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IP Office

IP Office Application Server Installation and Maintenance

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Documentation information

For the most current versions of documentation, go to the Avaya Support web site (<http://www.avaya.com/support>) or the IP Office Knowledge Base (<http://marketingtools.avaya.com/knowledgebase/>).

Avaya Support

Avaya provides a telephone number for you to use to report problems or to ask questions about your contact center. The support telephone number is 1 800 628 2888 in the United States. For additional support telephone numbers, see the Avaya Web site: <http://www.avaya.com/support>.

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Chapter 1.

The IP Office Application Server

1. The IP Office Application Server

The IP Office Application Server is a single installer for 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](#) ^[11].
- Voicemail Pro
This is a voicemail messaging application. It provides mailbox services to all users and hunt groups on the IP Office switch for which it is configured. In addition it can be customized to provide a range of call routing and voicemail services. The Voicemail Pro application is configured and managed remotely using the Windows Voicemail Pro client. A copy of the Voicemail Pro client can be [downloaded](#) ^[63] and installed from the IP Office Application Server. The number of simultaneous connections to voicemail is [licensed](#) ^[11].
- Web Control
The IP Office Application Server server's own settings are configured and managed remotely using web browser access.

When installing additional applications care should be taken to ensure that the resource usage of these applications is understood and that the performance of the Avaya applications is not compromised beyond acceptable levels. Also, any ports used by the new applications should not conflict with those used by the Avaya Applications. Avaya will regularly issue security patches and it is the responsibility of the installer to ensure that their applications are compatible with those patches.

Voicemail Pro Features

For Voicemail Pro server running on the IP Office Application Server, the following Voicemail Pro features are not supported:

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

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

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.

Linux is a registered trademark owned by Linus Torvalds.

1.1 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 used except for changing the [root user password](#). 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.

1.2 Additional Documentation

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

Application Installation and Configuration

- **one-X Portal for IP Office Installation 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 release of IP Office software are accompanied by an technical bulletin. The bulletin will include details of changes that may have occurred to 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>

1.3 Small Community Networks

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

Each H323 SCN trunk supported by a system requires the system to have Voice Networking licenses for the number of trunks connections to other IP Office systems.

When installing a IP Office Application Server 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 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 system. This additional configuration is covered on the one-X Portal for IP Office Installation Manual.
- **Voicemail Pro**
In an Small Community Network, only one instance of the Voicemail Pro application is used to store all mailboxes and their related messages, greeting and announcements. This is referred to the centralized voicemail server. However, additional instances of Voicemail Pro can be installed on other servers in order to perform specific functions. The list below details the different Voicemail Pro server roles possible. Full details of the setup for these roles is covered in the Voicemail Pro Installation manual.
 - **Centralized Voicemail Server**
As stated above, the IP Office on one system is configured to set its Voicemail Pro application as the centralized voicemail server for all servers in the SCN network. This is mandatory regardless of the additional options below. The IP Office on the centralized server requires the appropriate 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**
If additional capacity and performance is required, the Voicemail Pro application can be installed and licensed on other servers than just the centralized server. The distributed voicemail server is then used to provide call services on that system to record messages, play announcements, etc. However, all messages recorded are automatically transferred to and stored on the centralized server. The IP Office on the distributed server requires the appropriate licenses for voicemail server support.

1.4 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
Processor	Intel Dual Core 2.4GHz	Intel Pentium Quad Core 2.4GHz or AMD Athlon 64 4000+ or equivalent.
RAM Memory	4GB	4GB
Hard Disk Space	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.

1.5 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.

Chapter 2.

Server Installation

2. Server Installation

This section covers the installation of the IP Office Application Server software onto a server PC.

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 IP Office 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 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](#) ¹⁴).

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

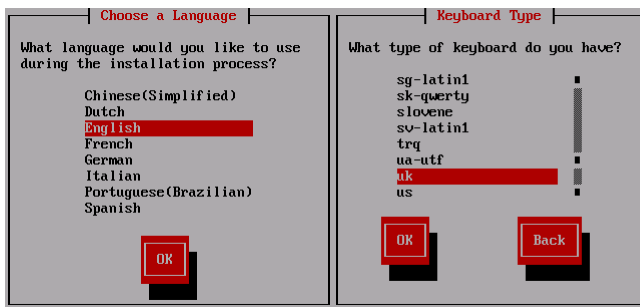
The IP Office Application Server is designed and intended for remote configuration and management. It is not managed directly from the server. Therefore a client PC with a web browser on the same network as the server PC is required for configuration.

- 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).

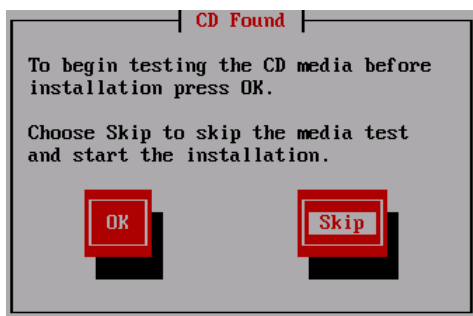
1. Insert the IP Office Application Server DVD into the PC's DVD drive and reboot the PC.
2. The PC should boot from the DVD and the display the IP Office Application Server installation screen.
 - If the PC does not boot from the DVD and instead starts an existing operating system, that indicates that 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.
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 menus operate.

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

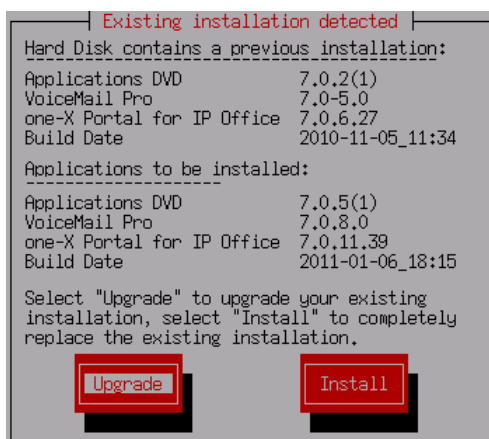


B: Test CD/DVD

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

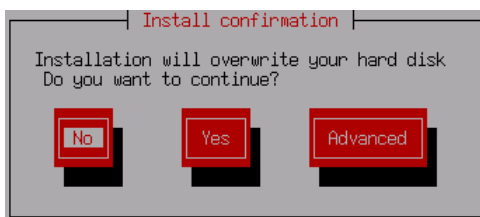
Read through the end user license agreement. It is available in several languages, use the Change Language to select the one required. On the last page select I Accept if you want to continue with the installation.



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.

