



# **IP Office**

## **IP Office Application Server Installation and Maintenance**

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# Chapter 1.

# IP Office Application Server



# 1. IP Office Application Server

The IP Office Application Server is a single installation of selected IP Office applications running on Linux. The Linux operating system is included as part of the installation. However installation requires minimal Linux knowledge due to the inclusion of a web based management interface to allow the server to be managed remotely via web browser.

The IP Office Application Server installation installs the following:

## Linux

The base operating system installed is CentOS, a Linux operating system. However, no specific knowledge of Linux is required for installation or maintenance of the IP Office Application Server.

- **one-X Portal for IP Office**

This is a web browser based application that user's can use to control making and answering calls on their phone. It also provides a range of gadgets for the user to access features such as their directory, call log and voicemail messages. The one-X Portal for IP Office application is configured and managed remotely using web browser access. Each user who wants to use one-X Portal for IP Office needs to be [licensed](#) <sup>[12]</sup>.

- **Voicemail Pro**

This is a voicemail server. It provides mailbox services to all users and hunt groups on the IP Office system for which it is configured. In addition it can be customized to provide a range of call routing and voicemail services. The Voicemail Pro service is configured and managed remotely using the Windows Voicemail Pro client. A copy of the Voicemail Pro client can be [downloaded](#) <sup>[82]</sup> and installed from the server. The number of simultaneous connections to voicemail is [licensed](#) <sup>[12]</sup>.

- **Web Control Menus**

The server's own settings are configured and managed remotely using web browser access to a set of menus.

## Installation Options

The IP Office Application Server can be supplied either pre-installed onto a suitable server or as a DVD for installation onto a customer supplied server. Both options are covered by this manual.

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## 1.1 Avaya Pre-Built Servers

The IP Office Application Server can be supplied pre-installed onto a suitable server. The general specification of the servers used is:

- **Form:** Rack mounted server PC.
- **RAM:** 12GB.
- **Hard Disk:** 250GB.
- **Ethernet Port:** Only a single port (eth0) is supported. This port is labeled as port 1 on the physical server.

### Default Settings

The following are the default settings applied to the server applied shipment from Avaya:

- **DHCP Mode:** Off
- **IP Address:** 192.168.42.10
- **NetMask:** 255.255.255.0
- **Gateway:** Blank
- **Hostname:** The server MAC address.
- **DNS1:** Blank
- **DNS2:** Blank
- **Time Zone:** EST - Eastern Standard Time.
- **Root User Password:** Administrator

### Applications Installed

- **Voicemail Pro**
  - **English and French Language TTS for Voicemail Pro**
- **one-X Portal for IP Office**

## 1.2 Non-Avaya Server Requirements

The following are the minimum server PC requirements.

- **IMPORTANT: Compatible Servers**

The compatibility of any particular server PC for the operating system cannot be guaranteed. It is the installers responsibility to ensure that the server platform is compatible with CentOS 5 (<http://www.centos.org>). A list of tested servers is available at <https://hardware.redhat.com/>. The servers used by Avaya for product testing were:

- HP ProLiant DL160
- Dell Optiplex 780MT

	Minimum Specification	Recommended Specification
<b>Processor</b>	Intel Dual Core 2.4GHz	Intel Pentium Quad Core 2.4GHz or AMD Athlon 64 4000+ or equivalent.
<b>RAM Memory</b>	4GB	4GB
<b>Hard Disk Space</b>	30GB	30GB

- **Operating System**

The IP Office Application Server installation installs its own operating system (CentOS Linux), replacing any existing operating system on the PC. If an OS free PC cannot be obtained, Linux based PCs are typically cheaper than equivalent Windows based PCs.

- **Drives**

DVD Drive or other bootable source for operating system installation.

- **Other Requirements:**

- The server PC must be configurable to boot from DVD or another external source in order to overwrite any existing OS. This may require access to the BIOS in order to change the boot order if the PC is supplied with an operating system already installed.
- The IP Office Application Server is intended to operate as a headless server, i.e without requiring any keyboard, video and mouse (KVM) connections after initial installation. All configuration and user access is done remotely from other PCs.

---

## 1.3 Using Linux

Despite using a Linux based operating system, knowledge or experience of Linux by the installer and maintainer is not required. The IP Office Application Server is designed to be configured and maintained remotely using its web browser interface. Other services running on the server are administered using separate client applications.

No access to the Linux command line is expected. Using the Linux command line to perform any other actions may cause unexpected operation of the IP Office Application Server and is not supported except when specifically instructed by Avaya.

## 1.4 Additional Documentation

In addition to reading this manual, you should also have, have read and be familiar with the following manuals before attempting to integrate a IP Office Application Server into your IP Office system.

### Application Installation and Configuration

- **one-X Portal for IP Office Administration Manual**

This manual covers the installation and administration menus used for the one-X Portal for IP Office application. This manual is essential if the one-X Portal for IP Office needs to be configured to support multiple IP Office servers in a Small Community Network.

- **Voicemail Pro Linux Installation Manual**

This manual covers voicemail server configuration and scenarios where multiple servers are installed within a Small Community Network. Those scenarios can include a mix of Windows based and Linux based servers.

- **Voicemail Pro Administration Manual**

By default the voicemail server will provide mailbox services to all users and hunt groups without any configuration being needed. This manual covers the administration of the voicemail server using the Voicemail Pro client in order to enable additional features.

### Technical Bulletins

All releases of IP Office software are accompanied by a technical bulletin. The bulletin will include details of changes that may have occurred too late to be included in this documentation. The bulletins will also detail what has changed in the software release compared to previous releases and any specific actions required or restrictions that apply if upgrading from a previous release.

### Other Documentation and Documentation Sources

All the documentation for IP Office systems is available from the following web sites:

- **Avaya Support Web Site** - <http://support.avaya.com>
- **Avaya IP Office Knowledge Base** - <http://marketingtools.avaya.com/knowledgebase>

## 1.5 Network Configuration Limitations

The IP Office control unit has two physical LAN interfaces: LAN1 and LAN2. The ports labeled LAN and WAN respectively.

Scenarios where users of the one-X Portal for IP Office application are accessing it from the IP Office's other LAN should be avoided for more than 30 users.

They should also be avoided where NAT is being applied to traffic between LAN1 and LAN2. These restrictions should be observed even when the IP Office system is in a Small Community Network where the H323 SCN trunks may be routed via the other LAN.

## 1.6 Small Community Networks

Up to 32 IP Office systems can be connected together using H323 SCN trunks to form a Small Community Network, supporting up to 1000 users. The servers in the system automatically share information about users and other features in order to act as a single system.

•

When installing a IP Office Application Server within a Small Community Network, it is important to be aware of the following factors affecting the different server applications:

- **one-X Portal for IP Office**

Only a single instance of the one-X Portal for IP Office application is supported within a Small Community Network. This instance can support up to 500 simultaneous one-X Portal for IP Office users.

- Following installation of the IP Office Application Server with one-X Portal for IP Office application on it, additional configuration steps are required to configure the one-X Portal for IP Office application with details of the other IP Office systems. This additional configuration is covered in the one-X Portal for IP Office Installation Manual.

- **Voicemail Pro**

In an Small Community Network, one Voicemail Pro server is used to store all mailboxes and their related messages, greeting and announcements. This is referred to the centralized voicemail server. However, additional Voicemail Pro servers can be installed to perform some other specific roles as listed below. Full details of the setup for these roles is covered in the Voicemail Pro manuals.

- **Centralized Voicemail Server**

In the network, one Voicemail Pro server is used as the centralized voicemail server for all IP Office systems in the network. This server is used to store all mailboxes and their related messages, greeting and announcements. This is mandatory regardless of the presence of any additional options below. The IP Office associated with the centralized server holds the licenses for voicemail server support. The other servers in the network do not require any voicemail licenses in order to use this server as their voicemail server.

- **Fallback IP Office**

Without needing to install another Voicemail Pro server, the IP Office hosting the centralized voicemail server can be configured such that, if for any reason it is stopped or disabled, the centralized voicemail server switches to being controlled by another IP Office in the network.

- **Distributed Voicemail Servers**

Additional Voicemail Pro servers can be installed and associated with other IP Office systems to provide call services for that system. For example to record messages, play announcements, etc. However, any messages it records are then automatically transferred to and stored on the centralized server. The IP Office associated with the distributed server requires the appropriate licenses for voicemail server support.

- **Backup Voicemail Server**

An additional sever, with the Voicemail Pro application can be specified as the backup server for the centralized server. If for any reason the voicemail application on the centralized server is stopped or disabled, the centralized IP Office will switch to using the backup voicemail server for its voicemail functions. During normal operation the centralized and backup voicemail servers automatically exchange information about mailboxes and voicemail service configuration. The backup voicemail server uses the licenses provided by the centralized IP Office. A distributed server cannot also be used as a backup server and vice versa.

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## 1.7 Licenses

The use of various features are licensed, for example, which users are able to use the one-X Portal for IP Office application. These licenses are entered into the IP Office configuration.

For the IP Office Application Server it is important to understand the role of the following system licenses:

- **Essential Edition**  
This license is a pre-requisite for the **Preferred Edition** license below.
- **Preferred Edition (Voicemail Pro)**  
This license is required for use of the Voicemail Pro application. It also enables 4 voicemail ports. It is also required as a pre-requisite for the user profile licenses required for one-X Portal for IP Office users.
  - **Preferred Edition Additional Voicemail Ports**  
These licenses can be used to add additional voicemail ports in addition to the 4 enabled by the **Preferred Edition (Voicemail Pro)** license above.
  - **VMPPro TTS (Linux Voicemail Pro)**  
This license enables the use of text-to-speech facilities using the optional Linux TTS software. One license per simultaneous instance of TTS usage. This license is also used for user email reading.
- **User Profile Licenses**  
In order to log into and use the one-X Portal for IP Office application, a user must be configured and licensed to one of the following user profile roles in the IP Office configuration: **Office Worker**, **Teleworker** or **Power User**. Each role requires an available **Office Worker**, **Teleworker** or **Power User** license in the IP Office configuration.

## 1.8 Voicemail Pro Features

Voicemail Pro runs on both Windows and Linux servers. For Voicemail Pro server running on Linux such as with the IP Office Application Server, the following Voicemail Pro features are not supported:

- **VB Scripting**
- **3rd Party Database Integration**
- **VPNM**
- **UMS Web Voicemail**  
(However, access via IMAP and one-X Portal for IP Office are available as alternatives.)
- **ContactStore**

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.

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.

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.

# DVD Installation

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## 2. DVD Installation

This section covers the installation of the IP Office Application Server software onto a customer supplied server PC from the Avaya IP Office Application Server DVD.

### 2.1 Software Requirements

The following software is required for the installation process and subsequent administration of the server and applications. These DVDs can be ordered from Avaya or can be downloaded from the Avaya support web site (<http://support.avaya.com>).

#### Avaya DVDs Required

- **IP Office Application Server DVD Set (2 DVDs)**

The IP Office Application Server software is provided as a DVD set orderable from Avaya. The first DVD is the one referred to by the installation processes in this documentation. The second DVD is a copy of the Open Source Software (OSS) used by the IP Office Application Server as required by the license terms of that OSS software.

- **TTS Language Packs (3 DVDs)**

Text to speech is supported by the Voicemail Pro application. These DVDs contain the installation files for the supported languages and are requested by the installation process if TTS installation is selected.

- **IP Office Administrator Applications DVD**

This DVD includes the software package to install the IP Office Manager, System Status Application and Monitor applications onto a Windows PC. These applications are required for the installation and maintenance of the system.

#### Installer and Maintainer Applications

The following applications are used to administer and maintain the server and its applications.

- **IP Office Manager**

This application is used to configure the IP Office application. It also includes tools to upload files used by Avaya IP phones to the IP Office. This application is installed from the IP Office Administrator Applications DVD onto a Windows PC.

- **System Status Application**

This application is used to monitor the IP Office application and its trunks. It displays systems details, system alarms and can also display details of current calls in progress. For troubleshooting, the System Status Application is able to capture snapshots of the system's current status and configuration. This application can be used by installers, maintainers and trusted users. This application is installed from the IP Office Administrator Applications DVD onto a Windows PC.

- **IP Office System Monitor**

This application is used to monitor all activity on the IP Office. It includes a range of filter settings to control the level of detail shown in the monitor trace. Interpretation of the details shown requires a high level of data and telephony experience. However all system installers and maintainers should know how to use IP Office System Monitor to capture a historical log of system activity for analysis by Avaya. This application is installed from the IP Office Administrator Applications DVD onto a Windows PC.

- **Voicemail Pro Client**

This application is used to configure the Voicemail Pro application. A copy of the installation package for this application can be downloaded from the server.

- **Web Browser**

A web browser is used for access to the web control pages of the sever. A browser is also used to access the one-X Portal for IP Office applications administration menus.

- **SSH Client**

Access to a program that supports SFTP/SSH, for example SSH Secure Shell, is useful but not obligatory.

## 2.2 Information Requirements

The following information is required during the installation process:

- **Server Applications**

During the installation process, you can select which IP Office Application Server applications are installed. Note that for each application selected, the normal license requirements still apply. Refer to the separate installation manual for each application for details.

- **Voicemail Pro**

If selected for installation, refer to the Voicemail Pro Linux Installation Manual for details of setup and configuration of the Voicemail Pro application.

- **Voicemail Text to Speech Prompts**

During installation, you can select whether you want TTS prompt installed. If selected, you will be prompted to select the languages that you want installed. These are installed from a separate sets of DVDs (see [Software Requirements](#) <sup>[14]</sup>).

- **one-X Portal for IP Office**

If selected, the same information is required as for a Windows based installation of the one-X Portal for IP Office application. For example, IP address of IP Office Application Server system, LDAP server information and voicemail server address (if other than the IP Office Application Server address). Refer to the one-X Portal for IP Office Installation manual.

- **Server IP Address Settings**

The IP Office Application Server supports IPv4 addressing obtain through either DHCP or static addressing.

	IPv4 Support
<b>Use DHCP</b>	<input type="checkbox"/>
<b>IP Address</b>	<input type="checkbox"/> _____
<b>Prefix (Netmask)</b>	<input type="checkbox"/> _____
<b>Gateway</b>	<input type="checkbox"/> _____
<b>Primary DNS</b>	<input type="checkbox"/> _____
<b>Secondary DNS</b>	<input type="checkbox"/> _____

- **Hostname**

A hostname helps simplify access to the server and the applications it provides rather than requiring users to use the IP address.

- **Timezone**

The timezone in which the server is located and whether the server should use UTC or local time.

- **Root Password**

This password is used for configuration access to the server.

- **Client PC**

The IP Office Application Server is designed and intended for remote configuration and management. It is not managed directly from the server. Therefore a client PC with a web browser on the same network as the server PC is required for configuration.

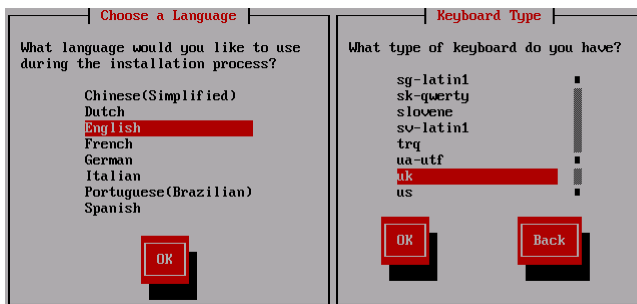
- If Voicemail Pro server is one of the selected server applications, then the client PC must be a Windows based PC onto which the Voicemail Pro client application can be installed.

## 2.3 Server Software Installation

This process installs the Linux operating system onto the server and the Linux based applications. The installation process requires approximately 15 minutes (add 30 minutes if the **Test CD/DVD** option is selected during the installation).

### Server Software Installation (CentOS 5)

1. Insert the IP Office Application Server DVD into the PC's DVD drive and reboot the PC.
2. The PC should boot from the DVD and the display the IP Office Application Server installation screen.
  - If the PC does not boot from the DVD and instead starts an existing operating system, that indicates that the boot order of the server PC needs to be changed. Follow the PC manufacturer's instructions for accessing the PC's BIOS and setting it to boot from DVD before booting from hard disk.
  - If the server PC already has IP Office Application Server installed, options to upgrade, downgrade, reinstall or do a new install are presented. Note that a new install will reformat the hard disk, removing all existing files including customer data.
3. After loading installation software from the DVD, the installation menus will be displayed as follows:



#### A: Language/Keyboard

These initial steps apply just to the installation process, they do not affect the installed applications. However, they also allow you to familiarize yourself with how the text menu operate.

- Use **Tab** to move the selector forwards, use **Alt-Tab** to move it backward. Press **Space** to select the currently highlighted item.

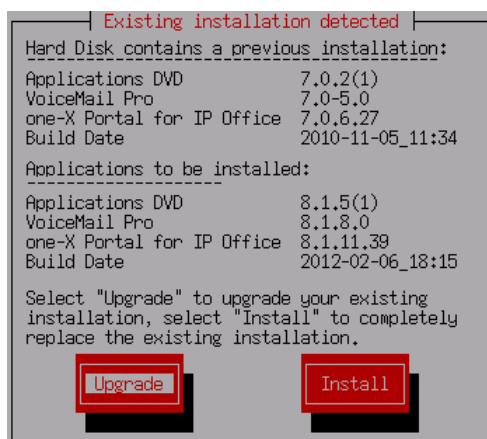


#### B: Test CD/DVD

If this is the first time that the DVD onto which the IP Office Application Server software has been copied has been used, it may be useful to check that the DVD has been written correctly before any changes to the server PC are made. The check process can take up to 30 minutes. If the DVD has already been used successfully for other installations, select **Skip** to continue.

