail action.

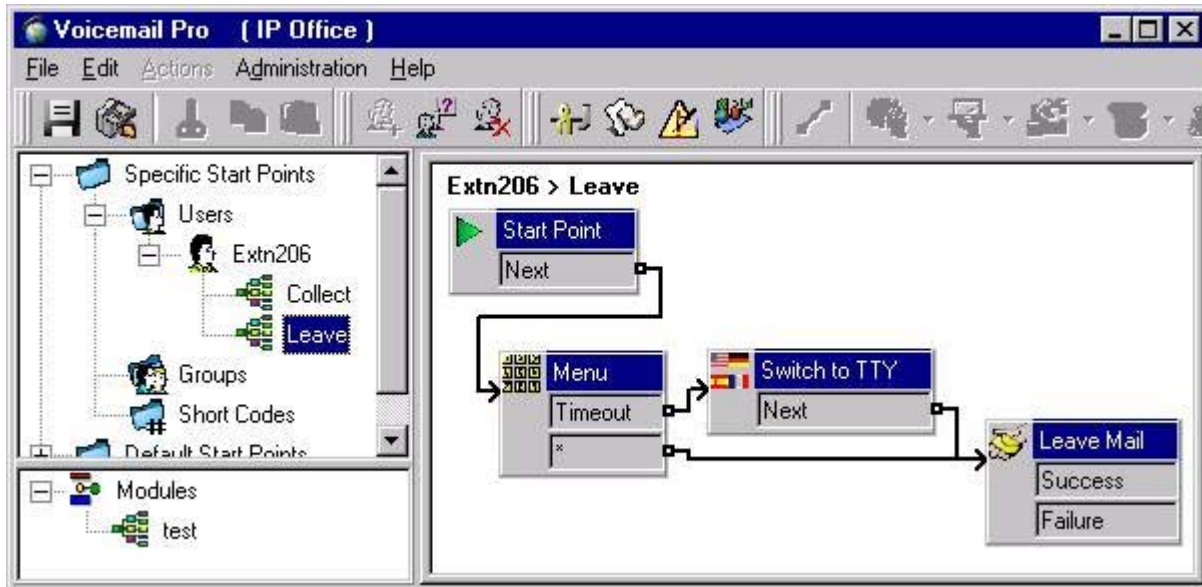


Similarly, a  Select System Prompt Language action set to *TTY (Teletype (Textphone))*, would be added to the user's Leave start point and followed by a Leave Mail action.



**An Example of Customizing a Complex Mailbox Call Flow**

If required, more complex call flows can be configured. For example, the call flow below allows callers to press \* to receive spoken language prompts or to wait a few seconds for the timeout and then receive TTY prompts.



In this case, messages are left in the same mailbox, but callers can select to have spoken prompts or default to TTY prompts.

For hearing impaired users who cannot handle spoken messages, the call flow for callers who select spoken prompts could have placed those messages into an alternate mailbox of a hearing user. These could then be collected and transcribed for the user.

## 5.7 Changing Language

Voicemail Pro can be used in a wide range of languages. For external callers, the Voicemail Pro tries to match the Locale setting of the IP Office system. For internal callers, if they have a different user locale in their user setting, Voicemail Pro tries to match that language.

With centralized Voicemail Pro, the default locale is that of the central IP Office. If users on the remote IP Office want different language prompts, each of their user locales must be changed separately.

If prompts for a required language are not installed, Voicemail Pro has a set of rules that it follows to find the best alternate language. For example if prompts are not available for users with their locale set to French Canadian, Voicemail Pro looks for French prompts instead. If French prompts are not installed, it looks for English US and finally English UK. See [Supported Languages](#)<sup>[12]</sup>.

The language played to a caller can be changed during a call. This is achieved using a Select System Prompt action. See [Changing the Language of System Prompts](#)<sup>[313]</sup>.

## 5.7.1 Supported Languages

By default the prompts installed match the installer language selection plus English. If other languages are required they need to be selected by doing a custom installation. The installable Voicemail Pro prompts are listed in the table below. The availability of a language in voicemail does not necessarily indicate support for IP Office in a country that uses that language.


Language	WAV Folder	Fallback Selection	TTS 5.0
Brazilian Portuguese	ptb	> pt > en.	✓
Chinese (Cantonese)	zzh	> en > enu.	✓
Chinese (Madarin)	ch	> en > enu.	✓
Danish	da	> en.	✓
Dutch	nl	> en.	✓
English UK	en	en.	✓
English US	enu	> en.	✓
Finnish	fi	> en.	✓
French	fr	> frc > en.	✓
French Canadian	frc	> fr > enu > en.	✓
German	de	> en.	✓
Greek	el	> en.	✓
Hungarian	hu	> en.	✗
Italian	it	> en.	✓
Korean:	ko	> en.	✓
Latin Spanish	eso	> es > enu > en.	✓
Norwegian	no	> en.	✓
Polish	pl	> en.	✓
Portuguese	pt	> ptb > en.	✓
Russian	ru	> en.	✓
Spanish	es	> eso > en.	✓
Swedish	sv	> en.	✓

When the IP Office routes a call to the voicemail server it indicates the locale for which matching prompts should be provided if available. Within the IP Office configuration, a locale is always set for the system. However differing locales can be set for each user, incoming call route and for short codes in addition to the default system locale.

The locale sent to the voicemail server by the IP Office is determined as follows:

Locale Source	Usage
Short Code Locale	The short code locale, if set, is used if the call is routed to voicemail using the short code.
System Locale	If no user or incoming call route locale is set system locale is used unless overridden by a short code locale.
Incoming Call Route Locale	The incoming call route locale, if set, is used if caller is external.
User Locale	The user locale, if set, is used if the caller is internal.

If the prompts matching the IP Office locale are not available, the voicemail server will provide prompts from a fallback language if available. The table of languages above lists the order of fallback selection.


If required, the language provided by a voicemail call flow can be changed using a  [Select System Prompt Language](#) <sup>[224]</sup> action.

### TTY Teletype Prompts

TTY (Teletype (Textphone)) is included in the list of installable languages. TTY is a text-based system that is used to provide services to users with impaired hearing. See [Support for Callers with Impaired Hearing](#) <sup>[307]</sup>.



## 5.7.2 Changing the Language of System Prompts

With the  Select System Prompt action you can change the language that is used in a call flow from that of the IP Office system or the mailbox user's locale.

A step by step example that illustrates how to use the Select System Prompt action is provided here.

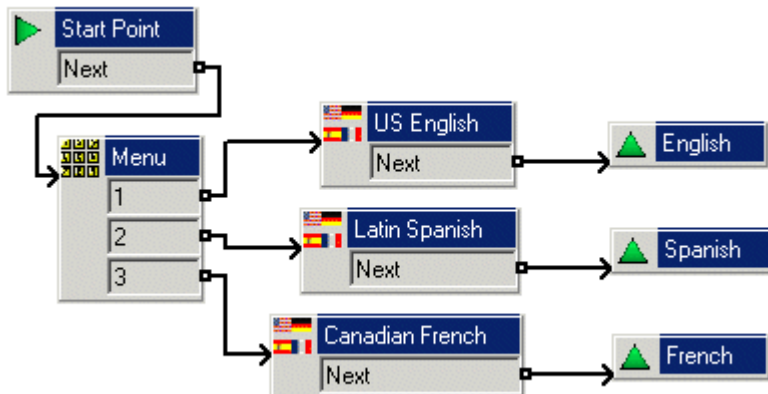
- The Select System Prompt action changes the default language prompts but not any custom prompts. To change the custom prompts you need to use the \$LOC variable in the path to the custom prompt files. See [Changing the Language of Custom Prompts](#)<sup>[314]</sup>.

### Example

In a small hotel, Voicemail Pro is providing mailboxes for rooms. To assist the room users, we want to start message collection by letting them indicate their preferred language for Voicemail Prompts.

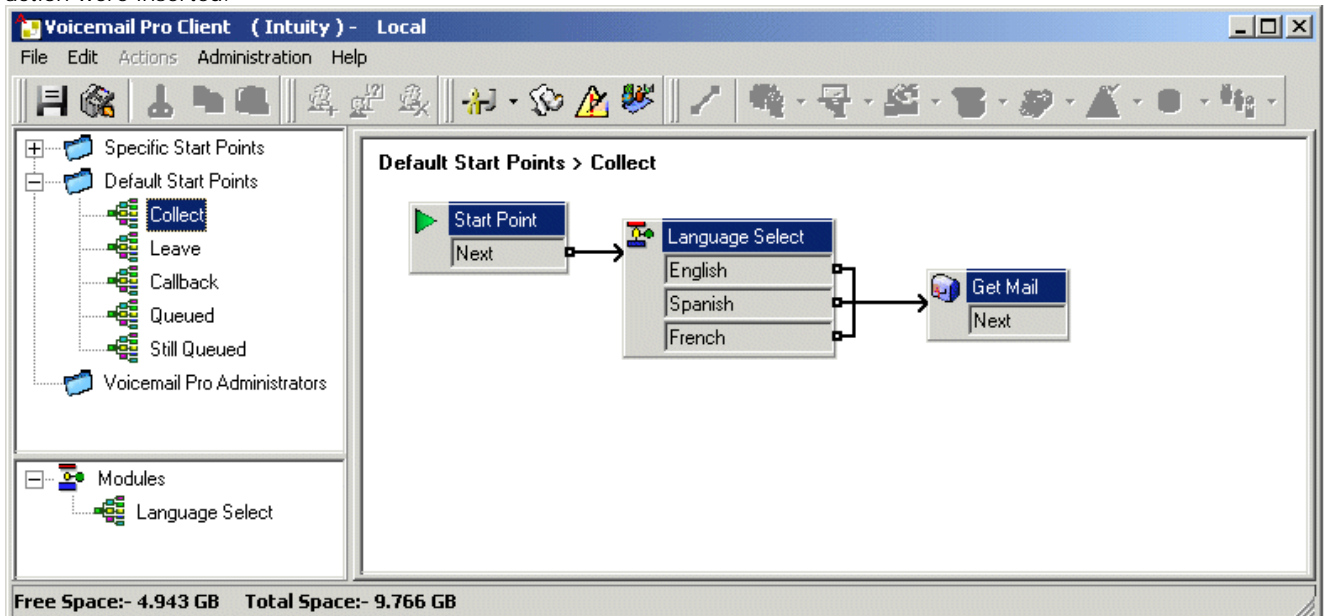
1. First a module for language selection was created.

#### Modules > Language Select



The module contains a Menu action with a Select System Prompt action set to the required language for each key press.

- For the Menu action an Entry Prompt was recorded asking the user to indicate their language choice: "Press 1 for English, 2 por Español, 3 pour Français".
  - The Select System Prompt actions were all connected Module Return actions.
2. Next the default start point for message collection was altered. The Language Select module and a Get Mail action were inserted.



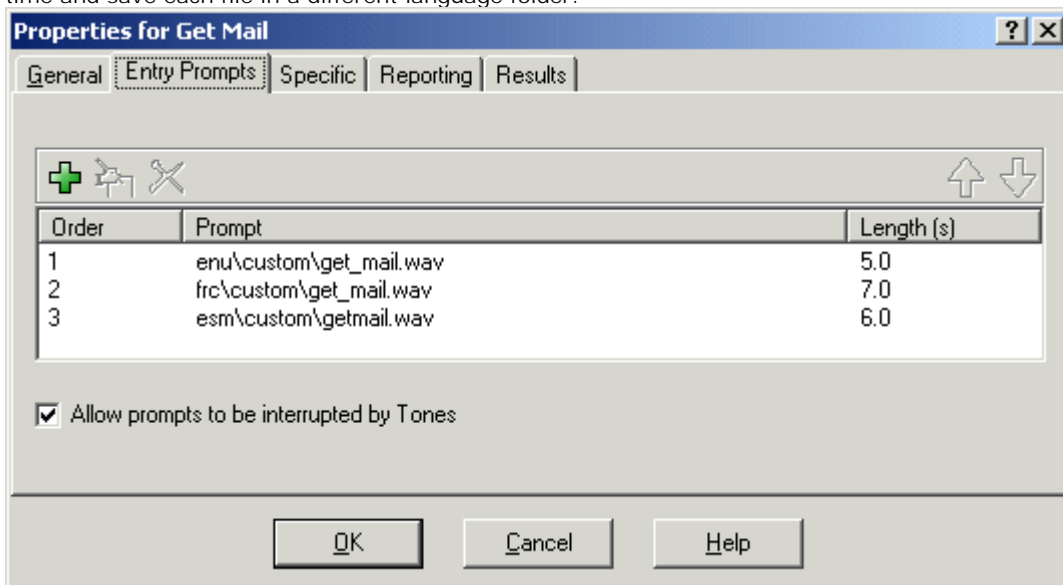
3. The actions for language selection could have been inserted directly into the call flow. However, by doing it as a module the language selection process can be reused in other start points.

### 5.7.3 Changing the Language of Custom Prompts

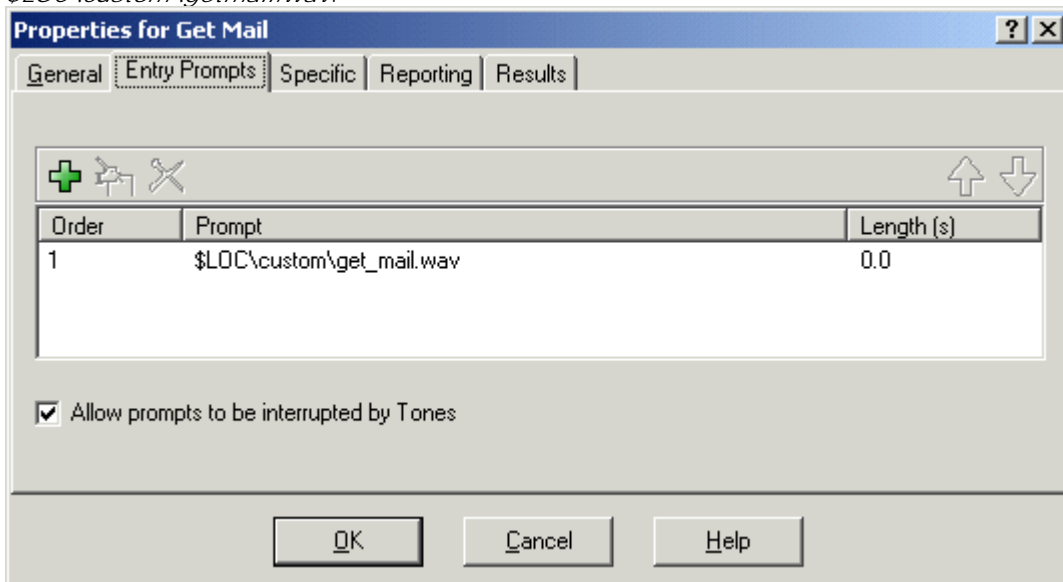
Instead of using multiple return points from a Language Select module (one for each language) and linking to separate Get Mail actions (each with an Entry Prompt in the required) language, you can use a single Get Mail action.

To change the language of custom prompts:

1. Through the Get Mail action's properties, record an Entry Prompt for US English users and save it as *enu\custom\getmail.wav*.
2. Record a similar prompt for French Canadian users and Latin Spanish users. You need to use the same file name each time and save each file in a different language folder.



3. Delete all except one of the entry prompt entries. That this does not delete any of the recorded prompts.
4. For the remaining entries, change the file path by inserting *\$LOC* in place of the language folder name, for example *\$LOC\custom\getmail.wav*.



## 5.8 Mobile Twinning

Mobile Twinning is a licensed feature. If Mobile Twinning is enabled in IP Office, a user can send internal and external calls to an external number, for example, their mobile telephone.

- Both the internal and external telephones ring when a call is received. The call can be answered from either telephone.
- If the feature Do Not Disturb (DND) is active for the user, any callers to the internal extension number will hear the busy tone and the external telephone will not ring. If a caller is entered in to the DND exception list, for example using the application Phone Manager, only the internal telephone will ring.
- If any of the forward options are active, both the external and the telephone where the calls are forwarded to will ring.
- If the Follow Me option is active, only the telephone that the calls are forwarded to will ring. The external telephone number will not ring.

Within Voicemail Pro you can administer the mobile twinning features using call flows. Mobile twinning can be turned on or off and the external twinning number entered.

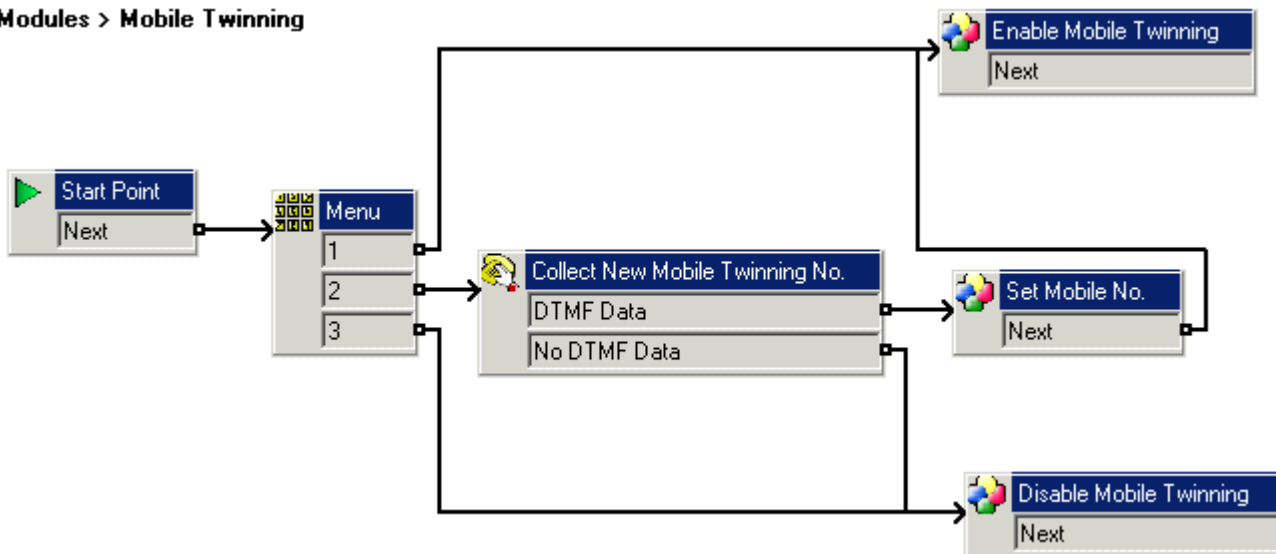
In a call flow the Generic action is used to control Mobile twinning. Within the Generic action details are entered in the specific tab. In the generic 'free format' field, the following syntax can be added.

- CFG:Set MattR twinning\_type Mobile  
Used to turn the Mobile twinning on for the named extension *MattR*. The extension number can be entered instead of the named extension. If mobile twinning has been previously used and then turned off, the previous mobile twinning number will become active.
- CFG:Set MattR twinning\_type Internal  
Used to turn the Mobile twinning off for *MattR*.
- CFG:Set MattR mobile\_twinning\_number \$KEY  
Used to set the mobile twinning number.









## 5.8.1 Example Call Flow

This example creates a Voicemail Pro module that allows a user to turn Mobile Twinning on or off. They can also set their mobile number. The example sets the mobile twinning for extension 203.

### Modules > Mobile Twinning



To create the example call flow:

1. Create a new module called Mobile Twinning.
2. Add a menu action with the menu options 1,2 and 3. Add a prompt to tell the caller the options available.
3. The option to turn mobile twinning on needs to be added.
  - Click the  Basic Actions icon and select  Generic.
  - Change the token name to Enable Mobile Twinning.
  - Click the Specific tab.
  - Enter the command `CFG:Set 203 twinning_type Mobile.`
  - Click OK.
4. The option to turn mobile twinning off needs to be added.
  - Click the  Basic Actions icon and select  Generic.
  - Change the token name to Disable Mobile Twinning.
  - Click the Specific tab.
  - Enter the command `CFG:Set 203 twinning_type Internal.`
  - Click OK.
5. The ability to enter the mobile number needs to be added.
  - Click the  Telephony Actions icon and select  Alphanumeric Collection.
  - Change the token name to Collect New Mobile Twinning No.
  - Record an Entry Prompt to tell the user to enter their mobile twinning number.
  - Click OK.
6. An action needs to be added to set the mobile number.
  - Click the  Basic Actions icon and select  Generic.
  - Change the token name to Set Mobile No.
  - Click the specific tab.
  - Enter the command `CFG:Set 203 mobile_twinning_number_$KEY.`
  - Click OK.
7. The actions need to be connected and then the changes need to be made permanent.



---

Create a short code to test the call flow.

1. In IP Office Manager, add the following short code. This example uses \*90 but any short code can be used.

Field	Contains...
Code	*90
Feature	Voicemail Collect
Telephone Number	"Mobile Twinning"
Line Group ID	0
Locale	[leave blank]
Force Account Code	[leave blank]

2. Save and merge the configuration to the IP Office unit.

3. Test the short code by dialing \*90 from extension 203.

- Press 1 to turn mobile twinning on for extension 203.
- Press 2 to enter a new mobile twinning number for extension 203.
- Press 3 to turn mobile twinning off for extension 203.

## 5.9 Remote Voicemail Notification

A user can be set up to receive notification of new voicemail messages when they are away from their main extension. There are two ways that notification can be implemented.

- [Voicemail Callback](#)<sup>[326]</sup>  
A service whereby the Voicemail Pro calls a specified number whenever the user receives a new voicemail message. Callback requires a callback start point to be created in Voicemail Pro and a callback number entered in IP Office Manager.
- [Voicemail Outcalling](#)<sup>[327]</sup>  
A service where voicemail notification can be configured to specific external numbers and the notification escalated if the message is not listened to. Outcalling can be configured by any user of voicemail in Intuity mode.

### Note

- Both the Callback and Outcalling features are separate from voicemail ringback. Ringback alerts the user's own extension while callback and outcalling can be used to provide voicemail notification to an external location, for example a mobile telephone or pager.

### Channel Restrictions

- The Voicemail Pro server has restrictions on the number of channels it can use for different types of outgoing calls that it can make. These limits are separate for each of the call types. When a limit is reached, further calls of that type are delayed until one of the existing calls is completed. These limitations are not controlled by [Voicemail Channel Reservation](#)<sup>[96]</sup> settings.
  - Outcalling can use up to 5 channels at any time.
  - Conference center invitation calls can use up to 5 channels at any time.
  - Callback calls can use up to 2 channels at any time.
  - Alarm calls can use up to 2 channels at any time.

---

## 5.9.1 Callback

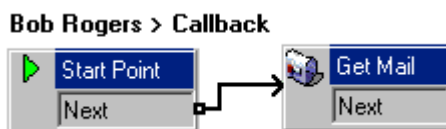
Voicemail callback is a service whereby the Voicemail Pro calls a specified number whenever the user receives a new voicemail message. When the callback is answered, the system announces the outbound alert and waits for a key press for confirmation before continuing with the associated call flow.

This service requires configuration of a callback start point in Voicemail Pro and entry of a callback number through IP Office Manager. See [Using a Play Configuration Menu Action](#) <sup>[32]</sup>.

The call flow created below is a very simple example. In practice you could include a menu that allows the user access to other features. For example access to a Play Configuration Menu action would allow the user to remotely change various mailbox settings including their callback number.

### Channel Restrictions

- The Voicemail Pro server has restrictions on the number of channels it can use for different types of outgoing calls that it can make. These limits are separate for each of the cal types. When a limit is reached, further calls of that type are delayed until one of the existing calls is completed. These limitations are not controlled by [Voicemail Channel Reservation](#) <sup>[96]</sup> settings.
  - Outcalling can use up to 5 channels at any time.
  - Conference center invitation calls can use up to 5 channels at any time.
  - Callback calls can use up to 2 channels at any time.
  - Alarm calls can use up to 2 channels at any time.



To set up the callback:

1. Under Specific Start Points, right-click Users and select Add.
2. In the Name field, enter the user's mailbox name. Select the Callback entry point and select OK.
3. Within select Callback.
4. Add a Get Mail action and under the Specific tab, in Mailbox enter the user's name again or extension number.
  - Important
    - Record an entry prompt for the first action in the callback call flow. Experience with connection to some cell phone systems has revealed that this entry prompt may need to be up to 20 seconds in length.
5. Connect the Start Point and the Get Mail action.
6. Click Save and Make Live and select Yes.



### The Default Callback Start Point


In the example above a callback call flow was created for an individual users. The Default Callback start point can be used to create a default callback call flow for all users.

If the Default Callback start point is used, it must be designed so that users have to indicate which mailbox they are accessing. In the simple call flow used above, this can be done by entering ? in the Mailbox field of the Get Mail action.

The callback number is initially set through IP Office Manager.

To set the user's callback number:

1. In IP Office Manager, open the system's configuration.

2. Click  User to display a list of existing users.

3. Double-click the user for whom callback is being set up.


4. Select the Voicemail tab.

- In Voicemail Code, enter a pin code and confirm this in Confirm Voicemail Code.

5. Select the Source Numbers tab. Right-click and select add to add a new number.

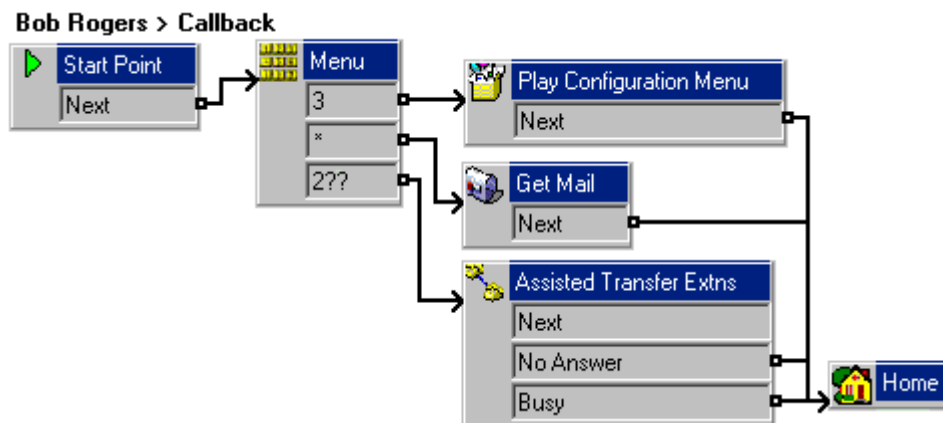
- **Callback Number**  
Enter P followed by the destination telephone number. If your system requires an external dialing then that prefix must be included, for example *P901923555456*. If connecting to a cell phone or pager system that expects digits in separate sets, use , (comma) characters to add pauses to the telephone number dialing.
- **Trusted Source**  
If calls from the callback number include ICLID, you can set that number as a trusted source. In that case no request for the user's voicemail code is made following the callback. Enter V followed by the CLI displayed on calls from the callback number, for example *V01923555456*.


6. Click OK.

7. Click  to send the configuration back to the IP Office. If the only changes made were to user settings, select Merge Config.

### 5.9.1.1 Using a Play Configuration Menu Action

The callback call flow below is more advanced than the previous example. It allows the user to check messages, transfer themselves to another extension and to alter several aspects of their mailbox configuration.



Of main interest to a callback user is the  Play Configuration Menu action. This action allows the remote user to alter their extensions forwarding and voicemail operation. Option 9 in the menu played to the caller allows them to change the callback number.

To exit a Get Mail or Play Configuration Menu action and follow the call flow to the next action, the user should press 0 (not supported for Get Mail in Intuity mode).

---

## 5.9.2 Outcalling

The Outcalling feature is only available when using Voicemail Pro 4.0+ in Intuity mode.

Voicemail Pro can be configured to send notification that a new message has been received in a user's mailbox. It will call a specified number and when answered, will prompt the user *"This is IP Office. <your name>, you have new messages. To access your messages, please enter your extension number and press hash. To avoid further notification of these messages, press \*#"*. If any other action is taken then the outcalling notification attempt is treated as unanswered.

### Channel Restrictions

- The Voicemail Pro server has restrictions on the number of channels it can use for different types of outgoing calls that it can make. These limits are separate for each of the cal types. When a limit is reached, further calls of that type are delayed until one of the existing calls is completed. These limitations are not controlled by [Voicemail Channel Reservation](#) settings.
  - Outcalling can use up to 5 channels at any time.
  - Conference center invitation calls can use up to 5 channels at any time.
  - Callback calls can use up to 2 channels at any time.
  - Alarm calls can use up to 2 channels at any time.
- For IP Office 4.2+, users with Phone Manager Pro 4.2+ can configure their outcalling through Phone Manager's graphical interface rather than having to use the mailbox voice prompts.
- For Voicemail Pro 6.0+, user outcalling settings can be viewed and edited using the Voicemail Pro client.

### Retries

If an outcalling notification attempt is not answered, the voicemail server can make another attempt. The number of retries, up to 10, and the delay after a failed notification attempt can use either system default or the users own defined settings.

### Destinations

The mailbox user can define up to 5 destination numbers to be used with outcalling. The destinations must include any external dialing prefixes required for the IP Office system. For each destination a ring time can also be defined (default 15 seconds) after which the voicemail server disconnects the call.

- Desk.
- Home.
- Mobile.
- Delegate (called Secretary in some locales).
- Other.

### Escalation List

The user can choose to use an escalation list, which combines several of their destinations into a sequence that will be tried as part of a single outcalling notification attempt. Up to 9 destinations can be included in the list and the same destination can be used more than once. Use of the escalation list counts as a single outcalling notification attempt.

- For Voicemail Pro 4.2+, users using Phone Manager 4.2+ can specify a delay to be used between the call to each destination in their escalation list.

### Configuration Methods

- [System Settings](#)
  - The Voicemail Pro can be configured with a set of default times for when outcalling is used, the number of retries for outcalling notification and the interval after a failed notification attempt before the next retry.
- User Mailbox Settings
  - Mailbox owners can configure their outcalling options using their telephone, for example, entering the destination telephone numbers. Details on how to configure outcalling for individuals can be found in the Intuity Mailbox guide.
- Phone Manager Control
  - For Voicemail Pro 4.2+, users with Phone Manager 4.2+ can configure their own outcalling settings using Phone Manager. This includes setting their own number of retries and the interval before any subsequent retry. When using an escalation list, this interface also allows the user to set a delay to be used between each number in the escalation list.

### 5.9.2.1 Setting the Outcalling System Preferences

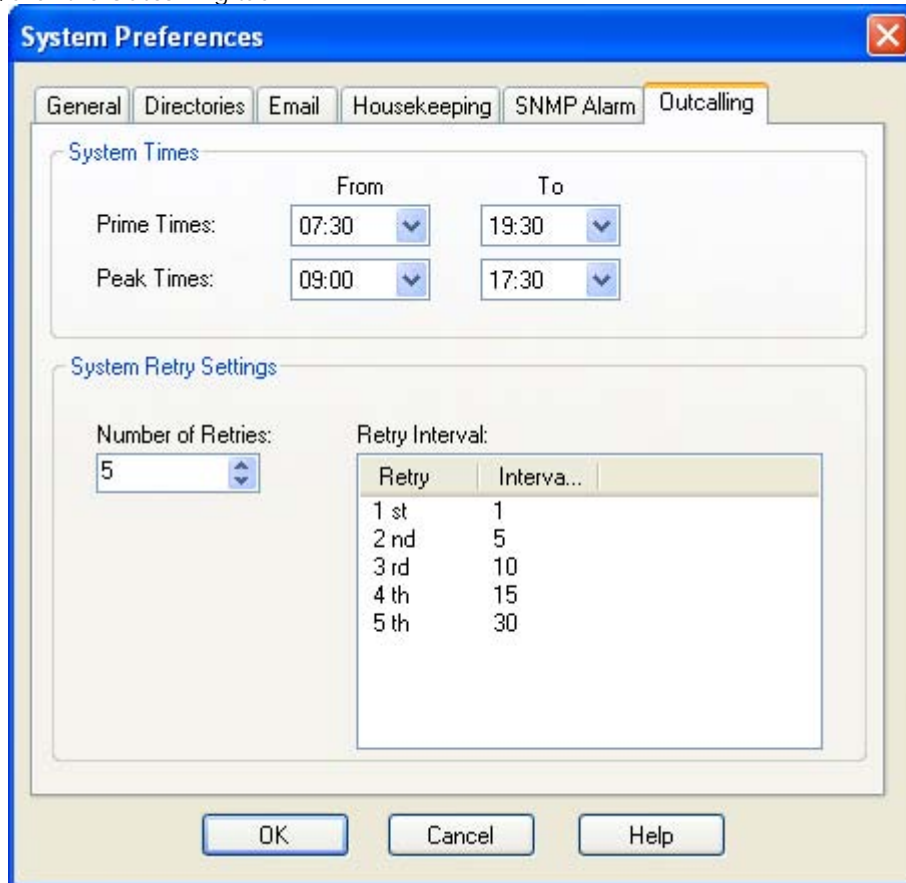
The outcalling preferences in Voicemail Pro are defaults for global operation. Mailbox owners can configure their own outcalling options from their telephone, for example, create their own time profile.


Details on how users can configure outcalling are found in the Intuity Mailbox guide and Phone Manager User Guide.

A timeout value can also be set by a user. This is how long outcalling will attempt to call a number before giving up.

To set the global outcalling preferences:

1. Display the main Voicemail Pro window.
2. From the Administration menu, select Preferences > General.
3. Click the Outcalling tab.



4. Select the times that outcalling is active in the System Times section.
  - Prime Times  
The time period that outcalling is to be active as default for the system.
  - Peak Times  
The busiest working hours.
5. Set the retry settings in the System Retry Settings section.
6. The Number of Retries can be between 0 and 10. If the message is not collected after the last retry, no notification is sent until another new message is delivered in the user's mailbox.
7. The Retry Interval for each retry attempt. The interval is the length of time between each attempt to ring to targeted number again. The 6th to 10th retries use the default retry interval.
8. Double-click a selected retry time to edit the interval between retries. The New interval number window opens where the length of time between each attempt to ring the target number can be changed. Click OK to save the change and return to the Outcalling window.
9. Click OK.
10. Click  Save and Make Live and select Yes.



### 5.9.2.2 Editing Mailbox Outcalling Settings

You can use the Voicemail Pro client to view and edit user outcalling settings.

1. Click on Users.
2. Right-click on the entry for the user's mailbox and select Mailbox Details.
3. Select the Outcalling tab.

Using the Voicemail Pro client you can view and edit a user's [outcalling](#) settings.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it. Select the option Mailbox Administration.
3. Select the Outcalling tab.

**Mailbox Details**

Account | Personal Distribution Lists | **Outcalling**

Enabled During Time Profile

A 09 00 Desk For All New Messages

B 17 30 Escalation List For All New Messages

C 19 30 Disabled

Retry Times

System  Personalised

Number of retries: 5

Retry Intervals

	Attempt	Minutes
▶	1st	1
	2nd	10
	3rd	10
	4th	15
	5th	30

Escalation List

	Destination	Timeout (secs)	Delay (Mins)
	Desk	15	0
	Home	15	0
✎	Mobile	15	0
*		0	0

OK Cancel Help

- The top drop-down is used to select the type of outcalling and the destination for outcalling. For each the outcalling destination and the type of message for which outcalling should be used can be selected
  - Disabled  
Switch off outcalling for the user.
  - Enabled Always

**Mailbox Details**

Account | Personal Distribution Lists | **Outcalling**

Enabled Always

Escalation List For New Priority Messages

- Enabled During Time Profile  
Allows a user specific time profile for outcalling to be specified.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. Below it, three time profiles are defined:

Profile	Start Time	End Time	Destination	Action
A	09:00	00:00	Desk	For All New Messages
B	17:30	30:00	Escalation List	For All New Messages
C	19:30	30:00	Disabled	

- Enabled During Peak Time  
Use outcalling during the [peak time](#) <sup>[116]</sup> period defined on the voicemail server.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Peak Time' dropdown is set to 'Enabled'. The 'Escalation List' is set to 'Escalation List' and the action is 'For New Priority Messages'. A text box below indicates the peak time period: 'Peak Time from 09:00 to 17:30'.