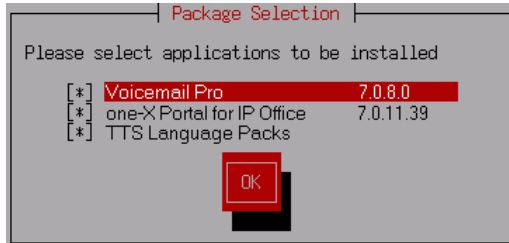
- If Upgrade is selected, the process continues from step J. Preparing to Install.
- If Install is selected, the existing installation is overwritten, continuing as below.



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.



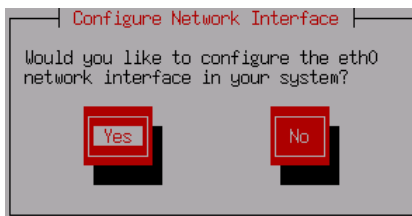
E: Server Package Selection

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.

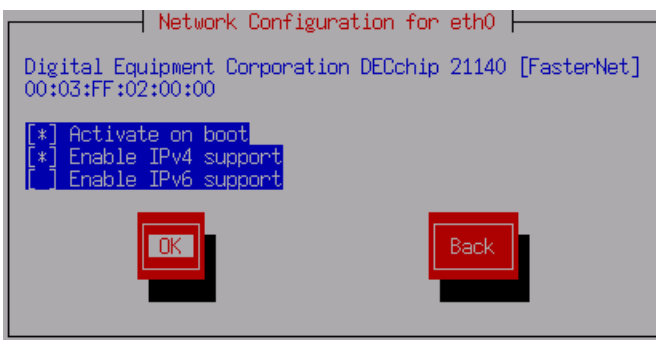


F1. Single Network Interface

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

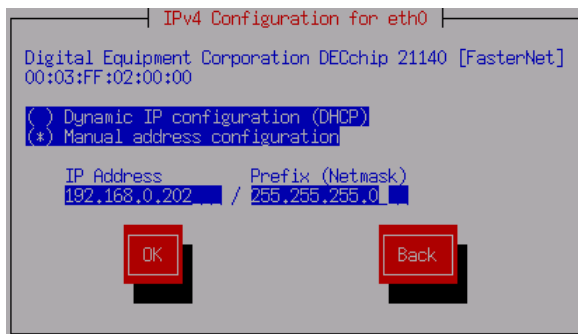
If the server PC has multiple network interfaces, this menu will list them and shows whether they have been configured or not. Select the interface you want to configure and then select Edit.



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.



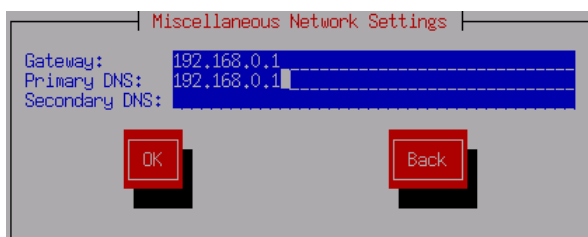
G1: IPv4 Address Settings

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.



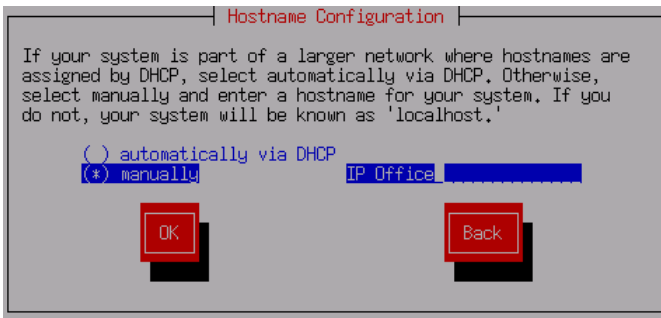
G3: Network Settings

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

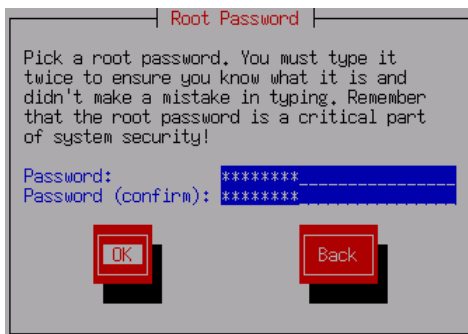
Having a hostname makes the server easier to access than using its IP address. You can select to obtain a hostname by DHCP, however not all DHCP servers support the issuing of hostnames.

- 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

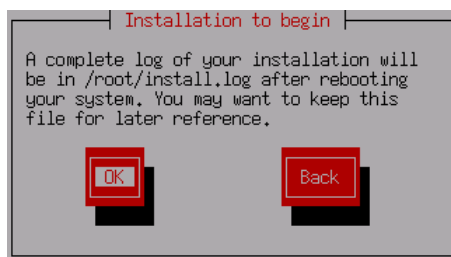
This is the default administrator password for access to the operating system. It is not normally used during IP Office Application Server configuration and maintenance. However ensure that you note the password set.

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

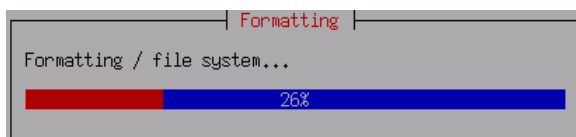
The installer checks that there are no conflicts or omissions within the installation selections.



M: WARNING !

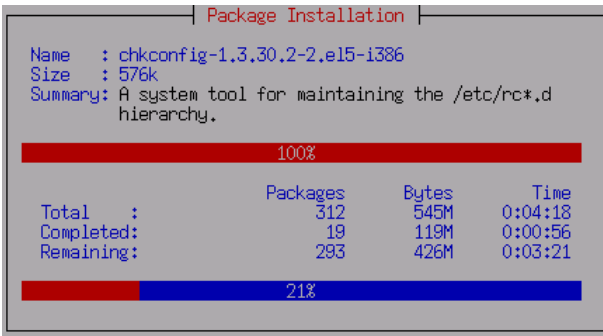
This is the last stage at which you can select Back to amend selections or to exit the installation process. If you select OK, the installer will start formatting the hard disk, erasing any existing data and applications.

- The log file can be downloaded after installation using an [SFTP/SSH application](#) ^[67].



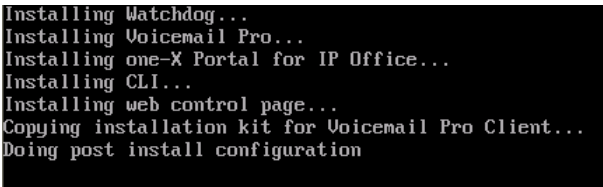
N: Formatting the Hard Disk

The server hard disk is now formatted.