#### C. End User License Agreement

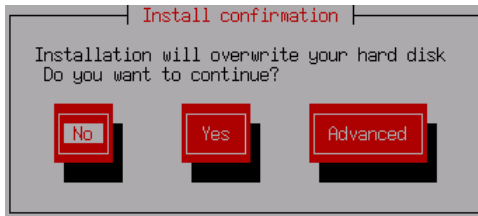
Read through the end user license agreement. It is available in several languages, use the **Change Language** to select the one required. On the last page select **I Accept** if you want to continue with the installation.



#### D1: Previous Installation Detected

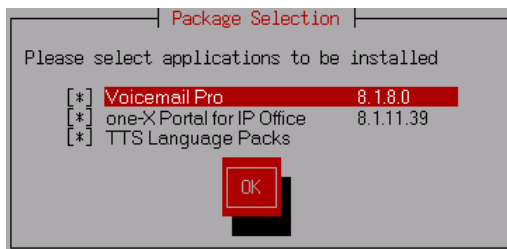
If IP Office Application Server is already installed on the server, a upgrade menu is displayed, detailing the existing installed options and the new options.

- If **Upgrade** is selected, the process continues from step **J. Preparing to Install**.
- If **Install** is selected, the existing installation is overwritten, continuing as below.

**D2: Confirm Installation**

If you select **No**, you will be prompted to remove the DVD from the drive and then reboot the server. Use this option if you do not want to overwrite the existing data on the server.

- The **Advanced** option can be used to adjust disk partitioning. For example, install replacing all partitions, replacing only Linux partitions or install into a new partition in any unallocated disk space. If selected, the menu for the partitioning options is displayed after the server applications selection below. Only use this option if you are familiar with disk partitioning and all contents of any existing partitions that you want to maintain have been backed up. Note that if you use this option, the **Upgrade** option (see Step D1) is not displayed when attempting to upgrade by booting from an .iso file on USB or DVD in future.

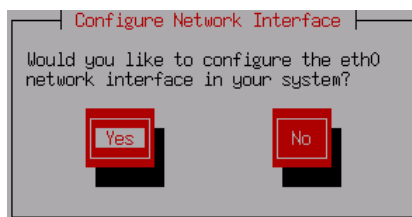
**E: Server Package Selection**

The applications available for installation and the version of each are indicated. Select the applications required and then select **OK**.

- If you select **TTS Language Packs**, the installation process will prompt you to insert the TTS Language Packs DVDs later in the installation process.

**F: Ethernet Address Configuration**

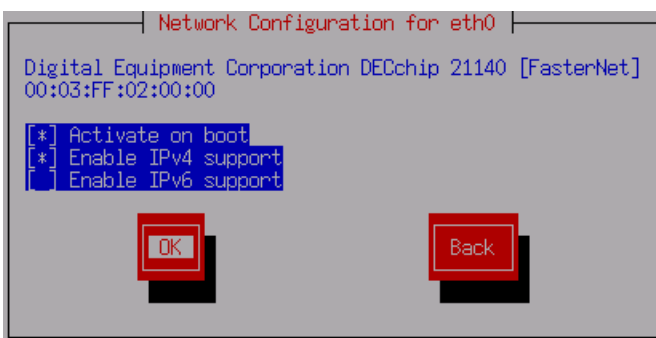
The next stages will vary slightly depending on whether the server PC has a single network interface or multiple network interfaces.

**F1. Single Network Interface**

Select **Yes**. Select **No** if you like but it will make it hard for you or users to access the server and any of the applications. If you do select **No**, the installer will go to the **Miscellaneous Network Settings** menu.

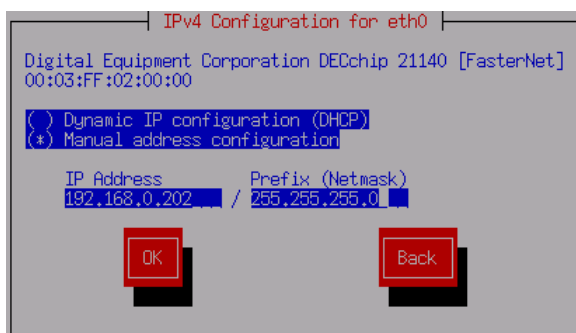
**F2. Multiple Network Interfaces**

If the server PC has multiple network interfaces, this menu will list them and shows whether they have been configured or not. Select the interface you want to configure and then select **Edit**.

**G: Network Configuration**

You must select at least **Activate on boot** and **Enable IPv4 support**.

- Currently IPv6 is not used for any of the IP Office Application Server services.
- The address settings entered can be changed after installation but must be valid for initial browser access to the server's web configuration pages.

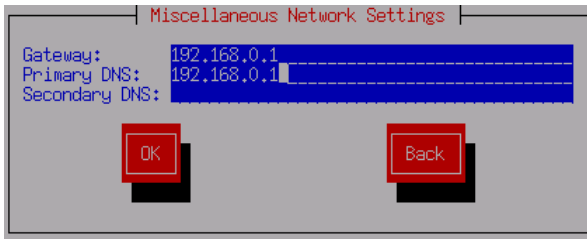
**G1: IPv4 Address Settings**

If **Enable IPv4 support** was selected, this menu is displayed to allow entry of the address settings.

- It is recommended that you use manual address configuration rather than DHCP.
- Do not use a restricted address such as 127.0.0.1.

**G2: IPv6 Address Settings**

If **Enable IPv6 support** was selected, this menu is displayed to allow entry of the address settings.



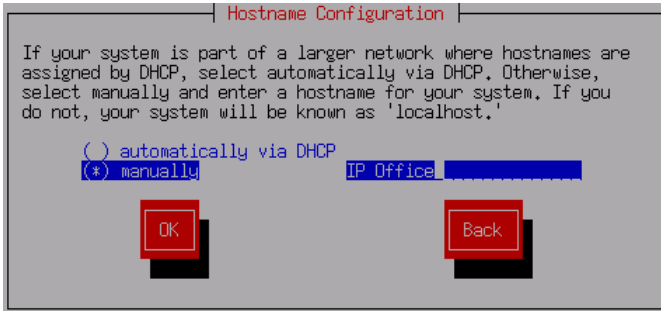
### G3: Network Settings

The following general settings apply to the server if not using DHCP.

- The **Gateway** address must be set.
- The **Primary DNS** and **Secondary DNS** addresses can be left blank if not known. However, they should be set if possible.

### G4. Multiple Network Interfaces (Again)

If the server PC has multiple network interfaces, the menu listing them is shown again and shows which have been configured or not. To configure another interface select it and then select **Edit**. When at least one of the interface has been configured, select **OK**.



### H: Hostname Configuration

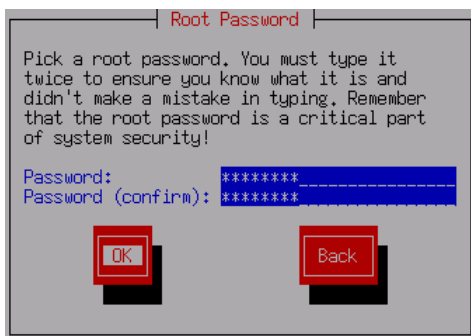
Having a hostname makes the server easier to access than using its IP address. You can select to obtain a hostname by DHCP, however not all DHCP servers support the issuing of hostnames.

- If expecting to use the Voicemail Pro service in a network of Voicemail Pro servers for functions like distributed voicemail or backup voicemail, a valid hostname is important. Do not use **localhost**.



### I: Select Timezone

Select the timezone to match the customer location. This timezone setting is important as it is used to apply time offsets to the UTC time value. The time and date settings can be altered after installation using the server's web configuration pages.



### J: Root Password

This is the root user password for access to the operating system. It is not normally used during IP Office Application Server configuration and maintenance. However, ensure that you note the password set.

### K: Preparing to Install

Based on the selections made in the previous menus, the installation software now prepares the files for installation.

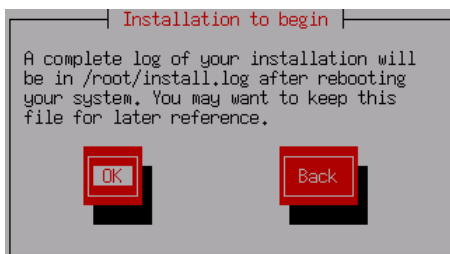
### L: Dependency Checks

The installer checks that there are no conflicts or omissions within the installation selections.

### M: WARNING !

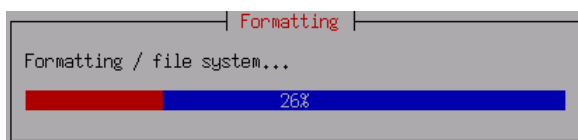
This is the last stage at which you can select **Back** to amend selections or to exit the installation process. If you select **OK**, the installer will start formatting the hard disk, erasing any existing data and applications.

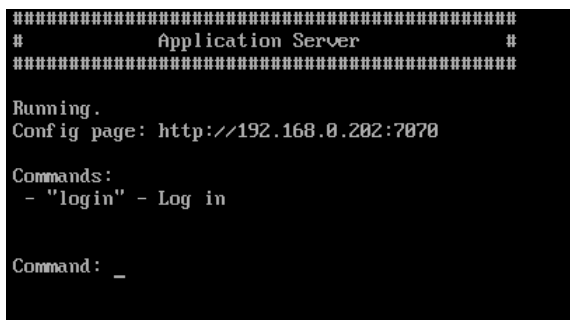
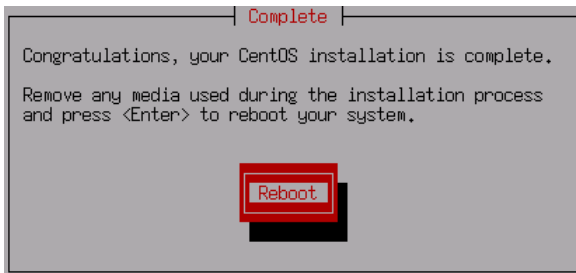
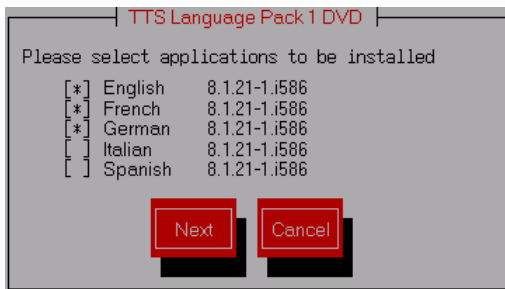
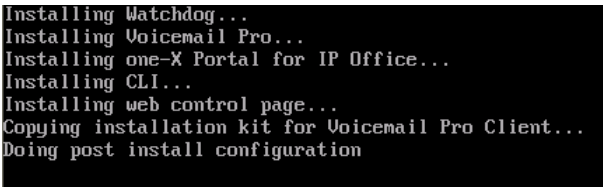
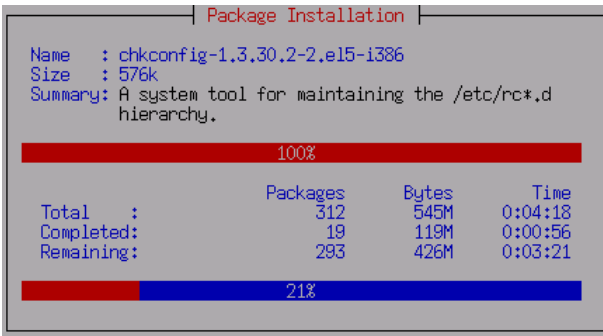
- The log file can be downloaded after installation using an [SFTP/SSH application](#)<sup>[88]</sup>.



### N: Formatting the Hard Disk

The server hard disk is now formatted.





**O: Copying the Installation File**

The install image containing files to be installed is now copied to the formatted hard disk.

**P: Installing the Operating System Files**

The various files relating to the operating system are not copied to their correct locations on the hard disk.

**Q: Installing the Applications**

The installer will now copy and install the files for the previously selected applications plus the standard applications it uses for its own management.

**R.TTS Language Pack Installation**

If **TTS Language Pack** was selected during the **Package Selection**, the installation process will now prompt you to insert one of the TTS Language Pack DVDs.

- After inserting a TTS Language Pack DVD, the list of languages on the DVD is displayed. Select the languages required and then select **Next**. After the languages are installed click **OK**. You can now insert another Language Pack DVD to install the languages on it or select **Cancel** to complete TTS language installation.

**R: Installation Complete**

The installation of the operating system and applications is now complete. Remove the IP Office Application Server DVD from the server PC. Then select the **Reboot** option.

**S: IP Office Application Server Booted**

The adjacent screen is shown after successful start of the IP Office Application Server. The address shown is that for IP Office Application Server configuration access using a web browser.

- It is not necessary to login at this menu. All configuration of the IP Office Application Server is done through [remote web browser](#) access. The important detail on this display is the IP address, especially if the server is configured to obtain its address by DHCP.

## 2.4 Logging In

Administration of the IP Office Application Server is done using a web browser on a client PC with network access to the IP Office Application Server.

1. From a client PC, start the browser and enter **http://** followed by the address of the IP Office Application Server and **:7070**. The port number and protocol (**http** or **https**) used can be changed through the [Settings | General](#) menu after logging in.
2. The IP Office Application Server login page is displayed.



3. Select the **Language** required.
4. Enter the name and password for IP Office Application Server administration. The default name and password are **Administrator** and **Administrator**. The password can be changed by selecting the [Change Password](#) option.
5. If the login is successful, the [Home](#) page for the server is displayed.

## 2.5 Checking the Services

After [logging in](#) to the IP Office Application Server, the **Home** page provides a summary of the services that the server can provide and the status (started or stopped) of those services. By default all the application services are set to automatically start. However, they may still require individual configuration and the addition of licenses to the IP Office configuration.

1. Login and select the **Home** menu.

Name	Status	Up Time	Auto Start	Mem/CPU usage	Action
Voicemail	✓ running	45:26	<input checked="" type="checkbox"/>	10260 KB / 26.8 %	Stop
one-X Portal	✗ stopped	-	<input type="checkbox"/>	0 KB / 0 %	Start

Start All Stop All

2. Check that the expected services have been started. If not, each can be individually started using the **Start/Stop** buttons on the right.
3. Check the **Notifications** panel is not listing any errors that would indicate a problem with the installation.
4. If all the services are started as expected, each can be individually configured.
5. If the sever is running correctly, logout and then log in again using the [Change Password](#) option.



# **Chapter 3.**

# **Pre-Built Server Installation**

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## 3. Pre-Built Server Installation

While on a pre-built Avaya server the IP Office Application Server software is pre-installed, there are still some basic installation processes that must be completed before it can be used with the IP Office system. Those basic processes are covered in this and the two following chapters.

### Initial Configuration

#### 1. Initial IP Office Application Server configuration:

- a. [Change the IP address settings to match the customer network](#)<sup>[26]</sup>.
- b. [Change the default password used for web control access](#)<sup>[27]</sup>.

#### 2. Initial Voicemail Pro configuration:

- a. IP Office Configuration
  - i. [Adding voicemail licenses](#)<sup>[31]</sup>.
  - ii. [Check the Voicemail Type Setting](#)<sup>[32]</sup>.
- b. Voicemail Pro Configuration
  - i. [Install the Voicemail Pro client](#)<sup>[33]</sup>.
  - ii. [Log in to the Voicemail Pro server](#)<sup>[34]</sup>.
  - iii. [Change the default administrator password](#)<sup>[34]</sup>.

#### 3. Initial one-X Portal for IP Office configuration:

- a. [Add licenses](#)<sup>[41]</sup>

Those IP Office users who want to use the one-X Portal for IP Office application need to have their **Profile** set to **Office Worker**, **Teleworker** or **Power User** and the **Enable one-X Portal Services** option selected. To do this requires the addition of licenses for those roles.
- b. [Enable one-X Portal for IP Office users](#)<sup>[42]</sup>

When licenses are available, the number of licenses allows the configuration of the equivalent number of users for those roles and then for one-X Portal for IP Office usage.
- c. [Initial one-X Portal for IP Office login](#)<sup>[43]</sup>

Having licensed and configured some users for one-X Portal for IP Office, you need to login as the one-X Portal for IP Office administrator in order to perform initial one-X Portal for IP Office configuration.
- d. [Initial AFA login](#)<sup>[44]</sup>

The one-X Portal for IP Office AFA interface is used for remote backup and restoration of the application. At minimum you should login in order to change the default password for the interface.

### Transferring Settings

If the IP Office Application Server is a replacement for an existing Voicemail Pro and/or one-X Portal for IP Office server, additional steps are required to backup and restore the settings from the existing servers. You should read and understand the addition steps for the backup and restoration before beginning the IP Office Application Server installation.

- [Transferring Voicemail Pro Settings](#)<sup>[36]</sup>
- [Transferring one-X Portal for IP Office Settings](#)

## 3.1 Logging In

1. From a client PC, start the browser and enter **http://** followed by the address of the IP Office Application Server and **:7070**. The port number and protocol (**http** or **https**) used can be changed through the [Settings | General](#) <sup>[73]</sup> menu after logging in.
2. The IP Office Application Server login page is displayed.



3. Select the **Language** required.
4. Enter the name and password for IP Office Application Server administration. The default name and password are **Administrator** and **Administrator**. The password can be changed by selecting the [Change Password](#) <sup>[48]</sup> option.
5. If the login is successful, the [Home](#) <sup>[65]</sup> page for the server is displayed.

---

## 3.2 Changing the IP Address Settings

On shipment the IP Office Application Server has a default IP address of 192.168.42.10.

The IP address and other network settings used by the server can be changed through the server's web configuration pages.

- **Warning**

Changing IP address and other network settings will require you to login again. If the server is using DHCP or is switched to DHCP, the address obtained for the server is displayed on the server's command line display.

- The port and protocol used to access the web control menus can also be [changed](#)<sup>[55]</sup>.

1. [Login](#)<sup>[47]</sup> to the server's web configuration pages.