- Enabled During Prime Time  
Use outcalling during the [prime time](#) <sup>[325]</sup> period defined on the voicemail server.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. The settings for profile B are highlighted:

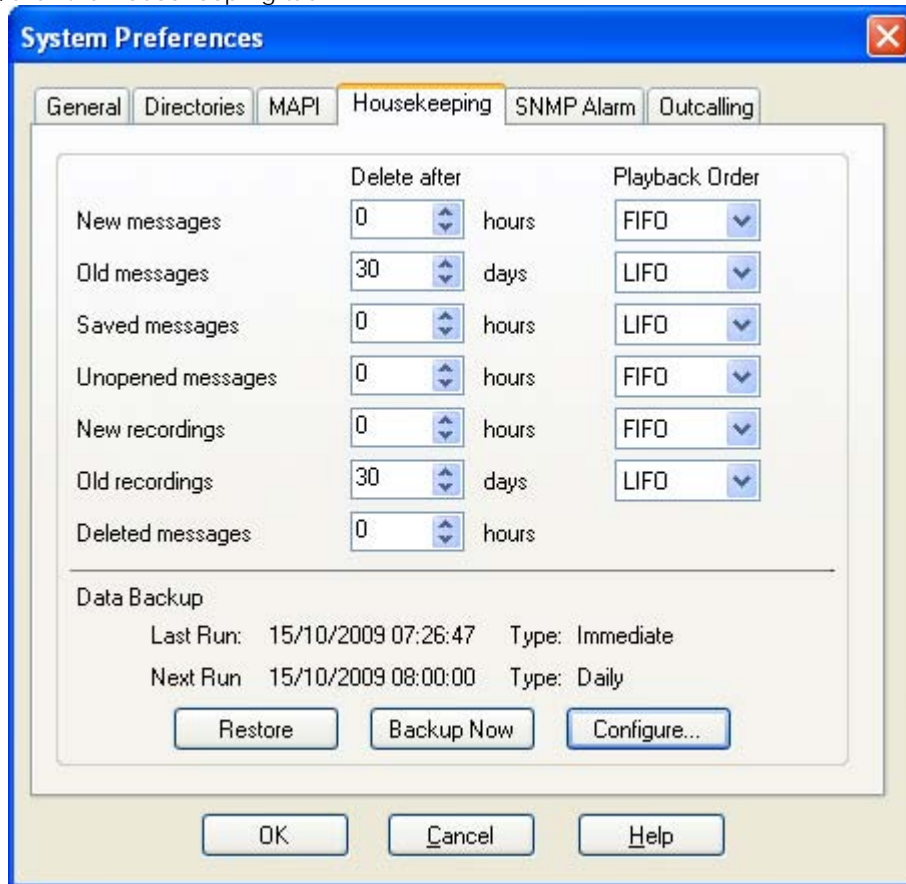
Profile	Start Time	End Time	Destination	Action
A	09:00	00:00	Desk	For All New Messages
B	17:30	30:00	Escalation List	For All New Messages
C	19:30	30:00	Disabled	

- Retry Times

- System  
Use the [default retry settings](#) <sup>[116]</sup> configured on the voicemail server.
- Personalized  
Use the options below to configure user specific retry settings.
  - Number of Retries  
Up to 10 retries can be specified.
  - Retry Intervals  
These values set the interval between one notification attempt and the next (not including the actual outcalling ringing time for the outcalling destination). The first 5 retries can be given varying intervals between 0 and 60 minutes. To change a value click on it and enter the new value. When more than 5 retries are selected, the default value is used for all retries after the fifth retry.
- Escalation List  
An escalation list can be used as the destination for an outcalling attempt. The list can contain up to 9 entries selected from the user's account settings. The same number can be used more than once if required. For each number in the list you can set how long it should be rung and also the delay before trying the next number in the escalation list. If multiple retries have been configured, the full escalation list must be completed before the next retry begins.

## 5.10 Automatic Message Deletion

1. From the Administration menu, select Preferences > General.
2. Click the Housekeeping tab.



3. Delete after  
Sets the time, in hours, after which messages of various types automatically deleted. A value of 0 disables automatic deletion. The actual deletion is performed during the next idle period during which there are no calls to or from the voicemail server.
4. Playback Order  
Sets the order of playback used for different message types. The options are first in-first out (*FIFO*) and last in-first out (*LIFO*). *FIFO* is the default.
  - The different message status types are:
    - New  
This status is applied to messages where neither the header or the message content has been played.
    - Old  
This status is applied to messages where the user has played the message content but has not marked the message as saved.
    - Saved  
This status is applied to messages that have been marked as saved by the user.
    - Unopened  
This status is used for messages where, in Intuity emulation mode, the user has played the message header but has not played the message content.
    - New Recordings  
This status is used for recordings that have not been played.
    - Old Recordings  
This status is used for recordings that have been played.
    - Deleted Messages  
This status is used for messages that have been marked as deleted through mailbox access.

5. Click OK.

6. Click  Save and Make Live and select Yes.

---

## 5.11 Using Voicemail to Give Error Messages

Voicemail can be used to give out messages when certain numbers are dialed. For example, if users are barred from making international calls, rather than giving users the busy tone a recording similar to "International calls are not permitted" could be played instead.

To create an International Calls are not Permitted error message:

1. In IP Office Manager create a virtual user. Complete the User tab with the following details:
  - Name: Barred.
  - Full Name: Internal Calls Error Message.
  - Extension: 403.
2. You need access to the virtual user's extension from any telephone extension attached to the system. A voicemail code needs to be added.
  - Select the user Barred.
  - Click the Voicemail tab.
  - Add a Voicemail Code.
  - Click OK.
3. Add a short code to access the virtual user's voicemail.
  - Code: \*95
  - Feature: Voicemail Collect
  - Telephone Number: "?Barred" (*include quote marks*)
  - Line Group ID: 0
4. Save the configuration file.
5. You can now use the virtual user's voicemail to record a greeting message stating that international calls are not permitted.
  - Dial \*95 from any telephone connected to the system.
  - Enter the extension number 403.
  - Enter the voicemail access code. The first time you enter the mailbox for extension 403 you will be asked to change the password and record a user name.
  - Press 3 to record a greeting.
  - Press 1 to change the message.
  - Press 1 to record greeting 1.
  - Speak the new message. In this case it would be similar to "International calls are not permitted"
  - Press # to end the recording.
  - Press 1 to save for all calls.
  - Replace the telephone handset.
6. A short code needs to be created in IP Office Manager so that when a user dials an international call they will be played the error message.
  - Code: 00N
  - Feature: Voicemail Collect
  - Telephone Number: "#Barred" (*include quote marks*)
  - Line Group ID: 0
7. Save the configuration file.
8. Test the error message by trying to dial an international number from any telephone. You should be played the message that you have just recorded.



## 5.12 Mailbox Management

When you click on Users or Groups in the left-hand navigation pane, the right-hand pane displays information about the user or group mailboxes.

The screenshot shows the Voicemail Pro Client (Intuity) interface. The left-hand navigation pane displays a tree view with categories like System A (192.168.0.210), Specific Start Points, Groups, Short Codes, Users, Default Start Points, Voicemail Pro Administrators, Server Queues, Alarms, Outcalls, User Variables, and Distributed Voicemails. The right-hand pane displays a table of mailboxes with columns: Name, Callflows Assigned, Extension, Size (MB), New, Read, Saved, Last Accessed, Web Voicemail, and Unopened. A context menu is open over the mailbox 'Extn202', showing options: Add Start Points, Edit Start Points, Delete Start Points, Clear Mailbox, Disable Mailbox, and View Mailbox Details. The status bar at the bottom shows: Data - Saved | Active Voicemail Sessions - 0 | Time on Voicemail Server - 20:01 | Free Space:- 94.001 GB | Total Space:- 149.048 GB.

Name	Callflows Assigned	Extension	Size (MB)	New	Read	Saved	Last Accessed	Web Voicemail	Unopened
Extn1550		1550	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn1551		1551	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn201		201	0	1	0	0	NEVER ACCESSED	Disallowed	0
Extn202		202	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn203		203	0	0	0	0	NEVER ACCESSED	Offline	0
Extn204		204	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn205		205	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn206		206	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn207		207	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn208		208	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn209		209	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn210		210	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn211		211	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn212		212	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn213		213	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn214		214	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn215		215	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn216		216	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn401		401	1.000	2	0	0	08/07/2010 15:12	Offline	0
Extn402		402	0	0	0	0	NEVER ACCESSED	Offline	0
Extn403		403	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn404		404	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn405		405	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn406		406	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn407		407	0	0	0	0	NEVER ACCESSED	Disallowed	0
Extn408		408	0	0	0	0	NEVER ACCESSED	Disallowed	0

The information can be sorted by clicking on the column headers. The information available is:

- **Name**  
The user or group name used for the mailbox creation.
- **Callflows Assigned**  
The customized call flows created for the mailbox.
- **Extension**  
The associated extension number for the mailbox.
- **Size (MB)**  
The current size for the mailbox messages, recordings and prompts.
- **New**  
The number of new messages in the mailbox.
- **Read**  
The number of read messages in the mailbox.
- **Saved**  
The number of messages marked as saved in the mailbox.
- **Last Accessed**  
The date and time the mailbox was last accessed.
- **Web Voicemail**  
Whether the mailbox is accessible via UMS Web Voicemail and whether it is currently being accessed.
- **Unopened**  
The number of messages in the mailbox that have never been opened. This is different from new as messages can be changed from being read or saved to being marked as new.
- **Exchange Messages**  
Whether the mailbox is configured to forward messages to an exchange server email account.

When you right-click on a mailbox a number of options are available:

- 
- **Add Start Points / Edit Start Points / Delete Start Points**  
If the mailbox has any customized call flow start points setup, they are listed in the Callflows Assigned column. These options allow you to add additional start points. A list of start point types is displayed which you can then select or deselect. Selecting an option will create a matching start point for the mailbox. Deselecting an option will delete the matching start point and any content.
  - **Clear Mailbox (Voicemail Pro 5.0+)**  
This option will reset the mailbox. All existing messages and recordings are deleted and any prompts such as the user name and greeting prompts. The mailbox password is not reset. This action is not applied to messages for users using Exchange 2007 as their message store.
  - **Disable Mailbox (Voicemail Pro 5.0+)**  
This option will stop the mailbox from being used to receive messages. This includes the forwarding of messages to the mailbox and manual or automatic recording placing recordings into the mailbox. If selected we recommend that the Voicemail On setting within the IP Office configuration is also disabled, that will stop the IP Office from attempting to use the mailbox. This option does not affect any existing messages in the mailbox. Disabled mailboxes are listed as *DISABLED* in the Last Accessed column. See [Disabling a Mailbox](#)<sup>[332]</sup>.
  - **View Mailbox Details (Voicemail Pro 6.0+)**  
This option is available for user mailboxes. It allows you to view and edit various user mailbox settings including the user's alternate numbers, outcalling settings and personal distribution lists.



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## 5.12.1 Disabling a Mailbox

By default, Voicemail Pro automatically creates a voicemail mailbox for each user and hunt group in the IP Office configuration. It is also defaulted to use voicemail to record a message if a user or hunt group call is not answered.

There are a number of ways that use of voicemail to record messages can be disabled if it is not required for a particular user or hunt group. These are:

- **Disabling IP Office Using a Mailbox for Unanswered Calls**  
Within the IP Office configuration, each user and hunt group has a Voicemail On setting. When enabled, IP Office will use voicemail to record a message if a call is not answered. Disabling this option stops the IP Office from using the mailbox to record messages for unanswered calls, instead calls continue ringing. Other voicemail users can still manually forward callers and messages to the mailbox.
  - IP Office users can change their Voicemail On settings themselves by dialing short codes (\*18 for on, \*19 for off) or through IP Office Phone Manager.
- **Intuity Accept Call Answer**  
If the voicemail server is set to Intuity mode, users can set their mailbox to no longer accept calls using the Accept call answer setting (select 5, 7, 1 after logging into the mailbox). Callers directed to the mailbox by IP Office here *"Sorry, the mailbox you have reached is no accepting messages at this time. Please disconnect"*.
- **Customized Leave Mail**  
A customized call flow can be setup for a user or group's Leave start point (or all users and groups using the Default Start Points). That call flow can direct redirect messages to another mailbox or a range of other actions. The Collect start point can also be customized.
- **Voicemail Server Disable Mailbox (Voicemail Pro 5.0+)**  
All operation and usage of a mailbox can be disabled on the voicemail server. This is done through the [details pane view of user or group mailboxes](#)<sup>[134]</sup>. Right-click on the user or hunt group and select Disable.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it.
3. Select Disable Mailbox.
  - Alternatively select Mailbox Administration and on the Account tab, select or deselect the Enable option to enable or disable the mailbox.

## 5.12.2 Clearing a Mailbox

Clearing a mailbox removes all messages, recordings, prompts and greetings. Note that messages are not cleared for users using Outlook 2007 as their message store.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it.
3. Select the Clear Mailbox option.

## 5.12.3 Outcalling Settings

Using the Voicemail Pro client you can view and edit a user's [outcalling](#) settings.

1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it. Select the option Mailbox Administration.
3. Select the Outcalling tab.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. At the top, there is a dropdown menu set to 'Enabled During Time Profile'. Below this are three rows of settings labeled A, B, and C. Row A is set to '09:00' on 'Desk' for 'For All New Messages'. Row B is set to '17:30' on 'Escalation List' for 'For All New Messages'. Row C is set to '19:30' and 'Disabled'. Below these are two sections: 'Retry Times' with radio buttons for 'System' and 'Personalised' (selected), a 'Number of retries' spinner set to 5, and a 'Retry Intervals' table. The 'Escalation List' section contains a table with columns for Destination, Timeout (secs), and Delay (Mins).

Destination	Timeout (secs)	Delay (Mins)
Desk	15	0
Home	15	0
Mobile	15	0
*	0	0

- The top drop-down is used to select the type of outcalling and the destination for outcalling. For each the outcalling destination and the type of message for which outcalling should be used can be selected
  - Disabled  
Switch off outcalling for the user.
  - Enabled Always

This screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The top dropdown menu is set to 'Enabled Always'. Below it, there are two dropdown menus: 'Escalation List' and 'For New Priority Messages'.

- Enabled During Time Profile  
Allows a user specific time profile for outcalling to be specified.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. Below it, three time profiles are listed:

Profile	Start Time	End Time	Destination	Action
A	09	00	Desk	For All New Messages
B	17	30	Escalation List	For All New Messages
C	19	30	Disabled	

- Enabled During Peak Time  
Use outcalling during the [peak time](#) <sup>[116]</sup> period defined on the voicemail server.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Peak Time' dropdown is set to 'Enabled'. The 'Escalation List' dropdown is set to 'Escalation List' and the action dropdown is set to 'For New Priority Messages'. A text box below indicates the peak time period: 'Peak Time from 09:00 to 17:30'.

- Enabled During Prime Time  
Use outcalling during the [prime time](#) <sup>[325]</sup> period defined on the voicemail server.

The screenshot shows the 'Mailbox Details' window with the 'Outcalling' tab selected. The 'Enabled During Time Profile' dropdown is set to 'Enabled'. The settings for profile B are highlighted:

Profile	Start Time	End Time	Destination	Action
A	09	00	Desk	For All New Messages
B	17	30	Escalation List	For All New Messages
C	19	30	Disabled	

- Retry Times

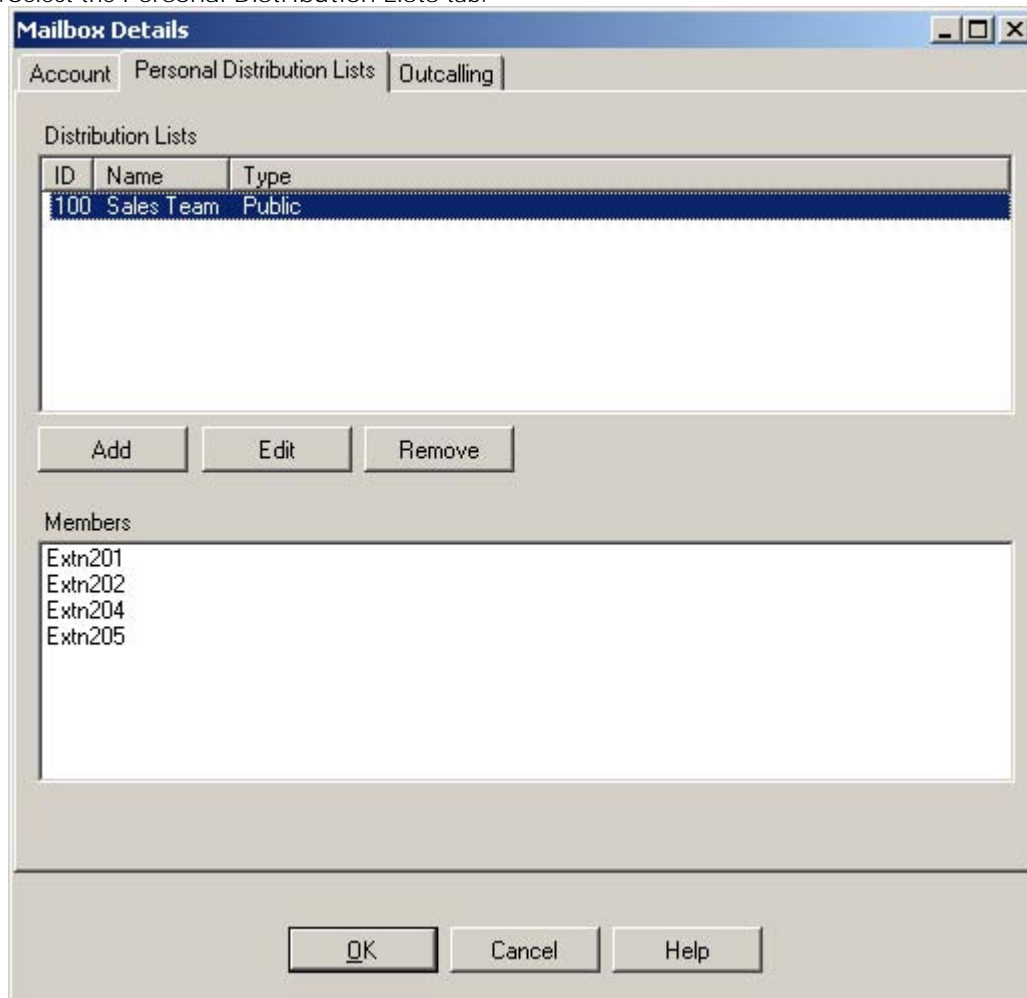
- System  
Use the [default retry settings](#) <sup>[116]</sup> configured on the voicemail server.
- Personalized  
Use the options below to configure user specific retry settings.
  - Number of Retries  
Up to 10 retries can be specified.
  - Retry Intervals  
These values set the interval between one notification attempt and the next (not including the actual outcalling ringing time for the outcalling destination). The first 5 retries can be given varying intervals between 0 and 60 minutes. To change a value click on it and enter the new value. When more than 5 retries are selected, the default value is used for all retries after the fifth retry.
- Escalation List  
An escalation list can be used as the destination for an outcalling attempt. The list can contain up to 9 entries selected from the user's account settings. The same number can be used more than once if required. For each number in the list you can set how long it should be rung and also the delay before trying the next number in the escalation list. If multiple retries have been configured, the full escalation list must be completed before the next retry begins.

## 5.12.4 Personal Distribution Lists

Intuity mode mailbox users can use personal distribution lists as the destination for voicemail messages they are sending or forwarding to other mailbox user. This saves them having to enter the individual mailbox numbers each time. Users can configure their distribution lists through the mailbox's telephone user menu or using IP Office Phone Manager. Voicemail Pro 6.0+ allows you to view and edit each user's distribution lists.

Each user mailbox can have up to 20 distribution lists. Each list can contain up to 360 mailboxes and can be set as either public or private. Private lists can be used only by the mailbox user. Public lists can be used by other mailbox users when they forward a message. However, public lists can not be modified by other users.

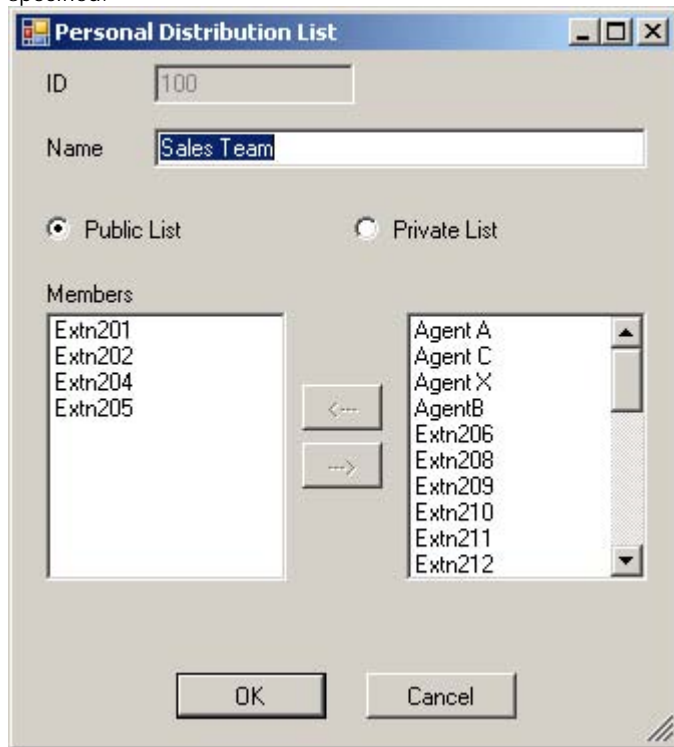
1. Click on Users in the navigation pane. A list of all the user mailboxes on the server is displayed in the details pane.
2. Locate the users mailbox and right-click on it. Select the option Mailbox Administration.
3. Select the Personal Distribution Lists tab.



4. To show the mailboxes in an existing list click on the list. The existing members are shown in the bottom panel.



5. When adding or editing a list a separate menu is displayed allowing the list name, type and members to be specified.





# **Chapter 6.**

# **Mailbox Access Controls**

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## 6. Mailbox Access Controls

With IP Office mailbox owners can control their mailbox and messages in a number of ways after they have logged in to the mailbox.

- [Standard IP Office Mailbox Mode](#)<sup>[343]</sup>  
This is the only mode for Voicemail Lite. Voicemail Pro can also be [set to run](#)<sup>[82]</sup> in this mode rather than Intuity emulation mode.
- [Intuity Mailbox Mode](#)<sup>[342]</sup>  
This is the default mode for Voicemail Pro. It provides through a series of spoken prompt menus an IP Office emulation of many of the Avaya Intuity features.
- [Phone Manager](#)<sup>[344]</sup>  
The Phone Manager application enables a user to switch voicemail and voicemail ringback on/off. Phone Manager Pro also provides full visual access to a user's voicemail and allows messages to be played back and controlled through their PC.
- [Visual Voice](#)<sup>[346]</sup>  
This is a system of display menus rather than spoken prompts that can be used to access a mailboxes.
- [UMS Web Voicemail](#)<sup>[347]</sup>  
This method of access allows users to access mailboxes using a web browser. The user must be configured for UMS. The feature is licensed.
- [UMS IMAP Email Access](#)<sup>[350]</sup>  
This method allows users to access mailbox messages through a IMAP compatible email program. The user must be configured for UMS. The feature is licensed.
- [UMS Exchange 2007](#)<sup>[351]</sup>  
Allows playback via a user's PC using Outlook 2007.

If a mailbox does not have a recorded name greeting, when that mailbox is accessed to collect messages, the caller is asked to record their name before proceeding to collect messages. The name greeting is used for functions such as Dial by Name actions and Intuity mode name lookup (\*\*6).

- **Tip**  
As Voicemail Pro system administrator, you should ensure that mailbox owners have the help and user guide for their type of mailbox available to them. There is an IP Office User Guide and an Intuity Mailbox User Guide. Both are available in PDF and online help formats.

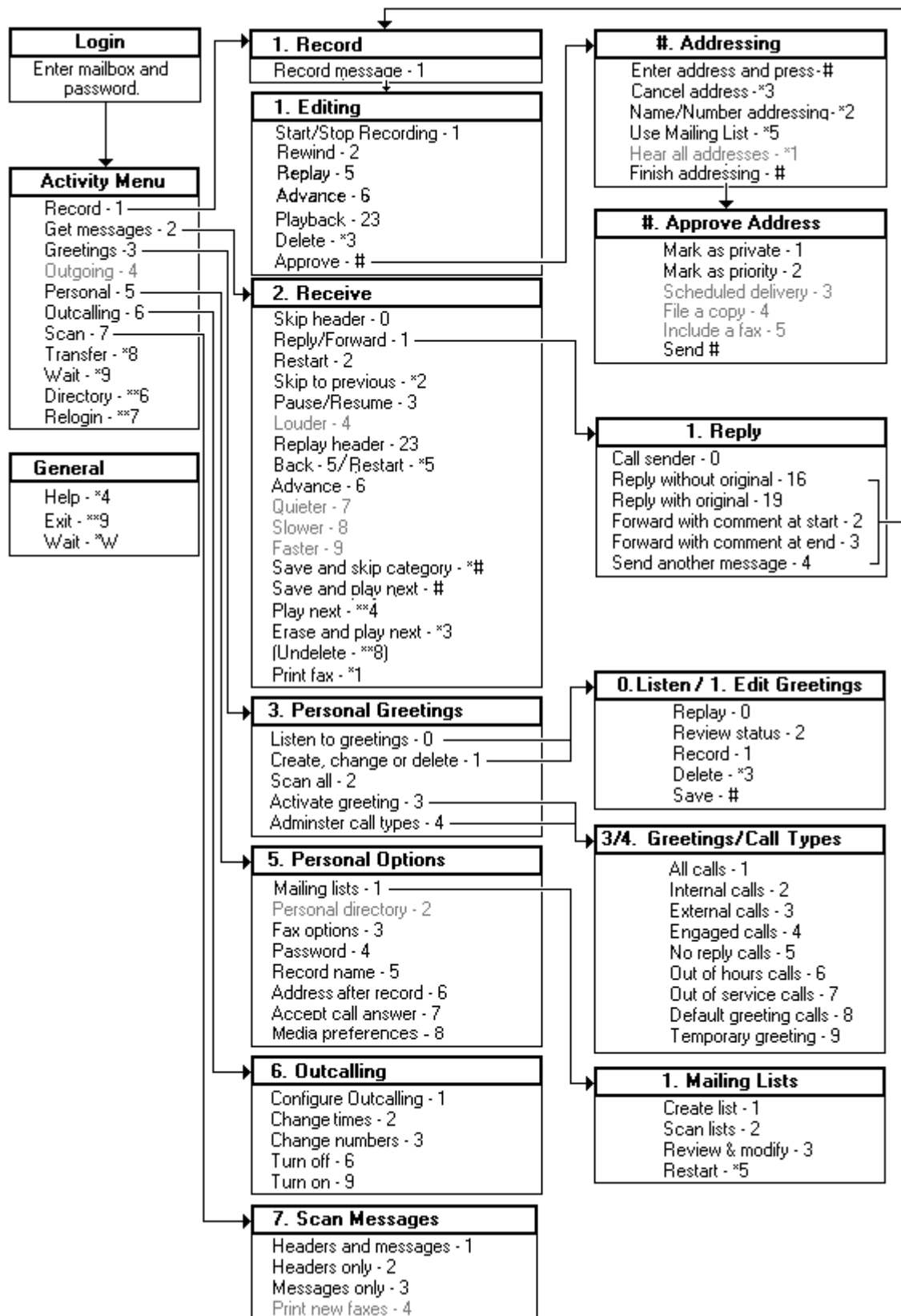
## 6.1 General Controls

The following default IP Office short codes can be dialed by any user from their own extension.

- \*17 - Collect Messages  
Access their mailbox from their own extension.
- \*18 - Voicemail on / \*19 - Voicemail off  
When on, the IP Office telephone system will use voicemail as the destination for unanswered calls.
- \*48 - Turn voicemail ringback on / \*49 - Turn voicemail ringback off  
When on, if the user has a new message, the voicemail server will call the user's extension whenever the extension changes from off-hook to on-hook. The voicemail server will not ring the extension more than once every 30 seconds.
- \*01 - Sets the Voicemail Email mode to Forward
- \*02 - Sets the Voicemail Email mode to Alert
- \*03 - Sets the Voicemail Email mode to Off

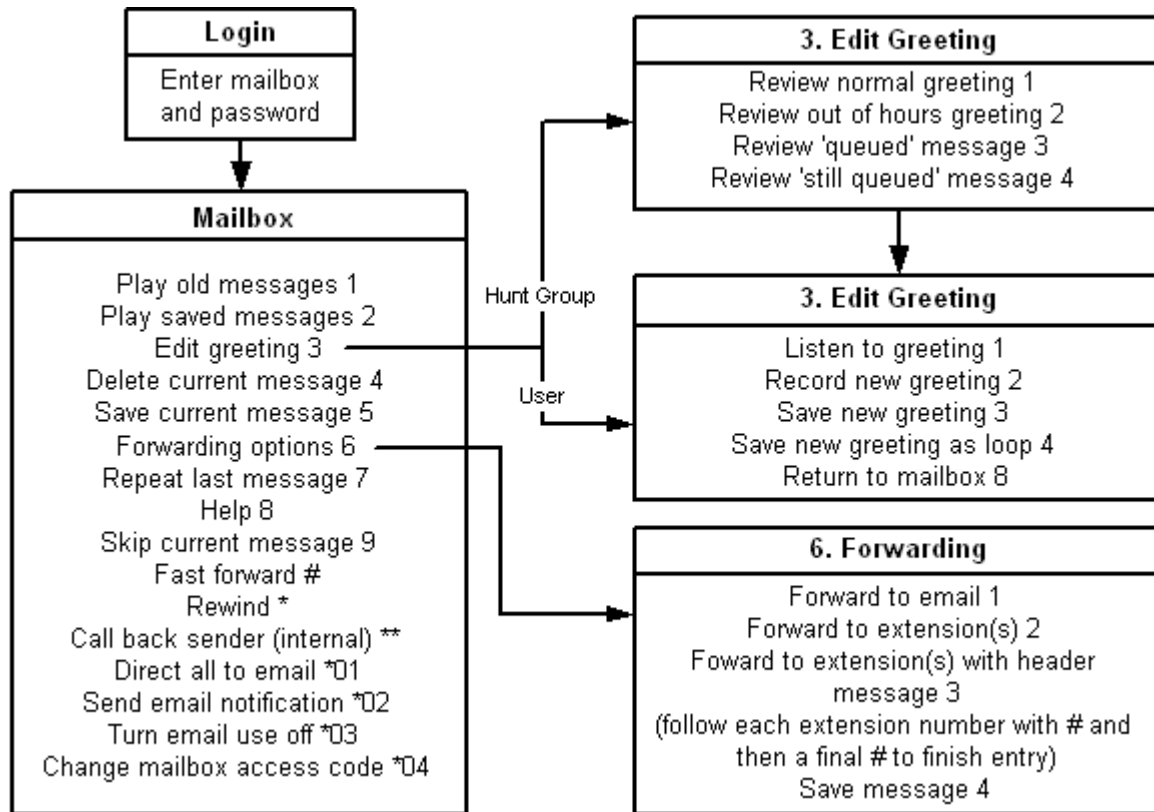
## 6.2 Intuity Mode

The following is a summary of the controls available when the voicemail server is [set to run](#) <sup>[82]</sup> in Intuity emulation mode. The options that are shown in gray are not supported by IP Office Intuity emulation. For full details refer to the IP Office Intuity Mailbox User Guide.



## 6.3 IP Office Mode

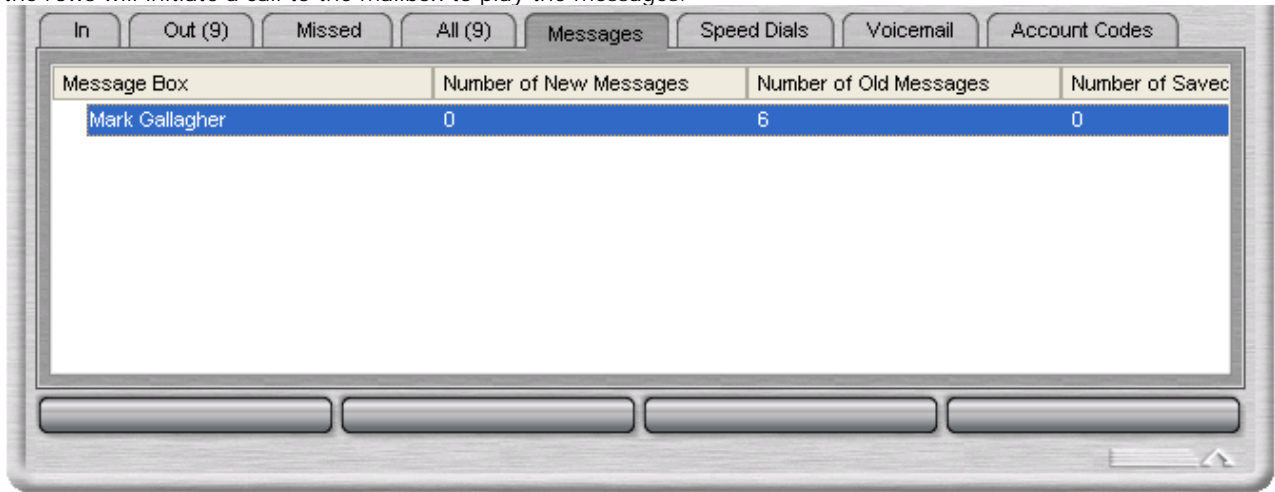
The following is a summary of the controls available when the voicemail server is [set to run](#) <sup>82</sup> in Intuity emulation mode. For full details refer to the IP Office Mailbox User Guide.



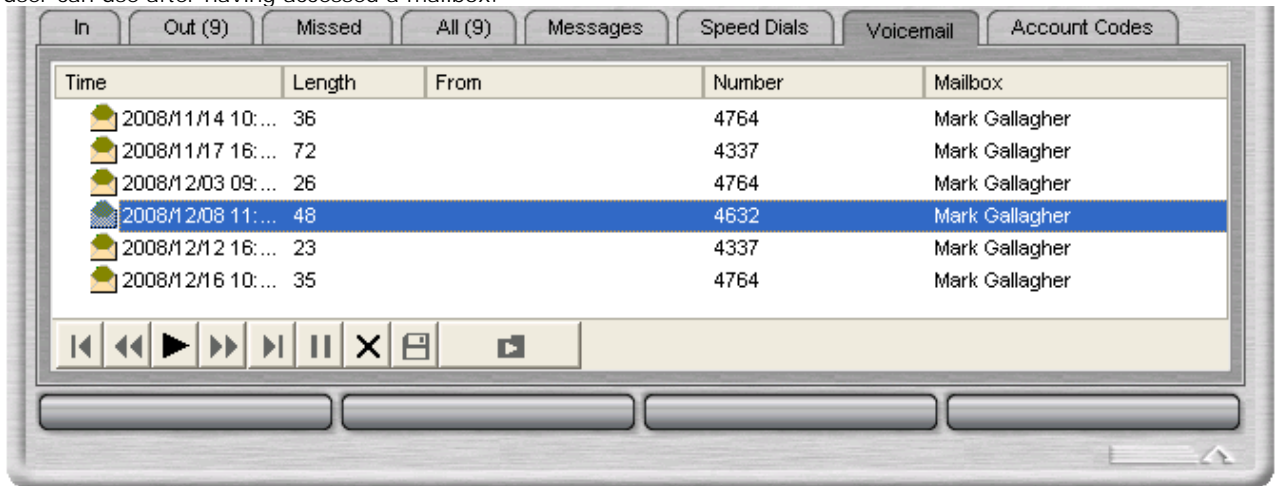
## 6.4 Phone Manager

The IP Office Phone Manager application provides a number of features relevant for Voicemail Pro. For full details refer to the Phone Manager User Guide.

- Messages Tab  
This tab is available for all Phone Manager users and will show them the number of messages in their mailbox. The user can also be configured to see the number of messages in selected hunt group mailboxes. Clicking on any of the rows will initiate a call to the mailbox to play the messages.

