



IP Office Technical Bulletin

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General Availability (GA) of IP Office for CALA region

AVAYA™ is delighted to announce the launch and availability of IP Office in Argentina, Brazil and Mexico. IP Office is AVAYA™'s newest Small to Medium Enterprise (SME) solution designed as a global solution for customers with up to 180 extensions.

The AVAYA™ IP Office is designed to solve the complex communications challenges of the Small to Medium Enterprise with simple yet powerful communication tools.

Further details on the IP Office product can be found in the IP Office Product Description Document, at <http://avaya.com/support> or <http://www.avaya.com/businesspartner/cala>. Details of the offer can be found in AVAYA™ IP Office Offer Announcement (OA CaLA 2002-008 Version 1.0).

1. Product Overview

The AVAYA™ IP Office Family is the latest advancement in converged voice and data technology from AVAYA™. IP Office combines easy to use high-end voice and data applications allowing the smallest of businesses to deliver cutting edge customer service.

1.1. Voice Communication Solution

AVAYA™ IP Office offers full voice functionality with a comprehensive list of features and benefits for the small or mid-size business, including:

- **Full PBX features:** Caller ID, Call Forwarding, Conference Calling, Voice Messaging and more.
- **Trunk Interfaces:** A variety of network trunk interfaces, including analog trunks loop start, E1 R2 MFC (In future release), and E1 PRI and for FCC countries ground start, T1 and PRI.
- **Extensions:** Support for a range of extensions, from 2 to 180 that provide sophisticated voice performance for small and/or growing businesses.
- **Telephones:** A variety of handsets are supported including analog, digital, TransTalk® 9040, IP hard and soft phones that provide the appropriate desktop or device phone for every type of need.
- **Automatic Call Distribution (ACD):** Incoming calls are directed to the best available person or messaging service, according to the company's unique criteria.
- **Alternate Call Routing:** Ensures reliable handling of calls by selecting from analog, digital or VoIP trunks.
- **Q.Sig Networking:** Standards-based multi-site networking to interoperate with other PBXs.

1.2. Converged Voice Communications Solution

For converged communications, the IP Office acts as an IP telephony server:

- Integrated H.323 Gatekeeper and Gateway
- Quality of Service (QoS) support is provided through DiffServ (for routing), and 802.1p (when used in conjunction with a Cajun[®] LAN switch)

1.3. Data Communication Solution

For offices with basic data networking needs, AVAYA[™] IP Office can provide a complete data communications and networking solution:

- **Internet Access:** Firewall-protected, leased line or dial-up connectivity via PRI, T1, E1 (In future release) or WAN port high-speed dialed access, direct leased line connections for high usage and Web site hosting, integral security, and efficient access to information and a substantial business presence via the Web.
- **Routing:** Internet or Branch-to-Branch routing.
- **Security:** Built-in firewall and NAT (Network Address Translation) to protect your internal network.
- **DHCP:** (Dynamic Host Configuration Protocol) Automatic IP address allocation for local and remotely attached PCs.
- **Remote Access Server (RAS):** Optional two channel, V.90 modem for access to local LAN servers via modems, terminal adapters, routers, or WAP-enabled Mobile/Cell Phones: individual firewall security, access control per user, and standards-based security enable remote workers and remote access to AVAYA[™] IP Office system management.
- **LAN Hub:** AVAYA[™] IP Office provides an 8 port auto sensing 10/100 Mbps hub to connect up to 8 PCs to each other and/or other services on the IP 403 and IP 406. The IP 412 has 2 Ethernet switching ports.
- **LDAP client support:** For standards-based directory synchronization.

1.4. Applications Platform

AVAYA[™] IP Office offers a full compliment of sophisticated applications, including:

- **VoiceMail:** Incoming callers never reach an empty office. With Call Forwarding, Dial-by-Directory, the ability to retrieve voice messages via the PC Soft Phone, and more.
- **Auto-Attendant:** Simplify service for customers with this easy-to-use graphical interface; the ability to construct customized automated services means callers can efficiently navigate the system, and reach the right person, without the assistance of an operator.
- **Integrated Messaging:** Voice messages can be automatically forwarded to any MAPI compliant email server, and with Integrated Messaging Pro, also synchronized with Microsoft Exchange.
- **e-Console:** Graphical User Interface (GUI) for attendants via a PC-based console; an easy way to learn and use sophisticated tools in a comfortable environment.
- **Phone Manager:** A powerful desktop application for the AVAYA[™] IP Office, available in Lite, Professional, and IP Softphone versions to allow you to control and manage phone calls from your Windows desktop.