2. Select **Settings**.

3. Select **System**.

4. The IP address settings are shown in the **Network** section.

- **Network Interface**

If the server PC has multiple ethernet interfaces, this drop down allows selection of which of the interfaces is currently being configured by the web form. On the pre-built IP Office Application Server only one port (**Eth0**) is used. This port is labeled as port 1 on the physical server.

- **Host Name**

Sets the host name that the IP Office Application Server should use. This setting requires the local network to support a DNS server. Do not use **localhost**.

- **Use DHCP**

If selected, the IP address, subnet mask and default gateway information is obtained by the server making DHCP requests. The related fields are greyed out and cannot be set manually, instead they show the values obtained in response to the DHCP request.

- **IP Address**

Displays the IP address set for the server. If DHCP is not being used, the field can be edited to change the setting.

- **Subnet Mask**

Displays the subnet mask applied to the IP address. If DHCP is not being used, the field can be edited to change the setting.

- **Default Gateway**

Displays the default gateway settings for routing. If DHCP is not being used, the field can be edited to change the setting.

- **System DNS**

Enter the address of the primary DNS server. This option is greyed out if the address of the DNS server is set to be obtained from the DHCP server (see below).

- **Automatically obtain DNS from provider**

This setting is only used if **Use DHCP** is also selected. If selected, the server will attempt to obtain DNS server details from the DHCP server.

5. Click **Save**. The server PC is restarted.

### 3.3 Changing the Web Password

From the Logon menu you can select the **Change Password** option to perform a password change. When selected, fields are displayed to enter the current password and for entry and confirmation of the new password. This password is also used for [SSH file access](#) [88] to the server.

1. From a client PC, start the browser and enter **http://** followed by the address of the IP Office Application Server and **:7070**. The port number and protocol (**http** or **https**) used can be changed through the [Settings | General](#) [73] menu after logging in.
2. The IP Office Application Server login page is displayed.

3. Select the **Language** required.
4. Click on the **Change password** link. The change password menu is displayed.

5. Enter the current password and the new password.
  - The new password must meet the complexity requirements that are displayed on the menu. When logged in you can [change the password complexity requirements](#) [50] for future password changes through the **Settings** menu.
6. Click **OK**. The menu will confirm whether the change was successful or not.
7. If the new password is accepted, click **Cancel** to return to the **Login** menu and then [login](#) [47] with the new password.



# **Chapter 4.**

# **Voicemail Pro Configuration**

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## 4. Voicemail Pro Configuration

By default the Voicemail Pro application will provide basic mailbox services for all users and hunt groups created in the IP Office configuration. For installations with just a single IP Office and Voicemail Pro server this will normally occur without any further configuration.

Details of IP Office and Voicemail Pro configuration are covered by the Voicemail Pro Linux Installation manual and Voicemail Pro Administration manuals. This section of this manual covers only the minimum steps recommended to ensure that the voicemail server is operating correctly and is secure. Those are:

### Voicemail Pro Initial Configuration

#### a. IP Office Configuration

- i. [Adding voicemail licenses](#) <sup>[31]</sup>.
- ii. [Check the Voicemail Type Setting](#) <sup>[32]</sup>.

#### b. Voicemail Pro Configuration

- i. [Install the Voicemail Pro client](#) <sup>[33]</sup>.
- ii. [Log in to the Voicemail Pro server](#) <sup>[34]</sup>.
- iii. [Change the default administrator password](#) <sup>[34]</sup>.

### Transferring Settings from a Previous Server

If the IP Office system was already configured to operate with an external Voicemail Pro server that is now being replaced, the settings, prompts and messages on the old server can be transferred to the new server. After completing the steps above, see [Transferring Voicemail Server Settings](#) <sup>[36]</sup>.

### Notes

For use of UMS options, the Voicemail Pro service needs to communicate with a MAPI proxy application installed on a Windows PC. The installation package for the MAPI proxy can be downloaded from the server's [Windows Client](#) <sup>[82]</sup> menu. For full details refer to the Voicemail Pro Linux Installation manual.




## 4.1 Adding Voicemail Licenses

The Voicemail Pro application will operate for up to 2 hours without a license. This allows a level of basic installation testing and configuration. However, for full operation the application must be licensed using licenses entered into the IP Office configuration.

For Voicemail Pro operation on IP Office Application Server, the following licenses are used:

- **Essential Edition**  
This license is a pre-requisite for the **Preferred Edition** license below.
- **Preferred Edition (Voicemail Pro)**  
This license is required for use of the Voicemail Pro application. It also enables 4 voicemail ports. It is also required as a pre-requisite for the user profile licenses required for one-X Portal for IP Office users.
  - **Preferred Edition Additional Voicemail Ports**  
These licenses can be used to add additional voicemail ports in addition to the 4 enabled by the **Preferred Edition (Voicemail Pro)** license above.
  - **VMPro TTS (Linux Voicemail Pro)**  
This license enables the use of text-to-speech facilities using the optional Linux TTS software. One license per simultaneous instance of TTS usage. This license is also used for user email reading.

### Entering Licenses

1. Start IP Office Manager and receive the configuration from the IP Office system.
2. Select  **License**.
3. To add a license, click  and select **License**. Enter the new license and click **OK**. We recommend licenses are added by cutting and pasting them from the supplied file. That avoids potential issues with mistyping.
4. The **Status** of the new license should show **Unknown** and the name the license should match the type of license entered. If the name shows as **Invalid**, the most likely cause is incorrect entry of the license key characters.
5. Click on the  save icon to send the configuration back to the IP Office.
6. Use Manager to receive the configuration again and check that the status of the license. It should now be **Valid**.

## 4.2 IP Office Configuration

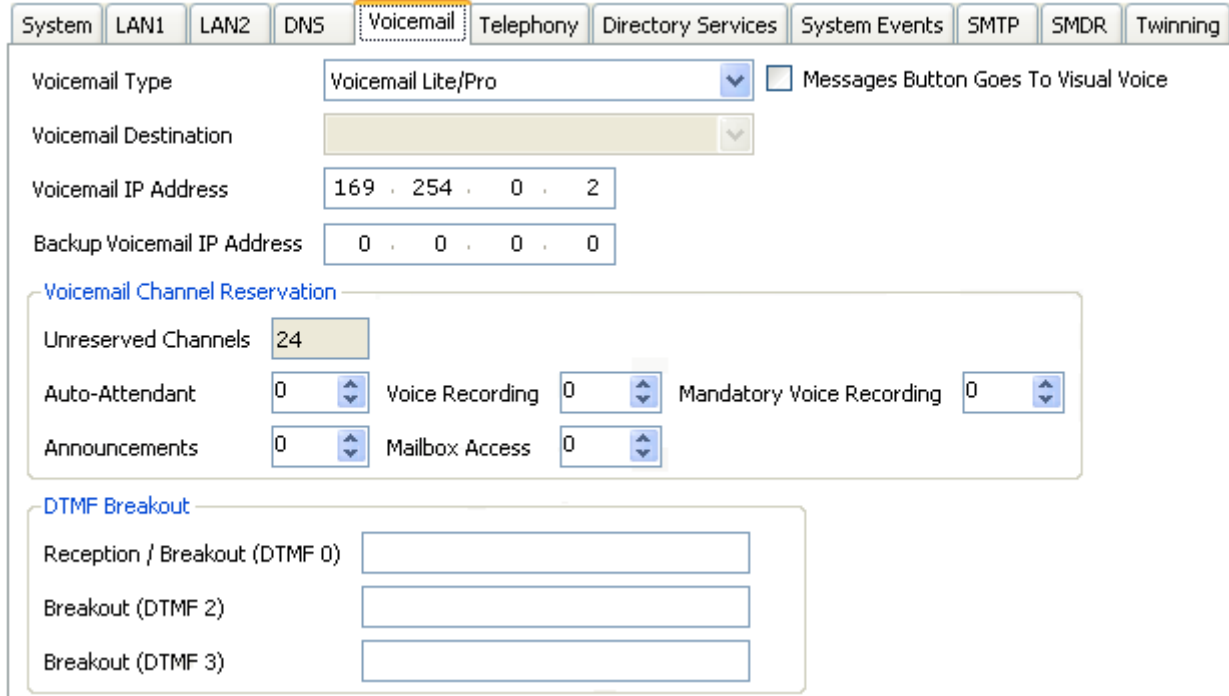
When a IP Office Application Server running Voicemail Pro is added, the IP Office system configuration needs to be adjusted to use the voicemail server.

If a different role is intended for the voicemail server (see [Small Community Networks](#) <sup>11</sup>), refer to the Voicemail Pro Installation Manual. This section only covers voicemail server support for the IP Office in which it is installed.

1. Start IP Office Manager and receive the configuration from the IP Office system.

2. Select  **System**.

3. Select the **Voicemail** tab.



The screenshot shows the configuration interface for the Voicemail tab. The tabs at the top are System, LAN1, LAN2, DNS, Voicemail, Telephony, Directory Services, System Events, SMTP, SMDR, and Twinning. The Voicemail tab is selected. The configuration includes:

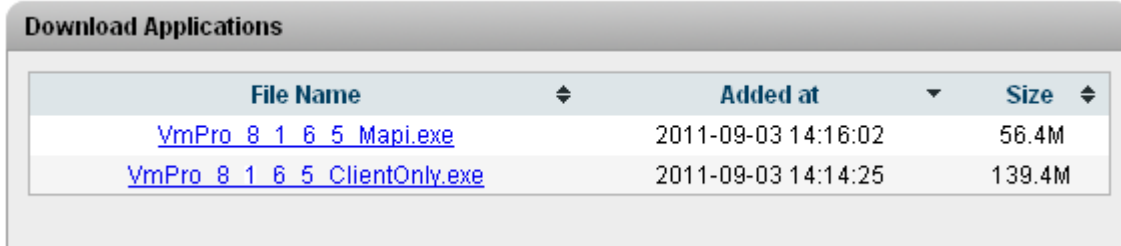
- Voicemail Type:** Voicemail Lite/Pro (dropdown menu)
- Voicemail Destination:** (dropdown menu)
- Voicemail IP Address:** 169 . 254 . 0 . 2
- Backup Voicemail IP Address:** 0 . 0 . 0 . 0
- Voicemail Channel Reservation:**
  - Unreserved Channels: 24
  - Auto-Attendant: 0
  - Voice Recording: 0
  - Mandatory Voice Recording: 0
  - Announcements: 0
  - Mailbox Access: 0
- DTMF Breakout:**
  - Reception / Breakout (DTMF 0): (empty text box)
  - Breakout (DTMF 2): (empty text box)
  - Breakout (DTMF 3): (empty text box)

- The **Voicemail Type** should be set to **Voicemail Lite/Pro**.
  - The **Voicemail IP Address** should be set to match the [IP address](#) <sup>26</sup> given to the server hosting Voicemail Pro. For an Avaya supplied server the default address is 192.168.42.10. For simplicity, if you only have the one voicemail server, an address of 0.0.0.0 tells the IP Office to broadcast a request for the voicemail server and to use the server that replies.
    - In the **Voicemail Channel Reservation** section, the number of channels will be 4 plus any additional channels licensed.
4. If any changes have been made, save the changes back to the IP Office system.

## 4.3 Installing the Voicemail Pro Client

The client for the Voicemail Pro server must be installed on a Windows PC. It can then be used to remotely administer the voicemail server. The software package for installing the client can be downloaded from the IP Office Application Server using the following process.

1. From a client PC, start the browser and enter **http://** followed by the address of the server and **:7070**.
2. The server's web login page is displayed. Enter the name and password configured for server administration.
3. After logging in, select the **Downloads** heading.



File Name	Added at	Size
<a href="#">VmPro 8 1 6 5 Mapi.exe</a>	2011-09-03 14:16:02	56.4M
<a href="#">VmPro 8 1 6 5 ClientOnly.exe</a>	2011-09-03 14:14:25	139.4M

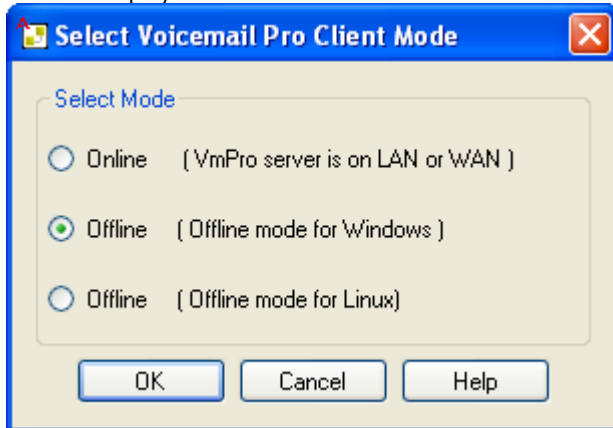
4. Click on the link for the Voicemail Pro client file in order to download the software package for installing the client.
5. Once the package has been downloaded, run it to install the Voicemail Pro client.

## 4.4 Logging in to the Voicemail Server

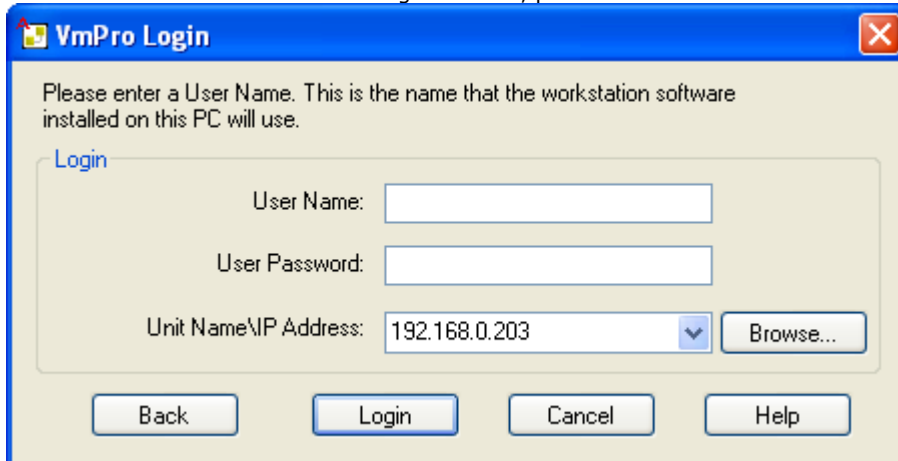
To connect to a remote voicemail server you will need to login using the name and password of an administrator account already configured on that server. The default account is **Administrator** and **Administrator**.

### To Login with the Voicemail Pro Client

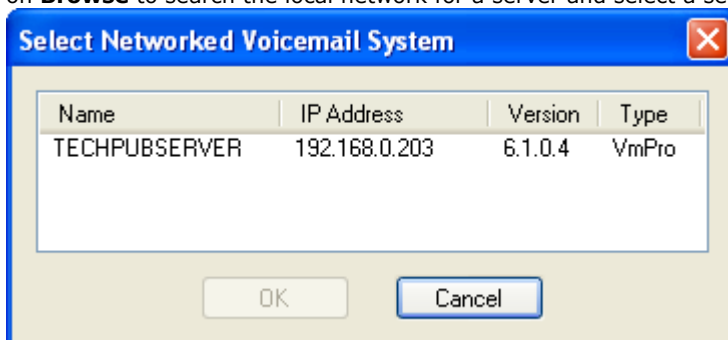
1. From the **Start** menu, select **Programs | IP Office | Voicemail Pro Client**.
2. The Voicemail Pro Client window opens. If the client has been started before, it will attempt to start in the same mode as it previously used. If it cannot do that or it is the first time the client has been started, the select mode menu is displayed.



3. Select **Online**. The menu for entering the name, password and details of the server is displayed.



4. Enter the **User Name** and **User Password** for an administrator account on the voicemail server. The default account is **Administrator** and **Administrator**.
5. 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.



6. Click Login. Note that if 3 unsuccessful logins are attempted using a particular administrator account name, that administrator account is locked for an hour.
7. The following menu may appear. Select **Download**.
8. You should now [change the password](#)<sup>[35]</sup>.

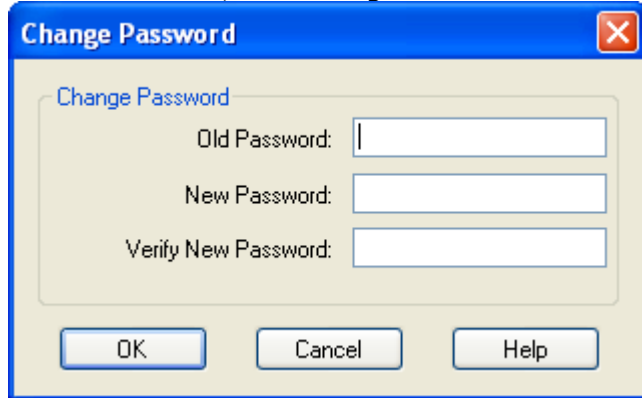
## 4.5 Changing the Voicemail Server Password

While logged in to the server using the Voicemail Pro client, you can change the password of the Voicemail Pro administrator account being used. The default password of the default account must be changed.

You can also create additional administrator accounts, refer to the Voicemail Pro Administrator manual.

### To Change the Voicemail Pro Administrator Password

1. From the **File** menu, select **Change Password**.



The image shows a standard Windows-style dialog box titled "Change Password". It contains three text input fields for "Old Password:", "New Password:", and "Verify New Password:". Below the fields are three buttons: "OK", "Cancel", and "Help".