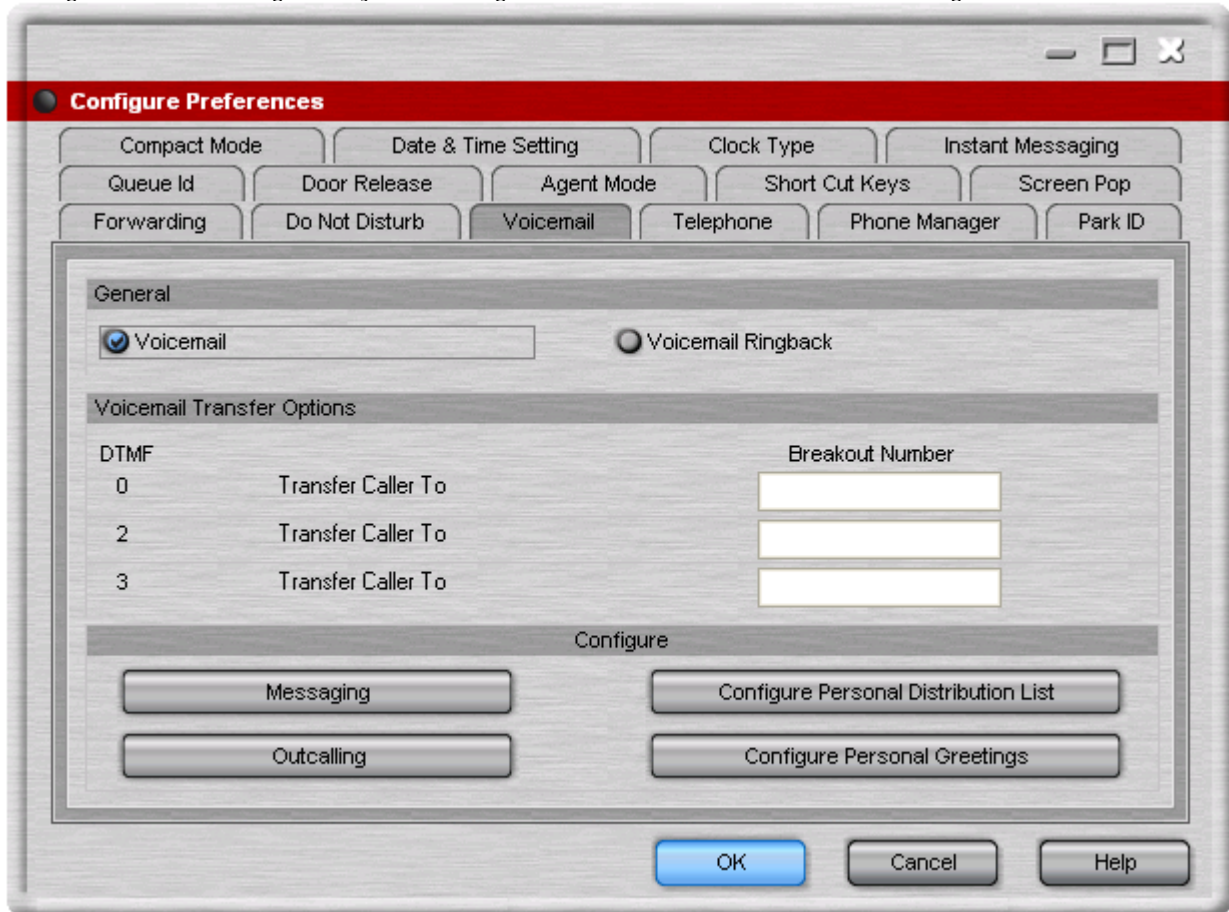


- Voicemail Tab  
This tab is available for Phone Manager Pro users. It provides a number of controls for message playback that the user can use after having accessed a mailbox.





- Configuration Preferences  
Through the Phone Manager many user settings for voicemail can be accessed and changed.



---

## 6.5 Visual Voice

Visual Voice provides the user with a display menu for access to their mailbox rather than having to follow spoken prompts. It can be used with Voicemail Pro (Intuity and IP Office modes) and Embedded Voicemail. The menu provide the user with options to listening to messages, leaving messages and managing the mailbox.

It is supported on most Avaya phones with multi-line displays (more than 2 lines) and programmable buttons.

Access to visual voice can be provided in a number of ways:

- Assign a programmable button to the function Visual Voice. For full details on button programming refer to the IP Office Manager documentation.
- For IP Office 4.2+, access to visual voice can be triggered by the phone's MESSAGES button rather than requiring a separate Visual Voice programmable button. This is done using the [System | Voicemail](#) <sup>88</sup> option Messages button goes to Visual Voice.
- T3 phones can access visual voice via the menu selection Menu | Settings | Voicemail Settings. If a Visual Voice programmable button is used on these phones it will only access the Listen functions.

On phones that have a display but do not support full visual voice operation, use of the buttons above will trigger normal spoken prompt voicemail access.

### Visual Voice Controls

The arrangement of options on the screen will vary depending on the phone type and display size.

- Listen  
Access your own voicemail mailbox. When pressed the screen will show the number of New, Old and Saved messages. Select one of those options to start playback of messages in that category. Use the options below
  - Listen  
Play the message.
  - Pause  
Pause the message playback.
  - Delete  
Delete the message.
  - Save  
Mark the message as a saved message.
  - Call  
Call the message sender if a caller ID is available.
  - Copy  
Copy the message to another mailbox. When pressed as number of additional options are displayed.
- Message  
Record and send a voicemail message to another mailbox or mailboxes.
- Greeting  
Change the main greeting used for callers to your mailbox. If no greeting has been recorded then the default system mailbox greeting is used.
- Email  
This option is only shown if you have been configured with an email address for voicemail email usage in the IP Office configuration. This control allows you to see and change the current voicemail email mode being used for new messages received by your voicemail mailbox. Use Change to change the selected mode. Press Done when the required mode is displayed. Possible modes are:
- Password  
Change the voicemail mailbox password. To do this requires entry of the existing password.
- Voicemail  
Switch voicemail coverage on/off.

### Using the Visual Voice Button for Voicemail Transfer

If pressed when you have a call is connected, the MESSAGE button allows entry of an extension number for direct to voicemail transfer of the connected call.


## 6.6 UMS Web Voicemail

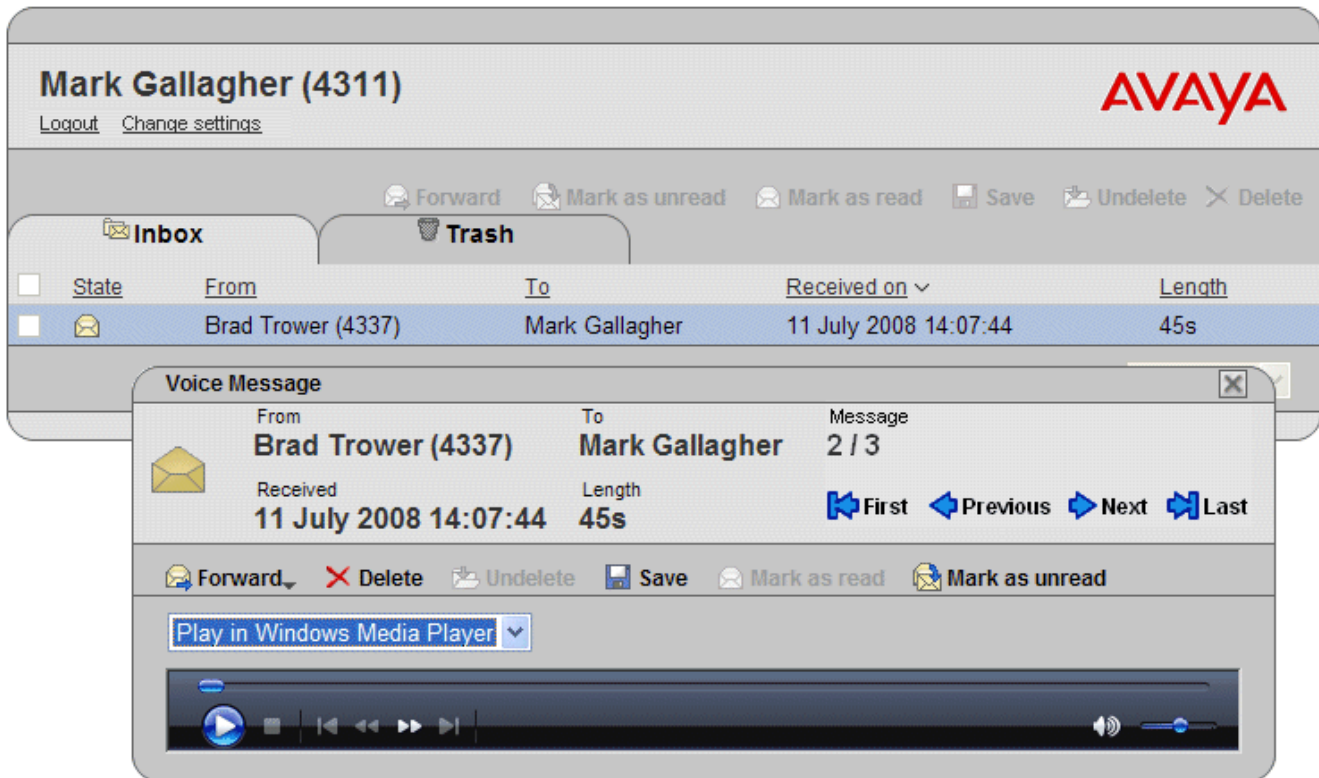
- ! These features are not supported on a Linux based Voicemail Pro server.

The URL will be that of the voicemail server PC plus */voicemail*. This will display the web voicemail login page.

1. Logon using your user name and voicemail code as set on the IP Office system. The System Administrator can change these if necessary.

- Note: This is the user name set in the IP Office and used by Voicemail Pro. It is not the full name that is shown on phones and used by IP Office Phone Manager and SoftConsole if set.

2. Note that multiple failures to login correctly can cause your access to Web Voicemail to be locked for 1 hour. If necessary Web Voicemail access can be unlocked using the Voicemail Pro administration client (select  Users, right click on the user marked as *Account Locked* in the Web Voicemail column, enter a new password for the user and click OK).








The interface shows the messages in your mailbox. Note that it is not updated in realtime. To check if new messages have arrived in your mailbox since starting Web Voicemail, refresh the browser view using the browser controls. Similarly changes to the IP Office configuration such as new or deleted users and groups are not shown until you refresh the browser view.

The columns can be sorted by clicking on the column title. The currently selected sort column is shown by a V symbol next to it.







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## Message Types

The following icons are used for different types of messages:

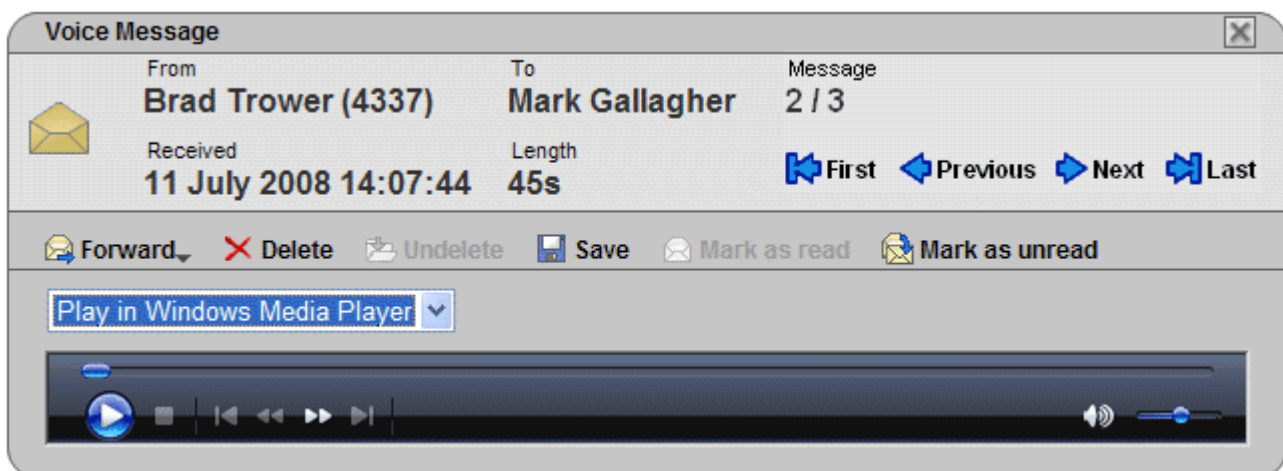
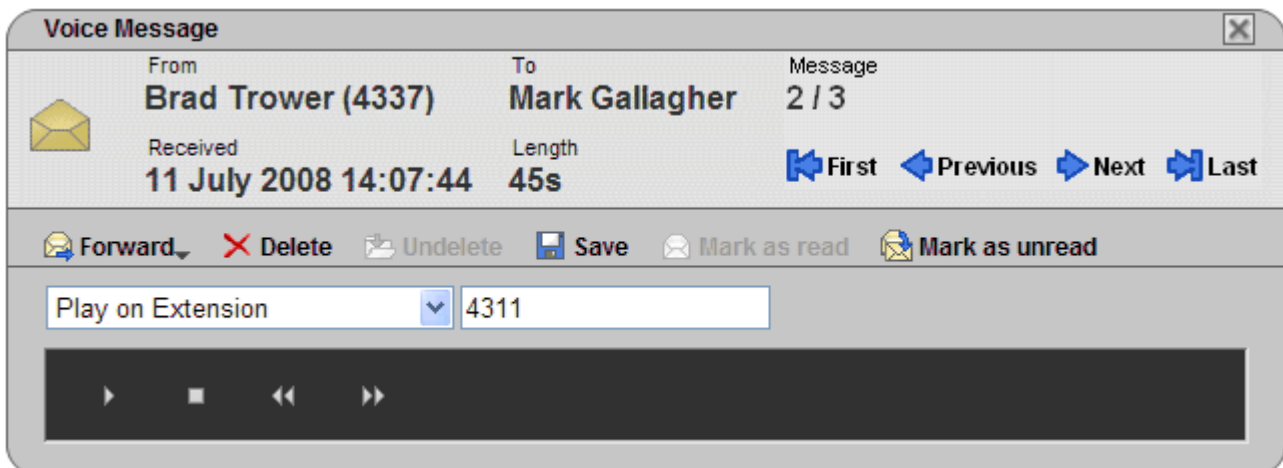
-  Unread message
-  Read message  
Note that by default a read message is permanently deleted from the mailbox after 30 days unless changed to a saved message.
-  Deleted message  
Manually deleted messages are automatically moved to the Trash folder. Deleted messages remain visible for at least 24 hours after they were marked as deleted.
  - Deleted messages are not accessible through the voicemail spoken prompts interface or Visual Voice.
  - Deleted messages can be undeleted by marking them as saved, read or unread. They can then be moved back out of the Trash folder. Moving a deleted message out of the Trash folder automatically changes it to read.
-  Saved message  
Setting a message as saved stops it being automatically deleted after a period of time.
-  Priority message  
This icon is added the message icon to indicate that the caller has set the message as a priority message.

## Controls

-  Select  
Before performing many actions such as saving, deleting or forwarding, you can select the messages to which the action should be applied.
  - The select box at the top of the list of messages can be used to select/deselect all messages on the currently displayed page.
-  Save  
Change the status of the selected messages to saved.
-  Mark as read  
Change the status of the selected messages to read. Changing the status of a message will override its previous status including those marked as saved.
-  Mark as unread  
Change the status of the selected messages to unread. Changing the status of a message will override its previous status including those marked as saved.
-  Forward  
Forward a copy of the selected message to another mailbox. When clicked, the type of mailbox (user or hunt group) can be selected. The list of mailboxes is then shown and allows selection of multiple target mailboxes. Though private messages are not indicated in the view, they cannot be forwarded.
-  Delete  
Delete the selected messages. Manually deleted messages remain visible until the voicemail server next performs its mailbox housekeeping. See the deleted message description above.
- Change password  
This option allows you to change your voicemail mailbox code.

## Playing Messages

To play a message just click on it. The message menu is displayed. The appearance of this will vary depending on whether you select playback via the default media player on your computer or through an extension on the telephone system.



## Changing Settings

You can click on Change Settings to access a number of options to customize your UMS web voicemail.

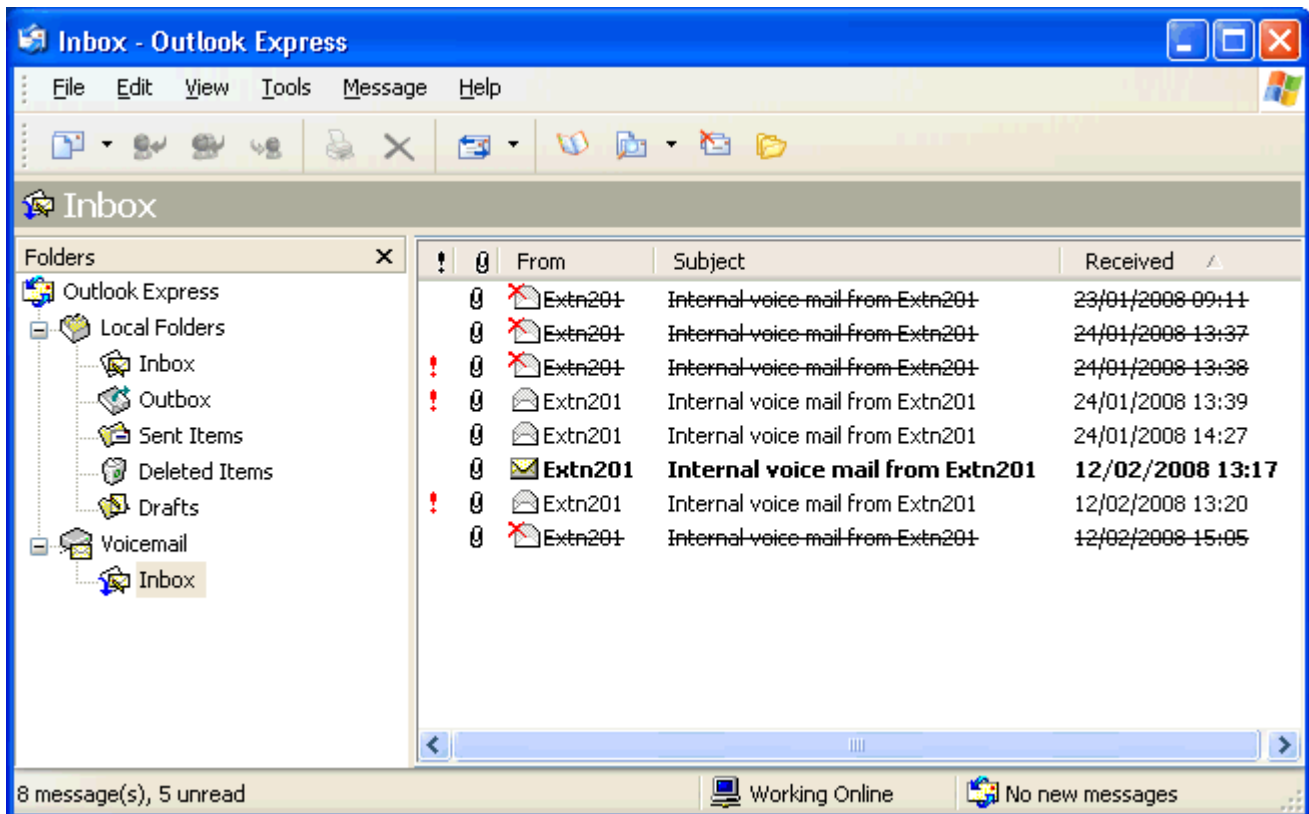
The 'Change Settings' dialog box contains the following fields and options:

- User name:** Mark Gallagher
- Current password:** (empty text field)
- New password:** (empty text field)
- New password again:** (empty text field)
- Number of messages per page:** 5 (dropdown menu)
- Hide 'To' column
- Apply changes** (button)

## 6.7 UMS IMAP

Most email clients that support IMAP display IMAP messages in a separate folder. The contents of that folder are synchronized when the folder is viewed.

Note that the types of icons used and whether different icons are supported for different message statuses depends on the email client used. The notes below are for Outlook and Outlook Express.



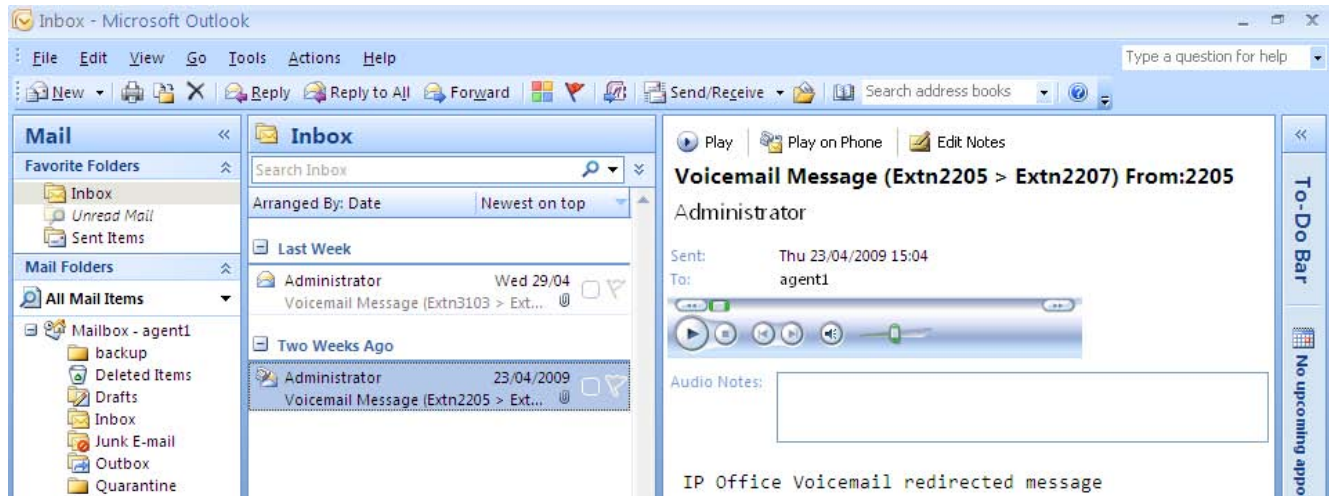
The following should be noted about the IMAP folder view:

- New messages are presented as a closed envelope.
- Read messages are presented as an open envelope.
- Priority messages are indicated as such.
- Private messages are not indicated as such. However the message may be indicated as confidential when opened.
- Saved messages are not indicated as such.
- Deleted messages are indicated as deleted but remain visible.
  - The voicemail server does not actually delete messages until at least 24 hours after it was marked as deleted.
  - Deleted messages are no longer accessible through the voicemail telephone prompts interface or Visual Voice.
  - Deleted messages can be undeleted. Those messages are then available through all the mailbox interfaces.
- Moving a message in the IMAP folder to another folder in the Email client will cause the email to be copied to the new folder and the original message is shown as deleted in the IMAP folder.
- The Voicemail Pro housekeeping settings for automatic deletion of different message types (New, Read and Saved) are still applied.
- IMAP cannot be used to send or forward messages to other voicemail mailboxes.

## 6.8 UMS Exchange 2007

UMS can be configured to use a user's Exchange 2007 email account as the user's voicemail message store rather than the voicemail server. The user can then see and playback messages through their email inbox.

This option requires the Exchange 2007 server to include the Unified Messaging component.



- ! These features are not supported on a Linux based Voicemail Pro server.
- Mailbox access using the telephone, visual voice or Phone Manager is done against voicemail messages in the email account. Therefore some actions offered by the non-email interfaces cannot be used as they have no email equivalents.
  - Messages stored in an email account cannot be saved.
  - Undeleting messages using \*\*8 from the telephone does not work for voicemail messages stored in exchange.
- Access using UMS IMAP and UMS web voicemail is not supported.
- Messages are not subject to Voicemail Pro housekeeping.
- Only voicemail messages in the inbox are recognized. If a message is moved to another mailbox folder it is no longer visible to the voicemail system.
- Message waiting indication (MWI) is supported.
- Note
 

When using an Exchange 2007 server as the message store for a user's voicemail messages, the voicemail server will deliver messages to the Exchange server on completion of the recording. However, the presentation to Outlook and back to the voicemail server for message waiting indication (MWI) and access via telephone is delayed by Exchange server processing. The delay is typically 1 or 2 minutes. The same delay also applies to changes in the message status that affect message waiting indication.





# Chapter 7.


## Voicemail Pro Examples

# 7. Voicemail Pro Examples

This section contains a number of example for specific areas of Voicemail Pro operation.

For simple examples refer to the separate document "Voicemail Pro Example Exercises". That document contains a series for setting up a basic auto attendant and then adding additional features. Working through that document should leave you familiar with the process of setting up and testing call flows.



## 7.1 Using VB Script

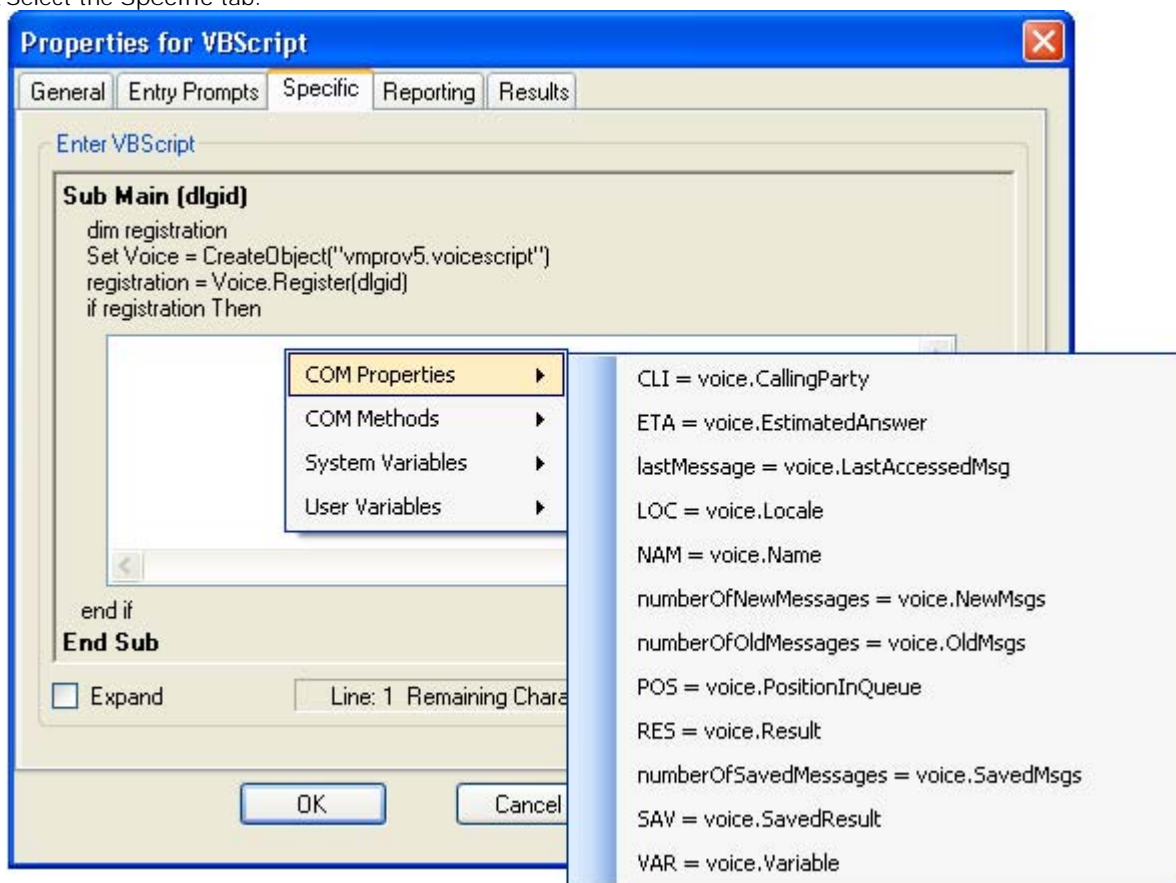
 The VB Script action allows an administrator to construct additional call flow logic using VBScript commands and various [properties](#) <sup>[356]</sup> and [methods](#) <sup>[362]</sup>.

When a VBScript action is executed, the voicemail server allows the script up to 1 minute to complete execution. If execution of the script takes longer then it is terminated by the voicemail server and the action's Failure result path is used.

- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#) <sup>[27]</sup>, use of VBScript requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro VB Script licenses can still be used.

### Settings

1. Click the  Miscellaneous Actions icon and select  VB Script.
2. The [General](#) <sup>[182]</sup>, [Entry Prompts](#) <sup>[183]</sup>, [Reporting](#) <sup>[186]</sup> and [Results](#) <sup>[189]</sup> tabs are standard tabs available to all actions.
3. Select the Specific tab.

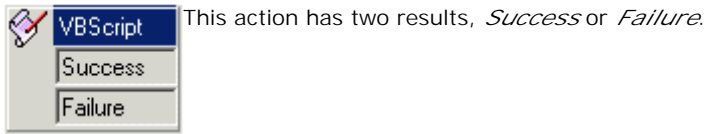


- Enter VBScript  
In the script area enter the VBScript as required. Strings for the variables and methods provided for VBScript by Voicemail Pro can be selected and inserted by right clicking on the script area. This script can contain a maximum of 10000 characters.
- Expand  
Check Expand to view a larger script area.

- Syntax Check  
Click the Syntax Check button to check your input for any errors.

### Results

This action has the following results which can be connected to further actions:



---

## 7.1.1 VBScript Properties

The following properties can be accessed within VBScripts. Note that unless otherwise stated they are session based. The data is specific to a particular Voicemail Pro call and does not persist between calls.

Voicemail contains various state variables that are associated with a specific interaction with voicemail. The call variables listed map to properties associated with the object:

- [\\$NAM](#) <sup>[359]</sup> – (read-only). See [Name Property](#) <sup>[359]</sup>.
- [\\$CLI](#) <sup>[357]</sup> – (read-only). See [CallingParty Property](#) <sup>[357]</sup>.
- [\\$RES](#) <sup>[360]</sup> – (read-write). See [Result Property](#) <sup>[360]</sup>.
- [\\$VAR](#) <sup>[361]</sup> – (read-write). See [Variable Property](#) <sup>[361]</sup>.
- [\\$SAV](#) <sup>[361]</sup> – (read-write). See [SavedResult Property](#) <sup>[361]</sup>.
- [\\$LOC](#) <sup>[358]</sup> – (read-write). See [Locale Property](#) <sup>[358]</sup>.

The following properties are specific to queued and still queued call flows only.

- [\\$QPOS](#) <sup>[360]</sup> – (read-only). See [PositionInQueue Property](#) <sup>[360]</sup>.
- [\\$QTIM](#) <sup>[357]</sup> – (read-only). See [EstimatedAnswer Property](#) <sup>[357]</sup>.

The following properties are related to the messages within the mailbox.

- [NewMsgs Property](#) <sup>[359]</sup>  
Returns the count of new messages within the session's mailbox.
- [OldMsgs Property](#) <sup>[359]</sup>  
Returns the count of old messages within the session's mailbox.
- [SavedMsgs Property](#) <sup>[361]</sup>  
Returns the count of saved messages within the session's mailbox.
- [LastAccessedMsg Property](#) <sup>[358]</sup>  
Returns the name of the last recorded or accessed message.

Note: VB Scripting will only support variant types.

### Internal Variables

Some of the variables that exist within Voicemail Pro can be split into smaller sections using a delimiter.

- Example:  
A CLI contains the number 01707364143. If the call flow references the variable as CLI@O,4 then the value 01707 will be returned as they are the first five numbers.

### 7.1.1.1 CallingParty Property

The CallingParty property returns the caller id associated with the voicemail session used for VBS interaction with Voicemail (equivalent to \$CLI call variable).

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: A String object containing the name of the calling party (or \$CLI). For example: `String = Voice.CallingParty`
- Remarks: The *CallingParty* property is only valid for the current session to Voicemail.
- Example

```
Sub Main (dlgid)
dim registration
Set Voice = CreateObject("vmprov5.voicescript")
registration = Voice.Register(dlgid)
if registration Then
    dim callerid
    callerid = Voice.CallingParty
end if
End Sub
```

### 7.1.1.2 EstimatedAnswer Property

The EstimatedAnswer property returns the \$QTIM voicemail call variable. This is the user's estimated time to answer within the queue in minutes and is only available for queued and still queued call flows.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: A long containing the current value for \$QTIM. For example: `Long = Voice.EstimatedAnswer`

---

### 7.1.1.3 LastAccessedMsg Property

The LastAccessedMsg property returns the name of the last recorded message. If the IP Office TUI is used then this will also contain the name of the last played message.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: A string object containing the fully qualified name of the last played or recorded message. For example: `String = Voice.LastAccessedMsg`

### 7.1.1.4 Locale Property

The Locale property gets and sets the \$LOC voicemail call variable.

- Owning object: vmprov5.voicescript
- String:
  - Set: A string object that contains the new value for the \$LOC variable. For example: `Voice.Locale = String`
  - Get: A string object containing the current value for \$ LOC. For example: `String = Voice.Locale`
- Example

```
Sub Main (dlgid)
dim registration
Set Voice = CreateObject("vmprov5.voicescript")
registration = Voice.Register(dlgid)
if registration Then
    dim locale
    DO SOME PROCESSING.
    locale = Voice.Locale
    Rem NOW SET LOCALE TO FRENCH
    Voice.Locale = "fr"
    DO SOME PROCESSING.
    Rem NOW SET LOCALE BACK TO WHAT IT WAS
    Voice.Locale = locale
end if
End Sub
```

### **7.1.1.5 Name Property**

The Name property returns the name of the mailbox associated with the voicemail session used for VBScript interaction with Voicemail (equivalent to \$NAM call variable).

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: A String object containing the name of the associated voice mailbox. for example:
    - `String = Voice.Name`

### **7.1.1.6 NewMsgs Property**

The NewMsgs property returns the number of new messages contained within the session mailbox.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: The number of new messages within the mailbox. For example: `Number = Voice.NewMsgs`

### **7.1.1.7 OldMsgs Property**

The OldMsgs property returns the number of old messages contained within the session mailbox.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: The number of old messages within the mailbox. For example: `Number = Voice.OldMsgs`

---

### 7.1.1.8 PositionInQueue Property

The PositionInQueue property returns the \$QPOS voicemail call variable. This is the user's current position in the queue and is only available for queued and still queued call flows.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: A string object containing the current value for \$QPOS. For example: `String = Voice.PositionInQueue`

### 7.1.1.9 Result Property

The Result property gets and sets the \$RES voicemail call variable. The \$RES variable contains the result property of a call flow action. The result is action-specific, for example OK, FAILED, BUSY and so on. The call flow action is able to use the variable to determine logic to be based upon the Result of a preceding Action, or as a temporary variable in the VB-Script. However the variable will be overwritten after the VB Action is completed. If the values from the VB action icon need to be passed to subsequent actions, it is advisable to use user variables.

- Owning object: vmprov5.voicescript
- String:
  - Set: A string object that contains the new value for the \$RES variable. For example: `Voice.Result = String`
  - Get: A string object containing the current value for \$RES. For example: `String = Voice.Result`
- Example

```
Sub Main (dlgid)
  dim registration
  Set Voice = CreateObject("vmprov5.voicescript")
  registration = Voice.Register(dlgid)
  if registration Then
    dim result
    dim success
    DO SOME PROCESSING.
    if success Then
      Voice.Result = TRUE
    else
      Voice.Result = FALSE
    end if
  End Sub
```



### **7.1.1.10 SavedMsgs Property**

The SavedMsgs property returns the number of saved messages contained within the session mailbox.

- Owning object: vmprov5.voicescript
- String:
  - Set: This property is read-only.
  - Get: The number of saved messages within the mailbox. For example: `Number = Voice.SavedMsgs`

### **7.1.1.11 SavedResult Property**

The SavedResult property gets and sets the \$SAV voicemail call variable.

- Owning object: vmprov5.voicescript
- String:
  - Set: A string object that contains the new value for the \$SAV variable. For example: `Voice.SavedResult = String`
  - Get: A string object containing the current value for \$SAV. For example: `String = Voice.SavedResult`

### **7.1.1.12 Variable Property**

The Variable property gets and sets the \$VAR voicemail call variable.

- Owning object: vmprov5.voicescript
- String:
  - Set: A string object that contains the new value for the \$VAR variable. For example: `Voice.Variable = String`
  - Get: A string object containing the current value for \$VAR. For example: `String = Voice.Variable`

## 7.1.2 VBScript Methods

### 7.1.2.1 ForwardMsg Method

This method can be used to forward a file or message to other mailboxes.

Method	Voice.ForwardMsg " <i>file</i> ", " <i>mailboxes</i> ", " <i>ident</i> "
Parameters	<ul style="list-style-type: none"><li>• <i>file</i> (<i>String</i>) This contains the name of the file to be translated. If the fully qualified path is specified (drive:\path\file) then the full specified path name is used otherwise the file is relative to the specified locale within the WAVS directory.<ul style="list-style-type: none"><li>• <i>[GREETING]\greeting</i> Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li><li>• <i>[ACCOUNTS]\mailbox\message</i> Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li><li>• <i>[CAMPAIGN]\campaign\message</i> Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li></ul></li><li>• <i>mailboxes</i> (<i>String</i>) The list of mailboxes to forward the message to, separated by non digits other than commas, for example 202 203 204.</li><li>• <i>ident</i> (<i>String</i>) The CLI to be associated with the message.</li></ul>
Return Value	This method does not return a value.

### 7.1.2.2 ForwardMsgToMailbox Method

This method is used to forward a file or message to another mailbox.

Method	Voice.ForwardMsgToMailbox " <i>file</i> ", " <i>mailbox</i> ", " <i>ident</i> "
Parameters	<ul style="list-style-type: none"><li>• <i>file</i> (<i>String</i>) This contains the name of the file to be translated. If the fully qualified path is specified (drive:\path\file) then the full specified path name is used otherwise the file is relative to the specified locale within the WAVS directory.<ul style="list-style-type: none"><li>• <i>[GREETING]\greeting</i> Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li><li>• <i>[ACCOUNTS]\mailbox\message</i> Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li><li>• <i>[CAMPAIGN]\campaign\message</i> Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li></ul></li><li>• <i>mailbox</i> (<i>String</i>) The mailbox to forward the message to.</li><li>• <i>ident</i> (<i>String</i>) The CLI to be associated with the message.</li></ul>
Return Value	The name of the new message. ( <i>String</i> )

### 7.1.2.3 FullFilename Method

This method is used to translate the shortcut filename to the equivalent fully qualified pathname for the file.