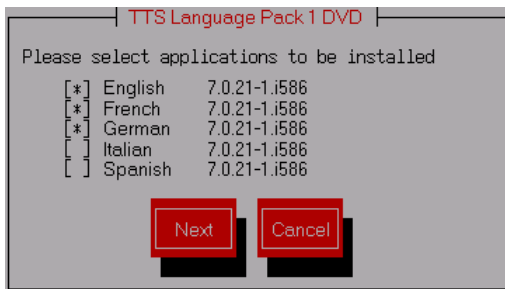


O: Copying the Installation File
The install image containing files to be installed is now copied to the formatted hard disk.

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.

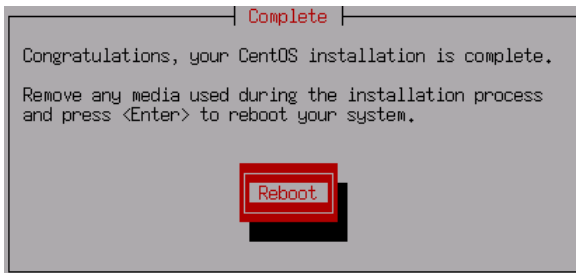


Q: Installing the Applications
The installer will now copy and install the files for the previously selected applications plus the standard applications it uses for its own management.

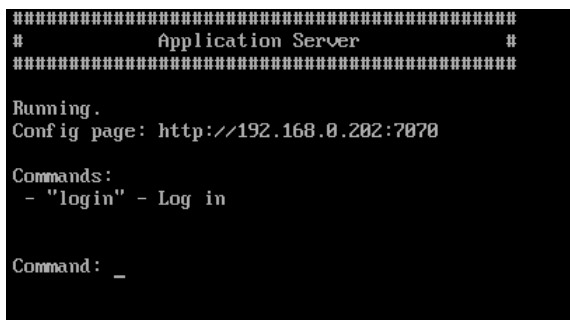


R. TTS Language Pack Installation
If *TTS Language Pack* was selected during the Package Selection, the installation process will now prompt you to insert one of the TTS Language Pack DVDs.

- 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 either 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 used can be changed through the [Settings | General](#) page after logging in.
2. The IP Office Application Server login page is displayed. The default name and password are `webcontrol` and `web`.
3. Select the Language required.
4. Enter the name and password configured for IP Office Application Server administration.
 - The default name and password are `webcontrol` and `web`. The password can be changed by selecting the [Change Password](#) option.
5. If the login was successful, the [Home](#) page for the server is displayed.

Application Server Web Control v7.0.2-1 | Logged in as webcontrol | Logout | Help | AVAYA

Home | Logs | Updates | Settings | Windows Clients

Services

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

Start All | Stop All

Notifications

Server

There are no notifications available

System

Info

OS: CentOS release 5.5 (Final)
Kernel Version: 2.6.18-194.el5
Up Time: 4 hours 21 minutes
Average CPU Load: 2.05 (1min), 1.70 (5min), 1.39 (15min)

Shutdown | Reboot

CPU usage history

Time	Usage
20:50	0%
21:00	40.83%
21:10	38.01%
21:20	39.09%
21:30	39.09%

Memory Usage

Category	Value
used	388.4MB
free	478.57MB

Disk Usage

Category	Value
used	2981.94MB
free	10645.31MB

2.5 Checking the Services

After [logging in](#) ²⁰ to the IP Office Application Server, the Home page provides an immediate 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.

The screenshot shows the Home page of the IP Office Application Server. The navigation menu includes Home (selected), Logs, Updates (with a warning icon), Settings, and Windows Clients. The Services section is displayed as a table with the following data:

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

At the bottom right of the Services table, there are two buttons: 'Start All' and '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](#) ⁴⁰ option.



Chapter 3.

Voicemail Pro Configuration

3. 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:

IP Office Configuration

1. [Adding voicemail licenses](#) ^[25].

Voicemail Pro Configuration

1. [Install the Voicemail Pro client](#) ^[26].
2. [Log in to the Voicemail Pro server](#) ^[27].
3. [Change the default administrator password](#) ^[27].




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 IP Office Application Server server's [Windows Client](#) ^[63] menu. For full details refer to the Voicemail Pro Linux Installation manual.

3.1 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.

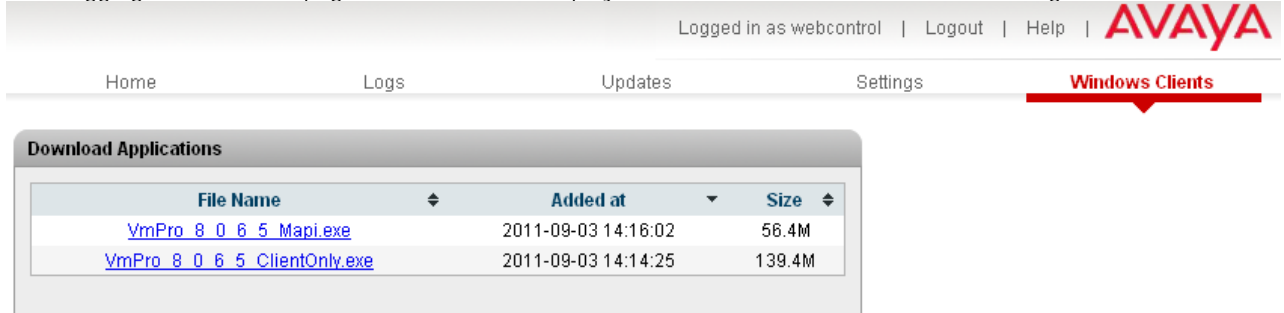
Entering Licenses

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 that add licenses by cut and pasting them from a supplied file. That avoids potential issues with mistyping.
4. The Status of the new license should show *Unknown* and name the license as expected. If the name is *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*.

3.2 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, the Home page for the server is displayed. Select the Windows Clients heading.



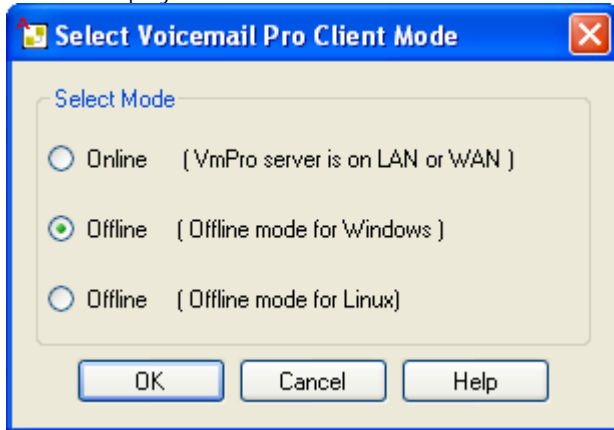
4. Click on the link for the Voicemail Pro client file in order to download the software package for installing the client.
5. Once the package has been downloaded, run it to install the Voicemail Pro client.