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

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## 4.6 Transferring Voicemail Server Settings

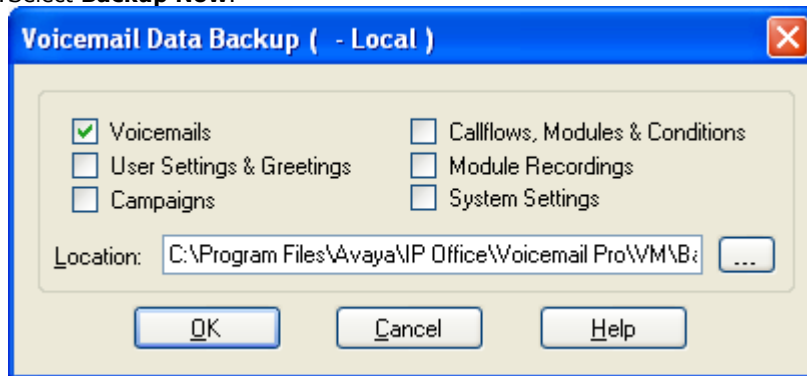
If the IP Office Application Server is replacing an existing voicemail server, a backup of all the settings, prompts and messages from that server can be transferred to the new server. If the existing server is a Linux based server, SSH file transfer is used to retrieve the backup files from the server. Otherwise, if Windows based, a direct folder copy on the server can be used.

SSH File transfer is then used to transfer the backup file set onto the new server.

### Backing Up the Old Voicemail Server

A full immediate backup of all the voicemail server settings, prompts and messages can be obtained using the Voicemail Pro client.

1. Connect to the old voicemail using the Voicemail Pro client.
  - **Hint:** The option **File | Voicemail Shutdown | Suspend Calls** can be used to display the number of currently active voicemail sessions. If necessary you can use the menu to stop any new sessions or to force the end of all sessions before taking the backup.
2. Select **Preferences | General**. Select the **Housekeeping** tab.
3. Select **Backup Now**.



4. Select all the backup options for a complete backup and click **OK**. This will create a backup folder, the name of which includes the date and time of the backup and Immediate. For example **VMPPro\_Backup\_26012011124108\_Immediate**.
5. The time to complete the backup will vary greatly depending on the number of mailboxes and messages being supported by the server.

### Shutting Down the Old Voicemail Server

Once the server has been backed up, it should be shutdown. This will release all the licenses it has currently obtained from the IP Office system.

1. Once the backup above has been completed, select **File | Voicemail Shutdown | Shutdown**.
2. Select **Shut Down Immediately**. This will start a forced shutdown of the server, ending any currently active voicemail sessions.

### Loading the Backup onto the New Server Using SSH

Use the following method to transfer and then restore the backup.

1. Connect to the IP Office Application Server using an [SSH File transfer tool](#).
2. Copy the backup folder into the folder **/opt/vmpro/Backup/Scheduled/OtherBackups**.
3. Using a web browser, [login](#) to the server.
4. Select **Settings**. On the **General** tab, select the **Restore** button for the Voicemail service. From the list of available backups, select the one just copied onto the server.
5. Click **OK**.
6. Once the restore has been completed, on the **Home** menu, **Stop** and then **Start** the voicemail service.

## 4.7 Backup/Restore Limitations

If extra folders have been manually created on the voicemail server, on Linux based voicemail servers these folders are not included in the restore process. Instead the extra folders need to be copied manually. For example, if a folder containing custom prompts for use in call flows has been created separate from the default language folders used for prompts, that folder will not be backed up or restored.

To resolve this, the extra folders must be backed up and restored manually. In the following example, a folder **Custom** is manually copied from an existing server to create a backup. It is then manually restored.

### Manually Backing Up a Custom Folder

1. Using an [SSH file transfer tool](#)<sup>[88]</sup>, copy the folder **Custom** from **/opt/vmpro** to your PC to create a backup of the folder.

### Manually Restoring a Custom Folder

1. To restore the folder, again using an SSH file transfer tool, copy the folder to the **/home/webcontrol** folder on the server.
2. Using the SSH command line, you now need to copy the **Custom** folder from **/home/webcontrol** to the **/opt/vmpro** folder. This is done by logging in as the root user.
  - a. Login to the system's command line interface using the existing root user password. This can be done either directly on the server or remotely using an SSH client shell application.
    - **If logging in at the on the server:**
      - a. At the **Command:** prompt, enter **login**.
      - b. At the **login:** prompt enter **webcontrol**.
      - c. At the **Password:** prompt, enter the password (the default is **web**).
    - **If logging in remotely:**
      - a. Start your SSH shell application and connect to the IP Office Application Server PC. The exact method will depend on the application being used.
        - The **Host Name** is the IP address of the IP Office Application Server.
        - The **User Name** is **webcontrol**.
        - The **Protocol** is **SFTP/SSH**.
        - The **Port** is **22**. If this is the first time the application has connected to the server, accept the trusted key.
      - b. If this is the first time the application has connected to the IP Office Application Server, accept the trusted key.
      - c. When prompted, enter the webcontrol user [password](#)<sup>[48]</sup>, the default is **web**.
  - b. Enter **admin**. At the password prompt enter the admin password, the default is **Administrator**. The prompt should change to **Admin>**.
  - c. Enter **root**. At the password prompt, enter the current root user password.
  - d. The prompt should have changed to something similar to **root@APPSDVD~]#**, indicating that you are now logged in as the root user.
  - e. Change directory by entering **cd /home/webcontrol**.
  - f. Move the **Custom** sub-folder to **/opt/vmpro** by entering **mv Custom /opt/vmpro**.
3. Using the SSH file transfer tool again, verify that the **Custom** has been copied to **/opt/vmpro** as required.



# **Chapter 5.**

# **one-X Portal for IP Office Configuration**

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## 5. one-X Portal for IP Office Configuration

At this stage, the one-X Portal for IP Office server software has been installed on the server and its service started. However, both the IP Office and the one-X Portal for IP Office services still require some basic configuration. The following sections are a summary applicable to most installations. For full details of one-X Portal for IP Office installation refer to the one-X Portal for IP Office Installation Manual.

### one-X Portal for IP Office Initial Configuration

a. [Add licenses](#) <sup>41</sup>

Those IP Office users who want to use the one-X Portal for IP Office application need to have their **Profile** set to **Office Worker**, **Teleworker** or **Power User** and the **Enable one-X Portal Services** option selected. To do this requires the addition of licenses for those roles.

b. [Enable one-X Portal for IP Office users](#) <sup>42</sup>

When licenses are available, the number of licenses allows the configuration of the equivalent number of users for those roles and then for one-X Portal for IP Office usage.

c. [Initial one-X Portal for IP Office login](#) <sup>43</sup>

Having licensed and configured some users for one-X Portal for IP Office, you need to login as the one-X Portal for IP Office administrator in order to perform initial one-X Portal for IP Office configuration.




d. [Initial AFA login](#) <sup>44</sup>

The one-X Portal for IP Office AFA interface is used for remote backup and restoration of the application. At minimum you should login in order to change the default password for the interface.

## 5.1 Adding Licenses



In order to log into and use the one-X Portal for IP Office application, a user must have their **Profile** setting in the IP Office configuration set to one of the following user profile roles: **Office Worker**, **Teleworker** or **Power User**. To do that first requires a matching **Office Worker**, **Teleworker** or **Power User** license to be available.

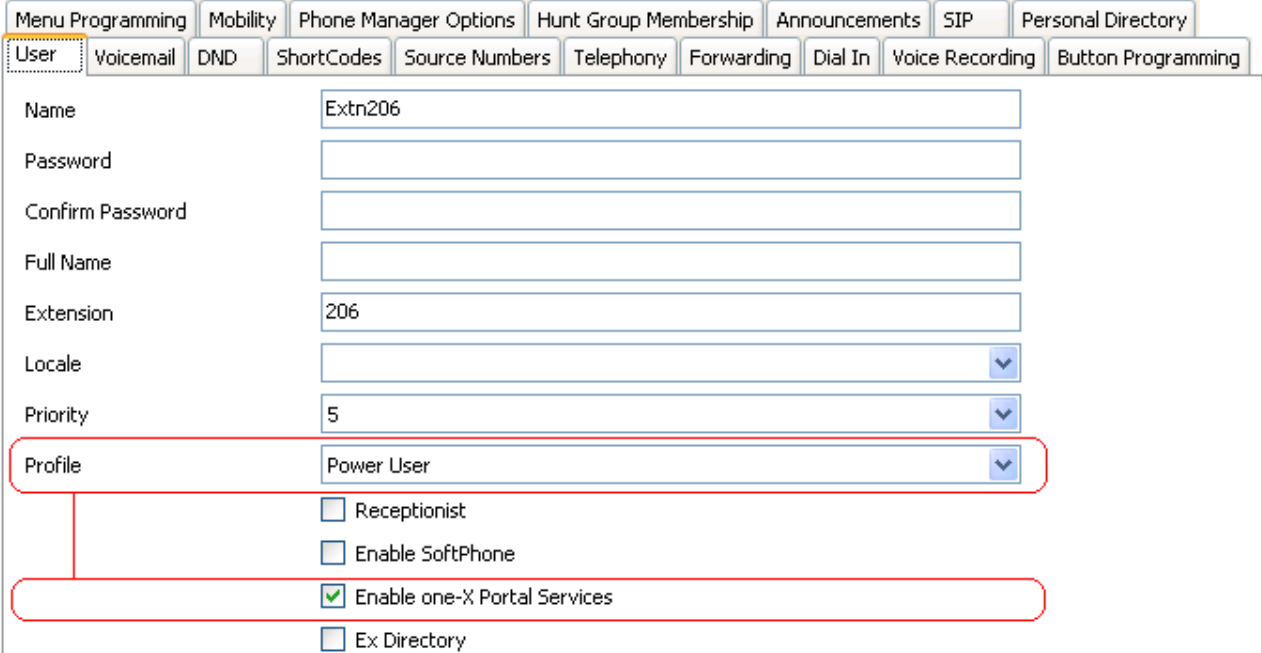
### Entering Licenses

1. Start IP Office Manager and receive the configuration from the IP Office system.
2. Select  **License**.
3. To add a license, click  and select **License**. Enter the new license and click **OK**. We recommend licenses are added by cutting and pasting them from the supplied file. That avoids potential issues with mistyping.
4. The **Status** of the new license should show **Unknown** and the name the license should match the type of license entered. If the name shows as **Invalid**, the most likely cause is incorrect entry of the license key characters.
5. Click on the  save icon to send the configuration back to the IP Office.
6. Use Manager to receive the configuration again and check that the status of the license. It should now be **Valid**.


## 5.2 Enabling one-X Portal for IP Office Users

Those users who want to use the one-X Portal for IP Office application need to have their **Profile** set to **Office Worker**, **Teleworker** or **Power User** and the **Enable one-X Portal Services** option selected. This requires [available licenses](#)<sup>[41]</sup> for those roles.

1. Start IP Office Manager and click on the  icon.
2. Select the IP Office and click **OK**.
3. Enter the user name and password for access to the IP Office configuration settings.
4. Click on  **User**.
5. Select the user who you want to enable for one-X Portal for IP Office operation. Select the **User** tab.



Menu Programming	Mobility	Phone Manager Options	Hunt Group Membership	Announcements	SIP	Personal Directory			
User	Voicemail	DND	ShortCodes	Source Numbers	Telephony	Forwarding	Dial In	Voice Recording	Button Programming
Name	Extn206								
Password									
Confirm Password									
Full Name									
Extension	206								
Locale									
Priority	5								
Profile	Power User								
	<input type="checkbox"/> Receptionist								
	<input type="checkbox"/> Enable SoftPhone								
	<input checked="" type="checkbox"/> Enable one-X Portal Services								
	<input type="checkbox"/> Ex Directory								

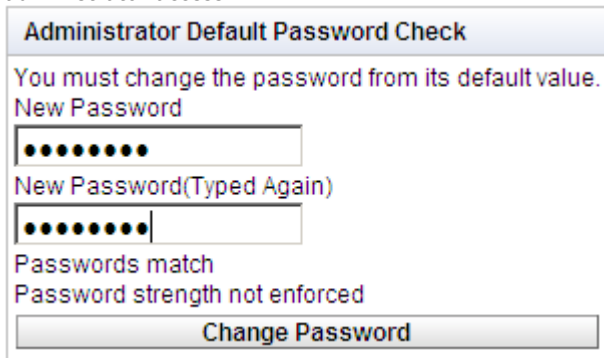
6. Change the user's **Profile** to **Office Worker**, **Teleworker** or **Power User**.
7. Check that the **Enable one-X Portal Services** check box is selected.
8. Note the user **Name** and **Password**. These are used by the user to login to one-X Portal for IP Office.
10. Repeat the process for any other users who will be using one-X Portal for IP Office services.
11. Click on  to save the updated configuration back to the IP Office system.

## 5.3 Initial one-X Portal for IP Office Login

The initial one-X Portal for IP Office configuration is done using web browser access to the administrator address.

### one-X Portal for IP Office Login

1. Open a web browser and enter the IP address of the IP Office Application Server followed by **:8080/onexportal-admin.html**. This is the login path for the administrator access to the one-X Portal for IP Office application.
2. The login menu is displayed. If the message **System is currently unavailable - please wait** is displayed, the one-X Portal for IP Office application is still starting. When the message disappears, you can login.
3. Enter the default administrator name (**Administrator**) and password (**Administrator**) and click **Login**.
4. Follow the process for one-X Portal for IP Office initial configuration as described in the one-X Portal for IP Office Installation Manual.
5. As the final step, the one-X Portal for IP Office server will prompt you to change the password used for administrator access.



6. Enter a new password and click **Change Password**.
7. You now have access to the one-X Portal for IP Office administration menus. For full details refer to the one-X Portal for IP Office Administration manual.
8. Click on **Log Out**.
9. Click on **User Login** shown top-right.
10. The login window will display **System in currently unavailable**. When this message is no longer displayed, attempt to login as a user.

---

## 5.4 Initial AFA Login

The AFA menus provided by one-X Portal for IP Office are used to perform backup and restoration operations for the application. The default password used for the menus should be changed.

### AFA Login

1. Open a web browser and enter the IP address of the IP Office Application Server followed by **:8080/onexportal-afa.html**. This is the login path for the administrator access to the one-X Portal for IP Office AFA menus.
2. At the login menu, enter the name Superuser and the associated password. The default password is MyFirstLogin1\_0. After logging with the default password you will be prompted the following information including a new password:
  - **Display Name**  
Enter a name for display in the one-X Portal for IP Office menus.
  - **Password/Confirm Password**  
Enter a password that will be used for future access.
  - **Backup Folder**  
This is the path to be used for backup and restore operations on the one-X Portal for IP Office server. Note that even if backing up and restoring to and from an FTP or local PC folder, this server folder is still used for temporary file storage.

# **Chapter 6.**

# **Server Maintenance**

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## 6. Server Maintenance

The main configuration and control of the IP Office Application Server is done via web browser access. After logging in using the administrator name and password, you are able to view the status of the services provided by the server and to perform actions such as stopping or starting those services.

- [Logging In](#) <sup>47</sup>
- [Changing the Web Password](#) <sup>48</sup>
- [Starting/Stopping Application Services](#) <sup>51</sup>
- [Server Shutdown](#) <sup>52</sup>
- [Rebooting the Server](#) <sup>52</sup>
- [Changing the IP Address Settings](#) <sup>53</sup>
- [Date and Time Settings](#) <sup>54</sup>
- [Upgrading an Application](#) <sup>57</sup>
- [Uninstalling an Application](#) <sup>59</sup>
- [Setting Update Repositories](#) <sup>60</sup>

## 6.1 Logging In

1. From a client PC, start the browser and enter **http://** followed by the address of the IP Office Application Server and **:7070**. The port number and protocol (**http** or **https**) used can be changed through the [Settings | General](#) <sup>[73]</sup> menu after logging in.
2. The IP Office Application Server login page is displayed.

**AVAYA**

Application Server Web Control v8.1.8-1

Please log on.

CentOS release 5.7 (Final)  
Kernel 2.6.18-274.el5 on an i386

Logon:

Password:

Language:

Login

[Change password](#)

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[View EULA](#)

3. Select the **Language** required.
4. Enter the name and password for IP Office Application Server administration. The default name and password are **Administrator** and **Administrator**. The password can be changed by selecting the [Change Password](#) <sup>[48]</sup> option.
5. If the login is successful, the [Home](#) <sup>[65]</sup> page for the server is displayed.

## 6.2 Changing the Web Password

From the Logon menu you can select the **Change Password** option to perform a password change. When selected, fields are displayed to enter the current password and for entry and confirmation of the new password. This password is also used for [SSH file access](#) [88] to the server.

1. From a client PC, start the browser and enter **http://** followed by the address of the IP Office Application Server and **:7070**. The port number and protocol (**http** or **https**) used can be changed through the [Settings | General](#) [73] menu after logging in.
2. The IP Office Application Server login page is displayed.



3. Select the **Language** required.
4. Click on the **Change password** link. The change password menu is displayed.

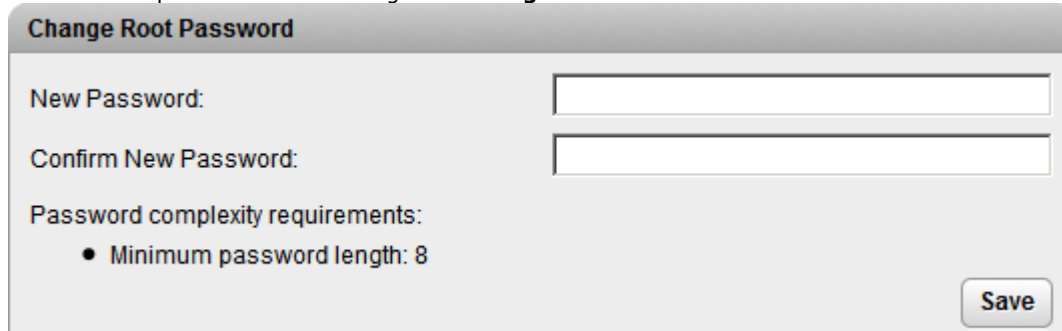


5. Enter the current password and the new password.
  - The new password must meet the complexity requirements that are displayed on the menu. When logged in you can [change the password complexity requirements](#) [50] for future password changes through the **Settings** menu.
6. Click **OK**. The menu will confirm whether the change was successful or not.
7. If the new password is accepted, click **Cancel** to return to the **Login** menu and then [login](#) [47] with the new password.