Method	Voice.FullFilename( <i>file</i> )
Parameters	<ul style="list-style-type: none"> <li>• <i>file (String)</i> This contains the name of the file to be translated. If the fully qualified path is specified (drive:\path\file) then the full specified path name is used otherwise the file is relative to the specified locale within the WAVS directory. <ul style="list-style-type: none"> <li>• <i>[GREETING]\greeting</i> Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li> <li>• <i>[ACCOUNTS]\mailbox\message</i> Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li> <li>• <i>[CAMPAIGN]\campaign\message</i> Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li> </ul> </li> </ul>
Return Value	The equivalent fully qualified path name for the specified file. ( <i>String</i> )

### 7.1.2.4 GetCallingParty Method

This method can be used to obtain the CLI from the current call.

Method	Voice.GetCallingParty([ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>dlgid (Long. Default = 0)</i> The connection for the voicemail session.</li> </ul>
Return Value	The CLI value associated with the specified voicemail session. ( <i>String</i> )

### 7.1.2.5 GetDTMF Method

This method is used to return user's DTMF input.

Method	Voice.GetDTMF([ <i>digits</i> ], [ <i>timeout</i> ], [ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>digits (Long, Default = 1)</i> The maximum number of DTMF digits to capture.</li> <li>• <i>timeout (Long, Default = 30)</i> The maximum time to wait for DTMF input.</li> <li>• <i>dlgid (Long. Default = 0)</i> The connection for the voicemail session.</li> </ul>
Return Value	The DTMF keys that were pressed. ( <i>String</i> )

### 7.1.2.6 GetEstimatedAnswer Method

This method is used to obtain the \$QTIM session variable.

Method	Voice.GetEstimatedAnswer([ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>dlgid (Long. Default = 0)</i> The connection for the voicemail session.</li> </ul>
Return Value	The value of the \$QTIM session variable associated with the specified voicemail session. ( <i>String</i> )

### 7.1.2.7 GetExtension Method

This method is used to obtain an extension.

Method	Voice.GetExtension( <i>index</i> )
Parameters	<ul style="list-style-type: none"><li><i>index (Long)</i> The extension to return. Note that the actual extension number should not be entered as <i>index</i> refers to the offset number of the extension in the listing.</li></ul>
Return Value	The extension at that position within the list, an empty string if end of list. ( <i>String</i> )

Example

```
Sub Main (dlgid)
dim registration
Set Voice = CreateObject("vmprov5.voicescript")
registration = Voice.Register(dlgid)
if registration Then
    dim index
    dim ext
    index = 0
    Do
        ext = Voice.GetExtension(index)
        index = index + 1
    Loop Until Len(ext) = 0
end if
End Sub
```

### 7.1.2.8 GetLastAccessed Msg Method

This method returns the name of the last recorded or played message. It is the same as using \$ for the filename with an [eMail](#) <sup>[243]</sup> action.

Method	voice.GetLastAccessedMsg( <i>dlgid</i> )
Parameters	<ul style="list-style-type: none"><li><i>dlgid (Long. Default = 0)</i> The connection for the voicemail session.</li></ul>
Return Value	The message name. ( <i>String</i> )

### 7.1.2.9 GetLocale Method

This method can be used to obtain the \$LOC session variable.

Method	Voice.GetLocale( <i>[dlgid]</i> )
Parameters	<ul style="list-style-type: none"><li><i>dlgid (Long. Default = 0)</i> The connection for the voicemail session.</li></ul>
Return Value	The value of the \$LOC session variable associated with the specified voicemail session.

### 7.1.2.10 GetMailbox Method

This method can be used to obtain a mailbox.

Method	Voice.GetMailbox( <i>index</i> )
Parameters	<ul style="list-style-type: none"><li><i>index (Long)</i> The extension to return. Note that the actual extension number should not be entered as <i>index</i> refers to the offset number of the extension in the listing.</li></ul>
Return Value	The mailbox at that position within the list, an empty string if end of list.

**7.1.2.11 GetMailboxMessage Method**

This method can be used to obtain a message within a mailbox.

Method	<code>Voice.GetMailboxMessage(mailbox, msgtype, index)</code>
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• msgtype (<i>String</i>) The type for the message(s). <i>N</i>for new, <i>O</i>for old and <i>S</i>for saved.</li> <li>• index The message to return.</li> </ul>
Return Value	The message at that position within the list, an empty string if end of list. ( <i>String</i> )

**7.1.2.12 GetMailboxMessages Method**

This method can be used to obtain the count of specific messages within a mailbox.

Method	<code>Voice.GetMailboxMessages(mailbox, msgtype)</code>
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• msgtype (<i>String</i>) The type for the message(s). <i>N</i>for new, <i>O</i>for old and <i>S</i>for saved.</li> </ul>
Return Value	The number of messages of a particular type within the mailbox. ( <i>String</i> )

**7.1.2.13 GetMessagePriority Method**

This method is used to determine whether the message was left with priority.

Method	<code>Voice.GetMessagePriority(mailbox, message)</code>
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• message The message to query.</li> </ul>
Return Value	True if the message was left with priority, otherwise false. ( <i>Boolean</i> )

**7.1.2.14 GetMessagePrivate Method**

This method can be used to determine whether the message was left with privacy.

Method	<code>Voice.GetMessagePrivate(mailbox, message)</code>
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• message The message to query.</li> </ul>
Return Value	True if the message was left with privacy, otherwise false. ( <i>Boolean</i> )

### 7.1.2.15 GetMessageStatus Method

This method can be used to obtain the state of the message within a mailbox.

Method	Voice.GetMessageStatus( <i>mailbox</i> , <i>message</i> )
Parameters	<ul style="list-style-type: none"><li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li><li>• message The message to query. The message name format should be <i>[Accounts]\mailbox\message</i>. For example <i>[Accounts]\Extn247\MSG00004</i>.</li></ul>
Return Value	The state of the message within the mailbox - N for new, O for old, S for saved. ( <i>String</i> )

### 7.1.2.16 GetName Method

This method is used to obtain the \$NAM session variable.

Method	Voice.GetName( <i>[dlgid]</i> )
Parameters	<ul style="list-style-type: none"><li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	The value of the \$NAM session variable associated with the specified voicemail session. ( <i>String</i> )

### 7.1.2.17 GetNewMsgs Method

This method is used to obtain the number of new messages contained within the session's mailbox.

Method	Voice.GetNewMsgs( <i>[dlgid]</i> )
Parameters	<ul style="list-style-type: none"><li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	The number of new messages contained within the session's mailbox. ( <i>Long</i> )

### 7.1.2.18 GetOldMsgs Method

This method is used to obtain the number of old messages contained within the session's mailbox.

Method	Voice.GetOldMsgs( <i>[dlgid]</i> )
Parameters	<ul style="list-style-type: none"><li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	The number of old messages contained within the session's mailbox. ( <i>Long</i> )

### 7.1.2.19 GetPositionInQueue Method

This method is used to obtain the \$QPOS session variable.

Method	Voice.GetPositionInQueue( <i>[dlgid]</i> )
Parameters	<ul style="list-style-type: none"><li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	The value of the \$QPOS session variable associated with the specified voicemail session. ( <i>String</i> )

**7.1.2.20 GetRegister Method**

This method is used to retrieve a string stored in one of the session sixteen data variables \$CPO to \$CP15.

Method	Voice.GetRegister( <i>regnum</i> , [ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>regnum</i> (<i>Long</i>) Data register to use for storage (0-15).</li> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The data stored within the specified register. ( <i>String</i> )

**7.1.2.21 GetResult Method**

This method is used to obtain the \$RES session variable.

Method	Voice.GetResult([ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The value of the \$RES session variable associated with the specified voicemail session. ( <i>String</i> )

**7.1.2.22 GetSavedMsgs Method**

This method is used to obtain the number of saved messages contained within the session's mailbox.

Method	Voice.GetSavedMsgs ([ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The number of saved messages contained within the session's mailbox. ( <i>Long</i> )

**7.1.2.23 GetSavedResult Method**

This method is used to obtain the \$SAV session variable.

Method	Voice.GetSavedResult([ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The value of the \$SAV session variable associated with the specified voicemail session. ( <i>String</i> )

**7.1.2.24 GetUserExtension Method**

This method returns the extension number associated with the specified mailbox.

Method	voice.GetUserExtension( <i>mailbox</i> )
Parameters	<ul style="list-style-type: none"> <li>• <i>mailbox</i> (<i>String</i>) The mailbox to which the message belongs.</li> </ul>
Return Value	The extension number. ( <i>String</i> )

### 7.1.2.25 GetUserMailboxFromExtn Method

This method returns the mailbox associated with a specified extension number.

Method	<code>voice.GetUserMailboxFromExtn(extension)</code>
Parameters	<ul style="list-style-type: none"><li>• extension <i>(String)</i> The extension number. A variable such as \$CLI can be used with internal callers to identify the user's own mailbox.</li></ul>
Return Value	The mailbox name. <i>(String)</i>

### 7.1.2.26 GetUserVariable Method

This method returns the current value of a specified user variable.

Method	<code>voice.GetUserVariable(variable)</code>
Parameters	<ul style="list-style-type: none"><li>• variable <i>(String)</i> The user variable name.</li></ul>
Return Value	The current value of the user variable. <i>(String)</i>

### 7.1.2.27 GetVariable Method

This method is used to obtain the \$VAR session variable.

Method	<code>Voice.GetVariable([dlgid])</code>
Parameters	<ul style="list-style-type: none"><li>• dlgid <i>(Long. Default = 0)</i> The connection for the voicemail session.</li></ul>
Return Value	The value of the \$VAR variable associated with the specified voicemail session. <i>(String)</i>

### 7.1.2.28 MessageCLI Method

This method is used to obtain the CLI of the caller that left a message within a mailbox.

Method	<code>Voice.MessageCLI(mailbox, message)</code>
Parameters	<ul style="list-style-type: none"><li>• mailbox <i>(String)</i> The mailbox to which the message belongs.</li><li>• message The message to query.</li></ul>
Return Value	The CLI of the caller that left the message. <i>(String)</i>

### 7.1.2.29 MessageDisplay Method

This method is used to obtain the display field associated with the message within a mailbox.

Method	<code>Voice.MessageDisplay(mailbox, message)</code>
Parameters	<ul style="list-style-type: none"><li>• mailbox <i>(String)</i> The mailbox to which the message belongs.</li><li>• message The message to query.</li></ul>
Return Value	The display string associated with the message. <i>(String)</i>



### 7.1.2.30 MessageLength Method

This method is used to obtain the length of a message within a mailbox.

Method	Voice.MessageLength( <i>mailbox</i> , <i>message</i> )
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• message The message to query.</li> </ul>
Return Value	The length of the message in milliseconds. ( <i>Long</i> )

### 7.1.2.31 MessageTime Method

This method is used to obtain the date and time the message was left within a mailbox.

Method	Voice.MessageTime( <i>mailbox</i> , <i>message</i> )
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• message The message to query.</li> </ul>
Return Value	The time the message was left in the format: YEAR/MONTH/DAY HOUR:MINUTE. For example 2003/09/23 13:26. ( <i>String</i> )

### 7.1.2.32 PlayDigits Method

This method is used to play the digits specified through voicemail to the active connection.

Method	Voice.PlayDigits( <i>digits</i> , [ <i>wait</i> ], [ <i>interruptables</i> ], [ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• digits (<i>String</i>) This contains the digits to be played. For example "12345" plays "one two three four five".</li> <li>• wait (<i>Boolean</i>) This optional parameter specifies whether voicemail should return immediately (<i>False</i>) or wait until the wave file has been played first (<i>True</i>).</li> <li>• interruptables (<i>String</i>, <i>Default = "Any"</i>) This is for future development.</li> <li>• dlgid (<i>Long</i>, <i>Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The key press that was used to terminate the playback. ( <i>String</i> )

#### Example

```
Sub Main (dlgid)
  dim registration
  Set Voice = CreateObject("vmprov5.voicescript")
  registration = Voice.Register(dlgid)
  if registration Then
    dim key
    key = Voice.PlayDigits("12345");
  end if
End Sub
```

### 7.1.2.33 PlayLocaleWav Method

This method is used to play a wave file through voicemail to the active connection taking into account the system locale.

Method	Voice.PlayLocaleWav(wav, [wait], [interruptables], [dlgid])
Parameters	<ul style="list-style-type: none"> <li>• wav (<i>String</i>) This contains the name of the wave file to be played. If the fully qualified path is specified (drive:\path\file) then the full specified path name is used otherwise the file is relative to the specified locale within the WAVS directory. <ul style="list-style-type: none"> <li>• [GREETING]\greeting Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li> <li>• [ACCOUNTS]\mailbox\message Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li> <li>• [CAMPAIGN]\campaign\message Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li> </ul> </li> <li>• wait (<i>Boolean</i>) This optional parameter specifies whether voicemail should return immediately (<i>0</i>) or wait until the wave file has been played first (<i>1</i>).</li> <li>• interruptables (<i>String, Default = "Any"</i>) This is for future development.</li> <li>• dlgid (<i>Long, Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	<ul style="list-style-type: none"> <li>• The key press that was used to terminate the playback. (<i>String</i>)</li> </ul>

### 7.1.2.34 PlayWav Method

This method is used to play a wave file through voicemail to the active connection.

Method	Voice.PlayWav(wav, [wait], [interruptables], dlgid)
Parameters	<ul style="list-style-type: none"> <li>• wav (<i>String</i>) This contains the name of the wave file to be played or the name of a system parameter to be spoken. The following formats are allowable. If the string just contains numbers, then the digits are played, for example 12345 plays "one two three four five". If the fully qualified path is specified (drive:\path\file) then the full specified pathname is used otherwise the file is relative to the WAVS directory. <ul style="list-style-type: none"> <li>• \$NAM Plays the recorded name for the mailbox if one has been recorded. If a name has not been recorded then optional TTS can be used (providing it has been licensed).</li> <li>• \$TIME:hh[:mm[:ss]] [ Y][ dd[/mm[/yy]]] = Plays out the specified time and date. The hours to speak must always be specified and optional the number of minutes, seconds, day, month and year. Note that the actual prompts spoken and order of playing of the elements varies according to locale. Further examples are given in the table below: <ul style="list-style-type: none"> <li>• English UK: "At eleven hour fifty five, date twenty first September two oh oh three".</li> <li>• English US: "Sunday September twenty first, eleven fifty five AM".</li> </ul> </li> <li>• \$QPOS [:position] = This plays out "You are at queue position 'position' in the queue".</li> <li>• \$OTIM [:eta] = This plays out "Estimated time to answer is 'eta' minutes".</li> <li>• \$MSGN:msgs = Plays out the specified number of new messages. For example \$MSGN:10 plays "You have ten new messages".</li> <li>• \$MSGO:msgs = Plays out the specified number of old messages. For example \$MSGO:0 plays "You have no old messages".</li> <li>• \$MSGS:msgs = Plays out the specified number of saved messages. For example \$MSGS:5 plays "You have five saved messages".</li> <li>• \$CID, \$CLI, \$DATE, \$ETA, \$KEY, \$POS, \$SAV, \$TIME Play out the contents of the call variable.</li> <li>• [GREETING]\greeting Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li> <li>• [ACCOUNTS]\mailbox\message Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li> <li>• [CAMPAIGN]\campaign\message Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li> </ul> </li> <li>• wait (<i>Boolean</i>) This optional parameter specifies whether voicemail should return immediately (0) or wait until the wave file has been played first (1).</li> <li>• interruptables (<i>String, Default = "Any"</i>) This is for future development.</li> <li>• dlgid (<i>Long, Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	The key press that was used to terminate the playback. ( <i>String</i> )

#### Example

```

Sub Main (dlgid)
dim registration
Set Voice = CreateObject("vmprov5.voicescript")
registration = Voice.Register(dlgid)
if registration Then
    dim key
    key = Voice.PlayWav("test", True, "Any", dlgid);
end if
End Sub

```

## Examples of Time Playback

voice.PlayWav(...)	UK English	US English
"\$TIME:0", True, "Any", dlgid	<i>"At Midnight Oh Zero"</i>	<i>"Twelve Midnight"</i>
"\$TIME:11", True, "Any", dlgid	<i>"At Eleven Hour O'Clock"</i>	<i>"Eleven AM"</i>
"\$TIME:12", True, "Any", dlgid	<i>"At Twelve Hour O'Clock"</i>	<i>"Twelve Noon"</i>
"\$TIME:13", True, "Any", dlgid	<i>"At Thirteen Hour Hundred"</i>	<i>"One PM"</i>
"\$TIME:23", True, "Any", dlgid	<i>"At Twenty Three Hour Hundred"</i>	<i>"Eleven PM"</i>
"\$TIME:24", True, "Any", dlgid	<i>"At Midnight Oh Zero"</i>	<i>"Twelve Midnight"</i>
"\$TIME:0:00:00 Y", True, "Any", dlgid	<i>"Yesterday At Midnight Oh Zero"</i>	<i>"Thursday May Seventh Twelve Midnight"</i>
"\$TIME:11:00:00 Y", True, "Any", dlgid	<i>"Yesterday At Eleven Hour O'Clock"</i>	<i>"Thursday May Seventh Eleven AM"</i>
"\$TIME:12:00:00 Y", True, "Any", dlgid	<i>"Yesterday At Twelve Hour O'Clock"</i>	<i>"Thursday May Seventh Twelve Noon"</i>
"\$TIME:13:00:00 Y", True, "Any", dlgid	<i>"Yesterday At Thirteen Hour Hundred"</i>	<i>"Thursday May Seventh One PM"</i>
"\$TIME:23:00:00 Y", True, "Any", dlgid	<i>"Yesterday At Twenty Three Hour Hundred"</i>	<i>"Thursday May Seventh Eleven PM"</i>
"\$TIME:24:00:00 Y", True, "Any", dlgid	<i>"At Midnight Oh Zero"</i>	<i>"Twelve Midnight"</i>
"\$TIME:0:00:00 13/10/2008", True, "Any", dlgid	<i>"At Midnight Oh Zero date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth Twelve Midnight"</i>
"\$TIME:11:00:00 13/10/2008", True, "Any", dlgid	<i>"At Eleven Hour O'Clock Date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth Eleven AM"</i>
"\$TIME:12:00:00 13/10/2008", True, "Any", dlgid	<i>"At Twelve Hour O'Clock Date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth Twelve Noon"</i>
"\$TIME:13:00:00 13/10/2008", True, "Any", dlgid	<i>"At Thirteen Hour Hundred Date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth One PM"</i>
"\$TIME:23:00:00 13/10/2008", True, "Any", dlgid	<i>"At Twenty Three Hour Hundred Date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth Eleven PM"</i>
"\$TIME:24:00:00 13/10/2008", True, "Any", dlgid	<i>"At Midnight Oh Zero Date Thirteenth October Two Oh Oh Eight"</i>	<i>"Monday October Thirteenth Twelve Midnight"</i>

### 7.1.2.35 RecordMsg Method

This method is used to record a user's speech input to the specified file.

Method	Voice.RecordMsg "recording", maxtime, [interruptables], [appendtofile], [dlgid], [playbeep]
Parameters	<ul style="list-style-type: none"> <li>• recording (<i>String</i>) This contains the name of the file for the recording to be stored to and can be in the following formats. If the fully qualified path is specified (drive:\path\file) then the full specified pathname is used otherwise the file is relative to the specified locale within the WAVS directory. <ul style="list-style-type: none"> <li>• [GREETING]\greeting Plays out the greeting stored within the greetings directory. The .WAV extension is automatically appended.</li> <li>• [ACCOUNTS]\mailbox\message Plays out the message stored within the specified mailbox. The .WAV extension is automatically appended.</li> <li>• [CAMPAIGN]\campaign\message Plays out a campaign message stored within the specified campaign. The .WAV extension is automatically appended.</li> </ul> </li> <li>• maxtime (<i>Long</i>) The maximum recording length specified in seconds.</li> <li>• interruptables (<i>String, Default = "Any"</i>) This is for future development.</li> <li>• appendtofile (<i>Boolean, Default = False</i>) Set to true if the recording should be appended to the file, false to clear the file first.</li> <li>• dlgid (<i>Long, Default = 0</i>) The connection for the voicemail session.</li> <li>• playbeep (<i>Boolean, Default = False</i>) This flag sets whether a beep is played before the start of recording.</li> </ul>
Return Value	The key press that was used to terminate the recording. ( <i>String</i> )

### 7.1.2.36 RecordRegister Method

This method is used to record a user's speech input to the specified file stored in the specified register.

Method	Voice.RecordRegister(regnum, [maxtime], [interruptables], [dlgid], [playbeep])
Parameters	<ul style="list-style-type: none"> <li>• regnum (<i>Long</i>) Data register containing file to store recording to.</li> <li>• maxtime (<i>Long, Default = 60</i>) The maximum recording length specified in seconds.</li> <li>• interruptables (<i>String, Default = "Any"</i>) This is for future development.</li> <li>• dlgid (<i>Long, Default = 0</i>) The connection for the voicemail session.</li> <li>• playbeep (<i>Boolean, Default = False</i>) This flag sets whether a beep is played before the start of recording.</li> </ul>
Return Value	The key press that was used to terminate the recording. ( <i>String</i> )

### 7.1.2.37 Register Method

This method is used to determine whether the voicemail session that was used to launch the VB script is still active.

Method	Voice.Register(dlgid)
Parameters	<ul style="list-style-type: none"> <li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	A Boolean variable indicating whether the specified voicemail session is still active. ( <i>Boolean</i> )

#### Example

```
Sub Main (dlgid)
dim registration
Set Voice = CreateObject("vmprov5.voicescript")
registration = Voice.Register(dlgid)
if registration Then
do something.
end if
End Sub
```

### 7.1.2.38 SetLocale Method

This method is used to set the \$LOC session variable.

Method	Voice.SetLocale(locale, [dlgid])
Parameters	<ul style="list-style-type: none"> <li>• locale (<i>String</i>) The new value for the \$LOC variable.</li> <li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	This method does not return a value.

### 7.1.2.39 SetMailboxMessage Method

This method is used to change the status of a message within a mailbox.

Method	Voice.SetMailboxMessage(mailbox, message, msgtype)
Parameters	<ul style="list-style-type: none"> <li>• mailbox (<i>String</i>) The mailbox to which the message belongs.</li> <li>• message (<i>String</i>) The message to modify. The message name format should be [Accounts]\mailbox\message. For example [Accounts]\Extn247\MSG00004.</li> <li>• msgtype (<i>String</i>) The type for the message(s). <i>N</i> for new, <i>O</i> for old and <i>S</i> for saved.</li> </ul>
Return Value	This method does not return a value.

### 7.1.2.40 SetRegister Method

This method is used to store a string in one of the sixteen session data variables \$CPO to \$CP15.

Method	Voice.SetRegister(regnum, data, [dlgid])
Parameters	<ul style="list-style-type: none"> <li>• regnum (<i>Long</i>) Data register to use for storage (0-15).</li> <li>• data (<i>String</i>) The data to store within this register.</li> <li>• dlgid (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	This method does not return a value.

**7.1.2.41 setResult Method**

This method is used to set the \$RES session variable.

Method	Voice.setResult( <i>result</i> , [ <i>dlgid</i> ])
Parameters	<ul style="list-style-type: none"> <li>• <i>result</i> (<i>String</i>) The new value for the \$RES variable.</li> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	This method does not return a value.

**7.1.2.42 SetSavedResult Method**

This method can be used to set the value of the \$SAV variable.

Method	Voice.SetSavedResult( <i>result</i> , <i>dlgid</i> )
Parameters	<ul style="list-style-type: none"> <li>• <i>result</i> (<i>String</i>) The new value for the \$SAV variable.</li> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	This method does not return a value.

**7.1.2.43 SetUserVariable Method**

This method can be used to set the value of a user variable.

Method	voice.SetUserVariable( <i>variable</i> , <i>value</i> )
Parameters	<ul style="list-style-type: none"> <li>• <i>variable</i> (<i>String</i>) The variable name.</li> <li>• <i>value</i> (<i>String</i>) The value to assign to the variable.</li> </ul>
Return Value	This method does not return a value.

**7.1.2.44 SetVariable Method**

This method is used to set the \$VAR session variable.

Method	Voice.SetVariable( <i>value</i> , <i>dlgid</i> )
Parameters	<ul style="list-style-type: none"> <li>• <i>value</i> (<i>String</i>) The new value for the \$VAR variable.</li> <li>• <i>dlgid</i> (<i>Long. Default = 0</i>) The connection for the voicemail session.</li> </ul>
Return Value	This method does not return a value.

### 7.1.2.45 Speak Method

This method is used to speak out the specified speech provided TTS has been licensed.

Method	<code>Voice.Speak(text, [wait], [interruptables], [dlgid])</code>
Parameters	<ul style="list-style-type: none"><li>• <code>text</code> (<i>String</i>) This contains the text to be spoken.</li><li>• <code>wait</code> (<i>Boolean</i>) This optional parameter specifies whether voicemail should return immediately (<code>0</code>) or wait until the wave file has been played first (<code>1</code>).</li><li>• <code>interruptables</code> (<i>String, Default = "Any"</i>) This is for future development.</li><li>• <code>dlgid</code> (<i>Long, Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	The key press that was used to terminate the playback. ( <i>String</i> )

### 7.1.2.46 Stop Method

This method can be used to stop any current play back.


Method	<code>voice.Stop(dlgid)</code>
Parameters	<ul style="list-style-type: none"><li>• <code>dlgid</code> (<i>Long, Default = 0</i>) The connection for the voicemail session.</li></ul>
Return Value	This method does not return a value.







## 7.2 Database Connection

Voicemail Pro call flows can interact, read and write data, with almost any Windows database that supports ODBC (Open Database Connectivity) and SQL (Structured Query Language) format.

- ! These features are not supported on a Linux based Voicemail Pro server.
- In addition to the normal [licenses for Voicemail Pro](#)<sup>[21]</sup>, use of database actions requires the IP Office system to have an Advanced Edition license. For systems upgraded to IP Office Release 6, existing legacy VMPro Database Interface licenses can still be used.

The  Database Actions that can be used in a call flow are:

-  Database Open  
Opens the required database, including any necessary permissions and security options.
-  Database Execute  
Defines a SQL query to either read matching records from the database or to write data to the database. Up to 6 fields can be defined to be returned in matching database records.
-  Database Get Data  
Selects the current record from the matches returned by the preceding Database Execute action. The record fields are then placed into Voicemail Pro variables DBD[0] to DBD[5]. The Database Get Data allows selection of the first, next, previous or last record.
-  Database Close  
Closes the database connection. This also occurs automatically if the caller disconnects.

## 7.2.1 Example Database Scenario

In this call flow example, an auto-attendant has been created to allow callers to order books. The book details are held within a Microsoft Access database. Callers will be able to enter either the ISBN or Author's name. The title and cost of the item will be looked up allowing the caller to purchase the item if they wish to. If the caller purchases the book they will be able to enter their credit card details and a contact number.

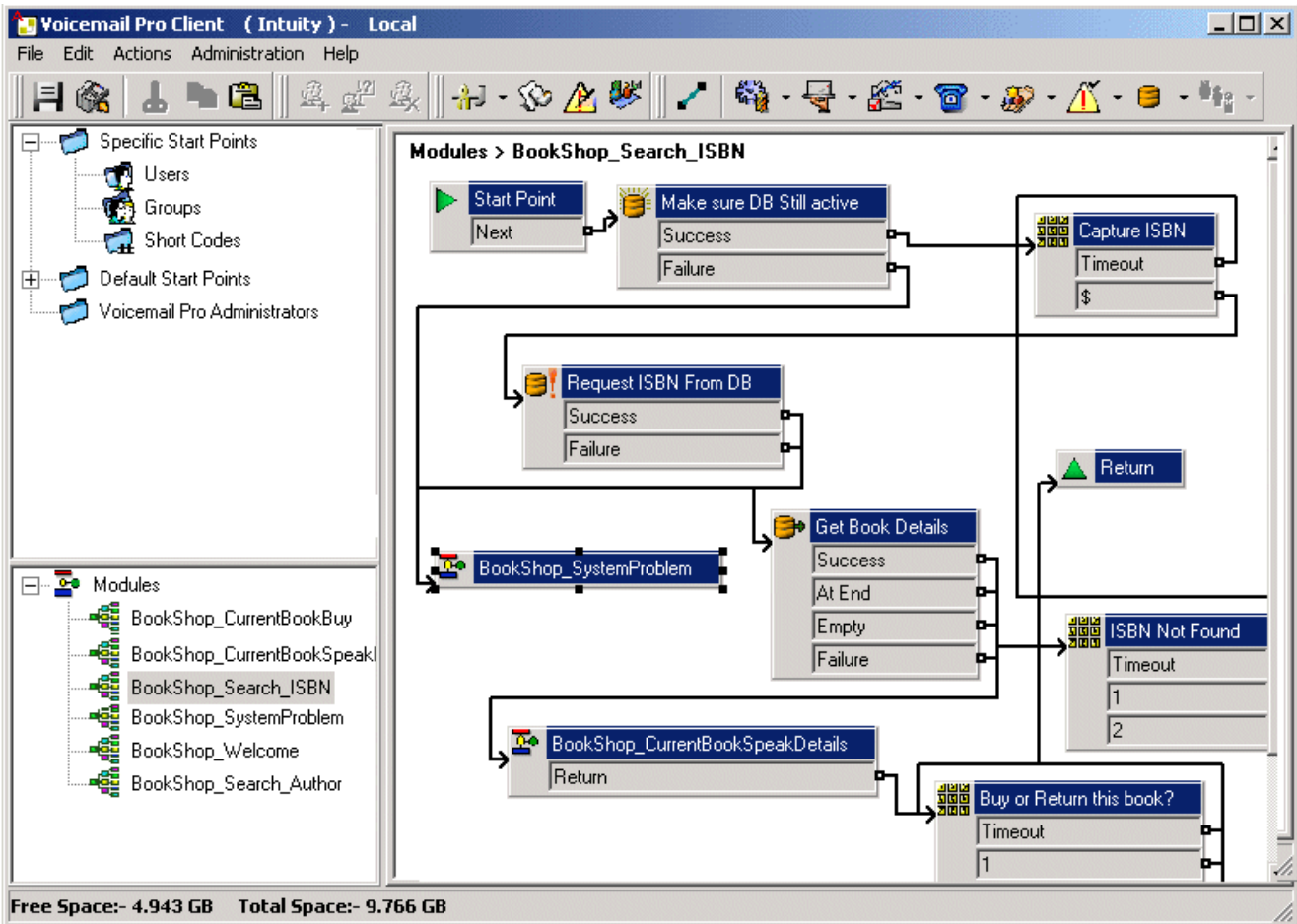
Example of the database used in the call flow.

BookList : Table				
	ISBN	Author	Title	Cost
	1001	James Herbert	The Fog	£4.30
	1002	James Herbert	The Rats	£2.59
	6666	J D Salinger	The Catcher in the Rye	£3.10
	6767	J K Rowling	The Harry Potter Books	£9.50
	7777	A A Milne	Winnie the Poo	£2.60
	8888	Rudyard Kipling	The Jungle Books	£3.40
	9999	Jonathan Swift	Gulliver's Travels	£2.30
				£0.00

Record: 23 of 23

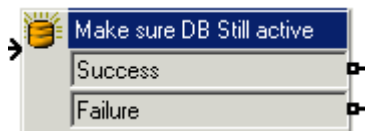
### 7.2.1.1 Retrieving Data from the Database

The Bookshop\_Welcome module allows callers to search the database by either the books ISBN number or the author's name. The screen below shows the call flow module used when a search by ISBN is selected. The database actions that have been used are shown below the call flow diagram, with details on the following pages.

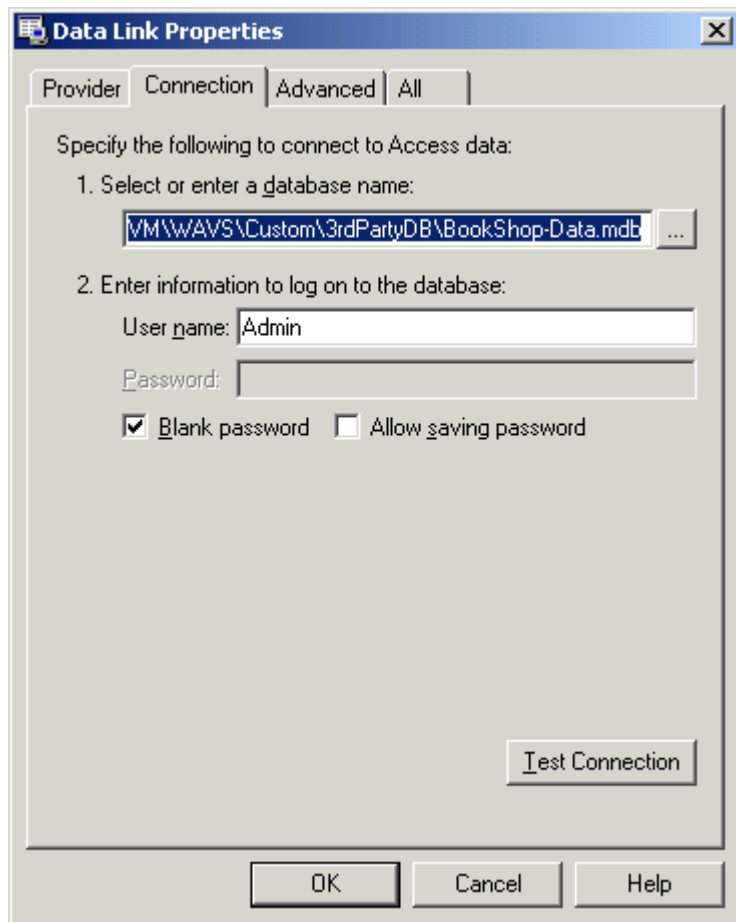


Database Open Action

The Database Open Action is used to link to the bookshop database.

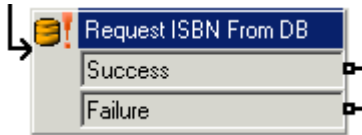


The specific tab of the action contains the location of the database. Click the browse button to view the Data Link Properties dialog. The details entered into these screens will depend upon the type of database used. This example uses a Microsoft Access Database. The example shown below shows the connection to the database. If the database is available the callers move through the call flow to a menu action that will capture the ISBN number entered.



## Database Execute Action

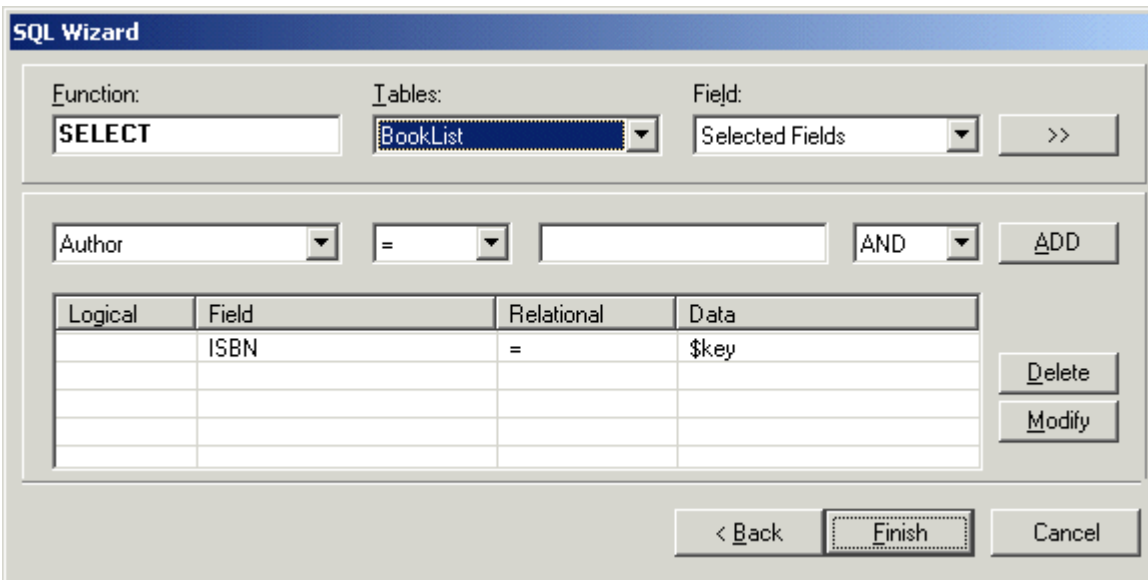
The Database Execute Action contains a query against the open database, in this example it concerns the ISBN captured in the previous menu action.



If the sequence of numbers entered by the caller matches an ISBN entry in the database, then the Author's name, cost, ISBN and book title details are captured. This query is entered into the Database Execute Action via the specific tab.

When entering information into the specific tab for the first time you are taken through a series of steps.