- **Open CTI interfaces:** TAPI-compliant out of the box. AVAYA™ IP Office integrates easily with popular contact management applications such as Outlook. Sophisticated custom applications can be rapidly developed and deployed with a software development kit.
- **Compact Business Center:** Report on overall system performance and basic call center functionality for a workgroup with quality of service reports, selected group reports, simple plug-and-play installation, and more.
- **Compact Contact Center*:** The formal Contact Center option, with a full customer management toolset including real time agent, system, group management, standard and custom reporting, real time tracking and analysis, options for agent connection, and remote agent support, PC wallboards for installations of up to 75 agents.
- **Queue Manager and Campaign Manager:** Powerful voice and IVR applications (part of VoiceMail Pro) for the Compact Contact Center that facilitate agent and traffic management for better productivity and customer service.

* CCC is available subject to field trial.

1.5. Management Tools

The full AVAYA™ IP Office solution (phone system, router/firewall/DHCP server, Voice Mail and other applications) is easily managed through the AVAYA™ IP Office Manager. The AVAYA™ IP Office Manager is a Windows based PC software application that connects to the AVAYA™ IP Office system using TCP/IP. It can be on the same LAN segment as the AVAYA™ IP Office, remote on the WAN, or connected via the Remote Access Server with either a Terminal Adaptor, Router or the optional Modem 2 package. All AVAYA™ IP Office models support common software, telephones, and applications.

1.6. Scalable Platform

The “all-in-one” IP Office Family — servers, media modules and cards for connectivity and preloaded applications — gives small and mid-size enterprises the options they want to meet today’s communications needs and plans for the future.

IP403 Office

The IP 403 fits the small office and retail outlet and provides an “all in one” solution for these small businesses yet can expand by adding up to 3 modules to a maximum station configuration of 92 analog or 98 digital stations.

IP 403 can be fitted with a PRI/T1, E1 R2MFC (In future release) or Quad Analog (loop start line or ground start for FCC) cards. A spare expansion slot is available to add an additional Quad (4) Analog card. An IP403 base unit supports 1 T1/PRI/E1 or 1 T1/PRI/E1 and 1 quad loop start or ground start card, or 2 quad loop start cards.

Internal card slots support upgrade with a 2 x V.90 modem card and a 5 or 10 channel Voice Compression Module (VCM) card. The VCM card supports conversion of IP packet (VoIP) calls to circuit (TDM) calls. These can be used for either providing networking between sites over a wide area network (WAN) or connecting IP phones (hard phones or PC-based soft phones) to wired, digital phones. A VCM channel is only required when connecting an IP extension to a digital phone or trunk. Since VCM channels are managed as a shared resource, it is possible to support more IP extensions than VCM channels.

The IP403 Office base unit provides:

- Eight digital handsets ports (for 4406D+, 4412D+, 4424D+ (FCC countries – Analog configurations rest of CaLA) or 6408D+, 6416D+M, 6424D+M). The DSS4450 and XM24 Unit adjunct does not require digital handset ports.
- Two Analog telephone ports. These two ports can be used to connect standard analog phones, facsimile or modems. Caller ID is available from these ports for Analog caller ID sets.
- Eight 10/100 Mbps auto-sensing LAN Hub ports: Used for PC and server connectivity, connecting the optional WAN3 expansion module and IP telephones. The eighth port can be used for uplink to other Ethernet switches or hubs
- USB Port for connection to a PC as a Terminal Adapter
- DTE Port - 25 pin, D-type connector, for connection to a PC or point of sale terminal
- WAN interface, a single synchronous data X.21, V35 or V24 port
- Ports for 3 Expansion Modules
- Two Relay ports for door entry systems (External 3.5mm stereo jack socket)
- Audio Port for external Music on hold source (3.5mm stereo or mono jack socket)
- 18 internal data channels*

***Note:** A data channel is used whenever a call is made from the IP network to an exchange line (Central Office) or a non-IP extension. e.g. four people surfing the Internet will use a single data channel since they all share the same line to the ISP. Two people accessing the Office LAN from a remote location will use two data channels if they have dialed in on separate lines.