## 6.3 Changing the Root Password

The root password for the server is set during the server installation. This is a password used for Linux command line access and so is not normally used during normal operation. However, for security you can change the root password through the web control menus.

1. [Login](#)<sup>[47]</sup> to the server's web configuration pages.
2. Select **Settings** and click on the **System** tab.
3. The new root password is set through the **Change Root Password** menu.



The screenshot shows a web form titled "Change Root Password". It contains two input fields: "New Password:" and "Confirm New Password:". Below the fields, there is a section for "Password complexity requirements:" with a bullet point indicating "Minimum password length: 8". A "Save" button is located in the bottom right corner of the form.

- **New Password**  
Enter the new password for the server's root account.
  - **Confirm New Password**  
Confirm the new password.
4. Note the rules displayed for the password entry, enter the new password. The password complexity requirements are set in the [Password Rules Settings](#)<sup>[50]</sup> menu. The rules set there are applied to changing both the [root password](#)<sup>[49]</sup> and changing the web control [administrator password](#)<sup>[48]</sup>.
  5. Click **Save**. The menu will confirm if the new password was accepted.

## 6.4 Setting the Password Rules

You can configure the rules applied to new passwords. These rules are applied when [changing the web administrator password](#)<sup>[48]</sup>. They are also applied when changing the [root password](#)<sup>[49]</sup>. The current rules are shown on the change password menus when someone attempts to change either password.

1. [Login](#)<sup>[47]</sup> to the server's web configuration pages.
2. Select **Settings** and click on the **System** tab.
3. The current password rules are shown in the **Password Rules Settings** menu.

Password Rules Settings	
Minimum password length:	<input type="text" value="8"/>
Minimum number of uppercase characters:	<input type="text" value="0"/>
Minimum number of lowercase characters:	<input type="text" value="0"/>
Minimum number of numeric characters:	<input type="text" value="0"/>
Minimum number of special characters:	<input type="text" value="0"/>
<input checked="" type="checkbox"/> Allow character sequences	
Maximum allowed sequence length:	<input type="text" value="0"/>
<input type="button" value="Save"/>	

- **Minimum password length**  
This field set the minimum length of new passwords. Note that the combined requirements of the fields below for particular character types may create a requirement that exceed this value. Note also that the maximum password length is 31 characters.
- **Minimum number of uppercase characters**  
This field sets the number of uppercase alphabetic characters that new passwords must contain.
- **Minimum number of lowercase characters**  
This field sets the number of lowercase alphabetic characters that new passwords must contain.
- **Minimum number of numeric characters**  
This field sets the number of numeric characters that new passwords must contain.
- **Minimum number of special characters**  
This field sets the number of non-alphanumeric characters that new passwords must contain.
- **Allow character sequences**  
If this option is selected, character sequences such as **1234** or **1111** or **abcd**, are allowed in new passwords without any restriction. When not selected, the maximum length of any sequence is set by the field below.
  - **Maximum allowed sequence length**  
This field is used to set the maximum allowed length of any character sequence when **Allow character sequences** is not selected.

4. Adjust the rules are required and then click **Save**.

## 6.5 Starting/Stopping Application Services

The application services installed on the IP Office Application Server can be started and stopped individually. This may be necessary for maintenance or if a particular service is not currently required, for example if one-X Portal for IP Office has been installed but is not wanted or currently licensed.

The services can be set to automatically start after a server reboot. By default all the application services are automatically started.

### 6.5.1 Starting a Service

1. [Login](#) to the server's web configuration pages.
2. Select **Home**. The services and their current status (running or stopped) are listed.
3. To start a particular service click on the **Start** button next to the service. To start all the services that are not currently running, click on the **Start All** button.

### 6.5.2 Stopping a Service

1. [Login](#) to the server's web configuration pages.
2. Select **Home**. The services and their current status (running or stopped) are listed.
3. To stop a particular service click on the **Stop** button next to the service. To stop all the services that are currently running, click on the **Stop All** button.
4. The service's status changes to stopping while it is being stopped. If it remains in this state too long, the service can be forced to stop by clicking on **Force Stop**.

### 6.5.3 Setting a Service to Auto Start

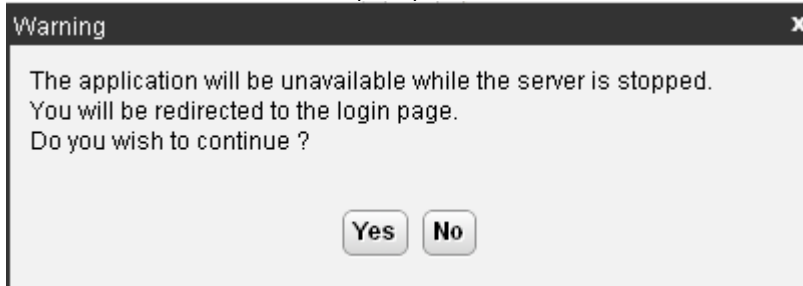
By default all the application services are automatically started.

1. [Login](#) to the server's web configuration pages.
2. Select **Home**. The services and their current status (running or stopped) are listed.
3. Use the **Auto Start** check box to indicate whether a service should automatically start when the IP Office Application Server is started.

## 6.6 Server Shutdown

This process should be used when it is necessary to switch off the IP Office Application Server for any period. Once the process has been completed, power to the server can be switched off. To restart the server, switch the server power back on.

1. [Login](#) to the server's web configuration pages.
2. After logging select the [Home](#) page. This page includes a server **Shutdown** button.
3. Click on **Shutdown**. You will be prompted to confirm the action.

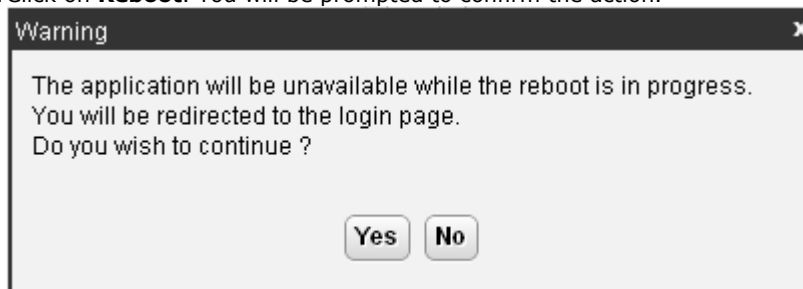


4. Click **Yes** to confirm that you want to proceed with the shutdown.
5. The login page will be displayed again. Do not login again as the IP Office Application Server will still be in the process of stopping services.
6. After a few minutes, typically no more than 2 minutes though this will vary depending on the hardware specification of the server, the server will shutdown.
7. Switch off power to the server.

## 6.7 Rebooting the Server

Rebooting the server will stop all currently running services and then stop and restart the server. Only those application services which are set to [Auto Start](#) will be automatically restarted after the reboot.

1. [Login](#) to the server's web configuration pages.
2. After logging select the [Home](#) page. This page includes a server **Reboot** button.
3. Click on **Reboot**. You will be prompted to confirm the action.



4. Click **Yes** to confirm that you want to proceed with the reboot.
5. The login page will be displayed again. Do not login again immediately as the IP Office Application Server will still be in the process of stopping services prior to a reboot of the server.
6. After a few minutes, typically no more than 5 minutes though this will vary depending on the hardware specification of the server, you should be able to login again.
7. Once logged in you can manually restart any services required if not set to **Auto Start**.

## 6.8 Changing the IP Address Settings

The IP address and other network settings used by the server can be changed through the server's web configuration pages.

- **Warning**

Changing IP address and other network settings will require you to login again. If the server is using DHCP or is switched to DHCP, the address obtained for the server is displayed on the server's command line display.

- The port and protocol used to access the web control menus can also be [changed](#).

1. [Login](#) to the server's web configuration pages.

2. Select **Settings**.

3. Select **System**.

4. The IP address settings are shown in the **Network** section.

- **Network Interface**

If the server PC has multiple ethernet interfaces, this drop down allows selection of which of the interfaces is currently being configured by the web form. On the pre-built IP Office Application Server only one port (**Eth0**) is used. This port is labeled as port 1 on the physical server.

- **Host Name**

Sets the host name that the IP Office Application Server should use. This setting requires the local network to support a DNS server. Do not use **localhost**.

- **Use DHCP**

If selected, the IP address, subnet mask and default gateway information is obtained by the server making DHCP requests. The related fields are greyed out and cannot be set manually, instead they show the values obtained in response to the DHCP request.

- **IP Address**

Displays the IP address set for the server. If DHCP is not being used, the field can be edited to change the setting.

- **Subnet Mask**

Displays the subnet mask applied to the IP address. If DHCP is not being used, the field can be edited to change the setting.

- **Default Gateway**

Displays the default gateway settings for routing. If DHCP is not being used, the field can be edited to change the setting.

- **System DNS**

Enter the address of the primary DNS server. This option is greyed out if the address of the DNS server is set to be obtained from the DHCP server (see below).

- **Automatically obtain DNS from provider**

This setting is only used if **Use DHCP** is also selected. If selected, the server will attempt to obtain DNS server details from the DHCP server.

5. Click **Save**. The server PC is restarted.

---

## 6.9 Date and Time Settings

The date and time settings used by the server PC can be changed through the server's web configuration pages. The current time being used by the server is shown on the [Home](#) menu.

1. [Login](#) to the server's web configuration pages.

2. Select **Settings**.

3. Select **System**.

4. The date and time settings are shown in the **Date Time** section.

- **Date**

Shows the current date being used by the server. If **Enable Network Time Protocol** is selected, this is the date obtained from the NTP server and cannot be manually changed.

- **Time**

Shows the current UTC time being used by the server. If **Enable Network Time Protocol** is selected, this is the time obtained from the NTP server and cannot be manually changed. The current time being used by the server is shown on the [Home](#) menu.

- **Timezone**

In some instances the time displayed or used by a function needs to be the local time rather than UTC time. The **Timezone** field is used to determine the appropriate offset that should be applied to the UTC time above. Note that changing the timezone can cause a Session expired message to appear in the browser.

- **Enable Network Time Protocol**

If this option is selected, the IP Office Application Server will attempt to obtain the current UTC time from the NTP servers listed in the **NTP Servers** list below. It will then use that time and make regular NTP requests to update the date and time. The following options are only used if **Enable Network Time Protocol** is selected.

- **NTP Servers**

This field is used to enter the IP address of an NTP server or servers which should be used when **Enable Network Time Protocol** is selected. Enter each address as a separate line. The network administrator or ISP may have an NTP server for this purpose. A list of publicly accessible NTP servers is available at <http://support.ntp.org/bin/view/Servers/WebHome>, however it is your responsibility to make sure you are aware of the usage policy for any servers you choose. Choosing several unrelated NTP servers is recommended in case one of the servers you are using becomes unreachable or its clock is unreliable. The operating system uses the responses it receives from the servers to determine which are reliable.

- The IP Office system can also use NTP to obtain its system time. Using the same servers for the IP Office Application Server and IP Office system is recommended.

- **Synchronize system clock before starting service**

When using NTP, the time obtained by the operating system is used to gradually change the server's hardware clock time. If this option is selected, an immediate update of the server's clock to match the NTP obtained time is forced.

- **Use local time source**

When using NTP, the time obtained by the operating system is used to gradually change the server's hardware clock time. If this option is selected, the server's hardware clock time is used as the current time rather than the NTP time.

5. Click **Save**.

## 6.10 Changing the Web Control Port

By default, access to the web control menus uses http and port 7070. These can be changed if required.

- **Warning**

Changing IP address and other network settings will require you to login again. If the server is using DHCP or is switched to DHCP, the address obtained for the server is displayed on the server's command line display.

1. [Login](#) <sup>[47]</sup> to the server's web configuration pages.
2. Select **Settings**.
3. Select **General**.
4. The **Application Port** and **Protocol** settings are shown in the **Web Control** section.
  - **Application Port**  
Change the port used for logging in. The default is **7070**. If you change this value you must ensure that you do not set it to a value already used by another service or application.
  - **Protocol**  
Select the protocol used for connection. The default is **http**. The options are **http** or **https**.
5. Click **Save**. The server will advise you that it is restarting the web service and that you will need to login again.

---

## 6.11 Setting the Menu Inactivity Timeout

You can adjust the inactivity time applied to the web control menus.

- **! Note**

Note that changing this setting will require you to login again.

1. [Login](#) <sup>47</sup> to the server's web configuration pages.

2. Select **Settings**.

3. Select **General**.

4. The **Inactivity timeout** is shown in the **Web Control** section.

- **Inactivity Timeout**

Select the period of inactivity after which the web session is automatically logged out. Changing this value will require you to login again. The options are **5 minutes**, **10 minutes**, **30 minutes** and **1 hour**.

5. Click **Save**. The server will advise you that it is restarting the web service and that you will need to login again.

## 6.12 Upgrading Applications

The application services hosted by the IP Office Application Server can be upgraded without having to reinstall or upgrade the whole server. This is done using files either uploaded to the server (local) or downloaded by the server from an HTTP folder (remote repository), see [File Repositories](#)<sup>[60]</sup>.

Once an .rpm file or files are available, the IP Office Application Server web configuration pages will list the available versions and allow switching between versions or simple upgrading to the latest version.

- **Warning**

Before upgrading or changing the version of any installed application or operating system components, you must ensure that you have read the appropriate Avaya Technical Bulletins for the software release. The Technical Bulletins detail supported versions of software and known issues or additional actions required for upgrading.

The options in this section cover the upgrading of individual components of the operating system and applications supported by the IP Office Application Server. If a full reinstallation is necessary, following suitable backup of the user data, the server can be reinstalled from DVD.

### 6.12.1 Loading Application Files onto the Server

This method uploads the .rpm file for an application onto the IP Office Application Server. The files can then be used to update the applications. The alternative is to use files loaded into a [remote software repository](#)<sup>[62]</sup>.

1. [Login](#)<sup>[47]</sup> to the server's web configuration pages.
2. Select the **Settings** menu and then the **General** sub-menu.
3. Check that the **Local** checkbox for **Applications** is selected.
4. Click on the **Browse** button and browse to the [location of the file](#)<sup>[60]</sup> that you want to load and select the file. The file name should now be listed in the **File** field.
5. Click **Add**. The server will now start uploading the file.
6. Repeat the process for any other files.

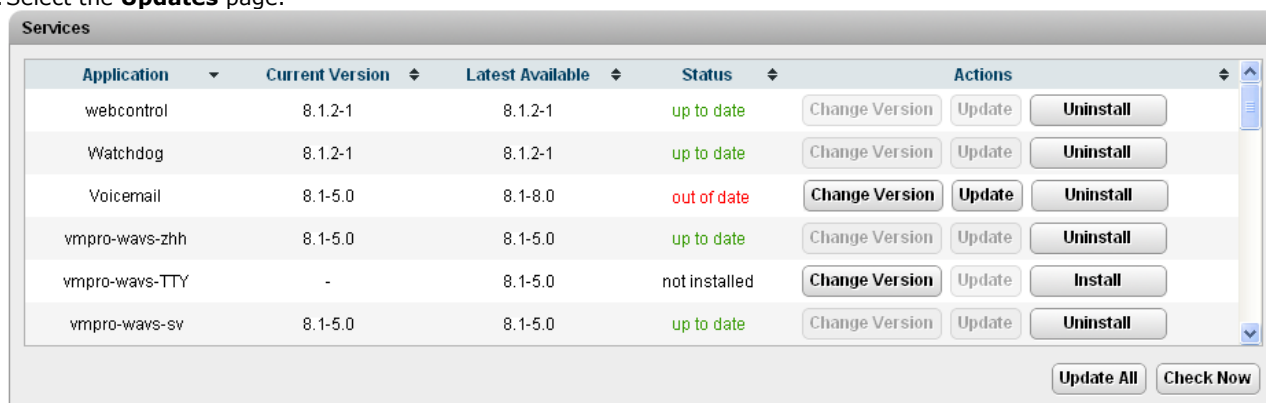
- **Voicemail Pro**

Each version of the Voicemail Pro server application is split into separate .rpm files for the server and each of the prompt languages it supports. Unless advised otherwise, you should copy or upload the full set of files to the file repository.

## 6.12.2 Upgrading Application Files

Where multiple versions of a software component are available to the server, the web menus can be used to update or change the current version installed.

1. [Login](#) to the server's web configuration pages.
2. Select the **Updates** page.



Application	Current Version	Latest Available	Status	Actions
webcontrol	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Watchdog	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Voicemail	8.1-5.0	8.1-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.1-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall

Update All Check Now

3. The **Services** section displays the current version and latest available version of each application service.
  - Some applications may not support upgrading or downgrading whilst the application is currently installed. For those applications, the **Change Version** and **Update** buttons remain greyed out even if there are updates available in the application file repository. These applications must first be uninstalled using the **Uninstall** button before the **Change Version** and **Update** buttons become useable.
4. Select one of the following actions:
  - To update an application to the latest version available, click on **Update**.
  - To update all applications to the latest version available, click on **Update All**.
  - To change the current version of an application, click on **Change Version**. Select the version required and click **Apply**.

## 6.13 Uninstalling an Application

The Updates menu can also be used to uninstall an application service. When uninstalled the application is removed from the list of available service unless files for reinstallation are present in the configured file repository.

1. [Login](#) <sup>[47]</sup> to the server's web configuration pages.
2. Select the **Updates** page.

Application	Current Version	Latest Available	Status	Actions
webcontrol	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Watchdog	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Voicemail	8.1-5.0	8.1-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.1-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall

Update All Check Now


3. The **Services** section displays the current version and latest available version of each application service.

4. To uninstall a service, click on **Uninstall**.

- If there are installation files for the application available in the application [file repository](#) <sup>[60]</sup>, the button will change to become an **Install** button.
- If there are no installation files for the application available in the file repository, the application is no longer listed.