3.3 Logging in to the Voicemail Server

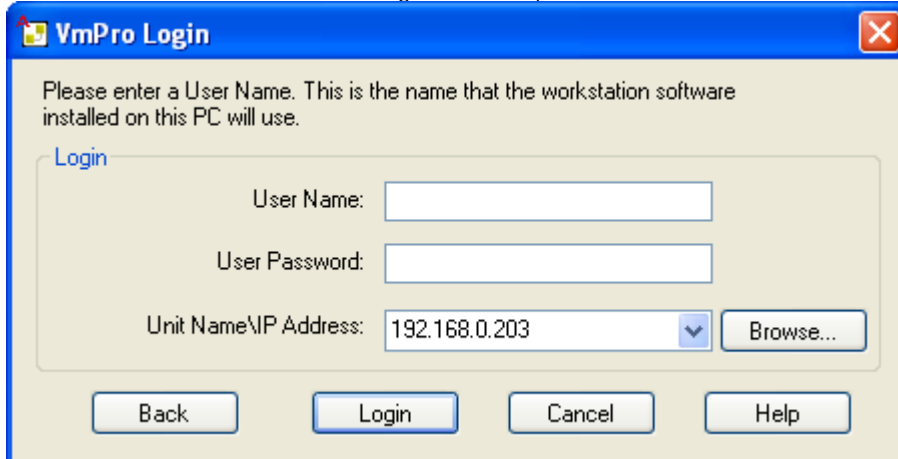
To connect to a remote voicemail server you will need to login using the name and password of an administrator account already configured on that server. The default account is *Administrator* and *Administrator*.

To Login with the Voicemail Pro Client

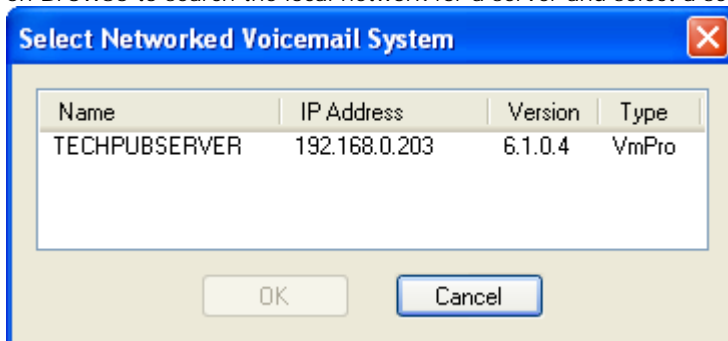
1. From the Start menu, select Programs | IP Office | Voicemail Pro Client.
2. The Voicemail Pro Client window opens. If the client has been started before, it will attempt to start in the same mode as it previously used. If it cannot do that or it is the first time the client has been started, the select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

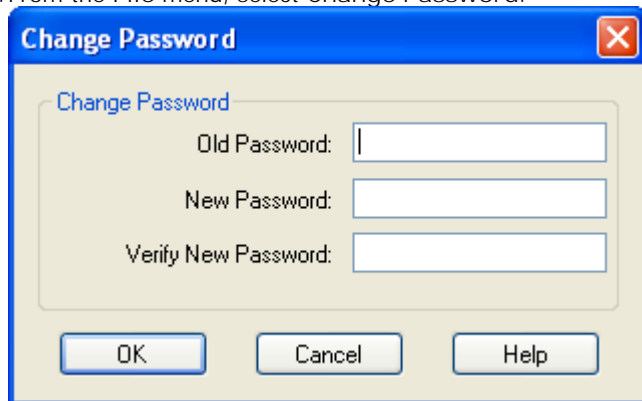
3.4 Changing the Voicemail Server Password

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.



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

Chapter 4.

one-X Portal for IP Office Configuration

4. one-X Portal for IP Office Configuration

At this stage, the one-X Portal for IP Office server software has been installed on the IP Office Application Server and its service started. However the one-X Portal for IP Office and IP Office systems still require configuration. Refer to the one-X Portal for IP Office Installation Manual.

1. [Add licenses](#) ^[33]

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 Enabled one-X Portal Service option selected. To do this requires the addition of licenses for those roles.

2. [Enable one-X Portal for IP Office users](#) ^[34]

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.




3. [Initial one-X Portal for IP Office login](#) ^[35]

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.

4.1 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.

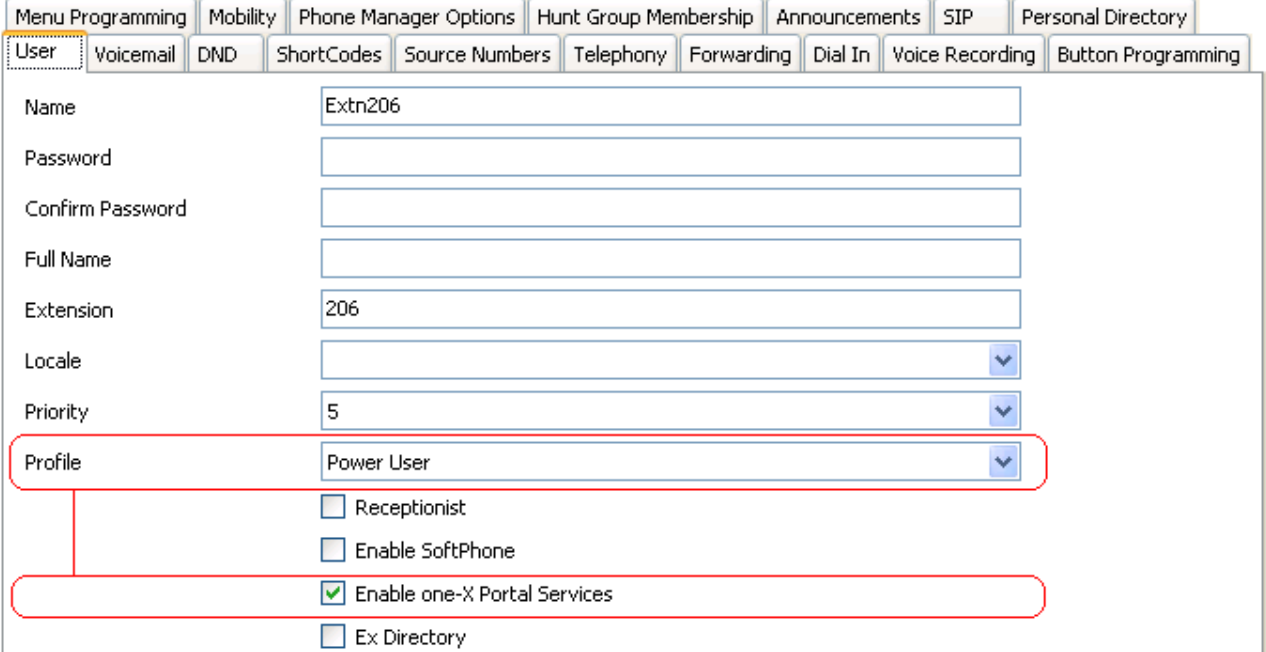
Entering Licenses

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 that add licenses by cut and pasting them from a supplied file. That avoids potential issues with mistyping.
4. The Status of the new license should show *Unknown* and name the license as expected. If the name is *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 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 Enabled one-X Portal Service option selected. This requires [available licenses](#) 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.