1. Select the Database Open Icon required. In this example the 'Make sure Database still active' icon was selected.
2. At the SQL Function window the option to 'Select ...From' was chosen as information from the database is required.
3. Details are then entered into the SQL Wizard, as shown below.



The SQL Wizard dialog box is shown with the following configuration:

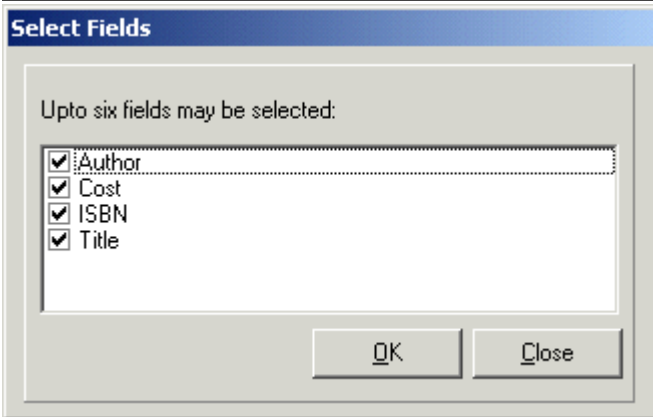
- Function: SELECT
- Tables: BookList
- Field: Selected Fields

The query builder section shows:

Author = [ ] AND [ ]

Logical	Field	Relational	Data
	ISBN	=	\$key

Buttons: < Back, Finish, Cancel, Delete, Modify



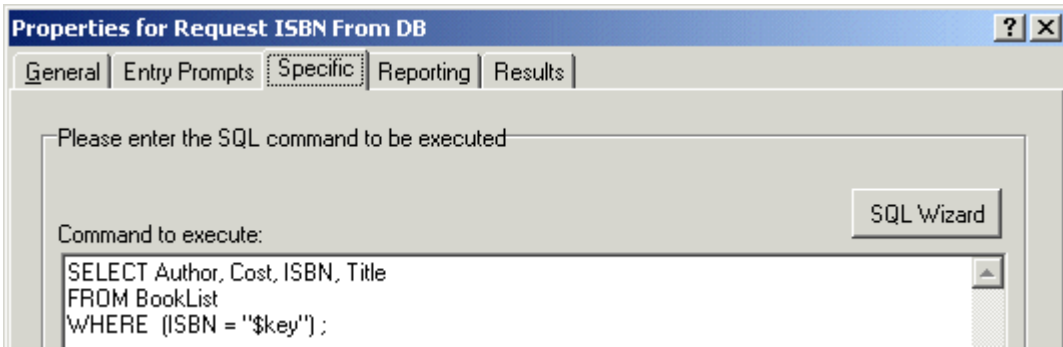
The Select Fields dialog box is shown with the following configuration:

Upto six fields may be selected:

- Author
- Cost
- ISBN
- Title

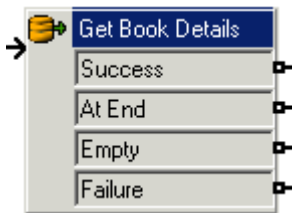
Buttons: OK, Close

4. When the query has been entered the SQL wizard is closed. The specific tab of the action will contain the entered query, see example shown below.

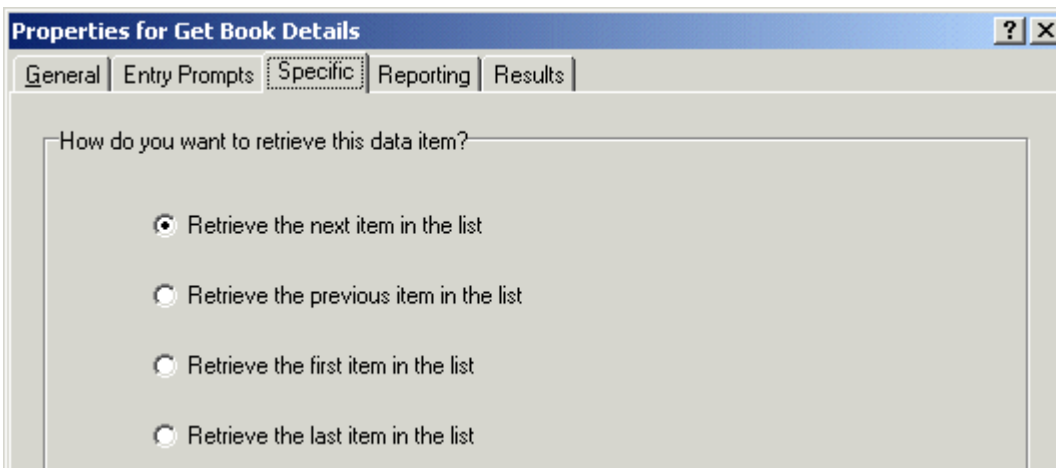


Database Get Data Action

The Database Get Data Action is used to return details of any matching entries following a search against a database.



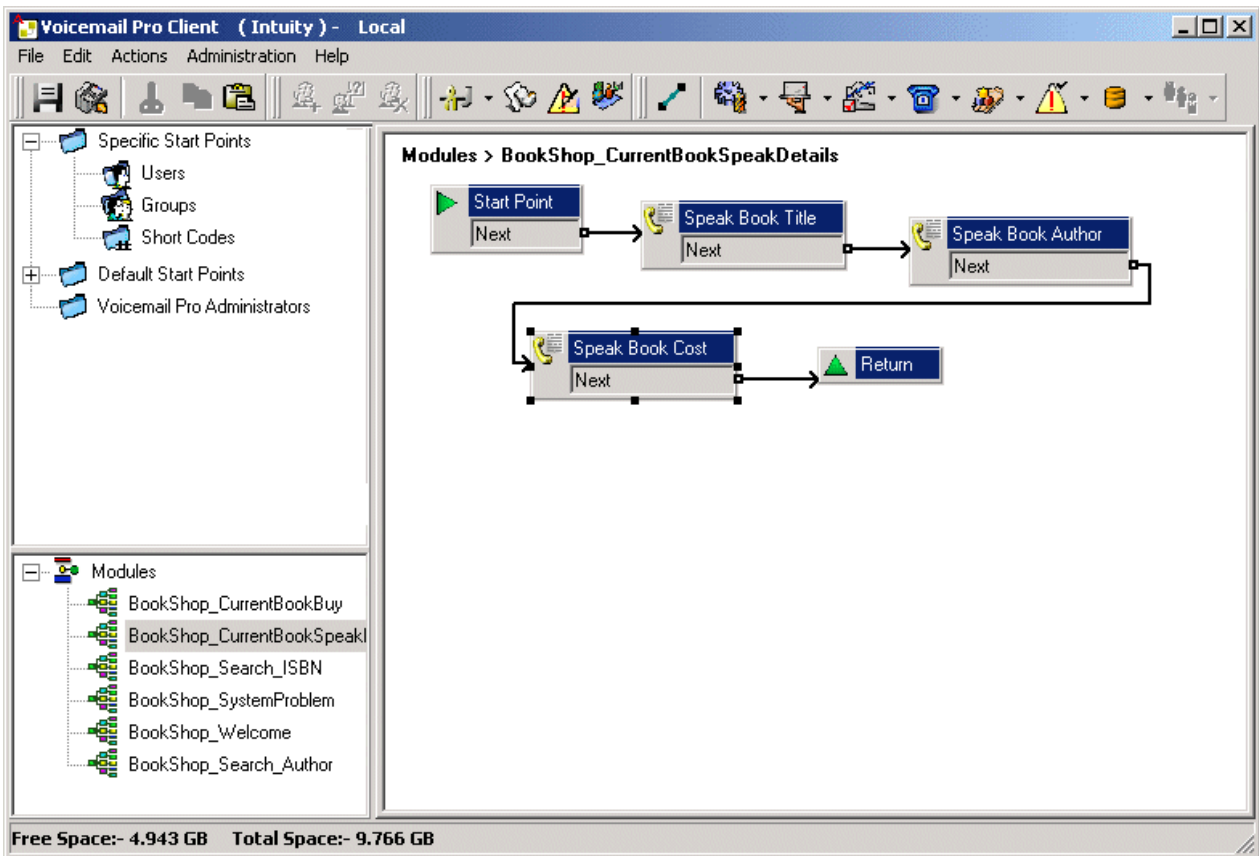
To retrieve the results an option is selected on the specific tab to select how the data is retrieved from the database. In this example the option 'retrieve the next item in the list' was selected to allow the caller to step through the results, if more that one match ISBN occurred.



If a matching ISBN has been found the call flow is routed to another module called 'Bookshop\_CurrentBookSpeakDetails'.

### 7.2.1.2 Returning Data from the Database

The *Bookshop\_CurrentBookSpeakDetails* module tells the caller the book title, the author's name and the cost of the book matching the ISBN that they entered.

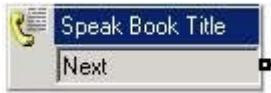


The information from the database is conveyed to the caller using the 'Speak Text Action'.

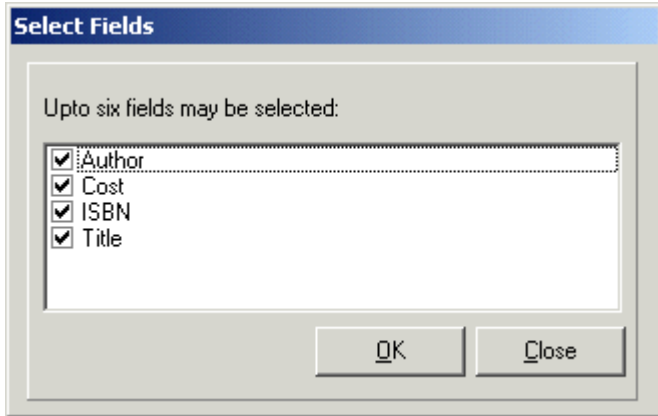
- To use the Speak Action, the IP Office must be licensed for and have installed Text to Speech.

Speak Book Title

The Speak Book Title action is used to tell the caller the book title associated with the ISBN that was entered.



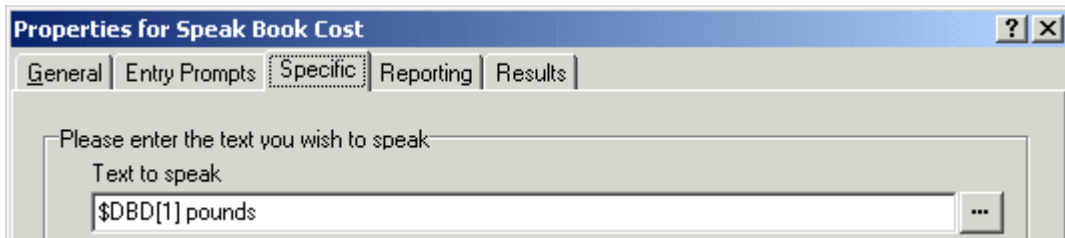
The fields selected in the 'Request ISBN from DB' action contain the information retrieved from the bookshop database. The fields selected were Author, Cost, ISBN and Title.



Any fields selected in a query will appear in alphabetical order.

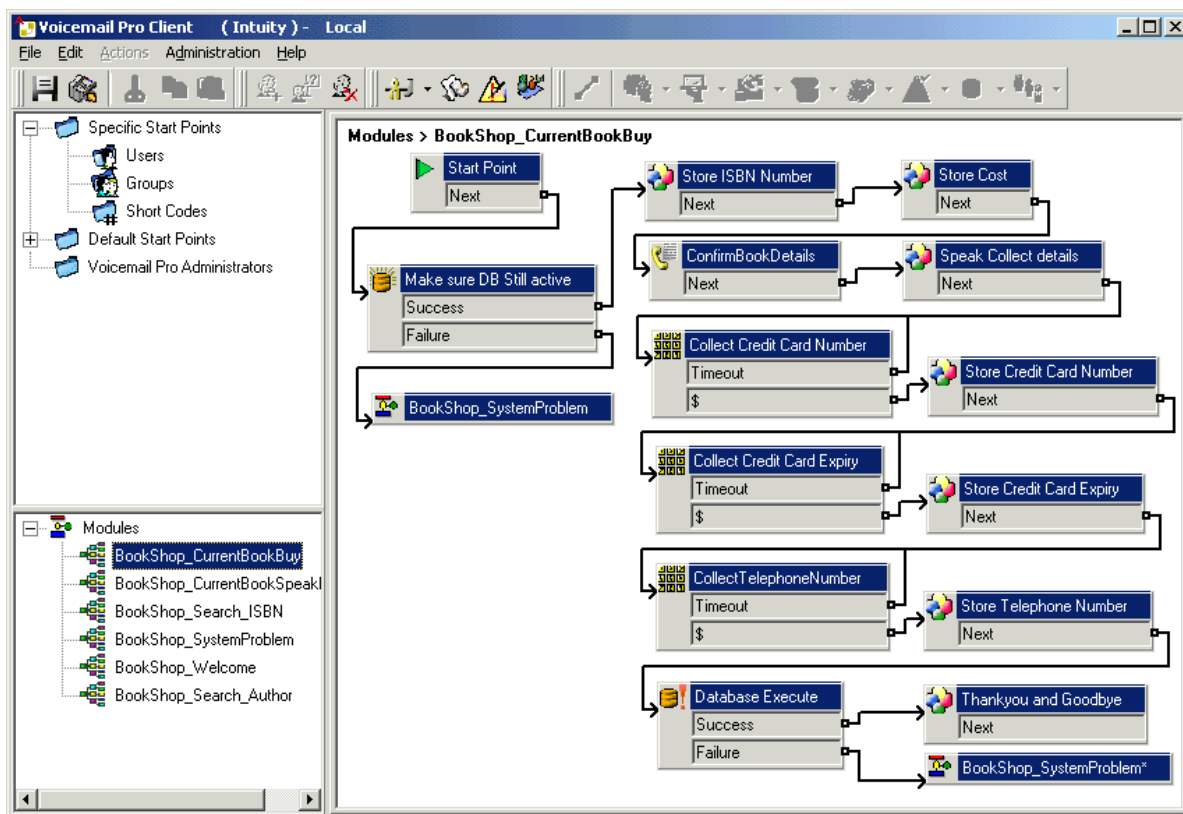
- \$DBD[0] would return details from the field Author
- \$DBD[1] would return details from the field Cost
- \$DBD[2] would return details from the field ISBN
- \$DBD[3] would return details from the field Title.

Each Speak Text action in the call flow returns the values from a different field selected within the database query. The 'Speak Book Cost' action has additional text added so that the currency can be spoken. In this example pounds are used.



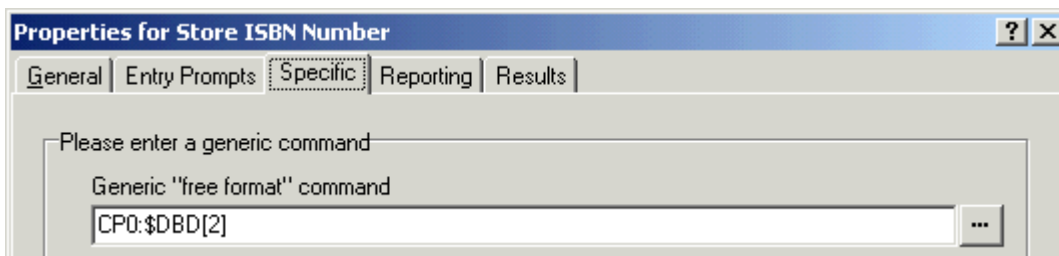
### 7.2.1.3 Entering Details into the Database

The caller is given an option to buy the book. If they select to buy the book, the call flow module *Bookshop\_CurrentBookBuy* operates. The call flow immediately checks that access to the bookshop database is still available via a Database Open action.

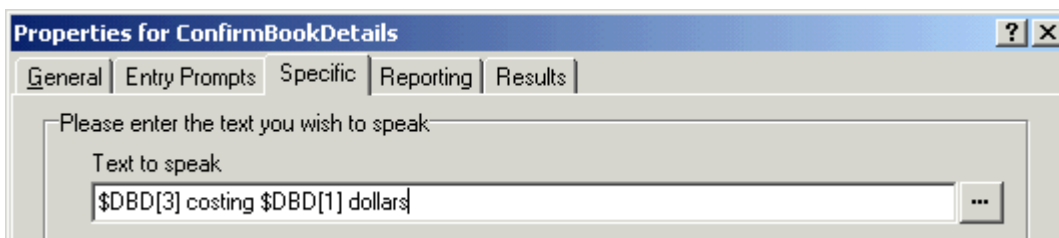


#### Confirm Book Details

Generic actions are used to store the ISBN number and cost. The example below shows how the ISBN number is stored in the call variable *CPO*.



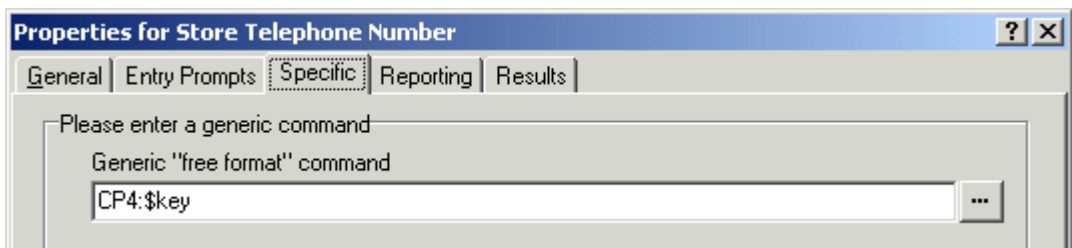
When the details have been stored the book title and cost are spoken to the caller using a Speak Text action. See the example below.





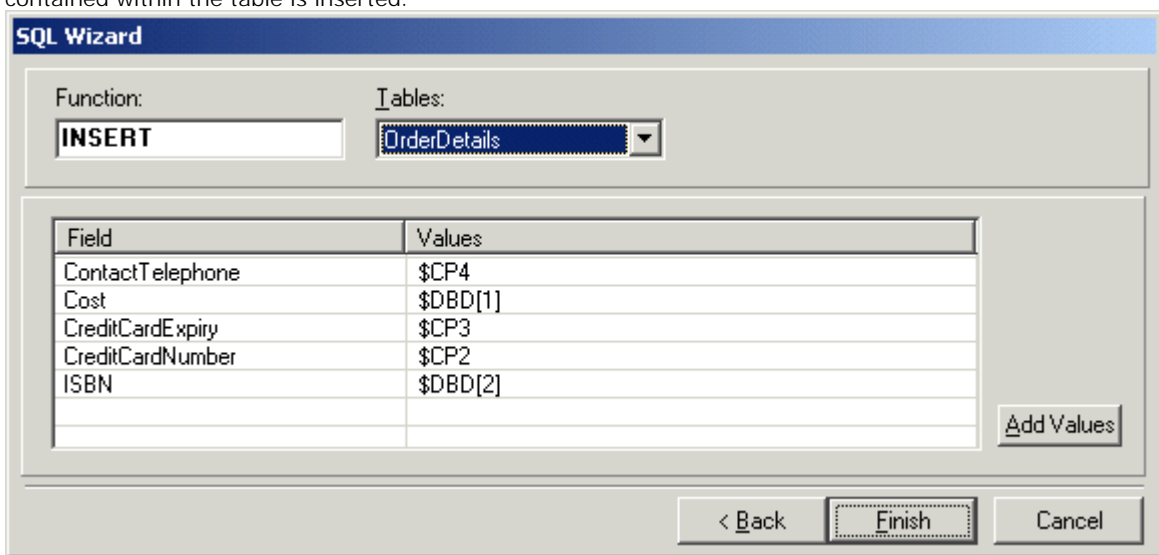
Collect Callers Details

Details can be entered into a database by a caller. In this example we collect the caller's credit card number, expiry date and telephone number. All these details are collected and then the database is updated. The example below shows the Specific tab entry used to collect the caller's telephone number and assign it to the call variable CP4.

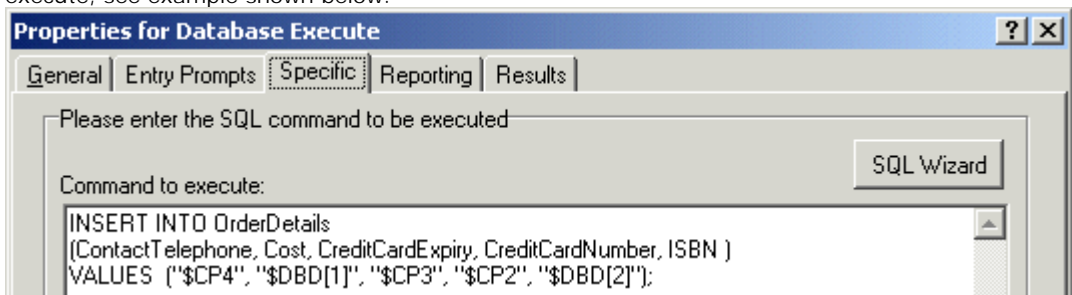


When all the details have been collected, the database needs to be updated. The database Execute Action is used. When entering information into the specific tab for the first time you are taken through a series of steps.

1. Select the Database Execute icon.
2. At the SQL Function window the option to 'Insert ...values' was chosen as information needs to be added to the database.
3. Details are then entered into the SQL Wizard, as shown below. When the Database table is selected, the list of fields contained within the table is inserted.



4. When the details have been entered the SQL wizard is closed. The specific tab of the action will contain the command to execute, see example shown below.

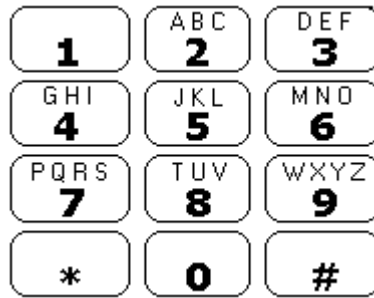


---

## 7.3 Dial by Name

The Dial by Name action allows callers to indicate the user or group that they require by dialing the name on their telephone keypad and then making a selection from the matches found.

To use this feature the caller must use a telephone with DTMF dialing and with ITU alphabet letter keys as shown here.



The main pre-requisites before a Dial by Name action can be used are:

### 1. User Names

The user names are set through the IP Office Manager. Either the user's Name or Full Name field can be used for Dial by Name. If the Full Name field is set then it takes precedence over the Name field.

- Changing Names

Voicemail Pro mailboxes are created to match existing user Name's. If a user Name is changed, Voicemail Pro will create a new mailbox to match the new Name. Therefore care must be taken to ensure that Name field entries are as accurate as possible when first setting up users. Using the Full Name field for Dial by Name is recommended as the Full Name entry can be changed without affecting the existing mailbox entries.

### 2. User Name Recordings

Each mailbox to be included by the Dial by Name action needs to have had a user name recorded. This can be done in two ways:

- Intuity Mailbox Mode

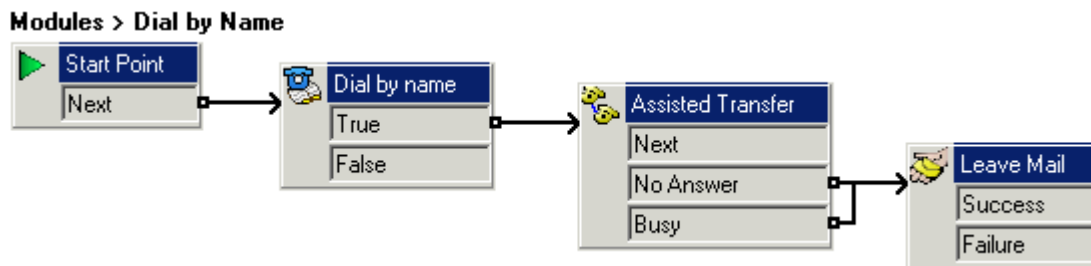
By default when the user first enters their mailbox, they will be asked to set their voicemail code password and then to record their name.

- IP Office Mailbox Mode

In this mode you need to set up a call flow that allows users to record their name. In this document we have included an example module that can be used for that purpose. The same module can also be used by Intuity mode mailbox systems to let users re-record their names. See [Adding a Record Name Module](#) <sup>386</sup>.

### 7.3.1 Example Call Flow

In this example, after selecting a name using the Dial by Name service, the caller is transferred to the matching extension. If that extension doesn't answer or is busy the caller is transferred to leave a message.



1. In Voicemail Pro a new module was added called *Dial by Name*.
2. From Telephony Actions the Dial by name action was added.
3. From Telephony Actions an Assisted Transfer action was also added. In its properties Specific tab the Mailbox was set as *\$KEY*.
4. The Dial by name action's *True* result was connected to the Assisted Transfer action.
5. From Mailbox Actions a Leave Mail action was added. Again in its Specific tab the Mailbox was set as *\$KEY*. Links were added from the Assisted Transfer action's *No Answer* and *Busy* results to this action.

To add a short code:

1. In IP Office Manager, a new system short code was added. For this example we chose *\*75* and then entered the details as shown below.

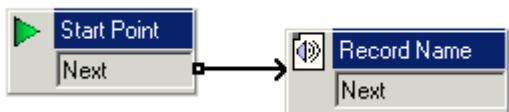
Field	Contains...
Code	*75
Feature	Voicemail Collect
Telephone Number	"Dial by Name"
Line Group Id	0
Locale	[Leave blank]
Force Account Code	[Leave blank]

2. After merging this back into the IP Office, users can dial *\*75* to access dial by name. They can also transfer callers to this call flow.
3. The short code can be added a SoftConsole or DSS button. In addition, an Incoming Call Route could be used to direct specific external calls direct to the function, for example if you had a specific external number used by employees to ring in when off site.

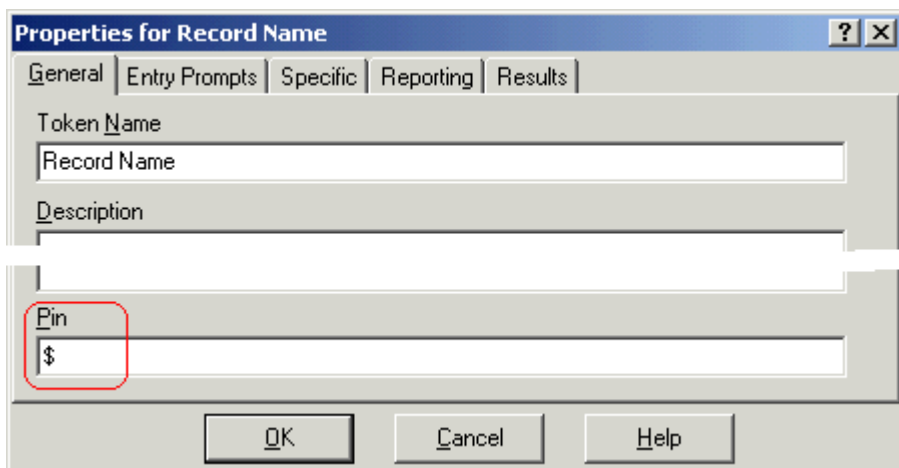
### 7.3.2 Adding a Record Name Module

This module allows users to record/re-record their mailbox name. This, or a similar module, is necessary if Voicemail Pro is using IP Office mailbox mode. However it is still useful if the Voicemail Pro is using Intuity mailbox mode as it gives users quick access to re-record their name.

#### Modules > Record Name



1. In Voicemail Pro, a new module called *Record Name* was added.
2. A Record Name action was added.
3. In the General tab of the Record Name action's properties we set the Pin as \$. The \$ means that caller's must enter their voicemail code in order to use the action.



4. The Specific tab was left set to the Caller's Mailbox.
5. The module was saved and made live.

To add a Shortcode:

1. In IP Office Manager, a new system short code was added. In this example, we chose \*74 and then entered the details as shown in the table.

Field	Contains...
Code	*74
Feature	Voicemail Collect
Telephone Number	"Record Name"
Line Group Id	0
Locale	[Leave blank]
Force Account Code	[Leave blank]

2. After merging this back into the IP Office, users can dial \*74 at their extension to record their mailbox name.

### 7.3.3 Using the Name Table

It is possible to create a service that will allow access to re-record the name of any mailbox. The NameWavsTable does this by requesting an extension number and then allowing you to play, re-record and submit a name recording for that extension. It then allows another extension number to be entered and so on.


Naturally if this option is used it should be behind suitable PIN code and other security protection as it allows the recording of names for any mailbox.





To use the Name table:

1. In Voicemail Pro, create a new module.
2. Add a Goto action and open its properties.
3. In the General tab, enter a unique number in the Pin.
4. In the Specific tab, in Please select a node to go to enter NameWavsTable.
5. Click OK.
6. Using a short code or other method, create a route to the new module.

### 7.3.4 Changing Full Names

Users with DS port display phones can set and change the way in which their full name is displayed through their telephone. This name will then be used for the text matching part of Dial by Name.

To changing your name using a telephone with a menu  Key:

1. Press Menu  twice.
2. Press  and select ProgA.
3. Press  and select Name.
4. Enter the new name. Use the dialing keys and Rotat to enter characters. For example, to enter an L, press the 5 key and then press Rotat until an L is displayed. You can use the top-left display key to backspace.
5. When the text is as you require, press Done.
6. Press Exit .

---

## 7.4 Campaigns

A campaign is a series of questions and answers. Callers to a campaign hear the recorded questions and give their responses, either by speaking or using the telephone keypad. The results are then saved for processing later. Each campaign can include up to 21 questions.


Call processing agents can [access a campaign](#)<sup>395</sup> to hear the caller answers, which they can then transcribe into a database or other records.

A Web Campaign Component is installed as part of a [typical Voicemail Pro installation](#)<sup>26</sup>. If the Web Campaign was not installed it can be added by doing a custom installation and selecting the Web Campaigns component.





## 7.4.1 Managing Campaigns

Within the Voicemail Pro client, the Campaign Wizard is used to create and modify campaigns.

To start the campaign Wizard:






1. Press F7 or click  Campaign Editor.
2. The Campaign Wizard Introduction window opens. Select the required activity.
  - [Create a new Campaign](#) <sup>[391]</sup>  
This option takes you through a series of campaign wizard menus to set the campaigns settings.
  - [Modify an existing Campaign](#) <sup>[392]</sup>  
This option displays a list of existing campaigns from which you can select the one you wish to modify. You will then be taken through the campaign wizard menus for the campaign settings.
  - [Delete an Existing Campaign](#) <sup>[392]</sup>  
This option displays a list of existing campaign from which you can then select the campaign to delete.

To create a new campaign:


1. Press F7 or click  Campaign Editor.
2. Select Create a new Campaign and click Next.
3. The [Customer Prompts](#) <sup>[393]</sup> window is displayed.
  - Click . The Please Edit the Campaign action window opens. Each campaign can include up to 21 questions.
  - Click OK when you have entered the customer prompts.
  - Adjust the prompts as required.
    -  Edit action: Edit the currently highlighted campaign action.
    -  Delete action: Delete the currently highlighted campaign action.
    -  Move action: Move the position of an action in the sequence of campaign actions.
  - Click Next.
4. The [Customer Menu](#) <sup>[394]</sup> window is displayed.
  - Select which options are available after the prompt is played.
  - Click Next.
5. The [Campaign Identification](#) <sup>[395]</sup> window is displayed.
  - Enter the details on identifying the campaign.
  - Click Next.
6. Click Finish to create the campaign.

---

To modify a campaign:

1. Press F7 or click  Campaign Editor.
2. Select Modify an existing Campaign and click Next.
3. Select the required campaign and click Next.
4. The [Customer Prompts](#) <sup>[393]</sup> window is displayed.
  - Click . The Please Edit the Campaign action window opens.
  - Click OK when you have entered the customer prompts.
  - Adjust the prompts as required.
    -  Edit action: - Edit the currently highlighted campaign action.
    -  Delete action: - Delete the currently highlighted campaign action.
    -  Move action: - Move the position of an action in the sequence of campaign actions.
  - Click Next.
5. The [Customer Menu](#) <sup>[394]</sup> window is displayed.
  - Select which options are available after the prompt is played.
  - Click Next.
6. The [Campaign Identification](#) <sup>[395]</sup> window is displayed.
  - Enter the details on identifying the campaign.
  - Click Next.
7. Click Finish to update the campaign.

To delete a campaign:

1. Press F7 or click  Campaign Editor.
2. Select Delete an existing Campaign and click Next.
3. Select the required campaign and click Next.
4. Click Finish to delete the selected campaign.



### 7.4.1.1 Customer Prompts

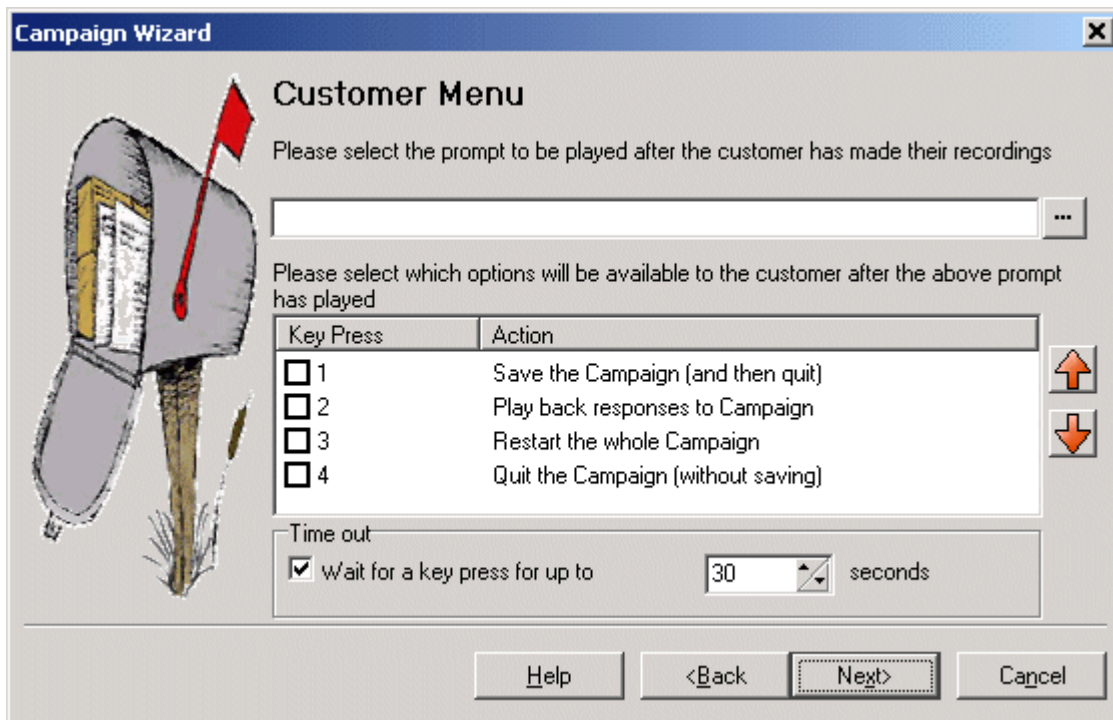
The Customer Prompt window of the Campaign Wizard is used to set the sequence of questions that are played to callers and to record their responses.



- + Add action  
 To add a new campaign action, click +Add action. The Please edit the Campaign action window opens. Each campaign can include up to 21 questions.
- ✎ Edit action  
 Select the prompt or recording to edit then click ✎Edit action. The Please edit the Campaign action window opens.

- Play a prompt to the customer  
 Select this option to play a prompt to the caller. Click ... to specify which prompt to play or create a new prompt in the Wave Editor window. See [Using the Wave Editor](#)<sup>[185]</sup>.
- Allow the customer to input information  
 Select this option to if you want the action to record the caller's response.
  - What type of input do you want  
 This option sets whether the voicemail server should Record voice or Record key presses.
  - Please enter the maximum recording length or Please enter the maximum number of key presses.  
 The field name depends on the type of input chosen. The time specified in seconds sets the maximum length of recording or the maximum number of key presses to record before the next action.
  - Please enter a unique name that will describe the input  
 A name to associate with the action. The name should be a single word with no spaces.
  - The following prompt will be played to an agent when the above data is reviewed  
 This option allows you to select or create a prompt that is played to agents before hearing the caller's response. Click ... to specify which prompt to play or create a new prompt in the Wave Editor window. See [Using the Wave Editor](#)<sup>[185]</sup>.

### 7.4.1.2 Customer Menu

After completing the sequence of questions and responses, the caller can be offered a menu of options. The Customer Menu window of the Campaign Wizard is used to select the options available.



- Please select the prompt to be played after the customer has made their recordings  
You can select or create a prompt that is then played to callers after completing the sequence of questions and answers. The prompt should inform the customer of which actions selected from the list they can use. Click  to specify which prompt to play or create a new prompt in the Wave Editor window. See [Using the Wave Editor](#) <sup>185</sup>.
- Please select which options will be available to the customer after the above prompt has played  
Check the boxes to select the options that will be available to the customer. The customer then needs to press the corresponding key.
  - Save the Campaign (and then quit)  
Saves caller responses and then disconnects the caller.
  - Play back response to the Campaign  
Plays back the customers responses to them and then repeats this customer menu.
  - Restart the whole Campaign  
Delete the customers responses and restarts the sequence of questions and answers.
  - Quit the Campaign (without saving)  
Disconnects the customer without saving their responses.
  -  Move options  
You can move the currently highlighted option so that the key presses associated with the options differ.
- Timeout  
Sets how long the voicemail server should wait for an answer before following the No Answer connection.