IP406 Office

The IP 406 Office can support up to six expansion modules and 2 T1/PRI/E1 (E1 R2MFC in future release) interface cards, doubling the trunk capacity of the IP403, but excludes the integral USB, digital extension and Analog extension ports. Through support of up to six external expansion modules, IP406 office can support a maximum station configuration of 180 analog or digital handsets.

Internal card slots support upgrade with a 2 x V.90 modem card and a 5, 10 or 20 channel voice compression module (VCM) card. The VCM cards are available for 5, 10 or 20 simultaneous voice over IP sessions. The IP 406 Office base unit supports:

- Eight 10/100 Mbps auto-sensing LAN Hub ports; used for PC and server connectivity, connecting the optional WAN3 expansion module and IP telephones. The eighth port can be used for uplink to other hubs or switches
- DTE Port, a 25 way D-type used for connection to a PC or point of sale terminal
- WAN interface, a single synchronous data X.21, V35 or V24 port
- Ports for 6 Expansion Modules
- Two Relay ports for door entry systems (External 3.5mm stereo jack socket)
- Audio Port for external Music on hold source (3.5mm stereo or mono jack socket)
- 24 internal Data channels*

***Note:** A data channel is used whenever a call is made from the IP network to an exchange line (Central Office) or a non-IP extension. For example, four people surfing the Internet will use a single data channel since they all share the same line to the ISP. Two people remotely accessing the Office LAN from home will use two data channels since they have dialled in on separate lines.

All IP Office models support common software, telephones, and applications.

2. Support

For purposes of this Technical Bulletin, we have organized technical support into four tiers. Depending on local conditions these tiers may be provided by AVAYA™, a Business Partner or the customer.

- 2.1. **Tier I** – Installation and first-line maintenance is usually provided for by the BusinessPartner.
- 2.2. **Tier II** – Office or Remote (not usually field based) based expert technical support for the full range of the IP Office portfolio. This would include expertise in the IP Office product itself and the inter-working environment such as converged voice and data and Microsoft. Tier II would usually be supplied by an advanced VAR or the AVAYA™ Distributor or subcontracted to an authorized third-party.
- 2.3. **Tier III** – AVAYA™ Technical Support Engineers from the Global Service Organization (GSO) supply extensive and expert technical support via telephone (**786-331-0808**). The GSO team is highly trained in all areas of the IP Office product and its working environment. The Tier III service will include all aspects of Post-Sales Technical Support but not Pre-Sales. GSO supply in region and sometimes in country support via local contact numbers.
- 2.4. **Tier IV** – When the GSO Tier III team have either replicated a field issue or made every reasonable endeavor to do so they will escalate the problem to the Global SME Solutions (GSS) Product House Tier IV team. The Tier IV Technical Support team has the responsibility for all product related field issues and will allocate an individual support engineer to own the problem. These Tier IV Support Engineers are expert on specific aspects of the IP Office product such as CCC, LAN/WAN Networking, CTI, VOIP. The Tier IV engineer will work with the relevant Research and Development Team to identify the problem, produce a resolution and introduce it to the field. The Tier IV engineer retains ownership throughout and is responsible for regular communication to the Tier III team.

3. Manuals & CD's

The IP Office manuals can be downloaded from the AVAYA™ support Website at <http://avaya.com/support>. Go to this URL, click on Product Documentation, then on either Communication Systems or IP Telephony (from the left hand menu). Software maintenance releases will be downloadable from <http://avaya.com/support>. Go to this URL, click on Online Services, then Software / Firmware Downloads. The maintenance release will be in the row that begins "IP Telephony – IP Office."

4. Merging Configurations

The IP Office offers the facility to merge certain configuration changes without the need to reset the switch. Future releases of the IP Office are planned to allow more changes to be merged. Listed below is a brief overview of the mergeable options, with more detail shown on the User and Hunt Group operation. It is still advisable to check the system configuration after a merge upload to ensure that all options have merged successfully.