4.3 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.

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.

Administrator Default Password Check

You must change the password from its default value.

New Password

••••••••••

New Password(Typed Again)

••••••••••

Passwords match

Password strength not enforced

Change Password

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 Installation manual.
8. Click on Log Out.
9. Remove the `?Admin=` suffix from the browser URL and reload.
10. The login window will display *System in currently unavailable*. When this message is no longer displayed, attempt to login as a user.

Chapter 5.

Server Maintenance

5. 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](#) ^[39]
- [Changing the Web Password](#) ^[40]
- [Starting/Stopping Application Services](#) ^[41]
- [Server Shutdown](#) ^[42]
- [Rebooting the Server](#) ^[42]
- [Changing the IP Address Settings](#) ^[43]
- [Date and Time Settings](#) ^[44]
- [Upgrading an Application](#) ^[45]
- [Uninstalling an Application](#) ^[47]
- [Setting Update Repositories](#) ^[48]

5.1 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 used can be changed through the [Settings | General](#) page after logging in.
2. The IP Office Application Server login page is displayed. The default name and password are `webcontrol` and `web`.
3. Select the Language required.
4. Enter the name and password configured for IP Office Application Server administration.
 - The default name and password are `webcontrol` and `web`. The password can be changed by selecting the [Change Password](#) option.
5. If the login was successful, the [Home](#) page for the server is displayed.

Application Server Web Control v7.0.2-1 Logged in as webcontrol | Logout | Help | **AVAYA**

[Home](#) | [Logs](#) | [Updates](#) | [Settings](#) | [Windows Clients](#)

Services

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

Notifications

Server

There are no notifications available

System

Info

OS: CentOS release 5.5 (Final)

Kernel Version: 2.6.18-194.el5

Up Time: 4 hours 21 minutes

Average CPU Load: 2.05 (1min), 1.70 (5min), 1.39 (15min)

CPU usage history

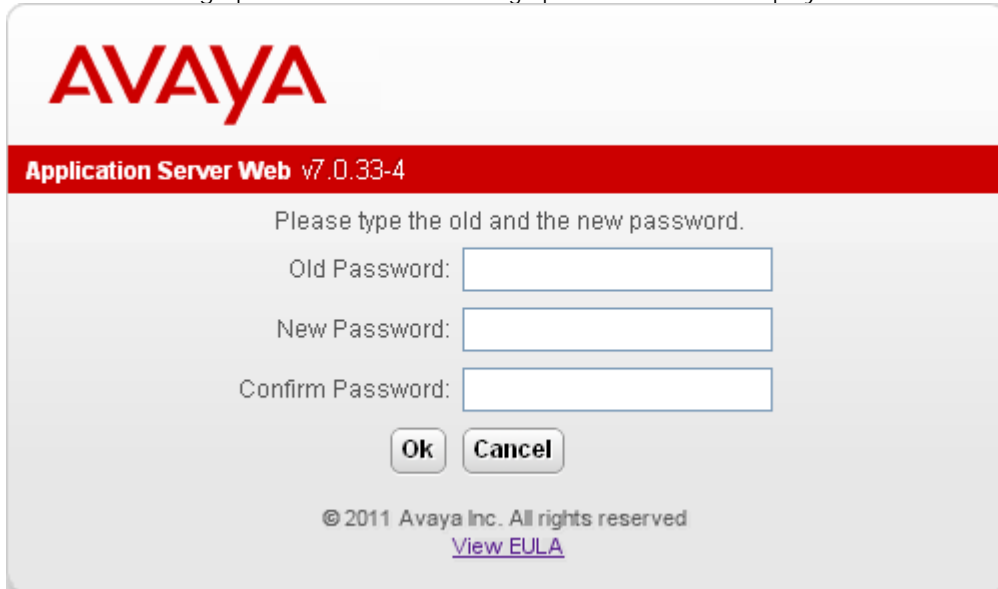
Memory Usage

Disk Usage

5.2 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](#) 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 used can be changed through the [Settings | General](#) page after logging in.
2. The IP Office Application Server login page is displayed. The default name and password are *webcontrol* and *web*.
3. Select the Language required.
4. Click on the Change password link. The change password menu is displayed.



The screenshot shows a web-based password change dialog box. At the top left is the AVAYA logo in red. Below it is a red header bar with the text "Application Server Web v7.0.33-4". The main content area is light gray and contains the instruction "Please type the old and the new password." followed by three input fields: "Old Password:", "New Password:", and "Confirm Password:". Below the input fields are two buttons: "Ok" and "Cancel". At the bottom, there is a copyright notice "© 2011 Avaya Inc. All rights reserved" and a link "View EULA".

5. Enter the current password and the new password.
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](#) with the new password.

5.3 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.

5.3.1 Starting a Service

1. [Login](#) to the server's web configuration pages.
2. Select Home (this is normally selected by default after logging in). 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.

5.3.2 Stopping a Service

1. [Login](#) to the server's web configuration pages.
2. Select Home (this is normally selected by default after logging in). The services and their current status (running or stopped) are listed.
3. To start 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.

5.3.3 Setting a Service to Auto Start

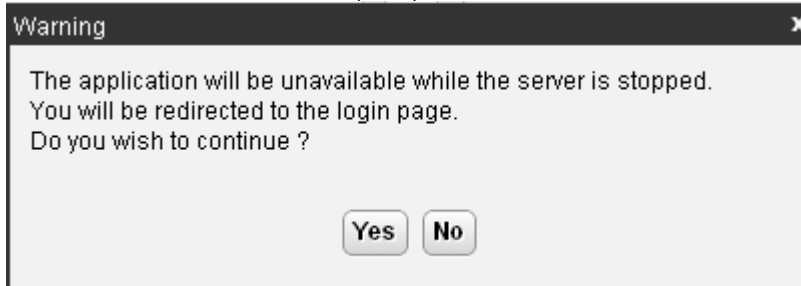
By default all the application services are automatically started.

1. [Login](#) to the server's web configuration pages.
2. Select Home (this is normally selected by default after logging in). 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.

5.4 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](#)^[39] to the server's web configuration pages.
2. After logging in the default page displayed is the [Home](#)^[53] page. This page includes a server Shutdown button.
3. Click on Shutdown. You will be prompted to confirm the action.