## 6.14 File Repositories

The [Updates](#) <sup>[69]</sup> and [Web Client](#) <sup>[82]</sup> menus use files stored in the configured file repositories. Each repository can be either a set of files uploaded to the sever or the URL of a remote folder on an HTTP server.

You can add files to these repositories without affecting the existing operation of the server. However when the application or operating system repositories contain later versions of the files than those currently installed, a  icon is displayed on the **Updates** menu.

### 6.14.1 Source Files

Update files may be made available individually in response to particular issues or to support new IP Office releases. The files are also included on the IP Office Application Server DVD. Files can be extracted from a DVD .iso image using an application such as WinZip.

- **Warning**

Before upgrading or changing the version of any installed application or operating system components, you must ensure that you have read the appropriate Avaya Technical Bulletins for the software release. The Technical Bulletins detail supported versions of software and known issues or additional actions required for upgrading.

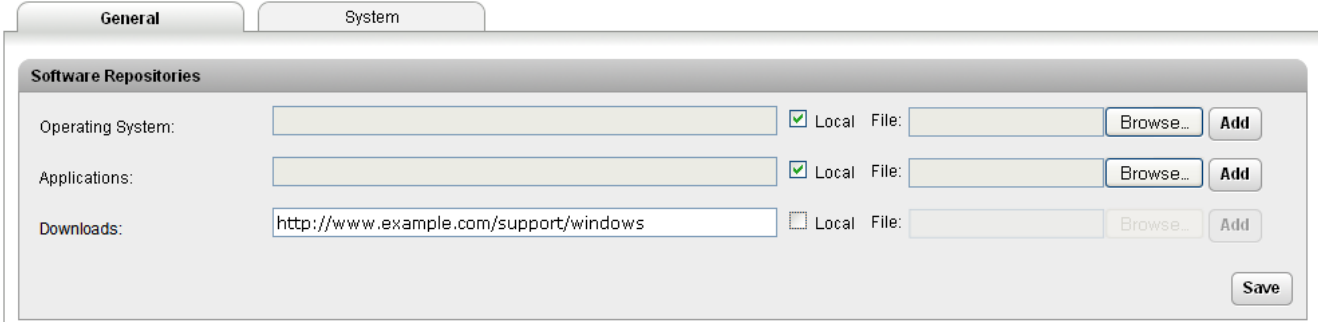
	File Type	DVD/.iso Folder	
<b>Application Files</b>	<b>Voicemail Pro</b>	.rpm	\AVAYA\VMPro
	<b>one-X Portal for IP Office</b>	.rpm	\AVAYA\ONEX
<b>Windows Client Files</b>	.exe	\AVAYA\THICK_CL	
<b>Operation System Files</b>	.rpm	\CENTOS	

- **Voicemail Pro**

Each version of the Voicemail Pro server application is split into separate .rpm files for the server and each of the prompt languages it supports. Unless advised otherwise, you should copy or upload the full set of files to the file repository.

### 6.14.2 Setting the Repository Locations

The IP Office Application Server can use either remote or local software repositories to store software update files. Separate repositories are configured for operating system updates, IP Office application installation files and Windows client files.



The screenshot shows a configuration window titled "Software Repositories" with two tabs: "General" and "System". Under "General", there are three rows for configuring repositories:

- Operating System:** A text field is empty, the "Local" checkbox is checked, and the "File:" field is empty. There are "Browse..." and "Add" buttons.
- Applications:** A text field is empty, the "Local" checkbox is checked, and the "File:" field is empty. There are "Browse..." and "Add" buttons.
- Downloads:** A text field contains the URL "http://www.example.com/support/windows", the "Local" checkbox is unchecked, and the "File:" field is empty. There are "Browse..." and "Add" buttons.

A "Save" button is located at the bottom right of the window.

The files uploaded or present in the file repositories are used by the [Updates](#) <sup>[69]</sup> and [Downloads](#) <sup>[82]</sup> menus.

- **Repository**

If the **Local** option is not selected, this field is used to set the URL of a [remote HTTP file repository](#) <sup>[62]</sup>. Note that each repository must be different, the same URL must not be used for multiple repositories.

- **Local**

This checkbox is used to set whether the file repository used is local (files stored on the IP Office Application Server or remote (a folder on a HTTP web server specified in the Repository field).

- **File / Browse / Add**

If the Local option is selected, this field and adjacent buttons can be used to browse to a specific update file. When the file is located and selected, click **Add** to upload the file to the file store on the IP Office Application Server.

## 6.14.3 Uploading Local Files

The processes below can be used to upload files to the server if it is being used as a repository for that type of file.

### 6.14.3.1 Uploading Application Files

This method uploads the .rpm file for an application onto the IP Office Application Server. The files can then be used to update the applications. The alternative is to use files loaded into a [remote software repository](#) <sup>[62]</sup>.

1. [Login](#) <sup>[47]</sup> to the server's web configuration pages.
2. Select the **Settings** menu and then the **General** sub-menu.
3. Check that the **Local** checkbox for **Applications** is selected.
4. Click on the **Browse** button and browse to the [location of the file](#) <sup>[60]</sup> that you want to load and select the file. The file name should now be listed in the **File** field.
5. Click **Add**. The server will now start uploading the file.
6. Repeat the process for any other files.

- **Voicemail Pro**

Each version of the Voicemail Pro server application is split into separate .rpm files for the server and each of the prompt languages it supports. Unless advised otherwise, you should copy or upload the full set of files to the file repository.

### 6.14.3.2 Uploading Operating System Files

This method uploads the .rpm file for an application onto the IP Office Application Server. The files can then be used to update the IP Office applications. The alternative is to use files loaded into a [remote software repository](#) <sup>[62]</sup>.

1. [Login](#) <sup>[47]</sup> to the server's web configuration pages.
2. Select the **Settings** menu and then the **General** sub-menu.
3. Check that the **Local** checkbox for **Operating System** is selected.
4. Click on the **Browse** button and browse to the [location of the file](#) <sup>[60]</sup> that you want to load and select the file. The file name should now be listed in the **File** field.
5. Click **Add**. The server will now start uploading the file.
6. Repeat the process for any other files.

### 6.14.3.3 Uploading Windows Client Files

This method uploads the .rpm file for an application onto the IP Office Application Server. The files can then be used to update the IP Office applications. The alternative is to use files loaded into a [remote software repository](#) <sup>[62]</sup>.

1. [Login](#) <sup>[47]</sup> to the server's web configuration pages.
2. Select the **Settings** menu and then the **General** sub-menu.
3. Check that the **Local** checkbox for **Downloads** is selected.
4. Click on the **Browse** button and browse to the [location of the file](#) <sup>[60]</sup> that you want to load and select the file. The file name should now be listed in the **File** field.
5. Click **Add**. The server will now start uploading the file.
6. Repeat the process for any other files.

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## 6.14.4 Creating Remote Software Repositories

Alternatively to using [local files uploaded to the server](#)<sup>[57]</sup> for updates, the server can be configured to display the versions of files available for use in remote file folders hosted on an HTTP server.

### Creating an Application Update Repository

1. Create a folder on the web server for the remote file repository. For example a folder called **Applications**.
2. If the folder is a sub-folder of the existing web site it will be browseable as part of that website's URL, ie. if the folder is a sub-folder of **wwwroot**. If the folder is on a separate path, then it must be mapped to the web server URL path, the process for this will depend on the HTTP server being used.
3. The folder directory must be browseable. For example, in IIS right -click on the folder, select **Properties** and ensure that **Directory Browse** option is selected.
4. Copy the .rpm files from their [source](#)<sup>[60]</sup> into the folder.
5. From another PC, test that you can browse to the URL of the folder and that the list of files in the folder is displayed.
6. Login to the IP Office Application Server web configuration pages.
7. Select **Settings** and then **General**.
8. Uncheck the **Local** checkbox for **Applications**. Enter the URL of the HTTP server folder into the preceding field.
9. Click **Save**.
10. Select **Updates**.
11. If the server is able to access the HTTP folder, the details of the versions available will now reflect those available in that folder. The message **repository error** indicates that the IP Office Application Server was not able to connect to the folder or not able to list the files in the folder.

### Creating an Windows Client Repository

The process is the similar to that shown above for application .rpm files. However a separate folder on the HTTP server must be used and the files placed in it are the .exe files used for installing the Windows applications.

### Creating an Operating System Repository

The repository for operating system updates is different from those used for application updates and downloads. It must be a YUM repository, details of how to setup and configure a YUM repository will depend on the version of Linux being used on the HTTP server. Each time an .rpm file is added, deleted or changed, the directory must be updated using the **createrepo <folder\_path>** command.

In order to host the repository on a Windows web server, the folder must be setup and maintained on a Linux server where the **createrepo** command can be used and the folder then copied to the Windows server.

# Chapter 7.

## Server Menus

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## 7. Server Menus

The IP Office Application Server web configuration pages are as follows:

- [Home](#) <sup>[65]</sup>  
This menu gives an overview of the current status of the applications hosted on the server.
- [Logs](#) <sup>[67]</sup>  
This menu has sub-menus for viewing and managing log records and log files.
  - [View](#) <sup>[67]</sup>  
View the current log files for the server and the application services hosted by the server.
  - [Download](#) <sup>[68]</sup>  
Create and download archive files of existing log records.
- [Updates](#) <sup>[69]</sup>  
Display the versions of applications and components installed and the alternate versions available.
- [Settings](#) <sup>[72]</sup>  
This menu has sub-menus for various areas of server configuration and operation.
  - [General](#) <sup>[73]</sup>  
General server settings such as the locations of software update repositories.
  - [System](#) <sup>[77]</sup>  
View and manage the server setting for date, time and IP address details.
- [Downloads](#) <sup>[82]</sup>  
This page can be used to download the installation packages for Windows applications such as the Voicemail Pro client application.

## 7.1 Home

This menu is accessed by selecting **Home**. The menu provides an overview of the server status including the status of the application services running on the server.

**Services**

Name	Status	Up Time	Auto Start	Mem/CPU usage	Action
Voicemail	✔ running	45:26	<input checked="" type="checkbox"/>	<a href="#">10260 KB / 26.8 %</a>	Stop
one-X Portal	✘ stopped	-	<input type="checkbox"/>	<a href="#">0 KB / 0 %</a>	Start

Start All Stop All

**Notifications**

Server

There are no notifications available

**System**

Info

OS: CentOS release 5.7 (Final) Shutdown

Kernel Version: 2.6.18-274.el5 Reboot

UpTime: 7 days 5 hours 20 minutes

Server Time: 12:29

Average CPU Load: 0.03 (1min), 0.01 (5min), 0.00 (15min)

Last Successful Logon: 2012-02-07 12:28:08

Unsuccessful Logon Attempts: 3

Time

Memory Usage

Disk Usage

- **Services**

This table lists the services being supported by the server. In addition to showing the status of the service, it also contains buttons to start/stop each service and to select whether the service should be automatically started whenever the server is started. Clicking on the link for **Mem/CPU usage** will display a summary graph of CPU and memory usage by the application.

- **Notifications**

This table gives a summary of the most recent log messages generated by the services running on the IP Office Application Server. More detailed information is available through the [Logs](#) page.

- **System**

This table gives a general overview of the sever status. This section also provides controls to shutdown or reboot the server. Note that it may take up to 10 minutes for CPU usage data to appear after a server reboot.

- **OS/Kernel:**

The overall version of the CentOS operating system installed on the server and the version of the operating system kernel.

- **Up Time:**

This field shows the system running time since the last server start.

- **Server Time:**

This field shows the current time on the server.

- **Average CPU Load:**

This field shows the average CPU load (percentage use) for the preceding minute, 5 minute and 15 minute periods.

- **Last Successful Logon:**

This field shows the date and time of the last successful logon, including the current logon.

- **Unsuccessful Logon Attempts:**

This field shows a count of unsuccessful logon attempts.

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- **Shutdown**

Selecting this button will start a process that will stop all the application services and then shutdown IP Office Application Server. This process should be used when it is necessary to switch off the IP Office Application Server for any period. Once the process has been completed, power to the server can be switched off. To restart the server, switch the server power back on.

- **Reboot**

Selecting this button will start a process that will stop all the application services and then stop and restart the IP Office Application Server and services. Note that this stops all services. To stop and restart individual application services, use the buttons shown for each service in the **Services** panel above.

## 7.2 Logs

This menu is accessed by selecting **Logs**. The menu is divided into two sub-menus:

- [View](#) <sup>67</sup>  
View the current log files for the server and the application services hosted by the server.
- [Download](#) <sup>68</sup>  
Create and download archive files of existing log records.

### 7.2.1 View

This menu is accessed by selecting **Logs** and then clicking on the **View** tab. This menu can be used to view application logs and audit log records.

The screenshot shows the 'View' tab selected. The 'Application Log' section displays a table with the following data:

Application	Message
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: bool TFileHandler::Open(const TCHAR*, OpenFileMode, NewLine_Mode, bool, bool) - Error 2 (No such file or directory) opening file "etc/vmpro_user_variables.ini".
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: bool TFileHandler::Open(const TCHAR*, OpenFileMode, NewLine_Mode, bool, bool) - Error 2 (No such file or directory) opening file "opt/vmpro/Accounts/SMTPMAPPINGS.INI".
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: Validating directory "/opt/vmpro/Greetings"
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: VMRegistry - created directory "/opt/vmpro/Greetings"
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: Validating directory "/opt/vmpro/Accounts"
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: VMRegistry - created directory "/opt/vmpro/Accounts"
VoiceMail PRO	Sep 16 17:33:03 APPSDVD vmpro [2700]: b7efe700: Validating directory "/opt/vmpro/Wavs/Modules"
VoiceMail PRO	Sep 16 17:33:08 APPSDVD vmpro [2700]: b7efe700: VMRegistry - created directory "/opt/vmpro/Wavs/Modules"
VoiceMail PRO	Sep 16 17:33:08 APPSDVD vmpro [2700]: b7efe700: Validating directory "/opt/vmpro/Wavs/Custom"

The 'Audit Log' section displays a table with the following data:

Timestamp	User	Action
2010-09-16 20:50:30	webcontrol	change autostart state for VoiceMail PRO to on
2010-09-16 20:50:27	webcontrol	start VoiceMail PRO service
2010-09-16 20:43:27	webcontrol	logged in
2010-09-16 18:11:42	webcontrol	uninstall OneX Portal
2010-09-16 17:57:03	webcontrol	start OneX Portal service
2010-09-16 17:56:59	webcontrol	force stop VoiceMail PRO service
2010-09-16 17:56:53	webcontrol	change autostart state for VoiceMail PRO to off
2010-09-16 17:56:35	webcontrol	stop VoiceMail PRO service
2010-09-16 17:51:39	webcontrol	start OneX Portal service
2010-09-16 17:51:35	webcontrol	start OneX Portal service

- **Application Log**

This table lists the log records for a selected server application supported by the IP Office Application Server. The **Application** drop-down is used to select which records are shown. Clicking on a column header sorts the records using that column. The records shown are all those generated since the last time the log files were archived using the **Create Archive** command on the [Logs | Download](#) <sup>68</sup> page. For Voicemail Pro the level of log information output is set through the **Debug** section of the [Settings | General](#) <sup>73</sup> menu. For one-X Portal for IP Office the level of log information output is set through the applications own administration menus, not through the IP Office Application Server menus.

- **Audit Log**

This table lists the actions performed by users logged in through the IP Office Application Server's web browser interface. Clicking on a column header sorts the records using that column.

## 7.2.2 Download

This menu is accessed by selecting **Logs** and then clicking on the **Download** tab. This menu is used to create, manage and download archives of previous log files.

The log files are compressed into an archive file which can then be downloaded by clicking on the link. The archive files are in **.tar.gz** format. The log files within this type of archive file can be extracted by a range of utility applications including WinZip.

The screenshot shows a web interface with two tabs: 'View' and 'Download'. The 'Download' tab is active. Below the tabs, there are two main sections: 'Debug Files' and 'Logs'. Each section contains a table of files with columns for Name, Last Modified, Size, and Delete. Below each table are three buttons: 'Select All', 'Create Archive', and 'Delete Selected'.

Name	Last Modified	Size	Delete
<a href="#">arc_core.vmprow.15906.tar.gz</a>	2010-09-29 10:41:35	1.0M	<input type="checkbox"/>

Select All Create Archive Delete Selected

Name	Last Modified	Size	Delete
<a href="#">system_logs_2010-09-30-15-59.tar.gz</a>	2010-09-30 15:59:47	11.6K	<input type="checkbox"/>
<a href="#">install_logs_2010-09-30-15-59.tar.gz</a>	2010-09-30 15:59:47	6.2K	<input type="checkbox"/>
<a href="#">webcontrol_logs_2010-09-30-15-59.tar.gz</a>	2010-09-30 15:59:47	3.5K	<input type="checkbox"/>
<a href="#">vmprow_logs_2010-09-30-15-59.tar.gz</a>	2010-09-30 15:59:47	8.1K	<input type="checkbox"/>

Select All Create Archive Delete Selected

### To Create Archive Files

1. Click on the **Create Archive** button. Any log records recorded since the last creation of an archive are placed into archive files for each service.
2. The new archive files are listed in the web page.

### To Download Archive Files

1. Any archive file can be downloaded by clicking on the file name of the archive file.
2. The process for the download and the location to which the file is downloaded will depend on the browser being used.

### To Delete Archive Files

1. To delete an archive, select the **Delete** checkbox next to the archive file in the list. To select all the archive files click on **Select All**.
2. To delete the selected files, click on **Delete Selected**.

## 7.3 Updates

This menu is accessed by selecting **Updates**. The menu displays the different versions of server operating system files and application files available in the file repositories. The file repository locations are configured through the [Settings | General](#) page.