4.1. Configuration Tree

Item Number	Name	Mergeable?
1	BOOTP	N/A
2	Operator	N/A
3	System	No
4	Line	No
5	Unit	No
6	Extension	No
7	User	Partial
8	Hunt Groups	Partial
9	Short Codes	Yes
10	Service	No
11	RAS	No
12	Incoming Call Route	Yes
13	WAN Port	No
14	Directory	Yes
15	Time Profile	Yes
16	Firewall Profile	No
17	IP Route	Yes
18	Least Cost Route	Yes
19	License	Yes
20	Account Code	Yes
21	E 911 System (US only)	No

4.2. User

User Form		
Item Number	Name	Mergeable?
User Tab		
1	Name	Yes
2	Password	Yes
3	Confirm Password	Yes
4	Full Name	Yes
5	Extension	No
6	Locale	Yes
7	Priority	Yes

Voicemail Tab		
1	Voicemail Code	Yes
2	Confirm Voicemail Code	Yes
3	Voicemail Email	Yes
4	Voicemail Reception	Yes
6	Voicemail On	Yes
7	Voicemail Help	Yes
8	Voicemail Ring Back	Yes
DND Tab		
1	Configure Do Not Disturb Number	Yes
2	Do Not Disturb	Yes
Shortcodes Tab		
1	Shortcodes List	Yes
Source Numbers Tab		
1	Source Numbers List	Yes
Telephony Tab		
1	Outside Call Sequence	Yes
2	Inside Call Sequence	Yes
3	Ring Back Sequence	Yes
4	No Answer Time (secs)	Yes
5	Wrap-up Time (secs)	Yes
6	Login Code	Yes
7	Login Idle Period (secs)	Yes
8	Monitor Group	Yes
9	Call Waiting On	Yes
10	Outgoing Call Bar	Yes
11	Offhook Station	Yes
12	Can Intrude	Yes
13	Cannot be Intruded	Yes
14	Ex Directory	Yes
15	Force Login	Yes
16	Force Account Code	Yes
17	Busy On Held	Yes
18	System Phone	Yes
19	Remote Home worker / Agent	No
Forwarding Tab		
1	Follow Me Number	Yes
2	Forward Number	Yes
3	Forward on Busy Number	Yes
4	Forward on Busy	Yes
5	Forward on No Answer	Yes
6	Forward Unconditional	Yes
7	Forward Huntgroup Calls	Yes
Dial In Tab		
1	Dial In On	Yes
2	Dial In Time Profile	Yes
3	Dial In Firewall Profile	Yes
Voice Recording Tab		
1	Record Outbound	Yes
2	Record Inbound	Yes
3	Record Time Profile	Yes
Digital Telephony Tab		
1	Action	Yes
2	Telephone Number	Yes

4.3. Hunt Group

Name	Mergeable?
Name	No
Extension	No
No Answer Time (secs)	No
Overflow Time (secs)	No
Extension List	Yes
Overflow Group List	Yes
Ring Mode	Yes
Voicemail Code	Yes
Confirm Password	Yes
Voicemail Email	Yes
Voicemail Email (Radio)	Yes
Voicemail On	Yes
Voicemail Help	No
Time Profile	Yes
Out Of Service Fallback Group	Yes
Night Service Fallback Group	Yes
Service Mode	Yes
Queuing On	No
Queuing Limit	Yes
Queue Ring Time (secs)	Yes
Record Outbound	No
Record Inbound	No
Record Time Profile	No

5. Remote Upgrade Procedure

It is required that customers take the following steps to allow remote maintenance and upgrades to be performed:

1. Set up a modem in the host (customer) PC. Connect a line into the modem for dial access.
2. Install PC Anywhere Version 10.5 on the host PC, and administer connections and callers.
3. Install PC Anywhere Version 10.5 on the remote PC (i.e., Business Partner, Tier 3, and / or Tier 4), and administer connection information, login information, settings, and dialing properties.
4. Start service on the host PC by double clicking "Launch "Host." (Note: the host PC needs to initiate "Launch Host" first, or the remote site will not be able to connect.

5. Connect from the remote PC by double clicking "Connect."
6. Copy the patch files or bin files from the remote PC to the host PC to hard disk.
7. Using PC Anywhere, initiate a file transfer from the remote PC by clicking the File Transfer icon. Specify the directories and files that you will transfer to and from.
8. When the file transfer has completed, verify that the host PC has files correctly received the files.
9. Execute the upgrade by opening IP Office Manager to upgrade the bin files (File -> Advanced --> Upgrade). Verify that the in host PC Upgrade Wizard shows the correct version of software. Once the upgrade is complete, re-open the Manager, and verify that the host IP Office has the correct version of software in the control unit.

It is highly recommended that upgrades to IP Office be done locally by the system administrator or by an Avaya Service associate. Remotely upgrading an IP Office system can potentially fail and thus require somebody to be on site to bring the system back up. A potential risk of file corruption can exist when doing a remote upgrade.