### 7.4.1.3 Campaign Identification

The Campaign Identification window of the Campaign Wizard is used to set a park location for the campaign and to name the campaign.

- Where should this Campaign be parked  
Enter a park slot number for the campaign. This number can be programmed under a DSS key. That key can then be used by agents to access the campaign. If the DSS key also incorporates a BLF lamp, that lamp is lit when new campaign messages are left.
- The name of the Campaign is  
Enter a name for the campaign.

### 7.4.2 Accessing Campaign Results

The results of a campaign can be accessed in several ways:

- [Using the Campaign Action](#) <sup>[219]</sup>  
The Campaign action is used to route calls into a campaign after those calls have been routed to an appropriate start point on the voicemail server. The action's properties set whether the call is treated as a caller to the campaign or an agent processing the campaign messages. See [Campaign Action](#) <sup>[219]</sup>.
- [Using a Campaign Park Slot Number](#) <sup>[396]</sup>
- [Through a Web Browser](#) <sup>[397]</sup>

When accessing the caller recordings from using a Campaign action or park slot number, the following controls are provided through the telephone keypad.

1	Go to the start of the call.		7	Previous response.
2	Rewind.		8	Start of response.
3	Stop processing the message.		9	Next response.
4	Mark call as processed and delete.		0	Pause.
5	Mark call as processed and save.		#	Fast forward.

---

### 7.4.2.1 Campaign Park Slots


The Park Slot number assigned to the Campaign can be used with programmable buttons to access that campaign. If the telephone has a message waiting lamp, the lamp will be lit when there are campaign messages waiting to be processed.

- Phone Manager park slot keys cannot be used for this function.

When accessing the caller recordings from using a Campaign action or park slot number, the following controls are provided through the telephone keypad.

1	Go to the start of the call.		7	Previous response.
2	Rewind.		8	Start of response.
3	Stop processing the message.		9	Next response.
4	Mark call as processed and delete.		0	Pause.
5	Mark call as processed and save.		#	Fast forward.

To assign a campaign to a programmable button:

1. In IP Office Manager, receive the IP Office configuration.
2. Open the required  User form.
3. Select the Button Programming tab.
4. Select a free button
5. Right-click in the Action field.
6. Select Emulation > Call Park.
7. Right-click in the Action Data field. Enter the campaign's park slot number.
8. Save the configuration back to the IP Office and reboot.
9. The programmable button on the user's telephone will flashing red when there are new messages in the campaigns park slot.
10. Press the button to display the campaign name and number of messages.
11. Press the button again to start processing those messages.

The UnPark Call function can also be used to collect the calls, but this method does not provide any visual feedback when messages are present.

To use the UnPark Call function:

1. Select a free programmable button
2. Right-click in the Action field.
3. Select Advanced > Call > UnPark Call.

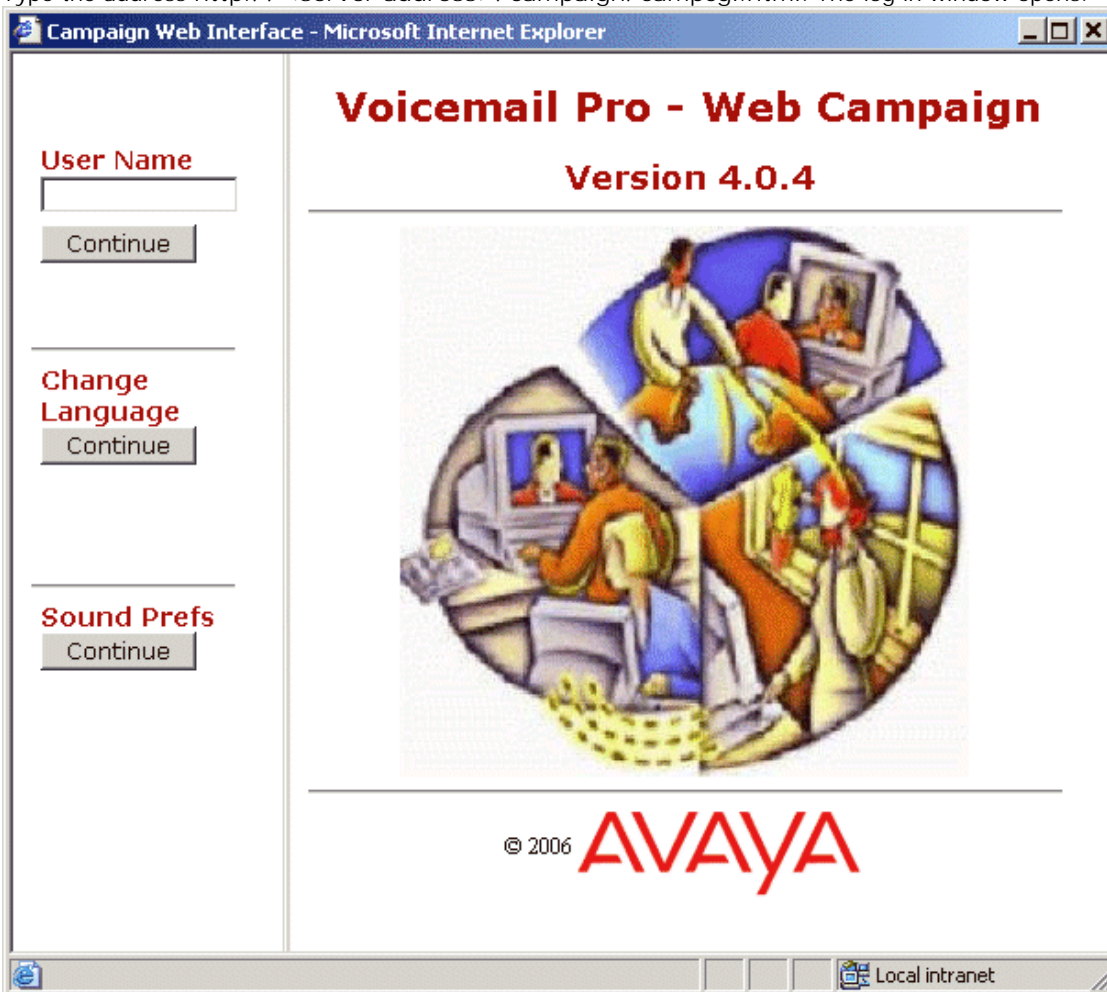
### 7.4.2.2 Using the Web Campaign

The Web Campaign Component allows access to play and change the status of campaign messages through a Web browser.

- Anyone who wants to use the web campaigns must have Microsoft Internet Explorer 5.0 or higher (not Netscape). Their PC must also have multimedia sound capabilities. The Web campaign user must also have a voicemail mailbox. The name of their mailbox is requested when the user browses the campaign messages.
- During installation of the Campaign Web Component, the root address of the web server is requested. A folder called *campaign* is then added to that root. The web address for browsing will normally be set up as a link from a page within a company intranet rather than typed directly by users.
- Access must be via http: and not network file routing.

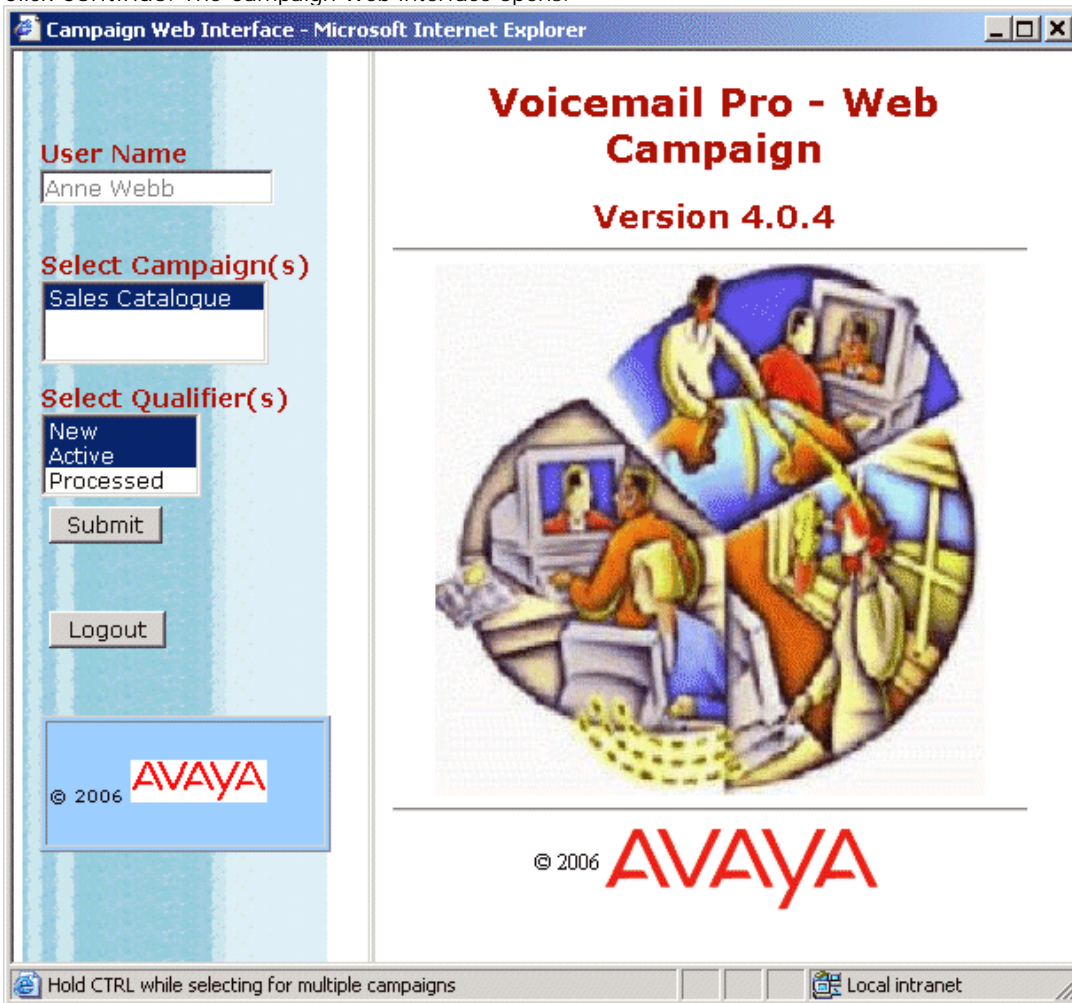
To view open the Campaign Web Campaign:

1. Open your internet browser.
2. Type the address `http://<server address>/campaign/campcgi.html`. The log in window opens.



3. (Optional) To change the language click the language Continue button. A menu containing the countries flag is shown. If you place your mouse cursor over a flag, the language that it represents is indicated.
  - Click the required flag to change the language.
4. (Optional) To change the sound preferences click the Sound Prefs Continue button.
  - Select the playback type of either the browser default or as background. The option background is the default selection.
  - Click Back to continue.
5. Enter your mailbox box name in the User Name field.

6. Click Continue. The Campaign Web interface opens.



7. Select the campaign results that you want to view.

8. Select the type of results that you want to view.

9. Click Submit to view the results. The details are listed in the main part of the window.

Print

## Sales Catalogue

Next New
Next Active
Next Processed

Ident	State	DateTime	CLI	Customer Name	Customer Address
2	New	20/11/2006 17:14	207	00:00	
5	New	20/11/2006 17:15	207	00:09	00:00
7	New	20/11/2006 17:15	209	00:02	
9	New	20/11/2006 17:19	209	00:01	
c	New	21/11/2006 10:23	209	00:09	00:13
f	New	21/11/2006 11:29	207	00:09	00:01
12	New	21/11/2006 13:46	209	00:09	00:00

---

## 7.5 Fax Server Configuration

With an IP Office system, fax machines and servers can process fax messages in a number of ways.

- Fax calls can be handled without the use of Voicemail Pro  
In IP Office a fax machine can be set up to direct faxes to individual extensions or hunt groups. Faxes can be directed to the fax machines or servers based on the DDI or DID numbers of the incoming calls. See the IP Office Manager help and guide.

- Fax calls detected by Voicemail Pro  
When a fax message is left in a voicemail mailbox, Voicemail Pro can detect that the call is a fax call, and redirect the call to a fax machine or fax server to receive the fax. The incoming call can be routed to a system fax number or, in Intuity Mode, a fax number that the mailbox owner has specified.

- Fax calls can be sent to a system-wide fax number  
If Voicemail Pro detects a fax tone, it passes the call to the number that is set as the system fax number. This number can be an analog extension that is connected to a fax board in the fax server. For information about configuring an analog extension, see [Configuring an Analog Extension Number for Fax Use](#)<sup>[406]</sup>.

- Fax calls can be sent to a user defined mailbox number  
If Voicemail Pro detects that the incoming call is a fax and if a system fax number has been specified, Voicemail Pro checks to determine whether the target destination is a user defined fax number. If it is, the system fax number is overridden and the incoming call is redirected to the user defined fax number.

If no user defined fax number has been set, the fax is sent to the system fax number. When a system fax number is set, any fax calls that are received in user or hunt group mailboxes are directed to this number. This applies to both IP Office and Intuity Mailboxes. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.

Intuity mailbox owners have options available through their telephone handset so that they can forward a fax to a preferred fax machine or send a fax to a printer. Intuity mailbox owners can find out how to set a mailbox fax number in the IP Office Intuity Mailbox User Guide.

If a fax system, such as a C3000, requires prefix addressing the system fax number is not used. Instead a prefix is specified so that a fax message can be identified and forwarded to the extension number of the intended recipient. For example if a prefix of 54 is being used, a fax message for extension 201 would have the prefix of 54 automatically added so that the complete number would become 54201. The fax server then removes the system prefix and uses the extension number to determine the target destination for the fax. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.

- Fax calls can be redirected using a call flow Menu action instead of a system fax number  
If a system fax number is not set up, a menu action can be used instead. The F character can be used as one of the touch tone choices of a Menu action to specify the actions that should be applied to fax calls. See [Routing Fax Calls Using a Menu Action](#)<sup>[405]</sup>.

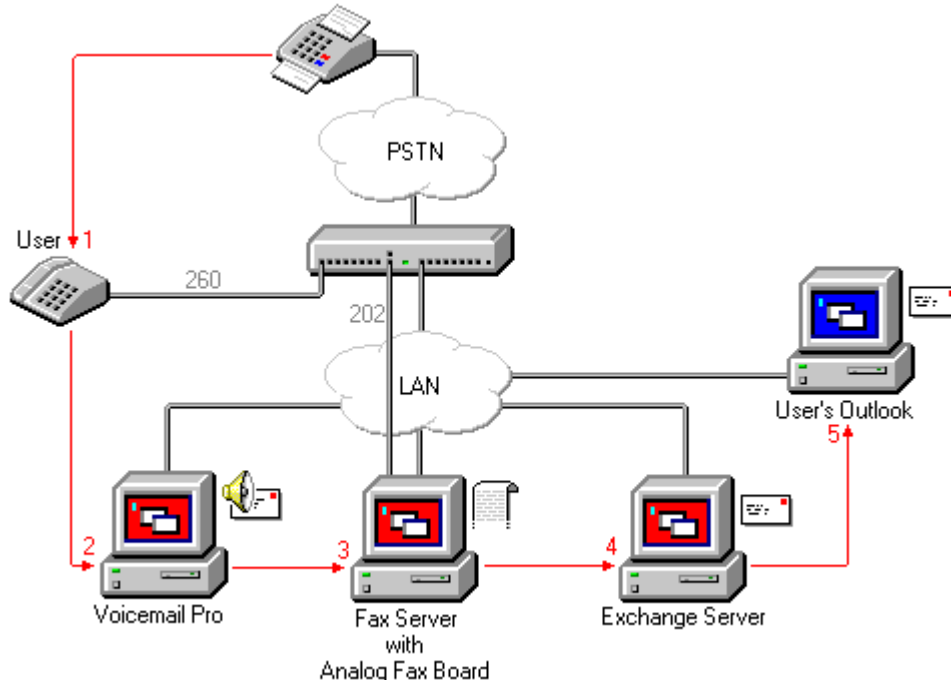
- Important  
By default, Voicemail Pro fax detection is disabled. To enable fax detection, you must define a system fax number. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.



## 7.5.1 Fax Server Configuration

Here is an illustration to show how a fax server can be configured to work with an IP Office system. The illustration applies to the following popular fax server applications:

- Gfi FAXMaker
- Fenestrae Faxination
- Equisys Zeta/fax
- Captaris RightFax



The fax server is configured to distribute faxes to exchange server mailboxes based on the original (DTMF) fax sub address that is passed by Voicemail Pro. For the fax server and Voicemail Pro to interact, specific user rights are needed.

If the PC that is being used as the fax server uses an analog fax board, the fax board must be connected to an IP Office analog extension (POT) port.

The sections that follow explain how to configure a fax server to work with Voicemail Pro. The information provided assumes that:

- The fax server software is installed.
- The hardware is installed and connected to an IP Office.
- The Exchange Connector is installed and configured.

For details of system requirements and information about installing a fax server, refer to the manufacturer documentation or visit the manufacturer web site.

The process for configuring a fax server to work with Voicemail Pro involves the following key steps:

1. Set the system fax number. See [Setting the Voicemail Pro System Fax Number](#) [402].
2. If prefixed numbers are being used you can set up a short code so that fax calls are routed to prefixed numbers.
3. If the chosen mailbox mode is Intuity, inform all mailbox owners that they can set up their own preferred fax destinations if they like. See [Setting Up a User Defined Fax Number](#) [404].
4. If a system fax number is not being used, you can set up a menu action to route fax calls. See [Routing Fax Calls Using a Menu Action](#) [405].
5. If the fax server PC uses an analog fax card, configure the extension number to use for faxes. See [Configuring an Analog Extension Number for Fax Use](#) [406].

## 7.5.2 Setting the VoiceMail Pro System Fax Number

The System Fax Number is used to:

- Enable fax detection.

By default fax detection is not enabled when Voicemail Pro is first installed. When fax detection is enabled, any fax calls that are left in a voicemail mailbox, are redirected to the defined system fax number.

- Define the default destination for fax calls that arrive in a voicemail mailbox and which are to be redirected to a fax machine.

Intuity mailbox owners have the additional option to define their own personal fax number instead of the system fax number. Incoming calls are directed to Voicemail Pro and then Voicemail Pro redirects fax calls to a mailbox owner's personal fax number, if one has been set. For information mailbox owners should read the Intuity Mailbox User Guide.

To set the Voicemail Pro system fax number:

1. From the Administration menu, select Preferences. The System Preferences window opens.
2. Click the General tab.

The screenshot shows the 'General' tab of the System Preferences window. The settings are as follows:

- Client/Server Connection Timeout (min): 5
- Default Telephony Interface: IP Office
- Voicemail Password: (empty text box)
- Min. Message Length (secs): 3
- Max. Message Length (secs): 120
- Max Call/VRL Record Length (Secs): 3600
- Play Advice on Call Recording:
- System Fax Number (feature is disabled when empty): (empty text box)
- Use as Prefix:
- Enable Fax Sub-Addressing:

3. In the System Fax Number box, type the number of the general fax machine to which all incoming faxes are to be directed. This number must match the number of the analog extension that is connected to the fax board of the fax server PC.
  - Intuity mailbox owners can receive fax messages into their mailboxes and set a preferred fax number to use instead of the system fax number. As the administrator you still need to set up a system fax number to enable mailbox owners to set their own numbers. A personal mailbox fax number overrides the system fax number. Mailbox owners can find out more in the Intuity Mailbox User Guide.
  - If your fax system requires prefix addressing, for example the C3000 fax server, do not type a fax number in the System Fax Number box. Instead type the number to use as a prefix so that a fax message can be identified and forwarded to the extension number of the intended recipient. For example if the prefix were 54, a fax message for extension 201 would have the prefix of 54 automatically added so that the complete number would become 54201.
4. To use the specified prefix, check the Use as a Prefix box so that the number that you typed in to the System Fax Number box is used. If your fax system does not use prefix addressing, leave this box unchecked.
  - Important  
For this feature to work, you also need to set up a short code.
5. Most fax servers perform fax forwarding based on DTMF signalling received with the fax call. Check the Enable Fax Sub-Addressing box so that the DTMF signal is passed to the fax server after the call has been answered. This is so that the fax can be forwarded to the email address of the intended recipient.
6. Click OK.
7. Click Save & Make Live.

If prefixed numbers are being used, the next step is to up a short code so that fax calls are routed to prefixed numbers.

If the chosen mailbox mode is Intuity, you should then inform all mailbox owners that they can set up their own preferred fax destinations if they like. See [Setting Up a User Defined Fax Number](#)<sup>[404]</sup>.

If a system fax number is not being used, you can set up a menu action to route fax calls. See [Routing Fax Calls Using a Menu Action](#)<sup>[405]</sup>.

If the fax server PC uses an analog fax card, you need to configure the extension number to use for faxes. See [Configuring an Analog Extension Number for Fax Use](#)<sup>[406]</sup>.

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### 7.5.3 Setting up Fax Forwarding

Voicemail Pro is set up to forward faxes when users dial \*1. Faxes are forwarded as follows:

- Gfi FAXMaker faxes are sent to <faxnumber>@faxmaker.com
- Fenestrae Faxination faxes are sent to <faxnumber>@faxination.com
- Equisys Zetafax faxes are sent to <faxnumber>@zfconnector.com
- Captaris RightFax faxes are sent to <faxnumber>@rightfax.com

#### Example

For example, if a GFi FAXMaker user dials \*1 and enters the fax number to use followed by # to end the fax number and # to confirm, the fax is forwarded to <faxnumber>@faxmaker.com. Therefore if the user dials \*1 followed by 201# and # to confirm, the fax is forwarded to 201@faxmaker.com.

- It is the responsibility of the fax server administrator to ensure that exchange connectors are configured to receive such messages.

### 7.5.4 Setting Up a User Defined Fax Number

If you enable the feature for them, Intuity mailbox owners can set up a preferred personal fax number that is more convenient to their location, for example if they are out of the office.

To set up a user defined fax number:

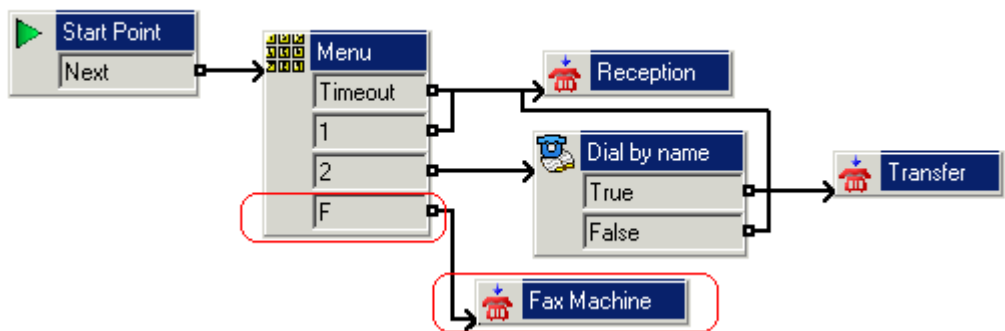
1. Complete the steps for setting up the system fax number. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.
2. Inform the mailbox owner that they can go ahead and set their preferred fax number. Refer the mailbox owner to the IP Office Intuity Mailbox User Guide.
3. If it has not already been done and the fax server PC is using an analog fax card, the next step is to configure the analog fax number to use. See [Configuring an Analog Extension Number for Fax Use](#)<sup>[406]</sup>.

### 7.5.5 Routing Fax Calls Using a Menu Action

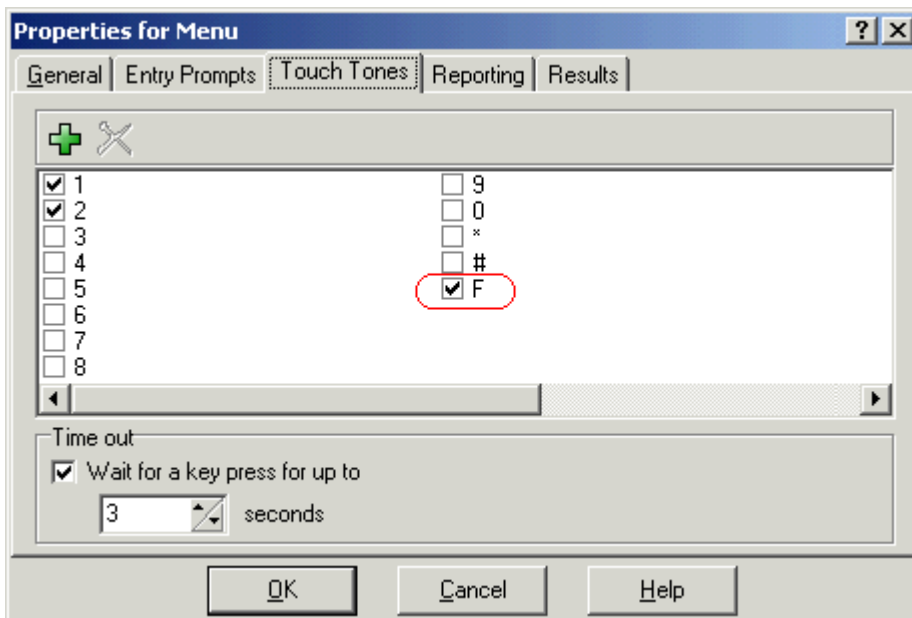
When an incoming call is routed to the auto attendant, the Menu action has the facility to detect and redirect fax calls. This capability is enabled by including a number in the system fax number field via the VoiceMail Pro Client, and adding 'F' as the tone to detect in the Menu action. From the Menu action, incoming calls presenting a fax tone will then follow the 'F' call flow route, which could be a transfer call to a fax server extension or hunt group.

You can add the F character to the touch tone options of a Menu action to specify the actions that should be applied to fax calls. The corresponding result can then be routed as required for fax calls received by the associated call flow. The following example module call flow is using F to redirect incoming fax calls to a specific transfer number.

**Modules > Attendant**



The F result was added to the Menu action Touch Tones tab using the + icon.



## 7.5.6 Configuring an Analog Extension Number for Fax Use

If the PC that is being used as the fax server uses an analog fax card, it must be connected to an IP Office analog extension (POT) port. You are then ready to configure the analog extension for fax use.

To configure an analog extension number for fax use:

1. In IP Office Manager, display the extension details for the extension that you are using for the fax.
2. View the Extn tab.
3. In the Caller Display Type field, select *DTMFF*.

Extn Analogue

Extension Id	78
Base Extension	202
Caller Display Type	DTMFF
Reset Volume After Calls	<input type="checkbox"/>
Device type	Analogue Handset
Module	BP
Port	2

3. View the Analogue tab.
4. Set up the incoming DDI routing of calls to specific users as required.

Extn Analogue

<b>Equipment Classification</b>	<b>Flash Hook Pulse Width</b>
<input type="radio"/> Quiet Headset	<input checked="" type="checkbox"/> Use System Defaults
<input type="radio"/> Paging Speaker	Minimum Width 20 ms
<input checked="" type="radio"/> Standard Telephone	Maximum Width 0 ms
<input type="radio"/> Door Phone 1	
<input type="radio"/> Door Phone 2	<b>Message Waiting Lamp Indication Type</b>
<input type="radio"/> IVR Port	None
	<b>Hook Persistency</b> 100 ms

- Tip  
If the fax board can support multiple lines, you can configure them as a group. The group number can then be used as the fax destination instead of an individual extension number.

The next step is to set the Voicemail Pro system fax number. See [Setting the Voicemail Pro System Fax Number](#)<sup>[402]</sup>.

## **7.5.7 Castelle Fax Server**

Voicemail Pro 4.1 added support for Castelle FaxPress products. This uses SMTP rather than MAPI to exchange fax emails with the Voicemail Pro server.

In order for the Voicemail Pro to recognize emails received from the fax server, the From name used must start with FaxPress. This is configured through the FaxPress client software as follows:

1. Login to the FaxPress client software as a supervisor.
2. Expand the Administration section on the left.
3. Select Embedded Services.
4. Select Email Gateway. Right-click on this and select Configuration.
5. Select the Email to Fax tab.
6. In the Return address used in emails sent from the SMTP gateway section, in the Name field enter a name in beginning with *FaxPress*.





# Chapter 8.

# Appendix

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## 8. Appendix

### 8.1 SMTP Logging

SMTP error logging is enabled to generate a log of SMTP activity.

For a Windows based Voicemail Pro installation, the activity is logged in a file in C:\Program Files\Avaya\IP Office\Voicemail Pro\VM\logs. The file name includes a date stamp for the day on which it is generated.

#### SMTP Error Codes

Value	Meaning
1	An exception has occurred.
3	The process has run out of memory.
4	An error has occurred due to a problem with the message body or attachments.
5	There was a problem initiating the conversation with the mail server. Ensure the setting of the Domain property is correct.
6	There was an error terminating the conversation with the SMTP mail server.
7	The "From" address was not formatted correctly or was rejected by the SMTP mail server. Some SMTP servers will only accept mail from particular addresses or domains. SMTP mail servers may also reject a From address if the server can not successfully do a reverse lookup on the address.
8	An error was reported in response to receipt address. The SMTP server may refuse to handle mail for unknown recipients.
9	There was an error connecting to the SMTP mail server.
10	There was an error opening the file. If you have specified file attachments, ensure that they exist and that you have access to them.
11	There was an error reading a file. If you have specified file attachments, ensure that they exist and that you have access to them.
15	No mail server specified.
16	There was a problem with the connection and a socket error occurred.
17	Could not resolve host.
18	Connected but server sent back bad response.
19	Could not create thread.
20	Canceled as a result of calling the Cancel method.
21	The operation timed-out while the host was being resolved.
22	The operation timed-out while connecting.
24	ESMTP Authentication failed.
25	The selected ESMTP Authentication mode is not supported by the server.
26	ESMPT Authentication protocol error.
27	Socket Timeout error.
105	Invalid license key.

## 8.2 History

The following sections summarize recent changes to the Voicemail Pro application.

### 8.2.1 What Was New in 6.0

The following is a summary of the new features in the IP Office Voicemail Pro 6.0 release. For details of previous releases refer to the [Appendix](#) <sup>[414]</sup>. Voicemail Pro 6.0 is supported with systems running IP Office Release 6. That includes IP406 V2, IP412, IP500 and IP500 V2 systems.

#### Licensing Changes

The changes to IP Office license packages sold by Avaya for IP Office Release 5 are now matched by the license used within the IP Office systems for IP Office Release 6. Amongst those changes, the following affect Voicemail Pro.

- **Preferred Edition (Voicemail Pro) License**  
This license enables support for Voicemail Pro as the IP Office's voicemail server with 4 voicemail ports. The Preferred Edition license allows the voicemail server to provide the services listed below. Additional license can be added for additional voicemail features, these are detailed separately. This license was previously called Voicemail Pro (4 ports).
  - Mailboxes for all users and hunt groups.
  - Announcements for users and hunt groups.
  - Customizable call flows.
  - Call recording to mailboxes.
  - Campaigns.
  - TTS email reading for users licensed for Mobile User or Power User profiles.
- **Advanced Edition License**  
This license enables the additional features listed below. A Preferred Edition license is a pre-requisite for this license.
  - Support for Customer Call Reporter.
  - Voicemail Pro database interaction (IVR).
  - Voicemail Pro call flow generic TTS (8 ports).<sup>[1]</sup>
  - Voicemail Pro Visual Basic Scripting.
  - Voicemail Pro call recording to ContactStore.<sup>[2]</sup>
- **User Profile Licenses and User Profiles**  
Within IP Office Release 6, users have a Profile setting. The options for this setting, other than Basic User, are controlled by the available user profile licenses in the IP Office systems configuration. The selected profiles controls which additional services can be configured for the user. The additional voicemail services affected by this are TTS email reading and UMS services.
  - UMS services can only be used by users set as Teleworker User or Power User.
  - TTS email reading can only be used by users set as Mobile User or Power User.
- **TTS Licensing**  
The licensing of TTS for use in call flows and for email reading has been separated.
  - TTS for email reading is no longer enabled by the VMPro TTS (Generic) or VMPro TTS (ScanSoft) licenses. Instead it is enabled by the Preferred Edition license detailed above. This uses the generic TTS speech engines. Access to email reading for individual users is licensed by the user profile licenses described above.
  - TTS for use in call flows is still licensed by the VMPro TTS (Generic) or VMPro TTS (ScanSoft) licenses. In addition the Advanced Edition license detailed above also enables 8 ports for generic TTS.

#### IP Office Configuration Changes

In addition to the changes for centralized voicemail configuration (see below) and licensing (see above), the following additional changes have been made for voicemail operation in IP Office Release 6 system configurations:

- [Voicemail SIP URI Settings](#) <sup>[887]</sup>  
SIP URI values (Name, Display Name, Contact and Anonymous) are available for voicemail on systems with SIP or SCN connections. These values can be used when voicemail makes calls using SIP trunks or to SIP extension devices.

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## Centralized Voicemail

In addition to the support for IP Office control fallback added in IP Office Release 5, the following additional options are now supported within a Small Community Network using IP Office Release 6 and Voicemail Pro 6.0:

- [Backup Voicemail Server](#)<sup>[54]</sup>  
An additional Voicemail Pro server can be installed. The address of this server is entered in the configuration of the central IP Office. During normal operation; messages, call flows and other settings on the backup voicemail server are synchronized with those on the central voicemail server. If the central voicemail server becomes unavailable, the central IP Office will switch to using the backup voicemail server for voicemail services. When the central voicemail server is restored, the central IP Office will switch back to using it for voicemail services and any new messages on the backup server are synchronized with it. The backup voicemail server operates using the existing voicemail licenses held by the central IP Office for normal operation.
- [Distributed Voicemail Servers](#)<sup>[55]</sup>  
Multiple Voicemail Pro servers can be installed within a Small Community Network. These are referred to as distributed voicemail servers. Within the configuration of the IP Offices in the network (other than the central IP Office and its fallback if any), you can specify that the IP Office uses a particular distributed voicemail server for its voicemail services. This requires the IP Office to have licenses for voicemail operation and the voicemail features it requires. Multiple distributed servers can be supported and several IP Offices can share the same distributed server, each using their own license set. The distributed server is used for all services apart from message collection and message waiting indication, those services are still performed by the central voicemail server. Messages recording is done by the distributed servers with the messages then being forwarded to the central voicemail server.

## Voicemail Operation Features

- [Alarm Action Enhancements](#) <sup>[245]</sup>  
The alarms provided by the voicemail server using the [Alarm Set](#) <sup>[245]</sup> action and the [Alarms](#) <sup>[142]</sup> queue panel have been enhanced to allow alarm repetition and to require an dialed response to clear an alarm in order to prevent it repeating.
  - Alarm Duration and Retries  
The ring duration for an unanswered alarm call can be adjusted. In addition, a number of retries and the interval between retries can be specified for an unanswered alarm.
  - Alarm Clearing  
Normally the alarm and any repeats are cleared once the alarm call is answered. For Voicemail Pro 6.0, a cancel code of up to 4 digits can be specified and must be dialed to stop the alarm from using any further retries.
  - Alarms Administrator  
A new type of client account has been added. The Basic [account user](#) <sup>[131]</sup> can only edit alarm settings shown in the [Alarms](#) <sup>[142]</sup> queue panel.
- [Administration of Mailbox User Settings for Outcalling and Personal Distribution Lists](#) <sup>[134]</sup>  
User mailbox settings such as outcalling settings and personal distribution lists can be accessed and edited through the Voicemail Pro client.
- [TTS Prompt Generation](#) <sup>[185]</sup>  
On voicemail servers [licensed for text to speech](#) <sup>[81]</sup> (TTS), the prompts used for call flow actions can be generated using TTS. The text entered in the action's Description field is used as the script for the recording.
- [Voicemail Configuration Backup and Restore](#) <sup>[150]</sup>  
The Voicemail Pro client can be used to configure daily, weekly and monthly automatic backups or to run an immediate manual backup. Each backup type can be individual configured for the types of files and settings it should include including messages. The client can also be used to restore the files from a previous backup.
- [Get Mail Action - Advanced Personal Options](#) <sup>[214]</sup>  
For systems running in Intuity mode, a Get Mail action can be used in call flows to provide the user with access to a range of mailbox control actions. These actions become part of the mailbox telephone user interface. The options that become available are:
  - Voicemail on/off.
  - Voicemail email mode.
  - DND on/off.
  - Follow Me.
  - Forwarding.
  - Edit Voicemail.
  - Edit Callback Number.
  - Edit Mobile Twinning.
- [Personal Options Menu Action](#) <sup>[222]</sup>  
The Play Configuration Menu action has been replaced by the Personal Options Menu action. This action can operate in one of two modes. The legacy mode
- [Generic Action - Set Interdigit Delay](#) <sup>[208]</sup>  
The delay that the voicemail server allows between the dialing of digits in numbers (by default 5 seconds) can be adjusted for a call flow using a Generic action.
- [Recording Auto Deletion](#) <sup>[107]</sup>  
System wide automatic deletion delays can now be specified for new and old recordings. These are separate settings from those used for new and old messages. In addition the playback order for recordings (first in-first out or last in-first out) can also be specified.
- [Voicemail Server Shut Down and Suspend Controls](#) <sup>[127]</sup>  
The Voicemail Pro client can be used to shut down or suspend voicemail server operation. In either mode, voicemail is treated as no longer available by the IP Office. Suspend mode can be canceled using the Voicemail Pro client, after which normal voicemail server operation is resumed. Shut down mode can only be canceled by restarting the voicemail service or the server PC. The shut down and suspend processes are polite processes, allowing existing calls to be completed while stopping new calls. However if required the shut down process can be turned from a polite shut down to an immediate shut down.