- **Warning**

Before upgrading or changing the version of any installed application or operating system components, you must ensure that you have read the appropriate Avaya Technical Bulletins for the software release. The Technical Bulletins detail supported versions of software and known issues or additional actions required for upgrading.

The screenshot shows the 'Updates' menu divided into two sections: 'Services' and 'System'.

**Services Section:**

Application	Current Version	Latest Available	Status	Actions
webcontrol	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Watchdog	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Voicemail	8.1-5.0	8.1-5.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.1-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall

Buttons: Update All, Check Now

**System Section:**

OS	CentOS
Version	release 5.5 (Final)
Kernel Version	2.6.18-194.el5
Last Update	-
Status	updates available

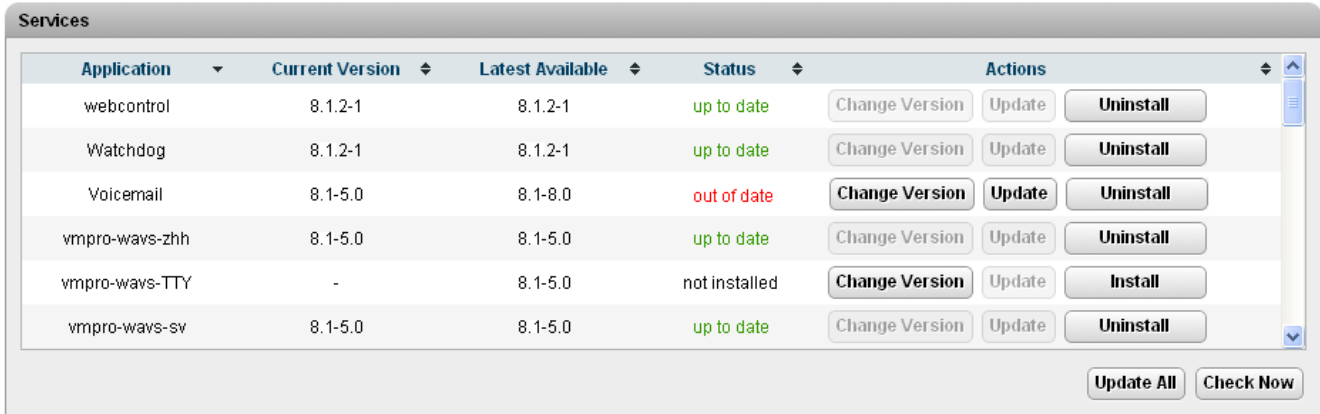
Buttons: Check Now, Review Updates, Update All

The menu is divided into 2 sections:

- **Services** <sup>70</sup>  
This section displays the current version of application files and whether update files are available.
- **System** <sup>71</sup>  
This section displays the current version of the operating system and whether update files are available.

## 7.3.1 Services

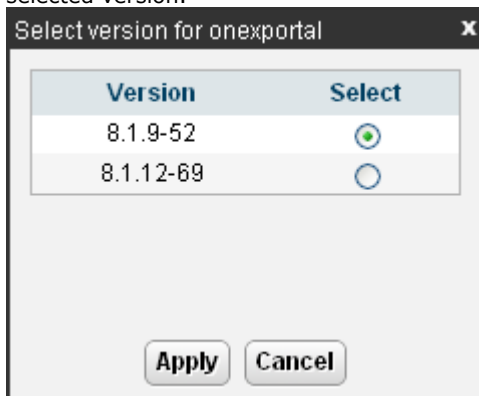
This menu is accessed by selecting **Updates**. The **Services** section shows details of the current version of each application installed and the latest version available.



Application	Current Version	Latest Available	Status	Actions
webcontrol	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Watchdog	8.1.2-1	8.1.2-1	up to date	Change Version Update Uninstall
Voicemail	8.1-5.0	8.1-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.1-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.1-5.0	8.1-5.0	up to date	Change Version Update Uninstall

Update All Check Now

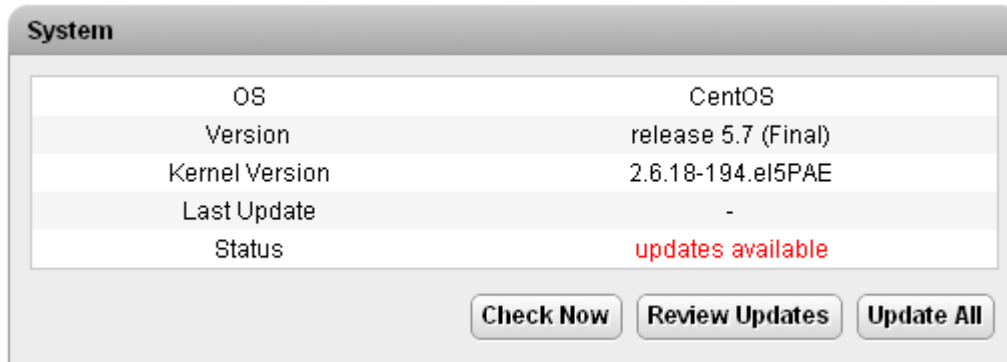
- The **Change Version**, **Update** and **Update All** buttons in the panel are not useable unless appropriate update files are available in the applications [software repository](#). This also affects the availability of the **Install** button option.
- **Change Version**  
Clicking on this button shows the update files available for the related application in the server's [file repository](#). The current version is selected. Selecting another version and then clicking **Apply** will upgrade or downgrade to the selected version.



- **Update**  
Clicking on this button will start an update of the related application to the latest available version in the application [file repository](#).
- **Uninstall**  
Clicking on this button will uninstall the selected application.
  - If there are installation files for the application available in the application [file repository](#), the button will change to become an **Install** button.
  - If there are no installation files for the application available in the file repository, the application is no longer listed.
- **Install**  
This button is displayed if an application is uninstalled and update files for the application are available in the file repository.
- **Check Now**  
Clicking this button makes the IP Office Application Server recheck the version of update files available in the file repository. Normally it does this automatically when the **Updates** page is loaded.
- **Update All**  
If this button is clicked, those applications that support upgrading without being uninstalled (see above) are updated to the latest versions available in the application file repository.

## 7.3.2 System

This menu is accessed by selecting **Updates**. The **System** section shows details of the operating system and whether there are updates available.

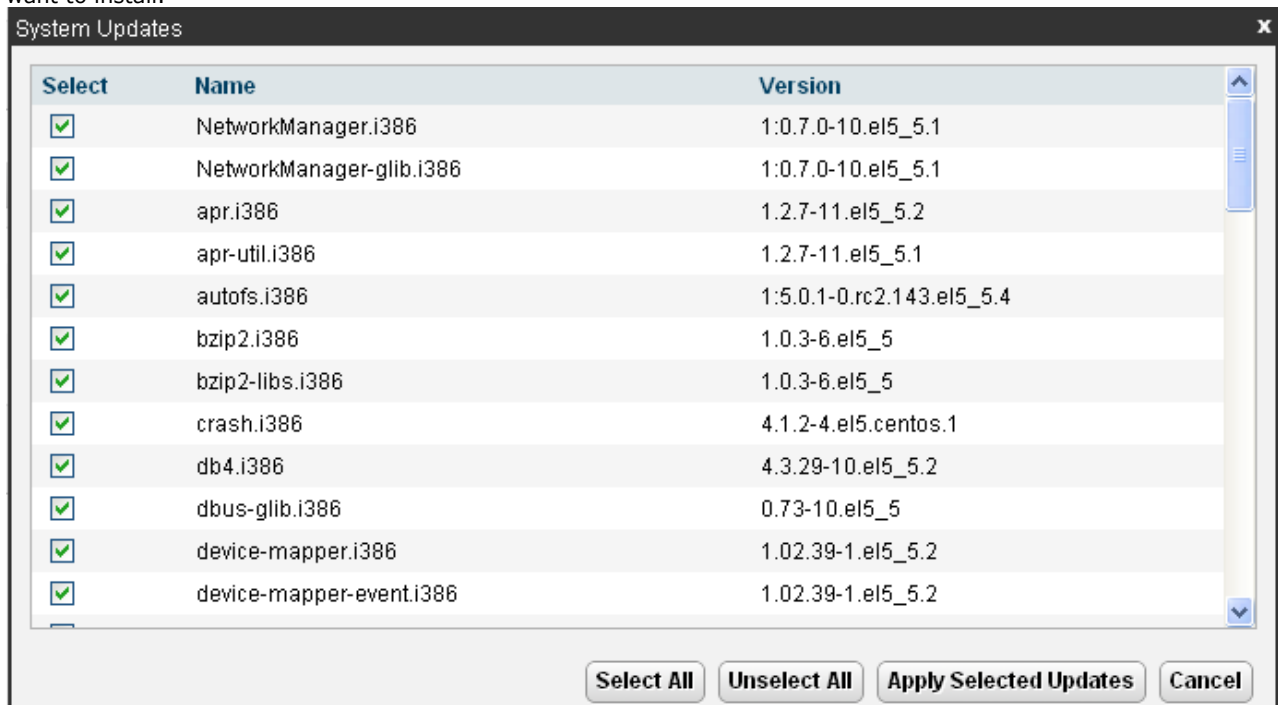


- **Check Now**

Clicking this button makes the IP Office Application Server recheck the version of update files available in the file repository. Normally it does this automatically when the **Updates** page is loaded.

- **Review updates**

Clicking this button will display a list of the available update files. This list allows selection of which updates you want to install.



- **Update All**

Clicking this button will install all the available updates without going through the process of selecting with updates to install.

---

## 7.4 Settings

This menu is accessed by selecting **Setting**. The menu has two tabs for various areas of server configuration and operation.

- [General](#) <sup>73</sup>  
General server settings such as the locations of software update repositories.
- [System](#) <sup>77</sup>  
View and manage the server setting for date, time and IP address details.

## 7.4.1 General

This menu is accessed by selecting **Settings** and then clicking on the **General** tab. This menu is used for a wide variety of server settings.

General

System

**Software Repositories**

Operating System:   Local File:

Applications:   Local File:

Downloads:   Local File:

**Watchdog**

Log files age (days):

**SNMP Support**

Protocol:  TCP  UDP

Traps IP:

Traps Port:

Device ID:

System Description:

System Location:

Enable SNMP

**Web Control**

Application Port:

Protocol:

Inactivity timeout:

**Backup and Restore**

Service	Action
Voicemail	<input type="button" value="Backup"/> <input type="button" value="Restore"/>

**Debug**

VoiceMail debug level:

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## Software Repositories

The IP Office Application Server can use either remote or local software repositories to store software update files. Separate repositories are configured for operating system updates, IP Office application installation files and Windows client files.

The screenshot shows a configuration window titled 'Software Repositories' with two tabs: 'General' and 'System'. The 'General' tab is selected. The window contains three rows for configuring repositories: 'Operating System', 'Applications', and 'Downloads'. Each row has a text input field, a checkbox for 'Local', and a 'File:' label. The 'Operating System' and 'Applications' rows have their 'Local' checkboxes checked. The 'Downloads' row has its 'Local' checkbox unchecked. Each row also has a 'Browse...' button and an 'Add' button. The 'Downloads' field contains the URL 'http://www.example.com/support/windows'. A 'Save' button is located at the bottom right of the window.

The files uploaded or present in the file repositories are used by the [Updates](#) and [Downloads](#) menus.

- **Repository**  
If the **Local** option is not selected, this field is used to set the URL of a [remote HTTP file repository](#). Note that each repository must be different, the same URL must not be used for multiple repositories.
- **Local**  
This checkbox is used to set whether the file repository used is local (files stored on the IP Office Application Server or remote (a folder on a HTTP web server specified in the Repository field).
- **File / Browse / Add**  
If the Local option is selected, this field and adjacent buttons can be used to browse to a specific update file. When the file is located and selected, click **Add** to upload the file to the file store on the IP Office Application Server.

## Watchdog

- **Log files age (days)**  
Sets the number of days that log file records are retained. This does not affect log file [archives](#). Not applied to one-X Portal for IP Office which performs its own log file size limitation.

## Web Control

Note that changing any of these settings will require you to login again.

- **Application Port**  
Change the port used for logging in. The default is **7070**. If you change this value you must ensure that you do not set it to a value already used by another service or application.
- **Protocol**  
Select the protocol used for connection. The default is **http**. The options are **http** or **https**.
- **Inactivity Timeout**  
Select the period of inactivity after which the web session is automatically logged out. Changing this value will require you to login again. The options are **5 minutes**, **10 minutes**, **30 minutes** and **1 hour**.

## SNMP Support

The IP Office Application Server can send SNMP event trap information to a specified SNMP server.

- **Protocol**  
Sets the protocol, TCP or UDP, to be used for the SNMP messages.
- **Traps IP**  
Sets the target IP address for the SNMP messages.
- **Traps Port**  
Sets the target port for the SNMP messages.
- **Device ID**  
Sets the device ID to be used in the SNMP messages
- **System Description**  
Sets the system description value included in SNMP messages.
- **System Location**  
Sets the system location value included in SNMP messages.
- **Enable SNMP**  
This option must be selected to enable SNMP.

## Voicemail Settings

This section can be used to set the debug logging level used by certain applications. For the one-X Portal for IP Office the logging level is set through the applications own web administration menus. Log files are retrievable through the [Logs | Download](#) menu.

- **Debug Level**

This control is used to set the level of information that the voicemail service includes in its log files. The options are **None**, **Critical**, **Error**, **Warning**, **Information** and **Verbose**. The default level is **Critical**.

## Backup and Restore

These controls allow you to backup and restore the application settings being used selected IP Office applications.

- **Voicemail Pro Server**

For the Voicemail Pro server, these controls can only be used to restore an existing backup. Using the Voicemail Pro client, the voicemail server can be configured to perform regular (daily, weekly and or monthly) automatic backups of selected options including messages and prompts. The Voicemail Pro client can also be used to perform an immediate backup. When the Restore button is selected, the backups available in the backup folder (*/opt/vmpro/Backup/Scheduled*) are listed. The backup name includes the date and time and whether the backup was a manual or scheduled backup. When the required backup is selected, clicking OK will start the restoration process. For details refer to the Voicemail Pro client help.

- **one-X Portal for IP Office**

one-X Portal for IP Office has its own method of backup and restore that can be access through the one-X Portal for IP Offices web client administration.



## 7.4.2 System

This menu is accessed by selecting **Settings** and then clicking on the **System** tab. This menu is used to adjust server settings such as its IP address settings and time settings.

General	System
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <h3>Network</h3> <p>Network Interface: <input type="text" value="eth0"/></p> <p>Host Name: <input type="text" value="APPS"/></p> <p><input type="checkbox"/> Use DHCP</p> <p>IP Address: <input type="text" value="192.168.0.214"/></p> <p>Subnet Mask: <input type="text" value="255.255.255.0"/></p> <p>Default Gateway: <input type="text" value="192.168.0.1"/></p> <p>System DNS: <input type="text" value="192.168.0.1"/></p> <p><input type="checkbox"/> Automatically obtain DNS from provider</p> <p style="text-align: right;"><input type="button" value="Save"/></p> </div> <div style="width: 48%;"> <h3>Date and Time</h3> <p>Date: <input type="text" value="2012-01-31"/></p> <p>Time: <input type="text" value="07"/> : <input type="text" value="40"/></p> <p>Timezone: <input type="text" value="Europe/London"/></p> <p><input checked="" type="checkbox"/> Enable Network Time Protocol</p> <p>NTP Servers: <input type="text" value="0.centos.pool1.ntp.org"/>  <input type="text" value="1.centos.pool1.ntp.org"/>  <input type="text" value="2.centos.pool1.ntp.org"/></p> <p><input type="checkbox"/> Synchronize system clock before starting service</p> <p><input checked="" type="checkbox"/> Use local time source</p> <p style="text-align: right;"><input type="button" value="Save"/></p> </div> </div>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <h3>Password Rules Settings</h3> <p>Minimum password length: <input type="text" value="8"/></p> <p>Minimum number of uppercase characters: <input type="text" value="0"/></p> <p>Minimum number of lowercase characters: <input type="text" value="0"/></p> <p>Minimum number of numeric characters: <input type="text" value="0"/></p> <p>Minimum number of special characters: <input type="text" value="0"/></p> <p><input checked="" type="checkbox"/> Allow character sequences</p> <p>Maximum allowed sequence length: <input type="text" value="0"/></p> <p style="text-align: right;"><input type="button" value="Save"/></p> </div> <div style="width: 48%;"> <h3>Change Root Password</h3> <p>New Password: <input type="text"/></p> <p>Confirm New Password: <input type="text"/></p> <p>Password complexity requirements:</p> <ul style="list-style-type: none"> <li>• Minimum password length: 8</li> </ul> <p style="text-align: right;"><input type="button" value="Save"/></p> </div> </div>	

---

## Network

- **Network Interface**

If the server PC has multiple ethernet interfaces, this drop down allows selection of which of the interfaces is currently being configured by the web form. On the pre-built IP Office Application Server only one port (**Eth0**) is used. This port is labeled as port 1 on the physical server.

- **Host Name**

Sets the host name that the IP Office Application Server should use. This setting requires the local network to support a DNS server. Do not use **localhost**.

- **Use DHCP**

If selected, the IP address, subnet mask and default gateway information is obtained by the server making DHCP requests. The related fields are greyed out and cannot be set manually, instead they show the values obtained in response to the DHCP request.

- **IP Address**

Displays the IP address set for the server. If DHCP is not being used, the field can be edited to change the setting.

- **Subnet Mask**

Displays the subnet mask applied to the IP address. If DHCP is not being used, the field can be edited to change the setting.

- **Default Gateway**

Displays the default gateway settings for routing. If DHCP is not being used, the field can be edited to change the setting.

- **System DNS**

Enter the address of the primary DNS server. This option is greyed out if the address of the DNS server is set to be obtained from the DHCP server (see below).