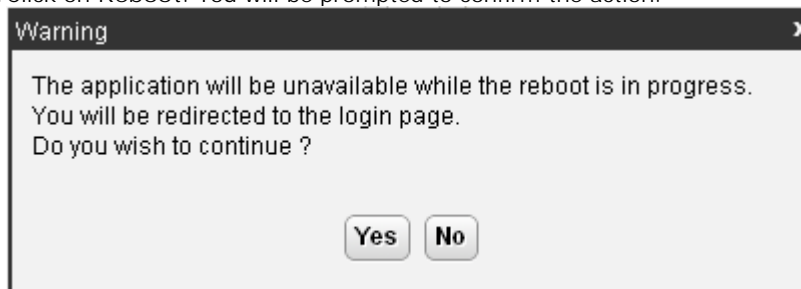


4. Click Yes to confirm that you want to proceed with the shutdown.
5. The login page will be displayed again. Do not login again as the IP Office Application Server will still be in the process of stopping services.
6. After a few minutes, typically no more than 2 minutes though this will vary depending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

5.5 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](#)^[41] will be automatically restarted after the reboot.

1. [Login](#)^[39] to the server's web configuration pages.
2. After logging in the default page displayed is the [Home](#)^[53] 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.

5.6 Changing the IP Address Settings

The IP address and other network settings used by the server PC 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.
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.
 - **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.
 - **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.
 - **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.

5.7 Date and Time Settings

The date and time settings used by the server PC can be changed through the server's web configuration pages.

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.
 - **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.
 - An IP Office Release 6.1+ systems 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.

5.8 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](#)^[48].

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 C110 Unified Communications Module. If a full reinstallation is necessary, following suitable backup of the user data, the server can be reinstalled from DVD.

5.8.1 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](#)^[50].

1. [Login](#)^[39] 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](#)^[48] 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. The progress of the upload is displayed at the bottom of the browser window.
 6. Repeat the process for any other files required.
- **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.

5.8.2 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	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Watchdog	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Voicemail	8.0-5.0	8.0-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.0-5.0	8.0-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.0-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.0-5.0	8.0-5.0	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 (for example one-X Portal for IP Office) do not support upgrading or downgrading whilst 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.

5.9 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](#) ³⁹ to the server's web configuration pages.
2. Select the Updates page.

Application	Current Version	Latest Available	Status	Actions
webcontrol	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Watchdog	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Voicemail	8.0-5.0	8.0-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.0-5.0	8.0-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.0-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.0-5.0	8.0-5.0	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](#) ⁴⁸, 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.

5.10 File Repositories

The [Updates](#) ^[56] and [Web Client](#) ^[63] 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.

5.10.1 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.

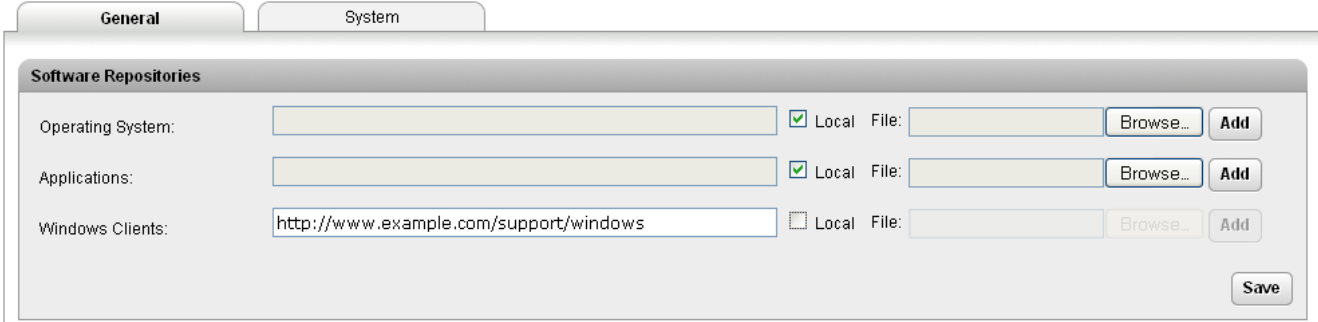
- **Warning**
Before upgrading or changing the version of any installed application or operating system components, you must ensure that you have read the appropriate Avaya Technical Bulletins for the software release. The Technical Bulletins detail supported versions of software and known issues or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

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

5.10.2 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 files uploaded or present in the file repositories are used by the [Updates](#) ^[56] and [Windows Clients](#) ^[63] menus.

- **Repository**
If the Local option is not selected, this field is used to set the URL of a [remote HTTP file repository](#) ^[50]. 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.

5.10.3 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.

5.10.3.1 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](#)^[50].

1. [Login](#)^[39] 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](#)^[48] 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. The progress of the upload is displayed at the bottom of the browser window.
6. Repeat the process for any other files required.
 - 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.

5.10.3.2 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](#)^[50].

1. [Login](#)^[39] 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](#)^[48] 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. The progress of the upload is displayed at the bottom of the browser window.
6. Repeat the process for any other files required.

5.10.3.3 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](#)^[50].

1. [Login](#)^[39] 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 Windows Clients is selected.
4. Click on the Browse button and browse to the [location of the file](#)^[48] 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. The progress of the upload is displayed at the bottom of the browser window.
6. Repeat the process for any other files required.

5.10.4 Creating Remote Software Repositories

Alternatively to using [local files uploaded to the server](#)^[45] 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](#)^[48] 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 Windows clients. 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 6.

Server Menus

6. Server Menus

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

- [Home](#) ^[53]
This menu gives an overview of the current status of the server and the application services it is hosting.
- [Logs](#) ^[54]
This menu has sub-menus for viewing and managing log records and log files.
 - [View](#) ^[54]
View the current log files for the server and the application services hosted by the server.
 - [Download](#) ^[55]
Create and download archive files of existing log records.
- [Updates](#) ^[56]
Display the versions of applications and components installed and the alternate versions available.
- [Settings](#) ^[59]
This menu has sub-menus for various areas of server configuration and operation.
 - [General](#) ^[59]
General server settings such as the locations of software update repositories.
 - [System](#) ^[61]
View and manage the server setting for date, time and IP address details.
- [Windows Clients](#) ^[63]
This page can be used to download the installation packages for Windows applications such as the Voicemail Pro client application.

6.1 Home

The Home menu provides an overview of the server status including the status of the application services running on the server.

Application Server Web Control v7.0.2-1 Logged in as webcontrol | Logout | Help | **AVAYA**

Home | Logs | Updates | Settings | Windows Clients

Services

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

Start All Stop All

Notifications

Server

There are no notifications available

System

Info

OS: CentOS release 5.5 (Final) Shutdown

Kernel Version: 2.6.18-194.el5 Reboot

Up Time: 4 hours 21 minutes

Average CPU Load: 2.05 (1min), 1.70 (5min), 1.39 (15min)

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 server 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.
 - **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.