6. Known Issues and Deviations from Documentation

6.1. Voicemail Pro

- 6.1.1. When using the Random Voice Record feature, the exact percentage of calls recorded can vary according to the sample size, i.e., if set to 50% it can record between 30% and 70% according to sample size.
- 6.1.2. In the event of VoiceMail Pro becoming unavailable to ensure incoming callers are not presented with ring tone no reply (RTNR), it is good practice to create a group on the IP Office, with the same name as the module within the VoiceMail Pro (e.g. Auto Attendant). Then, if the voicemail is unavailable, the switch will automatically route the calls to the members of this group.
- 6.1.3. When IP Office connects to the Voice Mail Pro server, it is good practice not to reboot the IP Office unit within 3 minutes to protect both the Voice Mail Pro and IP Office configuration files. After 3 minutes any changes that have been made to the Voice Mail Pro and IP Office configuration will be effective, and it is safe to reboot. If the system is rebooted within 3 minutes, the message "Un-expected Bulk Info Request" will be displayed on the Voice Mail Pro server.
- 6.1.4. The configuration details must be correctly programmed on the Voice Mail Pro and the IP Office for the Auto Attendant to function correctly. For example, if you wish to transfer a call to a specific group using Auto Attendant, the group name used must match the group name within the IP Office configuration.
- 6.1.5. Mailboxes must have unique names when using Voice Mail Pro in an IP Office networked environment.
- 6.1.6. When using the "copy to folder" function within Outlook, the following message appears: *"MS Outlook: The custom form could not be opened. Outlook will use an*

Outlook form instead." This message should be ignored, as the function does work as it is supposed to.

6.1.7. Repeated calls from an analog telephone to Voice Mail (*17) that are prematurely truncated can lock a user out of the voice mailbox. For example, dialing into Voice Mail (*17), hanging up, and then dialing into Voice Mail again, the user will receive "Cannot access your mailbox, due to multiple login attempts."

6.1.8. When Voicemail is set to IP Office mode, a toolbar and a list of messages is displayed. When Voicemail is set to Intuity™ mode, the toolbar and message list do not appear; only the elapsed time is displayed.

6.1.9. When installing VoicemailPro, it is suggested that a Custom Installation be followed as opposed to the Default Installation. The purpose for this is to avoid copying unnecessary language files since custom installation allows for the user to choose only those languages that will be utilized by the system, thus saving disk space. Another suggestion would be to place a shortcut to the voicemail server in the StartUp menu in Windows, thereby insuring that the application will always start upon the PC's boot up.

6.1.10. When installing VoicemailPro, it is suggested that a Custom Installation be followed as opposed to the Default Installation. The purpose for this is to avoid copying unnecessary language files since custom installation allows for the user to choose only those languages that will be utilized by the system, thus saving disk space. Another suggestion would be to place a shortcut to the voicemail server in the StartUp menu in Windows, thereby insuring that the application will always start upon the PC's boot up.

6.1.11. While using VoiceMail Pro 1.2(2) set to the Mexico locale (i.e., ESM), if a user retrieves a message, the header will give an extra prompt of "Cero horas" prior to stating the time the message was left. This is a known bug and it will be fixed in an upcoming software patch.

6.2. Phone Manager Pro (PMP)

6.2.1. When using an analog handset, the user can select a speed dial button through PMP to call an external number. When the call is answered, PMP should alert the analog set to indicate the call has been connected. However, some Network Providers do not send an ALERTING message for Mobile and International calls. In this case, PMP cannot ring the analog set to indicate that the call is ringing, although the handset can still be lifted, and the call can proceed.

6.2.2. When using PMP, Outlook screen pop is not supported when used in conjunction with Outlook 97.

6.3. Phone Manager Pro IP

- 6.3.1. Phone Manager Pro IP (IP Softphone) cannot be used in a Call Center application if it is associated with an Agent, because a unique user ID must be associated with the station for the Call Center application to be able to report on it.
- 6.3.2. When using IP Softphone to establish a Conference Call, the Breakout feature is not supported.
- 6.3.3. The DEFINITY IP Softphone is not supported on IP Office.
- 6.3.4. A suggested sound card for the IP Office PhoneManager is the Crystal SoundFusion(tm). The ESS Maestro sound card has shown poor voice quality in lab testing with IP Office. For further questions regarding PhoneManager, please consult with Post Sales Services organization.