- **Automatically obtain DNS from provider**

This setting is only used if **Use DHCP** is also selected. If selected, the server will attempt to obtain DNS server details from the DHCP server.

-

## Date Time

These settings are used to set or obtain a UTC date and time value for use by the IP Office Application Server and services.

- **Date**  
Shows the current date being used by the server. If **Enable Network Time Protocol** is selected, this is the date obtained from the NTP server and cannot be manually changed.
- **Time**  
Shows the current UTC time being used by the server. If **Enable Network Time Protocol** is selected, this is the time obtained from the NTP server and cannot be manually changed. The current time being used by the server is shown on the [Home](#) menu.
- **Timezone**  
In some instances the time displayed or used by a function needs to be the local time rather than UTC time. The **Timezone** field is used to determine the appropriate offset that should be applied to the UTC time above. Note that changing the timezone can cause a Session expired message to appear in the browser.
- **Enable Network Time Protocol**  
If this option is selected, the IP Office Application Server will attempt to obtain the current UTC time from the NTP servers listed in the **NTP Servers** list below. It will then use that time and make regular NTP requests to update the date and time. The following options are only used if **Enable Network Time Protocol** is selected.
  - **NTP Servers**  
This field is used to enter the IP address of an NTP server or servers which should be used when **Enable Network Time Protocol** is selected. Enter each address as a separate line. The network administrator or ISP may have an NTP server for this purpose. A list of publicly accessible NTP servers is available at <http://support.ntp.org/bin/view/Servers/WebHome>, however it is your responsibility to make sure you are aware of the usage policy for any servers you choose. Choosing several unrelated NTP servers is recommended in case one of the servers you are using becomes unreachable or its clock is unreliable. The operating system uses the responses it receives from the servers to determine which are reliable.
    - The IP Office system can also use NTP to obtain its system time. Using the same servers for the IP Office Application Server and IP Office system is recommended.
  - **Synchronize system clock before starting service**  
When using NTP, the time obtained by the operating system is used to gradually change the server's hardware clock time. If this option is selected, an immediate update of the server's clock to match the NTP obtained time is forced.
  - **Use local time source**  
When using NTP, the time obtained by the operating system is used to gradually change the server's hardware clock time. If this option is selected, the server's hardware clock time is used as the current time rather than the NTP time.

---

## Password Rules Settings

- **Minimum password length**

This field set the minimum length of new passwords. Note that the combined requirements of the fields below for particular character types may create a requirement that exceed this value. Note also that the maximum password length is 31 characters.

- **Minimum number of uppercase characters**

This field sets the number of uppercase alphabetic characters that new passwords must contain.

- **Minimum number of lowercase characters**

This field sets the number of lowercase alphabetic characters that new passwords must contain.

- **Minimum number of numeric characters**

This field sets the number of numeric characters that new passwords must contain.

- **Minimum number of special characters**

This field sets the number of non-alphanumeric characters that new passwords must contain.

- **Allow character sequences**

If this option is selected, character sequences such as **1234** or **1111** or **abcd**, are allowed in new passwords without any restriction. When not selected, the maximum length of any sequence is set by the field below.

- **Maximum allowed sequence length**

This field is used to set the maximum allowed length of any character sequence when **Allow character sequences** is not selected.

## Change Root Password

- **New Password**

Enter the new password for the server's root account.

- **Confirm New Password**

Confirm the new password.

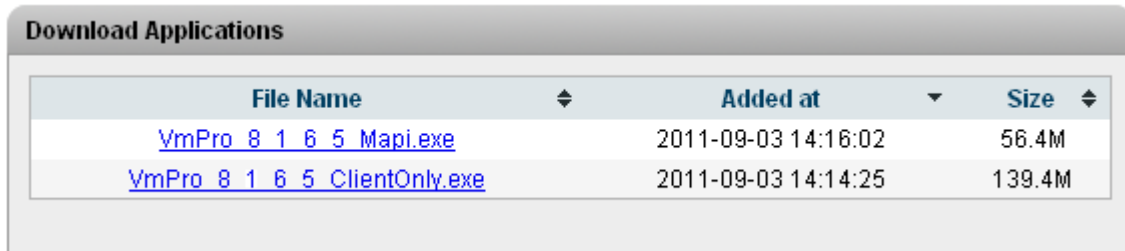


---

## 7.5 Downloads

This menu is accessed by selecting **Downloads**. The menu is used to download files for use on the local PC. For example, the Voicemail Pro client used to administer the Voicemail Pro server application.

The file repository location is configured through the [Settings | General](#) <sup>73</sup> page.



File Name	Added at	Size
<a href="#">VmPro 8 1 6 5 Mapi.exe</a>	2011-09-03 14:16:02	56.4M
<a href="#">VmPro 8 1 6 5 ClientOnly.exe</a>	2011-09-03 14:14:25	139.4M

The files included in the installation may vary. Typical files are listed below. Note that some packages require the addition of licenses to the system and configuration changes. Refer to the specific installation manuals for those applications:

- **VmPro...ClientOnly.exe**  
This is the installation package for the Voicemail Pro client application used to administer the Voicemail Pro server application.
- **VmPro...Mapi.exe**  
This is the installation package for the MAPI proxy. This can be installed on a Windows PC in the same network as the Windows Exchange server. It allows the Linux based Voicemail Pro server to access UMS services. Refer to the Voicemail Pro installation manual.





# **Chapter 8.**

# **Additional Processes**

---

## 8. Additional Processes

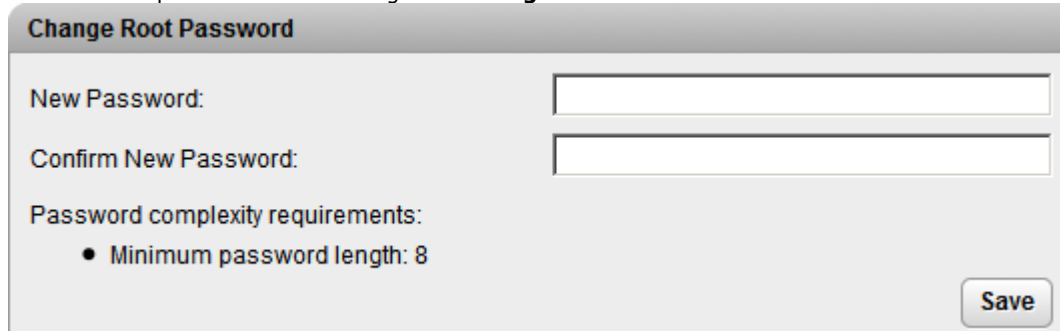
This section details processes that are not normally required but may be useful. These should only be attempted if you are confident with Linux commands and managing a Linux based system.

- [Changing the Root Password](#) <sup>87</sup>
- [SSH File Transfers](#) <sup>88</sup>
- [Command Line Controls](#) <sup>89</sup>
- [Windows to Linux Voicemail Transfer](#) <sup>94</sup>

## 8.1 Changing the Root Password

The root password for the server is set during the server installation. This is a password used for Linux command line access and so is not normally used during normal operation. However, for security you can change the root password through the web control menus.

1. [Login](#)<sup>[47]</sup> to the server's web configuration pages.
2. Select **Settings** and click on the **System** tab.
3. The new root password is set through the **Change Root Password** menu.



- **New Password**  
Enter the new password for the server's root account.
  - **Confirm New Password**  
Confirm the new password.
4. Note the rules displayed for the password entry, enter the new password. The password complexity requirements are set in the [Password Rules Settings](#)<sup>[50]</sup> menu. The rules set there are applied to changing both the [root password](#)<sup>[49]</sup> and changing the web control [administrator password](#)<sup>[48]</sup>.
  5. Click **Save**. The menu will confirm if the new password was accepted.

---

## 8.2 SSH File Transfers

The directory structure of files on the server can be accessed using any file transfer tool that supports SFTP/SSH. For example WS\_FTP or SSH Secure Shell.

1. Start your SFTP or SSH file application and connect to the IP Office Application Server PC. The exact method will depend on the application being used.
  - a. Enter the details for the IP Office Application Server:
    - The **Host Name** is the IP address of the IP Office Application Server.
    - The **User Name** is *webcontrol*.
    - The **Protocol** is *SFTP/SSH*.
    - The **Port** is **22**. If this is the first time the application has connected to the server, accept the trusted key.
  - b. If this is the first time the application has connected to the IP Office Application Server, accept the trusted key.
  - c. When prompted, enter the webcontrol user [password](#) <sup>48</sup>, the default is **web**.
2. The default folder displayed after logging in is **/home/webcontrol**.

## 8.3 Command Line

There are a range of IP Office Application Server commands that can be performed from the server's command line when logged in as the webcontrol user. The commands are grouped into three tiered sets, each set protected by a separate password.

- **General Commands** <sup>[90]</sup>

These commands are used mainly to display information about the server and the services it is running. Access to these commands is controlled by the webcontrol user password.

- **Administrator Commands** <sup>[92]</sup>

These commands allow you to stop, start, restart and update the services. Access to these commands is controlled by the webcontrol user password and an additional administrator password.

- **Configuration Commands** <sup>[93]</sup>

These commands allow you to change server settings. Access to these commands is controlled by the webcontrol user password, the administrator password and an additional configurator password.

1. Log in to the server's webcontrol user account:

- **If logging in at the on the server:**

- a. At the **Command:** prompt, enter **login**.
- b. At the **login:** prompt enter webcontrol.
- c. At the **Password:** prompt, enter the password (the default is **web**).

- **If logging in remotely:**

- a. Start your SSH shell application and connect to the IP Office Application Server PC. The exact method will depend on the application being used.
  - The **Host Name** is the IP address of the IP Office Application Server.
  - The **User Name** is **webcontrol**.
  - The **Protocol** is **SFTP/SSH**.
  - The **Port** is **22**. If this is the first time the application has connected to the server, accept the trusted key.
- b. If this is the first time the application has connected to the IP Office Application Server, accept the trusted key.
- c. When prompted, enter the webcontrol user **password** <sup>[48]</sup>, the default is **web**.

2. You should now be at the > prompt. From this prompt you can perform various [general commands](#) <sup>[90]</sup>.

---

## 8.3.1 General Commands

In the commands below, *<application>* is replaced with name of the required application: **voicemail**, **onexportal**, **watchdog** or **all**.

At the > prompt, the following commands can be used:

- **admin**  
Change to the [Admin >](#) <sup>[92]</sup> prompt. The administrator password is required.
- **exit**  
Exit the > prompt. At this level this is the same as logging out.
- **help**  
Display general help on entering commands.
- **history**  
Display the history of commands used in the current session.
- **list**  
Display a list of commands.
- **logout**  
End the session and logout.
- **password**  
Change the webcontrol password.
- **show <application>**  
Show information about the application including its current status, version, boot on start setting and any watchdog alarms for the application.

```
> show voicemail
Voicemail Pro is running.
Boot at startup: on.
Version: 6.0.6.19
Watchdog alarms:
[15:24:19 - 21 Apr 2010] Voicemail Pro crashed, restarting.
```

- **show backup <application>**  
Show information about the backups available for the entered application.

```
> show backup voicemail
<Backups>
/opt/vmpro/Backup/Scheduled/Immediate/VMPro_Backup_07122011075040|Immediate|Immediate|2011-12-07
</Backups>
```

- **show config**  
Show a summary of the applications being supported by the IP Office Application Server.

```
> show config
Services Repository: http://www.avaya.com/support/ipoffice/
OS Repository: http://www.avaya.com/support/centos/
Applications Version Boot at startup
Voicemail Pro: 6.0.20.1, on.
one-X Portal: 6.0.20.1, off.
Watchdog: 6.0.6.19, on.
CLI 6.0.6.1 -
Operating System: CentOS 5.4
Kernel version: 2.6.18-92.1.18.el5
Last updated: 2010-04-27 - 15:30
```

- **show logging <application>**  
Show logging information for the application. This includes both audit trail commands, watchdog alarms and the applications own log output.

```
> show logging voicemail
# Last command:
[15:24:19 - 21 Apr 2010] Voicemail Pro starting...
[15:25:00 - 21 Apr 2010] Voicemail Pro started.
# Watchdog alarms:
[15:24:19 - 21 Apr 2010] Voicemail Pro crashed, restarting.
# Voicemail Pro log file:
...
```

- **show status <application>**  
Show the status (running, starting or stopped) of the application.

```
> show status voicemail
Voicemail Pro is running.
```

- **show time**

Show the current date and time on the server.

```
> show time
Current date and time: 15:30:00 - 21 Apr 2010
```

- **show updates <application>**

Show the current version of the application and the versions available in the updates repository.

```
> show updates voicemail
Current Voicemail Pro Version: 6.0.6.19
Available Versions:
- Voicemail Pro 6.0.7.1
- Voicemail Pro 6.0.8.3
- Voicemail Pro 6.0.9.5
```

- **top**

Return to the `>` prompt.

---

## 8.3.2 Administrator Commands

The **Admin>** prompt is accessed by entering **admin** at the [> general command prompt](#) <sup>[90]</sup> and then entering the administrator password (the default password is **Administrator**).

In the commands below, *<application>* is replaced with name of the required application: **voicemail**, **onexportal**, **watchdog** or **all**.

At the **Admin>** prompt, the following commands can be used:

- **auditlog**  
Display a log of application commands executed.
- **configure**  
Change to the [Configure>](#) <sup>[93]</sup> prompt. The configurator password is required.
- **exit**  
Exit the **Admin>** prompt and return to the [> prompt](#) <sup>[90]</sup>.
- **forcestop** *<application>*  
Stop the specified application. This is a forced shutdown of the application. For a polite shutdown use the **stop** command.
- **help**  
Display general help on entering commands.
- **history**  
Display the history of commands used in the current session.
- **list**  
Display a list of commands.
- **logout**  
End the session and logout.
- **password**  
Change the administrator password required to access the **Admin>** prompt.
- **restart** *<application>*  
Restarts specified application.
- **root**  
Access the root user account. The root user password is required.
- **start** *<application>*  
Start the specified application.
- **stop** *<application>*  
Stop the specified application. This is a controlled shutdown of the application. The command prompt is redisplayed once the application is stopped. To force a shutdown of an application user **forcestop**.
- **update** *<application>* *<version>*  
Begin an update of the specified application to a specified version. The versions available for upgrade can be shown using the **show updates** *<application>* command. In addition to the standard applications, **cli** can also be specified.
- **top**  
Return to the [>](#) <sup>[90]</sup> prompt.

### 8.3.3 Configuration Commands

The **Configure>** prompt is accessed by entering **configure** at the [Admin> prompt](#) <sup>[92]</sup> and then entering the configurator password (the default password is **Configurator**).

In the commands below, *<application>* is replaced with name of the required application: **voicemail**, **onexportal**, **watchdog** or **all**.

At the **Configure>** prompt, the following commands can be used:

- **autostart** *<application>* *<on/off>*  
Change the autostart settings of an application.
- **backup** *<application>*  
Backup the application. This command is currently only supported for the **onexportal** application.
- **exit**  
Exit the **Configure>** prompt and return to the [Admin>](#) <sup>[92]</sup> command prompt.
- **help**  
Display general help on entering commands.
- **history**  
Display the history of commands used in the current session.
- **list**  
Display a list of commands.
- **logout**  
End the session and logout.
- **password**  
Change the configuration password required to access the **Configure>** prompt.
- **install** *<application>*  
Install an application from the repository.
- **repository** *<type>* *<link>*  
Set the location for the updates repository.
  - The *<type>* value indicates the repository:
    - **os**  
Operating system repository.
    - **services**  
Applications repository.
  - The *<link>* value indicates the repository location.
- **restore** *<application>*  
Restore an application. This command is currently only supported for the onexportal application.
- **search**  
Search for an application and display basic information if found on the server.
- **show**  
Display a list of installed applications.
- **startup** *<application>* *<on/off>*  
Set the start on boot up setting for an application.
- **uninstall** *<application>*  
Uninstall an application.
- **top**  
Return to the [>](#) <sup>[90]</sup> prompt.

---

## 8.4 Windows to Linux Voicemail Transfer

You can transfer a set of Voicemail Pro backup files from a Windows based voicemail server to a Linux based voicemail server.

1. On the Windows voicemail server:
  - a. Using the Voicemail Pro client, perform an immediate backup on the Windows voicemail server, selecting to backup all types of file.
  - b. This will create a backup folder, the name of which includes the date and time of the backup and Immediate. For example **VMPro\_Backup\_26012011124108\_Immediate**. The default path for such folders is **C:\Program Files\Avaya\IP Office\Voicemail Pro\Backup\Scheduled**.
  - c. Within Windows, locate the folder just created by the backup and copy the folder to the PC with your SSH file transfer tool.
2. Connect to the server using a [SSH File transfer tool](#).
3. Copy the Windows backup folder into the folder **/opt/vmpro/Backup/Scheduled/OtherBackups**.
4. Using a web browser, [login](#) to the IP Office Application Server.
5. Select **Settings**.
6. On the **General** tab, select the **Restore** button for the **Voicemail** service. From the list of available backups, select the one just copied onto the server.
7. Click **OK**.

If you do not allow remote SSH access to the server, files can be transferred from the CD/DVD drive. This requires the contents of the CD or DVD to be mounted as part of the folder structure.

1. Create a CD or DVD with the Windows backup folder on it.
2. Login on the server as the root user.
3. Enter **eject -n**.
4. The response will be something like **eject: device is '/dev/hda'**.
5. Enter mount **/dev/hda/mnt/cdrom**.
6. The contents of the drive are now accessible as part of the file structure in the folder **/mnt/cdrom**.
7. Copy the backup folder from **/mnt/cdrom** to **/opt/vmpro/Backup/Scheduled/OtherBackups**. For example:
  - `cp -a -f /mnt/cdrom/VMPro_Backup_26012011124108_Immediate /opt/vmpro/Backup/Scheduled/OtherBackups`
8. The backup can now be restored using the web client.

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