6.2 Logs

The logs menu is divided into two sub-menus:

- [View](#) ⁵⁴
View the current log files for the server and the application services hosted by the server.
- [Download](#) ⁵⁵
Create and download archive files of existing log records.

6.2.1 View

This page of the web browser interface can be used to view application logs and audit log records.

The screenshot shows the AVAYA web browser interface. At the top right, it says "Logged in as webcontrol | Logout | Help | AVAYA". Below this is a navigation bar with "Home", "Logs" (highlighted with a red underline), "Updates", "Settings", and "Windows Clients". Under the "Logs" menu, there are two sub-menus: "View" and "Download". The "View" sub-menu is active, showing two log tables.

Application Log

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"

Audit Log

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](#) ⁵⁵ page. The level of log information output by each service is set through the individual service's 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.

6.2.2 Download

This page 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.

Logged in as webcontrol | Logout | Help | AVAYA

Home **Logs** Updates Settings Windows Clients

View **Download**

Debug Files

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

Select All Create Archive Delete Selected

Logs

Name	Last Modified	Size	Delete
system_logs_2010-09-30-15-59.tar.gz	2010-09-30 15:59:47	11.6K	<input type="checkbox"/>
install_logs_2010-09-30-15-59.tar.gz	2010-09-30 15:59:47	6.2K	<input type="checkbox"/>
webcontrol_logs_2010-09-30-15-59.tar.gz	2010-09-30 15:59:47	3.5K	<input type="checkbox"/>
vnpro_logs_2010-09-30-15-59.tar.gz	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.

6.3 Updates

This page displays the different versions of IP Office Application Server operating system files and application files available in the file repository. 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.

Logged in as webcontrol | Logout | Help | AVAYA

Home Logs **Updates** Settings Windows Clients

Services

Application	Current Version	Latest Available	Status	Actions
webcontrol	7.0.2-1	7.0.2-1	up to date	Change Version Update Uninstall
Watchdog	7.0.2-1	7.0.2-1	up to date	Change Version Update Uninstall
Voicemail	7.0-5.0	7.0-5.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	7.0-5.0	7.0-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	7.0-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	7.0-5.0	7.0-5.0	up to date	Change Version Update Uninstall

Update All Check Now

System

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

Check Now Review Updates Update All

The menu is divided into 2 sections:

- [Services](#)
This section displays the current version of IP Office application service files and whether update files are available.
- [System](#)
This section displays the current version of the operating system and whether update files are available.

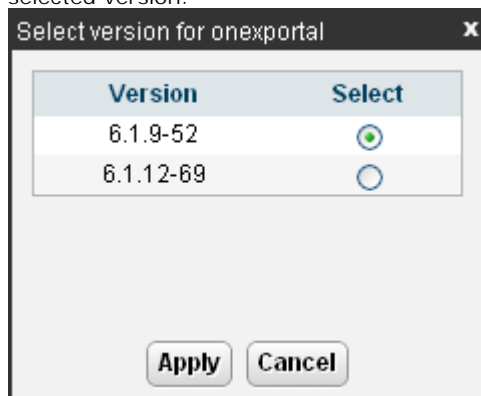
6.3.1 Services

This section shows details of the current version of each application installed and the latest version available.

Application	Current Version	Latest Available	Status	Actions
webcontrol	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Watchdog	8.0.2-1	8.0.2-1	up to date	Change Version Update Uninstall
Voicemail	8.0-5.0	8.0-8.0	out of date	Change Version Update Uninstall
vmpro-wavs-zhh	8.0-5.0	8.0-5.0	up to date	Change Version Update Uninstall
vmpro-wavs-TTY	-	8.0-5.0	not installed	Change Version Update Install
vmpro-wavs-sv	8.0-5.0	8.0-5.0	up to date	Change Version Update Uninstall

Update All Check Now

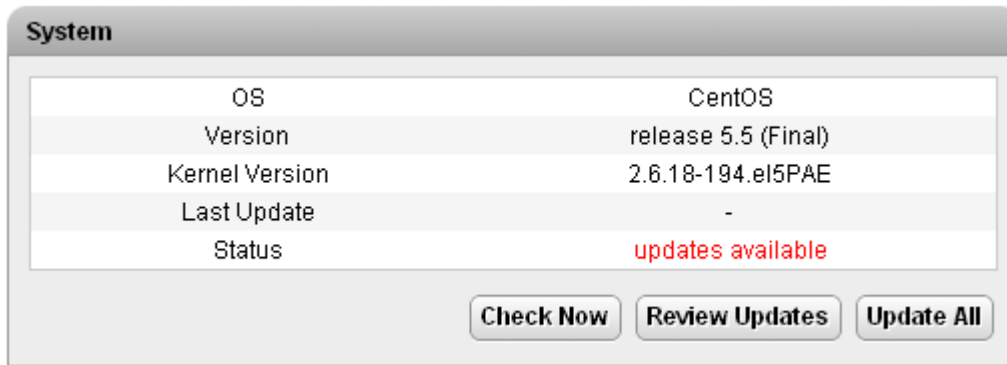
- The behavior of the Change Version, Update and Update All buttons in the panel are not useable unless appropriate update files are available in the applications [software repository](#)^[48]. This also affects the availability of the Install button option.
- Change Version
Clicking on this button shows the update files available for the related application in the server's [file repository](#)^[48]. The current version is selected. Selecting another version and then clicking Apply will upgrade or downgrade to the selected version.