6.4. 4606/4612/4624 Telephones

- 6.4.1. IP Office supports 1.2 firmware on the 4600 family of Hard phones. There have been some instances where IP Hard phone resets has been reported as a result of extensive data traffic. This issue will be resolved with release 1.3 of IP Office, which will support latter releases of IP Hard phone firmware.
- 6.4.2. Upon dialing from an IP Hard phone (46xx) to a busy extension, users will not hear a busy tone, but only see a "Number Busy" message on the LCD display.
- 6.4.3. Licenses are not required for the use of AVAYA™ 4600 series IP Phones, or for IP Enable Phone Manager Pro (which is licensed separately), with IP Office. However, separate licenses are required for equipment from other vendors.
- 6.4.4. Page calls to 46xx Series phones are not supported.
- 6.4.5. If a system is rebooted, 46xx terminals will display "Undefined Error." The user must then re-login to the terminal.
- 6.4.6. In Auto Create mode, when entering the extension number on the 46xx, any number will be accepted, i.e., even a number that is already assigned. Check that the number entered does not clash with another number on the switch.
- 6.4.7. When using a 46xx terminal, a Call Appearance key needs to be programmed to indicate call waiting on the Handset, because no audible indication is provided.
- 6.4.8. Phone Manager Pro is only compatible with 64xx, and analog sets (i.e., it is not compatible with 46xx).
- 6.4.9. If using IP Softphones with 46xx terminals on the same IP Office, Direct Media must be disabled on the IP Softphones.
- 6.4.10. Force Feed is not currently supported on 46xx Terminals. (Force Feed refers to the practice used in outbound call centers where the auto-dialer dials the

call, and then sends the call to an available station. The call is “force fed” to the person at the station.)

6.4.11. Call pick-up across VPN is not currently supported.

6.5. 6408D / 6416D / 6424D Terminals

6.5.1. Force Feed is not currently supported.

6.5.2. The user must ensure that all HELD calls are cleared before logging off the terminal; otherwise the HELD call will be lost.

6.5.3. Unanswered transferred calls return to the transfer initiator instead of going to Voice Mail. If it is required that unanswered transferred calls go to Voice Mail, please contact Tier III at the Business Partner Hotline.

6.6. Analog Phones

6.6.1. Some phones implement slight variations in the interpretation of the CLI standard/messages and as such some types of phones may not be supported. The subsequent release of IP Office core software will support a wider range of analog phones.

6.7. eConsole/eBLF

6.7.1. The eConsole does not display any call waiting indication and so this feature should not be used with the eConsole.

6.7.2. Calls placed on Hold via eConsole do not receive a Hold Reminder alert.

6.7.3. Two copies of eBLF cannot be running against the same associated terminal. If a second eBLF is started, it is this second copy that functions against the associated terminal number. Users can configure several eBLFs to be associated with their terminal, as long as they run only one copy at a time. This permits the use of multiple operator profiles on the same computer.

6.7.4. Incoming Caller Line ID (ICLID) is removed when the eConsole is used to transfer the call.

6.7.5. eConsole/BLF should not be associated with 46xx IP terminals.

6.8. WAN3 Module

6.8.1. Shuffling is available at the station level when making calls from/to IP endpoints on an IP Office to a Definity. For proper signaling, the trunk between IP Office and Definity must stay up.

6.8.2. When using a WAN3 Module, RFC 1490 (an encapsulation method for carrying network interconnect traffic over a Frame Relay backbone) is not a usable option. PPP must be used instead.

- 6.8.3. Only two WAN3 expansion modules, providing a total of 7 WAN connections, are currently supported.
- 6.8.4. When configuring a WAN Service that is associated with a port on a WAN3 module you **must** enter the text "WAN" in the Dial In section of the Service tab. This is NOT required for a WAN service associated with the WAN port on the Main unit.
- 6.8.5. Only 15 simultaneous VOIP calls are supported on any single WAN 3 Module.
- 6.8.6. Daylight Saving Time may not automatically update. For example: two units (A and B) are connected via a WAN. Unit A (IP Address 10.10.30.1) has Manager and Voice Mail connected (IP Address 10.10.30.5). Unit B (IP Address 10.10.31.1) is a stand-alone switch unit. Unit B gets the time from Unit A's PC as does Unit A. When both Units are booted up the WAN link is connected after Unit B has requested the time. This means the Unit B has to wait one hour before it requests the time again. After an hour the monitor on Unit B shows that the time is updated, but the DS terminals still display the old time.
- 6.8.7. There is a failure mode in which Voice Mail Pro playback can be intermittent and missing when accessed across a wide area connection through a WAN3 module. Please contact Tier III at the Business Partner Hotline or your Tier IV contact to obtain a software fix.