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## 8.2.2 What Was New in 5.0

The following is a summary of the new features in the IP Office Voicemail Pro 5.0 release. For details of previous releases refer to the [Appendix](#)<sup>[41]</sup>.

### Voicemail Pro 5.0

- **ContactStore 7.8**  
The ContactStore software has been updated to version 7.8. The new version uses a different database format and supports a wider range of search options. The method of interaction with the voicemail server and IP Office has not changed. However, ContactStore 7.8 has not been tested with pre-5.0 versions of Voicemail Pro and IP Office. For full details refer to the IP Office ContactStore Installation manual.
- **Updated TTS (ScanSoft) Prompts and Software**  
The TTS (ScanSoft) software include with Voicemail Pro 5.0 has been updated. The change allows:
  - **Additional Languages**  
Additional language support for Chinese (Mandarin), Danish, Finnish, French Canadian, Greek, Hungarian, Polish, Portuguese and Swedish. The set of TTS languages now matches the recorded prompt languages provided by Voicemail Pro with the exception of Hungarian.
  - **Vista Support**  
The updated TTS drivers are supported on Vista and on 64-bit versions of supported Windows operating systems.

### IP Office Configuration Changes

The following changes to the IP Office 5.0 configuration are applicable to Voicemail Pro 5.0.

- **IP500 Support**  
Voicemail Pro 5.0 no longer requires the IP Office to have an *IP500 Upgrade Standard to Professional* license.
- **[IP500 Voicemail Pro Ports](#)**<sup>[13]</sup>  
For IP500 control units, the maximum number of licensable voicemail channels has increased to 40.
- **[System Default Mailbox Breakout Numbers](#)**<sup>[88]</sup>  
Breakout numbers allow callers to select to be redirected to another destination while listening to a user's mailbox greeting. Each user mailbox can have up to 3 possible breakout numbers set, accessed by the caller dialing 0, 2 or 3. IP Office 5.0+ allows system default numbers to be set for each mailbox breakout. These system defaults are then applicable to all user mailboxes unless overridden by a user's own breakout number settings.
- **User Rights Mailbox Breakout Numbers**  
User mailbox breakout numbers can also be set through user rights.
- **Additional Breakout Number Support in IP Office Mailbox Mode**  
The additional breakout numbers 2 and 3 are now supported on Voicemail Pro systems running in IP Office mailbox mode.
- **[Forward Unconditional to Voicemail](#)**<sup>[27]</sup>  
Within the IP Office configuration for a user's forwarding settings, for Forward Unconditional the option *To Voicemail* can be selected. This will override any forwarding number set and send calls immediately to voicemail when forward unconditional is enabled. This option is supported with all IP Office voicemail types including Voicemail Pro.
- **[Small Community Network Fallback](#)**<sup>[51]</sup>  
Within an IP Office Small Community Network, voicemail server is associated with a central IP Office via which it provides voicemail services to all the IP Offices in the SCN. IP Office 5.0 provides a number of SCN fallback settings, including allowing the voicemail server to work with a fallback IP Office if the central IP Office is removed from the network for any reason. This feature is configured within the IP Office configurations and requires the fallback IP Office to have the appropriate licenses for the voicemail features required during fallback.

### UMS Enhancements

The following additions have been made to UMS operation:

- **[Hunt Group Mailbox Support](#)**<sup>[40]</sup>  
Hunt group mailboxes are now supported. A UMS Web Service option is available on the Hunt Group | Voicemail tab within the IP Office configuration. The use of this option allows access to the hunt group mailbox messages using IMAP or a web browser. This consumes UMS Web Service licenses in the same way as enabling users for UMS.
- **[Web Browser Playback Enhancements](#)**<sup>[34]</sup>  
The Web Browsers message playback interface has been enhanced to allow the user to call the sender of the message, if the CLI is known, or select 'previous', 'next', 'first' or 'last' message without leaving the interface. In addition the message forward capability has been enhanced to ease the selection of destinations.

- [UMS Exchange 2007](#) <sup>[46]</sup>  
A UMS licensed user configured to use Exchange 2007 as the Voicemail store, by setting the Voicemail to email forward option, will have their voicemail messages delivered into Exchange, and will still be able to get access to the voicemail messages via the Telephone User Interface (TUI) and Visual Voice, as well as being provided access by Exchange Compatible applications using interfaces such as Exchange Web Services, or the Exchange IMAP server. Please note, the VMPro Web Services, or the VMPro IMAP server will only present messages in the Voicemail Store, therefore in the instance where the voicemail messages have been forwarded on to another mail store, these messages will not be presented by these interfaces. Mail stores such as Exchange 2007 provide their own methods for IMAP and Web browsing which would then be the interfaces of choice.

### Call Flow Actions

The following changes have been made to Voicemail Pro actions.

- [Whisper Action](#) <sup>[232]</sup>  
Two new options are now provided by the Whisper action. The action can now be used requiring a caller recording. The transfer target is still able to accept or reject the call but will do this based on the displayed text and the prompts pre-recorded with the action when it was setup. Whisper calls can also be used with auto accept. When selected, after hearing the caller's recording and the action prompts the call is automatically connected to the transfer target.
- [Alarm Set](#) <sup>[245]</sup>  
This action was previously restricted to setting up a single non-repeated alarm back to an internal caller's own extension. The action has now been enhanced to allow the setup of alarms to other extension and repeating alarms.
- [Clock Action](#) <sup>[247]</sup>  
The clock action can now be used to say the time just once before moving to the next call flow action or to repeat the time until the caller presses a DTMF key or hangs up.
- [Increment and Test Counter](#) <sup>[258]</sup> / [Decrement and Test Counter](#) <sup>[257]</sup>  
These two new actions have been added to the list of Condition actions. They can be used to change the value of one of the 15 new *\$COUNTER* call variables and then branch the call flow if the new value matches a specified target value.
- [Transfer](#) <sup>[238]</sup> / [Assisted Transfer](#) <sup>[238]</sup>  
These actions now include an option to change the caller's priority prior to the transfer.
  - For the Transfer action, transferring to a short code is now supported.
- [Generic Action](#) <sup>[192]</sup>  
The Specific tab settings of this action have been changed to allow the entry of generic commands by the selection from a list of commands and then completion of relevant parameters. The resulting text string for the resulting generic command can still be displayed and edited if required or if a generic command not included in the parameterized command list is being used.

### Call and User Defined Variables

The following changes have been made to the call and user defined variables provided by the voicemail server.

- [\\$COUNTER](#) <sup>[162]</sup>  
A set of \$COUNTER call variables, \$COUNTER1 to \$COUNTER15 have been added. The value of these can be set, incremented and decremented using Generic actions and the specific Increment and Test Counter, Decrement and Test Counter actions.
- [User Defined Variable Display](#) <sup>[145]</sup>  
The current values of all the user defined variables can be displayed and edited through using the Voicemail Pro client. This is done by selecting Server Queues and then User Variables in the left hand navigation pane.

### Voicemail Pro Client Changes

- [Minimum Message Length](#) <sup>[98]</sup>  
Through the voicemail server's general preferences, the minimum message length saved by the voicemail server can be seen and changed. The value can be set between 0 and 10 seconds.
- [Navigation Changes](#) <sup>[133]</sup>  
A number of changes have been made to the items that can be selected in the left hand navigation pane of the Voicemail Pro client.
  - [Users / Groups](#) <sup>[134]</sup>  
Selecting Users or Groups in the left hand navigation pane displays details for each mailbox. Voicemail Pro 5.0 provides the following additional options when using this display.

- 
- **Disable Mailbox**  
By right clicking on a listed mailbox and selecting Disable Mailbox, the use of the mailbox can be disabled. Attempts to connect to the mailbox will receive number unobtainable indication from the voicemail server.
  - **Clear Mailbox**  
By right-clicking on the listed mailbox and selecting Clear Mailbox, all existing messages and prompts in the mailbox are deleted.
  - **[Server Queues](#)** <sup>[142]</sup>  
The option Server Queues in the navigation pane gives access to the following information.
    - **[Alarms](#)** <sup>[142]</sup>  
When selected, outgoing alarms calls set using Alarm Set actions are listed in the Voicemail Pro client's right hand pane. The list can also be used to add, delete alarms and to edit alarm settings.
    - **[User Variables](#)** <sup>[145]</sup>  
When selected, the current values of user defined variables are listed in the Voicemail Pro client's right hand pane. The list can be used to add, delete user defined variables and to edit the current value of those variables.
    - **[Outcalls](#)** <sup>[144]</sup>  
When selected, outgoing calls being made or scheduled to be made by the voicemail server are listed in the Voicemail Pro client's right hand pane. The list can be used to delete calls.
  - **[Conditions Import/Export](#)** <sup>[149]</sup>  
Existing conditions can now be exported to a file and then imported into the configuration of another Voicemail Pro 5.0+ system.



## 8.2.3 What Was New in 4.2

In conjunction with IP Office 4.2, Voicemail Pro 4.2 supports the following new features:

- [IP Office Unified Messaging Service \(UMS\)](#) <sup>[36]</sup>  
Two new methods for users to access their mailbox are now supported. The methods are mailbox access using email applications that support IMAP (Internet Message Access Protocol) and mailbox access via web browsers. The use of these requires the IP Office configuration to contain *UMS Web Services* licenses for the number of required users.
- [IMAP Service](#) <sup>[37]</sup>  
The Voicemail Pro now includes an IMAP server. Users can then access their voicemail messages using email clients such as Outlook and Lotus notes that support an IMAP Client. When connected, the IMAP client and Voicemail Pro will synchronize messages in the mailbox with message files in the IMAP client. Playback is through the sound facilities of the user PC.
- [Web Voicemail Service](#) <sup>[40]</sup>  
The Voicemail Pro web service allows users to access their mailbox using a web browser. This has been tested with the Internet Explorer 7, Firefox 2 and Opera 9.10 PC browsers. This method of access requires Voicemail Pro to be installed on a PC already running Microsoft's IIS web server. Users can select to have message playback via an IP Office extension or through their PC's sound facilities.
- [Test Variable Action](#) <sup>[255]</sup>  
The existing Check Digits action has been replaced by a Test Variable action. This, in addition to offering the capabilities of the Check Digits action, provides significant enhancements. In addition to being able to match the user's DTMF input against a specified string offered by the Check Digits action, the Test Variable action allows the testing of the contents of any call variable against known user extensions, hunt-groups, mailboxes and the contents of another variable. This allows a number entered by a caller to be verified as matching an existing extension or hunt group prior to attempting a transfer to that number.
- [Menu Action Invalid Input Handling](#) <sup>[209]</sup>  
The Menu action has been enhanced. It now includes a control for the number of retries for the caller to make a valid entry and an *Invalid Input* result for connection to following call flow actions. Also prompts can be selected for playback whenever an invalid entry or entry timeout occurs.
- [License and Service Status Display](#) <sup>[177]</sup>  
When the Voicemail Pro client is connected to a Voicemail Pro server, the Help | About screen displays a list of the licenses being used by the Voicemail Pro server. This license details include the validation status and capacity of those licenses. The status of related services, for example the UMS IMAP server, are also listed.
- [Call Variable Length Increase](#) <sup>[162]</sup>  
Previously the length of values stored by call variables has been limited to 64 characters. That maximum length has been increased to 512 characters.
- **Outcalling Configuration**  
In conjunction with Phone Manager 4.2, Voicemail Pro 4.2 allows users to adjust their outcalling settings through using a visual menu within Phone Manager. Using the Phone Manager interface, users can now apply a delay between each notification call in an escalation list.

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## 8.2.4 What Was New in 4.1

In conjunction with IP Office 4.1, Voicemail Pro 4.1 supports the following new features:

- [Windows Vista Support](#)<sup>[17]</sup>  
Those components of Voicemail Pro previously supported on Windows XP Pro are now also supported on Windows Vista (excluding Vista Home Basic and Vista Home Premium). The Voicemail Pro client is supported on Vista. The Voicemail Pro server is supported on Vista but not with IMS or Web Campaigns.
- [Automatic Recording Mailbox for Hunt Groups](#)<sup>[30b]</sup>  
By default automatic recordings for hunt groups are routed to the hunt group mailbox. Previously this could not be changed except through customized call flows on the Voicemail Pro. An alternate mailbox destination can now be specified through the [Hunt Group | Voice Recording](#)<sup>[30b]</sup> tab.
- [Automatic Recording Mailbox for Account Codes](#)<sup>[30b]</sup>  
By default automatic recordings for account codes are routed to the mailbox of the user making the call. Previously this could not be changed except through customized call flows on the Voicemail Pro. An alternate mailbox destination can now be specified through the [Account | Voice Recording](#)<sup>[30b]</sup> tab.
- [Call Data Tagging on Transfer Actions](#)<sup>[23b]</sup>  
The Transfer action now supports fields for setting the transfer source and description to display on phones receiving the transfer. The ability to associate call data for MS-CRM via Assisted Transfer actions is now also supported on Transfer actions.
- [Call Transfer Announcements](#)<sup>[23b]</sup>  
The [Transfer](#)<sup>[23b]</sup> and [Assisted Transfer](#)<sup>[23b]</sup> actions can be configured to announce the transfer to the caller. The announcement uses the recorded name of the mailbox associated with the transfer if available or the number if otherwise.
- [LIFO/FIFO Mailbox Operation](#)<sup>[107]</sup>  
The default message playback order of First In-First Out (*FIFO*) can now be changed to Last In-First Out (*LIFO*). This is separately adjustable for new, old and saved messages. These are set through the [System Preferences | Housekeeping](#)<sup>[107]</sup> tab ([Administration | Preferences | General](#)<sup>[107]</sup>).
- [Time in Queue and Time on Call Variables](#)<sup>[162]</sup>  
Two new variables can be used in Queued and Still Queued call flows. They are \$TimeQueued for the time in the queue and \$TimeSystem for the time the call has been on the IP Office system.
- [Castelle Fax Server Support](#)<sup>[407]</sup>  
The Voicemail Pro can be configured to recognize faxes of this type left in user's email mailboxes and include announcement of their presence in the user's mailbox prompts.
- [Hunt Group/Account Code Call Recording Destination](#)<sup>[30b]</sup>  
Previously the destinations for automatic call recording triggered by hunt groups or account codes could not be changed except through a custom Voicemail Pro call flow. The IP Office 4.1 configuration now allows the required destination for the call recording to be specified.
- [\\$DDI Call variable for DDI Numbers](#)<sup>[162]</sup>  
This variable is available on DDI calls passed from the IP Office to the Voicemail Pro.
- [Variable Routing \(replaces the CLI Routing Action\)](#)<sup>[22b]</sup>  
The existing CLI Routing action has been replaced by the [Variable Routing](#)<sup>[22b]</sup> action. This action allows the call routing to be based on matching specified values to call variables such as *\$CLI* and *\$DDI*. The numbers to which matching is performed can include wildcards such as *?* for a single digit and *\** for any digits.

## 8.2.5 What Was New in 4.0

In conjunction with IP Office 4.0, Voicemail Pro 4.0 supports the following new features:

- [Upgrade](#)<sup>[34]</sup>  
You can now upgrade without having to remove previous 3.2+ versions of the software.
- [Outcalling](#)<sup>[322]</sup>  
When a new voice message is left in a user's mailbox, notification can be automatically sent to a selected external number. Notification can be sent for all new messages or only messages marked as priority. If there is no response to the first notification there is an escalation capability. A user can configure their outcalling settings using their telephone handset. Details on how to configure outcalling for individuals can be found in the Intuity Mailbox guide.
- [Personal & Hunt Group Announcements](#)<sup>[305]</sup>  
Personal announcements can be recorded. A caller will hear the user's personal announcement before being transferred to voicemail, if available.
- [Channel Reservations](#)<sup>[96]</sup>  
Specific functions can have voicemail channels reserved for their use. The channels are reserved in IP Office Manager. By default there are no reserved channels.
- [Automatic Recording](#)<sup>[299]</sup>  
Incoming call routes can be configured to be automatically recorded.

## 8.3 Prompts

### 8.3.1 US English Intuity Prompts

The following is a list of the numbered .wav files used by Voicemail Pro for US English. These are predominately, though not exclusively, used for Intuity mailbox features.

All files are Microsoft WAVE file format (.wav) 8kHz, 16 bit mono.

Important

- It is important to note that the corresponding .wav file in other languages is not the same prompt.

WAV File	Intuity Prompt
2	"at".
4	"Not private".
8	"To record a new message press 4".
13	"To record press 1 after recording press 1 again".
14	"To make private press 1, to make public press 2".
15	"And is".
18	"To forward with comment press 2".
19	"To review from beginning press *1, if finished press *#".
21	"To listen press 0".
24	"To delete press *D".
27	"To attach original, press y for yes or n for no".
30	"To change press 1".
35	"Login incorrect".
41	"To forward message with comment at beginning, press 2".
43	"Your call is being answered by IP Office".
44	"Is not available to leave a message wait for the tone".
45	"Is busy, to leave a message wait for the tone".
46	"To access your mailbox press *R".
49	"No operator defined".
56	"Thank you for leaving you message".
58	"For name addressing press *A".
60	"Changed".
61	"To modify status, press 9 for yes, or 6 for no".
63	"New".
65	"Contains".
67	"To create another list".
70	"Unopened".
71	"To leave a message wait for the tone".
73	"You have".
74	"Deleted".
75	"To skip press # to delete press *D".
77	"Deleted".
80	"To have system wait press *W if finished please hang up or to disconnected IP Office press **X".
84	"Entry".
85	"Erased".
86	"Extension".
87	"This call is experiencing difficulties".
88	"Cannot use the guest password".
89	"First message".
91	"At end".
94	"Goodbye".
95	"Please disconnect".
96	"For help press *H".
97	"For help at anytime press *H".
100	"Invalid entry".

WAV File	Intuity Prompt
105	"To restart at the activity menu press *R".
108	"You are recording a message".
109	"Later".
110	"List".
111	"Please enter list ID".
112	"Otherwise for assistance press Zero now".
113	"You already have a list".
114	"To replace list renter ID and # sign, to create a new list enter new list ID".
115	"To transfer using names instead press *2".
117	"To reach the covering extension press *Zero".
118	"Enter last name".
119	"You wish to call".
120	"Too large to include".
124	"No more list space".
125	"Must be six or fewer numerals".
126	"To forward message with comment at end press 3".
127	"Return to previous activity".
130	"Because there were no entries".
134	"You can store your list or delete members but you cannot add members".
141	"No more lists".
142	"To list to the header press 3".
143	"To set back again press 2".
145	"List has no entries".
146	"To continue press #".
147	"Review completed".
148	"For extension addressing press *2".
150	"Members".
156	"Maximum length recorded".
159	"Member".
160	"Message".
161	"Midnight".
163	"To call sender press zero".
164	"Category".
165	"Returned to getting messages".
166	"At end to play back press 23".
167	"To approve press #, to record from here press 1, to play back press 23".
168	"Messages".
170	"Delivery scheduled".
173	"Please enter new password".
175	"Please note only IP Office subscribers can be specified by name".
178	"No addresses identified".
180	"Nothing to approve".
182	"Nothing to delete".
185	"Not found".
188	"Passwords do not match, please re-enter new password".
191	"No more messages".
192	"No messages".
193	"No name recorded".
194	"No new messages".
197	"Cannot step back".
198	"Partial name deleted".
201	"Noon".
202	"Not valid".

WAV File	Intuity Prompt
208	"Is not a public list".
209	"Cannot modify another subscriber's list".
210	"Please enter a new password".
211	"To 15 digits".
212	"Please enter password again for confirmation, to delete the password you just entered press *D".
213	"Re-enter password".
214	"Approved".
219	"Owned by".
220	"Enter password".
223	"Please enter extension".
224	"And # sign".
226	"Private".
227	"Public".
228	"Record at the tone".
232	"Recording stopped".
233	"Previous login incorrect please re-enter extension".
234	"To respond or forward press 1".
235	"To restart at the activity menu press *R, to transfer to another extension press *T".
236	"Try again".
238	"To review another list".
240	"To skip press # to listen press zero".
242	"Returned to the".
243	"Rewound".
244	"Rewound to previous message".
252	"To respond to this message press 1".
253	"Please enter month, day".
255	"To delete this message press *D".
256	"At beginning to re-record press 1 to playback press 23".
262	"Received".
272	"Contact administrator for help".
274	"Please make entry soon or be disconnected".
275	"Cannot get your messages now due to multiple logins to your mailbox".
277	"To exit directory press #".
282	"To have system wait press *W, to access the names or numbers directory press **N. If finished please hang up or to disconnect IP Office press **X".
285	"To add a member enter extension".
286	"To add a member enter last name".
287	"Welcome to IP Office".
288	"You are in the main directory. To find a subscribers extension, enter the last name followed by the # sign. To enter the letter Q press 7, for z press 9. To lookup by extension instead press *2".
290	"If you wish to specify a non IP Office subscriber, first change to extension addressing by pressing *A".
291	"To transfer to another extension press *T".
292	"Louder press 4, softer press 7, faster press 9, slower press 8".
294	"To add entries press 1".
295	"To reenter list press *5".
298	"To specify owner by name press *2".
300	"AM".
301	"PM".
305	"You are at the activity menu".
306	"You are changing your password".
310	"January".
311	"February".
312	"March".
313	"April".

WAV File	Intuity Prompt
314	"May".
315	"June".
316	"July".
317	"August".
318	"September".
319	"October".
320	"November".
321	"December".
322	"You are in the numbers directory. To find a subscribers name, enter the extension followed by the # sign. To lookup by name instead press *2".
323	"You are responding to a piece of incoming mail".
325	"You are administering your lists. To create a mailing list press 1, to play a summary of all your lists press 2, to review a particular list press 3".
327	"You are creating a mailing list".
328	"To delete the previous entry, press *3. To add a mailing list you have already created or a public list owned by others, press *5. To review or modify the list you are creating, press *1. To approve the list you are creating and move on to the next step, press #".
329	"You have not yet entered enough characters to identify a specific subscriber. To enter the letter Q press 7, for Z press 9".
330	"Or enter just the # sign if it is your phone".
332	"System greeting used".
333	"To add entries to the list or to change status of the list press 1".
334	"When finished addressing press #".
335	"When finished press #".
339	"To replay the last few seconds press 5, to advance a few seconds press 6.".
347	"You are adding a list".
348	"You are specifying a mailing list to review".
350	"Sunday".
351	"Monday".
352	"Tuesday".
353	"Wednesday".
354	"Thursday".
355	"Friday".
356	"Saturday".
357	"You are choosing between subscribers whose names match your entry. To indicate no subscribers match, delete entry by pressing *3. To change to extension addressing and delete your entry press *2".
358	"You are identifying a list as private or public".
360	"You are scanning mailing lists, to review list members press 0, to rewind to previous list press 2, to continue scanning lists press 3".
361	"To skip to next list press #, to delete list press *3".
362	"If you own the list press #, if some else owns the list".
363	"To approve the list you are creating press #".
364	"Enter owner's extension".
367	"To specify a different owner by name press *3".
368	"You are entering the number for a new list. Please enter a number up to 6 digits long".
369	"To replace an existing list, enter that list's number".
370	"These are entries in your list".
371	"To rewind to current entry press 2, to rewind to previous entry press 2 as many times as necessary, to continue playback of list press 3".
372	"To skip to next entry press #, to delete current entry press *D".
373	"You are choosing whether to attach a copy of original message to your reply. To include the original press y for yes, to send only your reply press n for no".
376	"To skip the next header press the # sign to listen to the header rewind by pressing 2 then play by pressing 3 to skip to the next category press *#".
377	"To delete message press *D".
380	"Please wait".

WAV File	Intuity Prompt
381	"To listen to the message press 0, to re record message before delivery press 1".
388	"To skip press the # key".
390	"O" (Oh)
391 - 450	"One" to "sixty". For zero see 585.wav
451	"Seventy".
452	"Eighty".
453	"Ninety".
454	"Hundred".
455	"Thousand".
456	"Million".
464	"Enter extensions".
468	"To continue playing press 3".
471	"If it's your list press #".
472	"To approve press #, to record from here press 1".
477	"Press 1 to select".
478	"2 to select".
479	"3 to select".
484	"Enter more characters followed by the # sign. If you just completed entering the last name enter the first name".
485	"Has".
486	"To reply to sender by voicemail press 1".
493	"You are requesting a transfer".
499	"When finished recording press # to approve or 1 to edit your message".
556	"To exit press *# now".
561	"You addressing your message".
562	"Enter the".
563	"Digit extension".
569	"To modify press 1, if finished press *#".
577	"To hold the message in its current category press **H".
578	"To skip to the next category press *#".
579	"Password must be".
585	"Zero".
587	"You are reviewing a list".
601	"Priority".
604	"As you use IP Office, your name will be included in system announcements that you and other people will hear. Press 1 and at the tone please speak your name. After speaking your name press 1 again".
606	"To re-record you name press 1, to approve press #".
608	"At the tone please speak your name. After speaking your name press 1".
610	"You are recording your name. After you record your name, you can access other IP Office features. As you use IP office your name will be included in system announcements that you and other people will hear. Press 1 and at the tone please speak your first and last name as you would like others to hear it. After speaking your name press 1 again".
611	"You are recording your name. To record your name, press 1. After recording press 1 again. To play back name press 23, to approve press #".
612	"To make private press 1".
613	"To make priority press 2".
617	"To remove private status press 1".
618	"To remove priority status press 2".
622	"Not priority".
643	"You are choosing options for this message there are no options currently set".
644	"You are choosing options for this message with the current settings".
645	"Private messages cannot be forwarded by the recipients".
646	"A priority message will be delivered before other messages and will be flagged for special attention in the recipients mailbox".
647	"The message will be private".



WAV File	Intuity Prompt
648	"The message will be priority".
651	"The message will be private and priority".
681	"Sorry cannot leave a message now because this users mailbox is full".
700	"To administer mailing lists press 1".
701	"To change your password press 4".
702	"To record your name press 5".
703	"You are at subscriber administration".
704	"To create lists press 1, to scan lists press 2, to review and modify lists press 3".
707	"If finished press *#".
708	"If finished adding entries press #".
736	"You are recording your name. As you use IP office your name will be included in system announcements that you and other people will hear".
744	"For all calls".
745	"Active".
747	"For internal calls".
748	"For external calls".
749	"For busy calls".
750	"For no answer".
751	"For out of hours calls".
752	"To listen to a greeting press 0, to create change or delete a greeting press 1, to scan all your greetings press 2, to activate a greeting press 3, to administer call types press 4, if finished press #".
753	"Enter greeting number".
754	"Greeting".
755	"Not recorded".
756	"To listen to greeting".
757	"To re-record, press 1".
759	"To review status, press 2".
760	"Press 0".
764	"To use this greeting for all calls press 0, for internal calls press 1, for external calls press 2".
765	"Recorded but not active".
766	"To use this greeting for all calls press 1".
767	"To use this greeting for all calls press 0, for busy calls press 1, for no answer calls press 2".
770	"Recorded and active".
771	"Approved and active".
772	"Again".
773	"To activate for out of hours call press 3".
775	"To record messages press 1 to get messages press 2 to administer personal greetings press 3".
776	"The system greeting".
777	"Cannot listen to system greeting".
778	"Cannot modify system greeting".
779	"No greetings recorded".
780	"Personal greetings review completed".
781	"To skip to the next greeting press the # sign".
782	"To activate a greeting enter greeting number, to de-activate a greeting activate a different greeting in its place".
783	"To activate another greeting enter greeting number to de-activate a greeting activate a different greeting in its place".
784	"To activate system greeting enter 0".
785	"Same greeting used for all calls".
786	"To identify calls as internal and external press 1".
787	"To identify calls as busy and no answer press 2".
788	"To identify calls as out of hours press 3".
790	"Calls identified as internal and external".
791	"Calls identified as busy and no answer".

WAV File	Intuity Prompt
792	"Calls identified as out of hours".
793	"Calls not identified as out of hours".
797	"To use the same greeting for all calls press 5".
810	"External".
812	"No answer".
814	"Calls".
815	"You are administering your personal greetings".
816	"You are listening to a personal greeting".
817	"You are recording a personal greeting".
818	"You have just recorded".
819	"You are scanning your personal greetings".
820	"You are selecting which greeting to activate".
821	"You administering call types".
822	"As you use IP Office, your name will be included in system announcements that you and other people will hear. At the tone please speak your name, after speaking your name press 1".
823	"For all calls".
825	"For internal".
826	"For external".
827	"For busy".
828	"For no answer".
829	"For out of hours".
830	"You must approve your recording".
832	"Please enter extension and # sign".
839	"To rewind to the previous greeting press 2".
843	"To scan headers and messages press 1, to scan headers only press 2, to scan messages only press 3".
844	"End of message".
845	"Next message".
846	"You are selecting an option for automatic message scan".
847	"You are automatically scanning your incoming messages. To listen to the message press 0, to respond to or forward the message press 1".
848	"You are automatically scanning your incoming messages. To listen to the message press 0 to respond to the message press 1".
849	"To skip the next message press the # sign, to the listen to the header rewind by pressing 2, then play by pressing 3, to skip to the next category press *#".
850	"Broadcast and login message services are not available".
852	"To rewind to the current entry press 2, to rewind to previous entry press 2 as many times as necessary".
868	"Mailbox id must be less than or equal to less than 16 digits".
869	"If the extension entered belongs to a casual subscriber you will be prompted for a mailbox id".
905	Short silence.
907	2 seconds of silence.
913	"If finished press #".
915	"No options menu available".
916	"To send message press # or enter an option to hear a list of options press 0".
924	"Seconds".
925	"Minutes".
926	Beep
928	"New messages".
929	"Old messages".
935	"Unopened messages".
936	"Partial entry deleted".
937	"Sorry you are having difficulty please get help and try again later".
938 - 968	Ordinal numbers "1st" to "31st".
971	"To send press #".
972	"To reach the covering extension press Zero".

WAV File	Intuity Prompt
973	"If you are finished please hang up or press **X".
977	"Name not found".
987	"Enter last name of the person".
990	"To record and send voicemail messages press 1".
992	"To get messages press 2".
1001	"To scan incoming messages automatically press 7, to relogin press **R".
1006	"To record or change the greeting heard by callers press 3".
1010	"With priority".
1011	"With fax".
1020	"No message to send".
1028	"Page".
1029	"Pages".
1041	"There are no new faxes".
1048	"Nothing to print".
1052	"To specify your fax preferences press 3".
1061	"Your default print destination is...".
1071	"Fax message from..".
1073	"To print press *1".
1075	"To change the default print destination press 1".
1087	"To print to destination".
1088	"Press #".
1089	"To specify destination, enter digits followed by the # key".
1091	"You are specifying where your documents will be printed".
1092	"A default print destination has not been assigned".
1093	"To assign a default print destination press *7 then 53".
1098	"To approve press #".
1118	"You are specifying the default print destination for fax items".
1141	"When finished recording press # for more options".
1144	"To specify whether a message can be addressed before it is recorded press 6".
1145	"To administer call answer options press 7".
1152	"Address before record turned on".
1153	"To turn off press 1".
1154	"Address before record turned off".
1155	"To turn on press 1".
1157	"You are administering addressing options".
1158	"To prevent callers from leaving messages press 1".
1159	"Call answer messages will not be accepted".
1160	"To allow callers to leave messages press 1".
1161	"You are administering call answer options".
1162	"Sorry the mailbox you have reached is not accepting messages at this time".
1163	"Is not available".
1164	"Call answer messages will be accepted".
1219	"To review or change your reach options press 7".
1305	"Please enter an outcalling option to hear a list of options press 0".
1430	"To following message was restored".
1431	"No message to restore".
1432	"To undelete last deleted message press **U".
1434	"To return to getting messages press #".
1440	Beep
1443	"Voice file system is out of space".
1444	"Please contact the administrator".
1457	"Old and new passwords cannot be the same".
1461	"You are getting your incoming messages".

WAV File	Intuity Prompt
1462	"To listen to the message press Zero".
1463	"To reply to sender by voicemail press 17".
1464	"To forward with comments press 12".
1465	"To record a new message press 14".
1466	"To respond to or forward the message press 1".
1467	"The return address for this message is not a mailbox on this system".
1469	"To reply to sender by voicemail press 7".
1964	"The ability for callers to leave messages in your mailbox is turned off".
1965	"To allow callers to leave messages press 571".
1970	"Invalid password please enter new password and # sign".
2007	"With text".
2008	"With other media".
2010	"Zero".
2011	"bytes".
2012	"Byte".
2013	"Kilobyte".
2014	"Kilobytes".
2015	"Megabyte".
2016	"Megabytes".
2018	"And".
2019	"Message from".
2021	"Private".
2022	"Private priority".
2023	"Priority".
2025	"Call from".
2026	"Call received".
2029	"This is a ".
2030	"Voice".
2031	"Fax".
2032	"Text".
2033	"Attached file".
2035	"To advance to the end of the message press *6".
2038	"Rewound".
2039	"Component".
2040	"To listen press 3".
2041	"To customize your mailbox, for example to create or edit your mailing lists or change your password, press 5".
2042	"To administer your media preference for sorting messages, press 8".
2043	"You are administering your preferred media type for sorting incoming messages. Messages with a primary media type matching your preference will be presented before other messages, regardless of the order in which they have been received".
2044	"No media preference for sorting incoming messages has been specified".
2045	"For voice press 1, for fax press 2, for text press 3, for binary files press 4".
2046	"To retain your current preference press the # key".
2047	"You media preference for sorting incoming messages is".
2048	"For no preference press zero".
2049	"Will be your preferred media type".
2051	"Your password cannot be the same as your extension number consecutive digits or a single repeated digit. Please enter new password and the # key".
2052	"At beginning of message to step back to previous message press *2 to listen press Zero".
2053	"Approximately".
2057	"At beginning of message".
2061	"To enter the telephone number of a fax machine press **5".
2063	"Enter the telephone number of a fax machine followed by the # sign".

WAV File	Intuity Prompt
2065	"The telephone number of a fax machine should be entered as it would be dialed from the location of your messaging system. It can contain a maximum of 23 digits including trunk access, long distance or international access codes if necessary and is subject to administrator restrictions".
2071	"You are specifying the telephone number of a fax machine".
4409 -4434	Alphabetic characters "A" to "Z".
G0000 - G0009	"Press zero" through to "Press 9"
G0010 - G0019	"Press *zero" through to "Press *9".
G0020	"Press ** zero".
G0029	"Press **9".
G0031	"Press the # key".
G0032	"Press *#".
G0040	"You are changing your Outcalling options".
G0041	"System not administered for Outcalling".
G0042	"You are not authorised for Outcalling".
G0043	"When finished please hang up or ".
G0044	"You are selecting which messages will receive out calls".
G0045	"For instructions on entering your outcalling number".
G0046	"For instruction on configuring outcalling".
G0047	"You are not authorised to input a number".
G0051	"To return to the activity menu".
G0052	"Subject to administrator restrictions".
G0053	"To change times".
G0054	"To turn off"
G0055	"To turn on"
G0061	"To de-activate".
G0062	"To activate".
G0063	"To activate for all calls".
G0064	"To activate for external calls only".
G0065	"To activate for internal calls only".
G0071	"For all calls".
G0072	"For internal calls".
G0073	"For internal calls only".
G0074	"For external calls".
G0075	"For external calls only".
G0076	"For other calls".
G0080	"To use this greeting".
G0081	"For the temporary greeting"
G0082	"For number engaged calls"
G0083	"For no reply calls".
G0084	"For the default greeting".
G0085	"When finished".
G0086	"Please enter a number between".
G0087	"Where zero will set the temporary greeting to not expire".
G0088	"Please enter the number of days you wish this greeting to be active for".
G0089	"Your temporary greeting".
G0090	"For the next".
G0091	"Days".
G0092	"For today".
G0099	"Not configured".
G0100	"Turned off".
G0101	"Inactive".
G0102	"Desk".
G0103	"Home".
G0104	"Mobile".