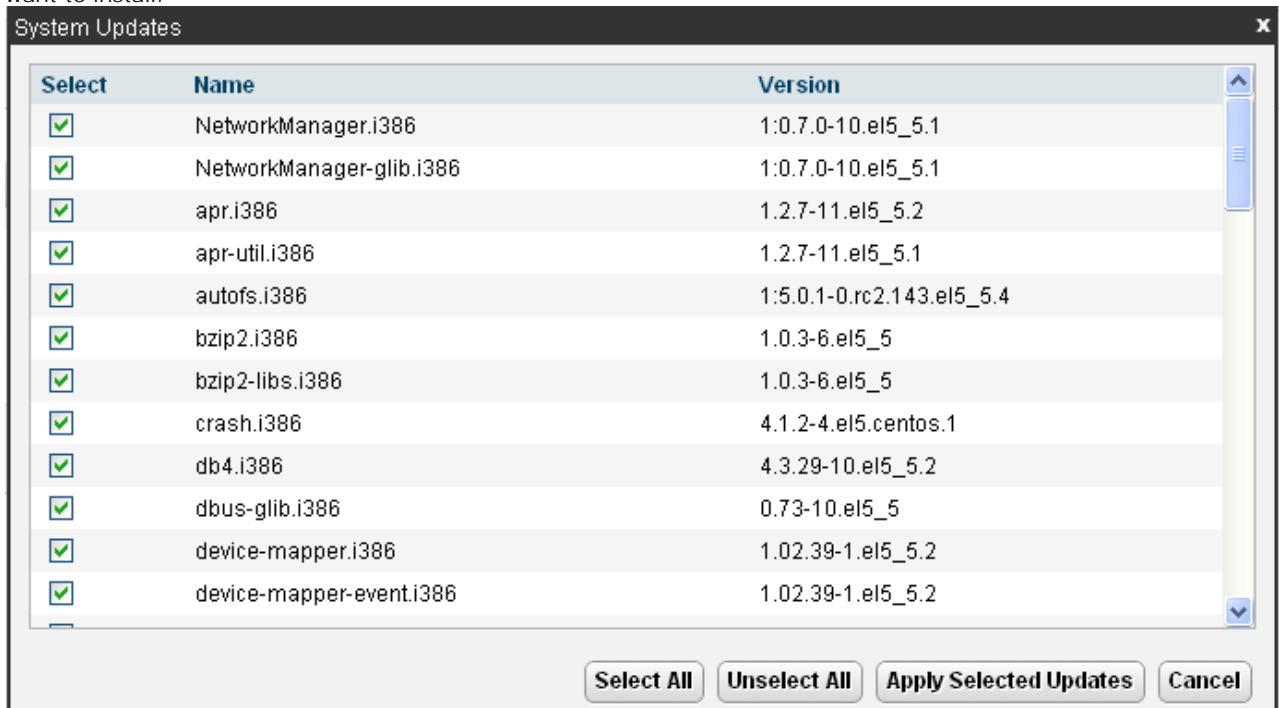
- Update
Clicking on this button will start an update of the related application to the latest available version in the application [file repository](#)^[48].
- Uninstall
Clicking on this button will uninstall the selected application.
 - If there are installation files for the application available in the application [file repository](#)^[48], 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.

6.3.2 System

This 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.

6.4 Settings

This menu has sub-menus for various areas of server configuration and operation.

- [General](#) ⁵⁹
General server settings such as the locations of software update repositories.
- [System](#) ⁶¹
View and manage the server setting for date, time and IP address details.

6.4.1 General

Logged in as webcontrol | Logout | Help | **AVAYA**

Home Logs Updates **Settings** Windows Clients

General
System

Software Repositories

Operating System: Local File:

Applications: Local File:

Windows Clients: Local File:

Watchdog

Log files age (days):

Web Control

Application Port:

Protocol:

SNMP Support

Protocol: TCP UDP

Traps IP:

Traps Port:

Device ID:

System Description:

System Location:

Enable SNMP

Backup and Restore

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

Debug

VoiceMail debug level:

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.

Repository Type	Local	File	Buttons
Operating System	<input checked="" type="checkbox"/>		Browse... Add
Applications	<input checked="" type="checkbox"/>		Browse... Add
Windows Clients	<input type="checkbox"/>	http://www.example.com/support/windows	Browse... Add

The files uploaded or present in the file repositories are used by the [Updates](#) ^[56] and [Windows Clients](#) ^[63] menus.

- **Repository**
If the Local option is not selected, this field is used to set the URL of a [remote HTTP file repository](#) ^[50]. 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](#) ^[55]. 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. 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 options are http or https.

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.

Debug

- **Voicemail 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*.

6.4.2 System

These settings allow the IP address and time settings specified during installation to be changed.

Logged in as webcontrol | Logout | Help | AVAYA

Home | Logs | Updates | **Settings** | Windows Clients

General | **System**

Network

Network Interface: eth0

Host Name: APSDVD

Use DHCP

IP Address: 192.168.0.3

Subnet Mask: 255.255.255.0

Default Gateway:

DNS: 192.168.0.1

Automatically obtain DNS from provider

Save

Datetime

Date: 2010-16-09

Time: 21 : 26

Timezone: Europe/London

Enable Network Time Protocol

NTP Servers: 0.centos.pool.ntp.org
1.centos.pool.ntp.org
2.centos.pool.ntp.org

Synchronize system clock before starting service

Use local time source

Save

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.
- **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.
- **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.
- **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.
- **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.
 - An IP Office Release 6.1+ systems 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.

6.5 Windows Clients

This page 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](#) page.

The screenshot shows the Avaya web interface. At the top right, it says "Logged in as webcontrol | Logout | Help | AVAYA". Below this is a navigation bar with "Home", "Logs", "Updates", "Settings", and "Windows Clients" (which is highlighted with a red arrow). Below the navigation bar is a "Download Applications" section containing a table with the following data:

File Name	Added at	Size
VmPro_8_0_6_5_Mapi.exe	2011-09-03 14:16:02	56.4M
VmPro_8_0_6_5_ClientOnly.exe	2011-09-03 14:14:25	139.4M

The files included in the installation may vary. Commonly supplied files are:

- *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 7.

Additional Processes

7. 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](#) ^[66]
- [SSH File Transfers](#) ^[67]
- [Command Line Controls](#) ^[68]
- [Windows to Linux Voicemail Transfer](#) ^[73]

7.1 Changing the Root Password

The password for the Linux root user account is specified during the IP Office Application Server software installation. It may be a requirement to change the root user password.

1. 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 IP Office Application Server PC:
 - 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](#) ^[40], the default is *web*.
2. Enter admin. At the password prompt enter the admin password, the default is *Administrator*. The prompt should change to *Admin>*.
3. Enter root. At the password prompt, enter the current root user password.
4. The prompt should have changed to something similar to *root@APPSDVD ~]#*, indicating that you are now logged in as the root user. You can now change the password used for the root user.
 - a. Enter passwd.
 - b. When prompted, enter the new password.
 - c. When prompted, reenter the new password.
 - d. The command line will indicate if the password has been successfully changed.
5. Enter *logout*. If you accessed the server remotely, log out of the admin session by entering logout again.

7.2 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 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](#) ^[40], the default is *web*.
2. The default folder displayed after logging in is `/home/webcontrol`.

7.3 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](#) ^[69]
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](#) ^[71]
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](#) ^[72]
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 IP Office Application Server PC:
 - 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](#) ^[40], the default is *web*.

2. You should now be at the > prompt. From this prompt you can perform various [general commands](#) ^[69].

7.3.1 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 >` 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.

7.3.2 Administrator Commands

The Admin> prompt is accessed by entering *admin* at the [> general command prompt](#) ^[69] 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>](#) ^[72] prompt. The configurator password is required.
- **exit**
Exit the Admin> prompt and return to the [> prompt](#) ^[69].
- **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 [>](#) ^[69] prompt.

7.3.3 Configuration Commands

The Configure> prompt is accessed by entering configure at the [Admin> prompt](#) ^[71] 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>](#) ^[71] 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 `>` ^[69] prompt.

7.4 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.
 - 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 server.
5. Select Settings.
6. On the General tab, select the Voicemail Pro Restore button. 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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