WAV File	Intuity Prompt
G0105	"Temporary".
G0106	"Delegate".
G0107	"Secretary".
G0108	"Other".
G0109	"SMS".
G0110	"Voicemail".
G0111	"Escalation".
G0112	"An escalation list".
G0113	"Extension".
G0120	"For none".
G0121	"For internal".
G0122	"For desk".
G0123	"For home".
G0124	"For mobile".
G0125	"For temporary".
G0126	"For delegate".
G0127	"For secretary".
G0128	"For other".
G0129	"For SMS".
G0130	"For voicemail".
G0131	"For escalation".
G0140	"Currently".
G0141	"For help".
G0142	"For help at any time".
G0143	"To leave".
G0144	"To change".
G0145	"To reject".
G0147	"Time".
G0148	"The time out is".
G0149	"To change the time out".
G0150	"To configure outcalling".
G0151	"Your escalations have not been configured".
G0152	"Your escalations are configured to call the following locations in the listed order".
G0153	"To repeat list".
G0154	"To repeat list with numbers".
G0155	"To review the list".
G0156	"You are selecting locations for the escalation list".
G0157	"To input the list again".
G0158	"You have completed inputting the escalation list".
G0159	"To select a destination".
G0160	"Where the following destinations will be called in order".
G0161	"To configure escalations".
G0162	"Please input your".
G0163	"Location".
G0185	"To".
G0186	"Where".
G0187	"Between".
G0188	"Invalid time".
G0191	"Is active".
G0192	"Is inactive".
G0193	"Is set to".
G0194	"Is not set".
G0195	"To repeat".

WAV File	Intuity Prompt
G0200	"And".
G0201	"Your outcalling is".
G0202	"Your outcalling is set".
G0203	"Your outcalling destination is set to".
G0204	"The number is".
G0205	"Number is".
G0206	"Number".
G0207	"To change numbers".
G0208	"To input a number".
G0209	"For instructions on entering your outcalling number".
G0210	"For instructions on configuring outcalling".
G0211	"To change the number".
G0212	"There is no number defined for the selected destination".
G0213	"You are configuring outcalling destination".
G0214	"To configure outcalling".
G0215	"To re-configure outcalling".
G0216	"To change outcalling".
G0217	"To change outcalling destination".
G0218	"To change destination".
G0219	"To change".
G0220	"Destination".
G0221	"You have selected".
G0222	"There is no number defined".
G0223	"To select an alternate destination".
G0224	"To select another location".
G0225	"You have selected the option to configure your telephone numbers".
G0226	"To exit".
G0227	"To accept".
G0228	"To disable".
G0229	"To enable".
G0230	"To turn outcalling off".
G0231	"To turn outcalling on".
G0232	"To turn outcalling on for all new messages".
G0233	"To turn outcalling on for new priority messages only".
G0234	"To turn outcalling on for new private messages only".
G0235	"To turn outcalling on for new priority private messages only".
G0236	"The destination is set to".
G0237	"To change the destination".
G0238	"To set a number".
G0240	"Outcalling is turned off".
G0241	"Outcalling is turned on".
G0242	"Outcalling is turned on for all new messages".
G0243	"Outcalling is turned on only for new priority messages".
G0244	"Outcalling is turned on only for new private messages".
G0245	"Outcalling is turned on only for new priority private messages".
G0251	"Outcalling is turned on between".
G0252	"Outcalling is turned on for all new messages between".
G0253	"Outcalling is turned on only for new priority messages between".
G0254	"Outcalling is turned on only for new private messages between".
G0255	"Outcalling is turned on only for new priority private messages between".
G0260	"Outcalling is turned off".
G0261	"Outcalling is turned on".
G0262	"Outcalling is turned on for all new messages"

WAV File	Intuity Prompt
G0263	"Outcalling is turned on only for new priority messages".
G0264	"Outcalling is turned on only for new private messages".
G0265	"Outcalling is turned on only for new priority private messages".
G0272	"For all new messages".
G0273	"For all new priority messages".
G0274	"For all new private messages".
G0275	"For all new priority private messages".
G0278	"Enter the time in second and #".
G0279	"Enter the new number and #".
G0280	"To input a new number".
G0281	"To input an outcalling number".
G0282	"Enter the number followed by #".
G0283	"Anything entered will be interpreted as part of the called number".
G0284	"No global commands, such as *4 will be accepted at this time".
G0285	"A * or # entered as the first character will result in the * or # being output".
G0286	"A * entered as part of the digit string will be interpreted as a pause of one and a half seconds.
G0287	"If a longer pause is required, use multiple stars in a row".
G0288	"To return to outcalling administration".
G0289	"Enter outcalling number and #".
G0290	"To exit press *# now".
G0301	"Your destination is currently configured to".
G0306	"For system outcalling schedules".
G0307	"You are specifying your outcalling time period".
G0308	"For outcalling during peak time".
G0309	"If not press *3 and re-enter time".
G0310	"To specify your times".
G0311	"To delete own time".
G0312	"Peak time is".
G0313	"For outcalling ant time press 1".
G0314	"The time you specify will be restricted by the times allowed by the system administrator".
G0315	"Outcalling specified to any time subject to administrator restrictions".
G0316	"For outcalling during prime time press 2".
G0317	"The system allows outcalls from".
G0318	"To change outcalling information press 6.
G0319	"Outcalling specified for".
G0320	"If correct press #".
G0321	"From time".
G0322	"To time".
G0350	"There is a message for".
G0351	"Based on an outcalling time profile which is currently configured as follows".
G0352	"Your outcalling time profile is currently configured as follows".
G0353	"Your outcalling time profile is not configured".
G0360	"You are specifying the time for outcalling time profile".
G0361	"To leave the current time profile".
G0362	"To change the time profile".
G0363	"Is set to".
G0364	"Please enter the time".
G0365	"The time should be entered as follows: hour, hour, minute, minute, where the hours are given in 24 hour format. For example, 5 past 1 in the afternoon would be entered as 1305".
G0366	"You are configuring outcalling time profile".
G0367	"The end time should be greater than the start time".
G0400	"You are modifying your personal settings".
G0401	"You are modifying your callback options".
G0402	"You are modifying your do not disturb options".



WAV File	Intuity Prompt
G0403	"You are modifying your email mode options".
G0404	"You are modifying your follow me forward options".
G0405	"You are modifying your mobile twinning options".
G0406	"You are modifying your voicemail transfer options".
G0410	"To modify your personal settings".
G0411	"To modify your callback options".
G0412	"To modify your DND options".
G0413	"To modify your email mode options".
G0414	"To modify your follow me forward options".
G0415	"To modify your mobile twinning options".
G0416	"To modify your reception transfer options".
G0417	"To modify your follow me feature setting".
G0418	"To modify your forward unconditional setting".
G0419	"To modify your forward on busy and on no answer setting".
G0421	"Your follow me feature".
G0422	"Your forward unconditional feature".
G0423	"Your forward on busy and on no answer is set to".
G0424	"Your forward on busy is set to".
G0425	"Your forward no answer is set to".
G0426	"Your forward on busy and on no answer are inactive".
G0427	"Your do not disturb feature".
G0428	"Your email mode feature".
G0429	"Your mobile twinning feature".
G0430	"Your callback option".
G0450	"To modify your voicemail transfer on zero".
G0451	"To modify your voicemail transfer on 1".
G0452	"To modify your voicemail transfer on 2".
G0453	"To modify your voicemail transfer on 3".
G0460	"Your voicemail transfer on zero".
G0461	"Your voicemail transfer on 1".
G0462	"Your voicemail transfer on 2".
G0463	"Your voicemail transfer on 3".
G0501	"A".
G0502	"B".
G0503	"C".
G0504	"D".
G0505	"E".
G0551	"The first".
G0552	"The second".
G0553	"The third".
G0554	"The fourth".
G0555	"The fifth".
G0680	"Second".
G0681	"Seconds".
G0682	"Star".
G0683	"Hash".

### 8.3.2 English Non-Intuity Prompts

Here is a list of the named .wav files used by Voicemail Pro for US and UK English. These are predominately, though not exclusively, used for IP Office mode mailbox features and Voicemail Pro custom call flow actions.

All files are Microsoft WAVE file format (.wav) 8kHz, 16 bit mono.

WAV File	Non-Intuity Prompt
a60	"Please enter extension and # sign".
aa_01	"Good morning and thank you for calling. Please key in the required extension number or hold the line for other options".
aa_02	"Good afternoon and thank you for calling. Please key in the required extension number or hold the line for other options".
aa_03	"Good evening and thank you for calling. Please key in the required extension number or hold the line for other options".
aa_04	"Please hold while we try to connect you".
aa_05	"An operator is currently unavailable".
aa_06	"Please key in the extension number you would like to leave a message for".
aa_07	"Good bye and thank you for calling".
alpha_01	"Press # to accepted data, *1 to hear the data, *2 to delete the data, *3 to delete the last character, *# to accept the data and continue".
alpha_02	"Data has been deleted".
alm_1	"You have an alarm call set for".
alm_2	"Alarm has been deleted press 1 to continue or * to quit".
alm_3	"Please enter the time for the alarm call in 24 hour clock notation".
alm_4	"You have set an alarm call for".
alm_5	"Press 1 to validate press 2 to add a message to the end press # to cancel".
alm_6	"Your alarm has now been set".
alm_7	"Press 1 to verify this alarm or press 2 to delete it".
alm_8	"This time is invalid please try again".
alm_9	"This is an alarm call please hang up".
AM	"AM".
aor_00	"Warning: your call is being recorded".
cmp_01	"The current campaign message has been marked as deleted".
cmp_02	"The current campaign message has been marked as completed".
cmp_03	"The current campaign message has been abandoned".
cmp_04	"Press 1 to start again, press 2 to rewind, press 3 to abandon, press 4 to delete, press 5 to complete, press 7 for previous field, press 8 for start of current field, press 9 for next field, press # to forward, press 0 to pause, press * to rewind".
conf_01	"A conference is not currently scheduled".
conf_02	"There was a problem transferring you into the conference".
conf_03	"Please enter your conference id and press # to finish".
conf_04	"Please enter your PIN and press # to finish".
conf_05	"Your conference ID or PIN is not valid".
conf_06	"Your conference ID is not valid".
conf_07	"Your PIN is not valid".
conf_08	"Please try again".
conf_09	"To be announced into the conference please speak your name and press # when you have finished".
conf_10	"Your name is too short please try again".
conf_11	"Has invited".
conf_12	"To join them in an immediate conference press 1 to accept, 2 to decline and 3 if the delegate is not available".
conf_13	"Has requested".
conf_14	"To join in an ad-hoc conference press 1 to accept, 2 to decline and 3 if the delegate is not available".
conf_15	"Has declined the offer to attend the conference".
conf_16	"Is not available".
conf_17	"Has just entered the conference".

WAV File	Non-Intuity Prompt
conf_18	"Has just left the conference".
conf_19	"An unknown caller".
conf_20	"Has been invited".
conf_21	"No conference selected, thank you and good bye".
conf_22	"Transferring you to the conference now".
conf_23	"Conference not accessible".
conf_24	"You have been invited to a conference".
dbn_01	"There are".
dbn_02	"Press # to play list".
dbn_03	"To select".
dbn_04	"# for next".
dbn_05	"*# for previous".
dbn_06	"And #".
dbn_07	"Press **2".
dbn_10	"For selection by group".
dbn_11	"For selection by first name".
dbn_12	"For selection by last name".
dbn_13	"For selection by extension".
dbn_14	"Entries that match your selection".
dbn_15	"*3 to clear the list and restart".
dbn_16	"Or enter more characters followed by a # to reduce the size of the list".
dbn_17	"To change name format entry to".
dbn_18	"First name last name".
dbn_19	"Last name first name".
dbn_20	"Enter group name".
dbn_21	"Enter first name".
dbn_22	"Enter last name".
dbn_23	"Enter extension".
dom_01.wav... dom_31.wav	Day of month ordinal numbers "1st" to "31st".
dow_01	"Sunday".
dow_02	"Monday".
dow_03	"Tuesday".
dow_04	"Wednesday".
dow_05	"Thursday".
dow_06	"Friday".
dow_07	"Saturday".
EOC_1	"Warning, your conference will end in".
EOC_2	"Your conference will end in".
int_na	"Service not supported".
ivr_01	"The time according to the IVR server is".
ivr_02	"Directory wave table. Enter the number of the caller you want to edit".
ivr_03	"Name wave table. Enter the number of the extension you want to edit".
ivr_04	"Enter form entries with the # sign to terminate each line. Press # at the end to complete the form".
ivr_05	"Form verified".
ivr_06	"Form entry is complete".
ivr_07	"Press * to abort # to accept or 0 to listen again".
ivr_08	"Do not disturb".
ivr_09	"Voicemail mode".
ivr_10	"Call forwarding".
ivr_11	"Forward number is set to".
ivr_12	"Follow me number is set to".
ivr_13	"Voicemail reception number is set to".
ivr_15	"Parameter is set to".

WAV File	Non-Intuity Prompt
ivr_16	"Parameter is enabled".
ivr_17	"Parameter is disabled press 1 to enable".
ivr_18	"Parameter is disabled".
ivr_19	"Parameter is enabled press 2 to disable".
ivr_20	"Press 1 to change press # to cancel".
ivr_21	"Enter new number after the tone".
ivr_22	"Repeat new number after the tone".
ivr_23	"Sorry the numbers you have entered are different".
ivr_24	"Email options".
ivr_25	"Alert email on incoming message".
ivr_26	"Copy messages to email".
ivr_27	"Forward messages to email".
ivr_28	"Email turned off".
ivr_29	"Service mode".
ivr_30	"In service".
ivr_31	"Out of service".
ivr_32	"Night service".
mc_00	Beep.
mc_01	Short silence.
mc_02	One seconds silence.
misc_24	"Is on holiday until".
misc_25	"Is unavailable until".
misc_26	"Is at lunch until".
misc_27	"Is away on business until".
misc_28	"And will be picking up messages regularly".
misc_29	"And will not be contactable until their return".
misc_30	"List length exceeded".
misc_31	"*, cannot access private list".
misc_32	"*, list length exceeded".
mnu_1	"You have four greeting options. For standard greeting press 1, for after hours greeting press 2, for you are in a queue greeting press 3, for you are still in a queue greeting press 4".
mnu_2	"To hear your greeting message press 1, to change your greeting message press 2, to save your greeting message press 3, to save your message for playing as a continuous loop press 4".
mnu_2a	"To hear your greeting message press 1, to change your greeting message press 2, to save your greeting message press 3, to save your message for playing as a continuous loop press 4, to return to the previous menu press 8".
mnu_3	"When playing a message to delete the message press 4, to save the message press 5, to forward the message to email press 6, to repeat the message press 7, to skip the message press 9, at the end of your messages to play old messages press 1, to play saved messages press 2, to edit your greeting press 3, to direct all messages to email press *01, to turn off email redirection press *02".
mnu_4	"When playing a message to delete the message press 4, to save the message press 5, for forwarding options press 6, to repeat the message press 7, to skip the message press 9, to call back the sender press ** at the end of your messages, to play old messages press 1, to play saved messages press 2, to edit your greeting press 3, to direct all messages to email press *01, to send email notifications press *02, to turn off email functions press *03, to change your access code press *04".
mnu_5	"To forward message to email press 1, to forward message to other extensions press 2, to add a header message press 3, to send message into your saved messages list press 4, to skip this forwarding press #".
mnu_6	"User configure options. To edit forwarding number press 1, to edit follow me number press 2, to set call forwarding press 3, to set voicemail press 4, to set do not disturb press 5, to edit voice mail access code press 6, to edit voicemail reception press 7, to set voicemail email mode press 8, to edit voicemail call back number press 9".
mnu_7.	"Hunt group configure options. To set voicemail press 1, to edit voicemail access code press 2, to set voicemail email mode press 3, to set service mode press 4".
mnu_8	"Invalid entry please try again".
mnu_9	"That destination is unavailable".

WAV File	Non-Intuity Prompt
MNU_10.	"To play your old messages, press 1. To play your saved messages, press 2. To edit your greeting, press 3. To delete the current message, press 4. To save the current message, press 5. To change your access code, press *04. For help at any time, press *4".
mo_01	"January"
mo_02	"February"
mo_03	"March"
mo_04	"April"
mo_05	"May"
mo_06	"June"
mo_07	"July"
mo_08	"August"
mo_09	"September"
mo_10	"October"
mo_11	"November"
mo_12	"December"
no_	"Number".
no_00.wav ... no_59.wav	"Zero" to "Fifty-nine".
no_24p	"More than 24".
noon	"Noon".
out_01	"To administer Outlook based greetings, press 5".
out_02	"You are administering Outlook based greetings".
out_03.	"Outlook based greetings are active for all calls".
out_04	"Outlook based greetings are used for the following call types".
out_05	"Outlook based greetings are currently inactive".
out_06	"To deactivate Outlook based greetings".
out_07	"To activate Outlook based greetings".
out_08	"They will be out of the office until".
out_09	"They will be busy until".
out_10	"Due to".
outb_01	"This is an IP Office outbound alert".
outb_04	"Press any key to accept".
pg_0001	"To use this greeting for all calls press 1".
pg_0002	"To use this greeting for all calls press 0".
pg_0003	"For internal calls press 1".
pg_0004	"For external calls press 2".
pg_0005	"To activate for out of hours call press 3".
pg_0006	"If the number is busy press 4".
pg_0007	"For no reply calls press 5".
pin_01	"Enter your current access code after the tone".
pin_02	"Now enter your new access code after the tone".
pin_03	"Now repeat your new access code after the tone".
pin_04	"Your access code has now been changed".
pin_05	"It has been possible to change your access code at this time".
pin_06	"Press # when you have finished".
pin_07	"Access code must contain 4 or more digits".
PM	"PM".
que_01	"You are at queue position".
que_02	"In the queue".
que_03	"Call per".
que_04	"Estimated time to answer is".
que_05	"Your call will be answered in".
rec_01	"Warning: this call is being recorded".

WAV File	Non-Intuity Prompt
RECNAM_01	"As you use IP Office, your name will be included in system announcements that you and other people will hear. At the tone please say your name. After saying your name, press 1".
RECNAM_02	"To re-record your name press 1, to confirm press #".
RECNAM_03	"Record at the tone".
PressHash	"To continue, press #".
sac_01	"Cannot retrieve your messages now due to multiple logins to your mailbox".
sac_02	"Please disconnect".
seconds	"Seconds".
ssb_00	"O" (Oh).
ssb_01	"O'Clock".
ssb_02	"No".
ssb_03	"None".
ssb_04	"Midnight".
ssb_05	"And".
ssb_06	"Date".
ssb_07	"Deleted".
ssb_08	"T number".
ssb_09	"For".
ssb_10	"Forwarded".
ssb_11	"Item".
ssb_12	"Press".
ssb_13	"Quantity".
ssb_14	"Saved".
ssb_15	"Yesterday".
ssb_16	"Hundred".
ssb_17	"Hour".
ssb_18	"O" (oh).
ssb_19	"At".
ssb_20	"1" (Down tone).
ssb_21	"1" (Up Tone).
ssb_22	"1" (Level Tone).
ssb_23	"Function failed to complete".
ssb_29	"Minutes".
svm_02	"Calls have been forwarded to email. New calls will also be forwarded to email until turned off".
svm_03	"Caller was".
svm_04	"Thank you for leaving a message. Mailbox has now stopped recording".
svm_05	"Please enter your mailbox number".
svm_06	"Please enter your access code".
svm_07	"There is no one available to take your call at the moment so please leave a message after the tone".
svm_08	"For help at anytime press 8".
svm_09	"That was the last message".
svm_10	"New message".
svm_11	"New messages".
svm_12	"Old message".
svm_13	"Old messages".
svm_14	"Saved message".
svm_15	"Saved messages".
svm_16	"Remote access is not configured on this mailbox".
svm_17	"Email is not enabled on this mailbox".
svm_18	"I am afraid all the operators are busy at the moment but please hold and you will be transferred when somebody becomes available".
svm_19	"Message was recorded".
svm_20	"You're being transferred".

WAV File	Non-Intuity Prompt
svm_21	"You have".
svm_22	"Unknown caller".
svm_23	"Forwarding to email is now turned off".
svm_24	"Start speaking after the tone and your message will be inserted before the message prior to forwarding".
svm_25	"To hear the recording press 1, to change the recording press 2, to save the recording press 3".
svm_26	"Enter the extension to which you wish this message to be forwarded, separating each extension using the # sign. Press # at the end to complete the list".
svm_27	"Message has not yet been recorded".
svm_28	"Start speaking after the tone and press 2 when you have finished recording".
svm_29	"There are no messages".
tim_m00	"Minute".
tim_m01	"One minute".
tim_m02	"Minutes".

---

## 8.4 Installing VoiceMail Pro as an ACM Gateway

Complete the steps in this section to install Voicemail Pro as an ACM Gateway. There is only one type of installation for the Voicemail Pro ACM Gateway. Therefore you are not offered the choice of custom, compact or typical during the installation process.

To install the ACM Gateway:

1. Insert the IP Office Applications DVD. Click on the link for Voicemail Pro and then double-click on setup.exe. The Choose Setup Language window opens.
2. Select the installation language. This language is used for the installation and for the default language prompts.
3. Click OK. Installation preparation begins.
4. Voicemail Pro requires Microsoft .NET 2.0 Framework. If this version is not detected, you are prompted to install it. Click Yes to install Microsoft .NET 2.0 Framework and follow the instructions on the screen.
5. If the Modify, repair or remove the program window appears you need to follow the [upgrade process](#) <sup>33</sup>.
6. In the Welcome window, click Next. The Customer Information window opens.
7. In the Customer Information window, type a user name and the company name or use the default names that are proposed. These settings do not affect Voicemail Pro when it is installed.
8. In the same window choose the option that determines who should be able to use Voicemail Pro when it has been installed. The recommended option is Anyone who uses this computer (all users).
9. In the Customer Information window, click Next. The Choose Destination Location window opens.
10. In the Choose Destination Location window, click Browse and locate the folder where the Voicemail Pro files are to be installed. Otherwise, click Next to use the proposed folder. The Messaging Components window opens so that you can choose the components that you want to install.
11. In the Messaging Components window, highlight ACM Gateway.
12. Click Next. The Service Account Name window opens. Details of the default administrator account may already be filled in.
13. In the Service Account Name window, type the User Name and Password for the user account under which the Voicemail Pro service should log on and run. This should be the Voicemail account created previously on the domain and Exchange server. Alternatively, click Browse and select from the list of available PC or network accounts or click Next to use the proposed account details. The Select Program Folder window opens.
14. By default, the program folders are created in a folder called IP Office. You can specify a different folder or select one from the list of existing folders. To specify a different folder, type the folder name in the Program Folders box. Alternatively, to use an existing folder, highlight a name in the list of existing folders.
15. Click Next. The account details that you have entered are verified. If you entered a new user name, a message is displayed to ask if you want to create a new PC user account with the specified name and password. Click Yes. The Select Program Folder window opens.
16. Select the program folder where you would like the icons for the Voicemail Pro components to be added. By default, the program icons are added to IP Office.
17. Click Next. The Start Copying Files window opens. Before any copying starts, you are presented with a summary of the settings that you have chosen so far.
18. Review the settings to make sure that they are what you expect. Scroll down if necessary.
19. If for any reason the details are not what you expect, click Back and make the necessary changes. When you are satisfied that the details are correct, click Next to start copying the files. The Setup Status window opens to keep you informed while the installation takes place.
20. When the installation is complete you are prompted to restart the computer. Choose Yes I want to restart my computer now.
21. Click Finish to restart now.
22. When the computer restarts, log back in. The IP Office Voicemail Pro - ACM Gateway Settings window opens.
23. In the Mail Server box, type the name of the mail server to use.
24. Choose Message Networking/Interchange to use Interchange or Modular Messaging to use Modular Messaging. 1.
25. Click Next. The IP Office Voicemail Pro SMTP Email Settings window opens.
  - In the Mail Server box, type the name of the SMTP mail server. This should be the fully qualified domain name.
  - In the Port Number box, type the number of the receiving port on the SMTP mail server. The default is 25.
  - In the Mail Drop box, type the name of the destination folder for outgoing emails on the SMTP Server. Alternatively, click the Browse button and select the folder to use.
  - To enforce server authentication, check the Server Requires Authentication box. This is optional. If you check this option you also need to provide the Account Name and Password that need to be entered. You can also choose whether or not to set the Use Challenge Response Authentication option.
26. Click Finish. An attempt is made to validate the email settings. If everything has been installed correctly and the license requirements are met, you are prompted to start the Voicemail service. If the attempt to connect with the



SMTP server fails, an error message is displayed. You might need to start the Voicemail service manually. See [Starting the Voicemail Pro Service](#).

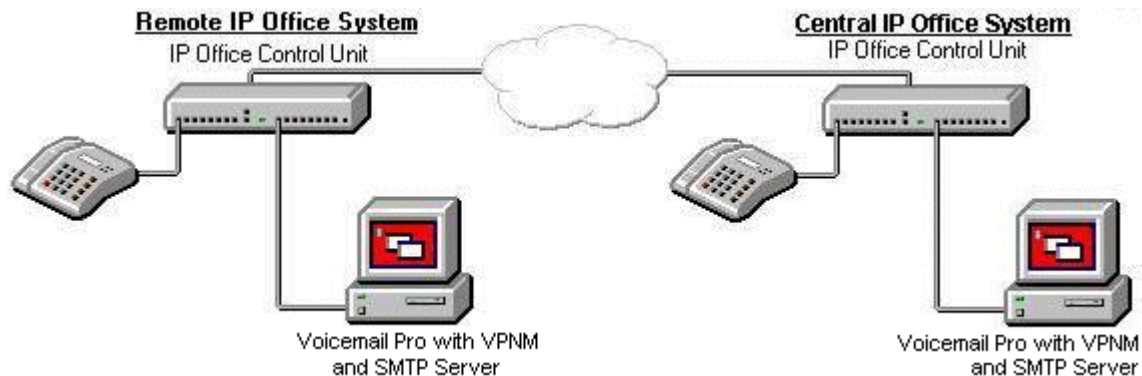
27. Click OK to acknowledge the message. You have now finished installing the Voicemail Pro ACM Gateway software.

## 8.5 Installing Networked Messaging (VPNM)

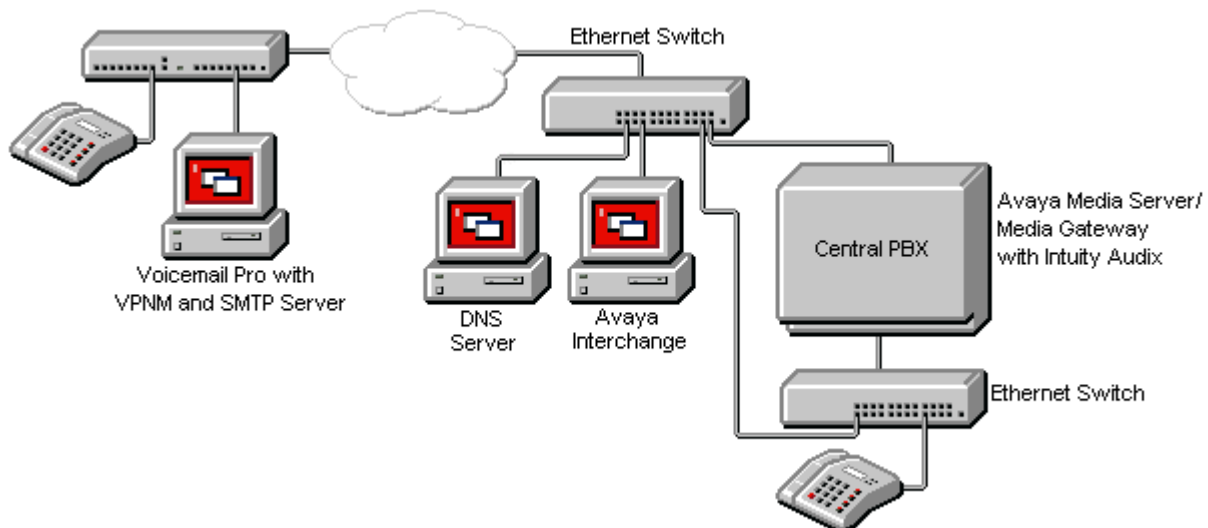
Voicemail Pro Networked Messaging (VPNM) allows users to forward voicemail to mailboxes on remote voicemail systems. This is done by adding a VPNM component to the Voicemail Pro installation.

The messages are transferred between systems using an SMTP/MIME mail format to encode both the voice part of the message and additional message details.

Here is a diagram to illustrate VPNM between two IP Office systems.



Here is a diagram of a sample VPNM configuration between an IP Office and Avaya Interchange. Depending on how your IP Network is set up, the configuration will differ slightly.



Up to 2000 mailboxes are supported per VPNM server and there is no constraint on the number of VPNM servers. However, to distinguish between dial plans you might need to allocate a dial pre-fix to each server. A maximum of 99 pre-fixes are available.

This section summarizes the steps required for installing VPNM between two IP Office systems and between an IP Office system and an Intuity Audix system through Avaya Interchange.

The instructions provided here should be read in conjunction with the other Avaya guides, for example "Avaya Interchange Release 5.4, Adding a VPIM System to Your Network". This is because the setup for Interchange VPIM is the same as for VPNM.

## 8.5.1 Requirements for VPMN

Check that the following requirements have been before attempting to install VPMN:

- A Voicemail Pro server with VPMN installed connected to each IP Office system. Each system will need a license for both Voicemail Pro and VPMN.
- All systems in the VPMN network need to be tested to ensure that they can communicate across the IP network. It is suggested that you test the following:
  - Ping the IP Addresses.
  - Ping the computer names. If in a domain, ping the fully qualified domain name.
- The VMPPro Servers must have an SMTP server installed. This can be done using the SMTP component of Internet Information Service (IIS).
  - To test type "Telnet <the name of the SMTP server> 25".
- Server names, where entered, must be fully qualified domain names.
- Voicemail Pro should not be installed on the same server as Exchange and/or the domain controller.

---

## 8.5.2 Installing VoiceMail Pro with VPNM Support

For Voicemail Pro 6.1, the VPNM components are embedded parts of the Voicemail Pro service and so automatically installed.

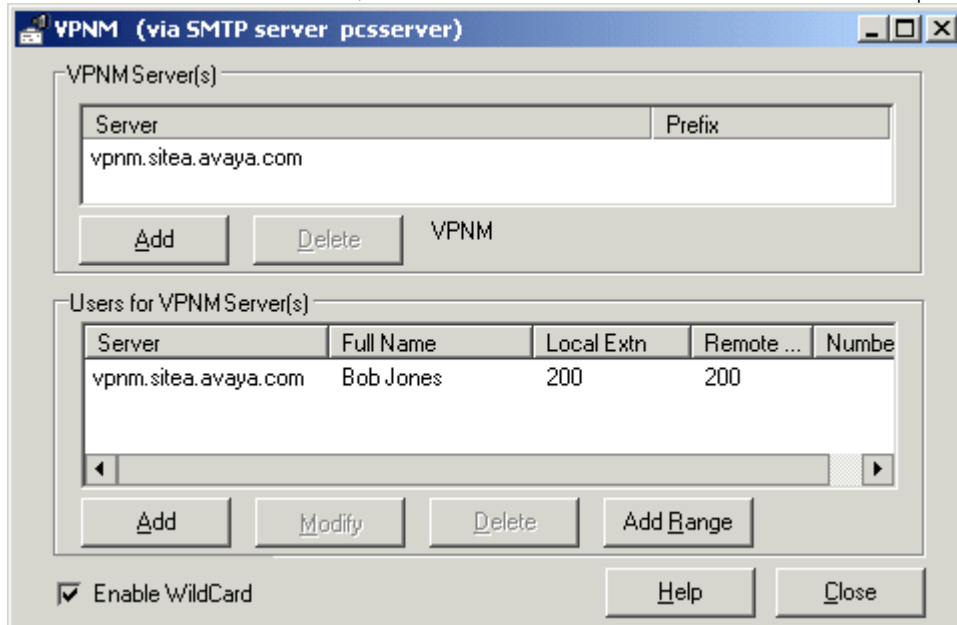
### 8.5.3 Configuring VPMN Preferences

This set of preferences is used to add a list of the remote VPMN servers and mailbox users on those servers.

- ! These features are not supported on a Linux based Voicemail Pro server.

To open the VPN window:

1. Start the Voicemail Pro Client.
2. From the Administration menu, select Preferences > VPMN. The VPMN window opens.



To add a VPMN server:

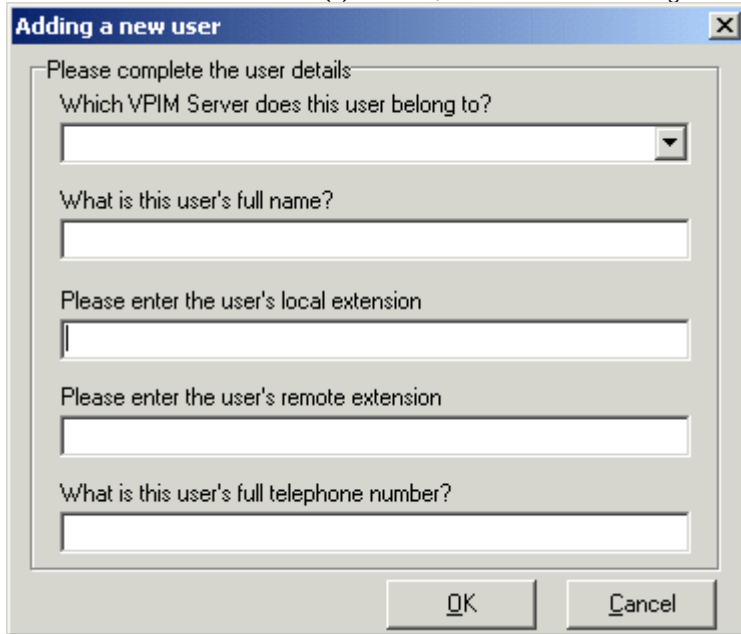
1. In the VPMN Server(s) section, click Add.
2. Enter the fully qualified domain name of the remote VPMN destination (the remote Voicemail Pro server PC or Avaya Interchange).
3. Enter the two digit access prefix, if these are being used.
4. Click OK.

To delete a VPMN server:

1. In the VPMN Server(s) section, select the server that you need to delete.
2. Click Delete. When a server is deleted, all of the users associated with that server are also deleted.

To add a user to VPNM server:

1. In the Users for VPNM Server(s) section, click Add. The Adding a new user window opens.



The screenshot shows a dialog box titled "Adding a new user". It contains the following fields and controls:

- Title bar: "Adding a new user" with a close button (X).
- Text: "Please complete the user details".
- Field 1: "Which VPIM Server does this user belong to?" with a dropdown menu.
- Field 2: "What is this user's full name?" with a text input box.
- Field 3: "Please enter the user's local extension" with a text input box.
- Field 4: "Please enter the user's remote extension" with a text input box.
- Field 5: "What is this user's full telephone number?" with a text input box.
- Buttons: "OK" and "Cancel" at the bottom.

2. Enter details for the user. All of these details MUST be completed before the user can be added.
  - Select the VPIM server from the listing.
  - Enter the user's full name. The user's full name is used by the local Voicemail Pro's dial by name feature.
  - Enter the user's extension. The local extension number is used as the local mailbox number and so should not conflict with any existing local number.
  - Enter the user's remote extension. The remote extension number should be the user's real extension number. Typically this and the 'local extension number' are kept the same using a unique extension number dial plan for the linked systems.
  - Enter the user's full telephone number. The full telephone number should be a dialable number that is routed to the user's extension or mailbox.
3. Click OK to save the details and return to the VPNM configuration window.

To add a group of users:

1. (Optional) Check the option Enable WildCard. When this option is selected you can use the question mark symbol (?) to represent any number.
2. In the Users for VPNM Server(s) section, click Add Range. The Adding a range of users window opens.

3. Enter details for the users. All of these details MUST be completed before the users can be added.
  - Select the VPNM server to which you want to add the users.
  - Enter the start number of the extension range.
  - Enter the local prefix.
  - Enter remote prefix.
4. Click OK to save the details and return to the VPNM configuration window.

To change details of a VPNM user:

1. In the Users for VPNM Server(s) section, select the name of the user whose details need to be changed.
2. Click Modify. You can change the user's full name, the local extension number and the full telephone number.

---

## 8.5.4 Testing a VPNM Setup

It is advisable to test the VPNM setup.

To test the VPNM setup:

1. Dial into voicemail from one of the systems and record a message.
2. When selecting the target extension, enter an extension from the other system as specified in the VPNM Preferences screen.
3. The message should be delivered to the other systems Voicemail Pro server into *C:\V\netpub\mailroot\Drop*.
4. The VPNMreceiver Service checks the Drop directory approximately every 30 seconds. When it finds a message in the Drop directory, it will send the message to the relevant extension's voicemail box on the remote system.







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## A

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