6.9. Manager

- 6.9.1. Locale settings can be configured on IP Office in the System window of the Configuration Tree in IP Office Manager. The following are supported CaLA country codes for IP Office:

Argentina	ESS
Brazil	PTB
Mexico	ESM

- 6.9.2. Customers wishing to use the Brazilian country code can choose between the 900ohm and 600ohm in configuring their system to avoid impedance mismatch with Central Offices.
- 6.9.3. Busy tone disconnect is presently auto-configured based on country codes. Busy tone frequencies and cadences are unadministrable at this time.
- 6.9.4. Language localization can be achieved at the user level in spite of the system country code used. A user can choose a different language on a DCP or IP phone set by navigating through the phone menu on the LCD display. Conversely, the system administrator can add a different country code to the user profile so that the user can hear voicemail prompts and see LCD-displayed messages in the user's language of choice.
- 6.9.5. When upgrading an existing system to a later level of software, care must be taken to ensure that only one Manager Application is open during the upgrade. If more than one Manager Application is open, "upgrade failed" may appear on the

PC screen, or it may upgrade from the wrong Manager, which, for example, may be an earlier version.

6.9.6. Account Codes cannot be forced across VPN. They must be verified on the local switch where the external call is made.

6.9.7. Account codes are only supported on DCP phones (64xx) and IP Hard phones (46xx) with the use of a programmable button or DSS key found in the User profile in IP Office Manager. Account codes cannot be implemented without the administration of a programmable button and are not supported on analog phones.

6.9.8. Fax over IP (FoIP) can theoretically be implemented, but has not been validated. Fax equipment should be trialed prior to being installed on customer premises.

6.9.9. IP Office backs up its configuration every 24 hours. In the event of a power failure, changes made since the last backup (automatic or manual) will not be saved. Completing a manual backup of the configuration file will ensure that changes can be recovered should the power fail.

6.9.10. The IP Office supports the 1-meter expansion cable supplied with product. AVAYA™ does NOT support expansions cables of differing standards or lengths.

6.9.11. Extension configuration must match the E911 configuration. If the IP Office extension details are programmed incorrectly, the following message will appear: "Manager – E911 Configuration Mismatch". This is intended to ensure correct E911 operation.

6.9.12. When upgrading an IP Office, the PC that is performing the upgrade must have the same subnet address as the control unit being upgraded, as well as a valid unique address on that subnet. This should be a fixed IP address, outside the range of DHCP addresses supplied by the IP Office.

6.9.13. When using IP Office and 46xx handsets, the IP address for the TFTP server must be a static IP address, which is entered in the Manager application System section.

6.9.14. When entering a PIN code, the user will not get prompted if the PIN code is incorrect. This is a security feature of IP Office, and is working as designed. After three unsuccessful attempts the user will be disconnected.

6.9.15. When using Voice Mail Pro and you are required to reinstall the Manager application, please note the following steps:

- Backup configuration files and call flows
- Uninstall current Voice Mail Pro
- Uninstall current Manager
- Reinstall/Upgrade Manager
- Reinstall/Upgrade Voice Mail Pro

If the upgrade is not completed using the above steps, the Voice Mail Pro may not function correctly.

- 6.9.16. Ping ICMP does not work unless programming in the firewall is done. Presently, one must build a custom entry in the firewall to allow this very important troubleshooting command. The workaround is as follows: under the Custom tab of the Firewall menu, make IP Protocol = 1, Direction = Both, and IP Addresses and Masks as desired.

6.10. Campaign Manager

- 6.10.1. Web Campaign is only supported on Internet Explorer, i.e., it is not supported on Netscape or other browsers.

6.11. Voice Recording

- 6.11.1. Voice recording fails on incoming / outgoing calls to a hunt group if the call is routed by Automated Attendant. If the call is routed to the hunt group directly, the incoming call voice recording works fine.
- 6.11.2. The system will play a warning message when a user presses "9" to initiate a call and start recording, regardless of whether the call is delivered to the destination or not. The other party has no way to know that the conversation is being recorded.

6.12. Remote Call Forwarding

- 6.12.1. Remote Call Forwarding can override Outward Restriction. If a set has Remote Call Forwarding administered, the call can be forwarded to an outside party, even though the set has Outward Restriction enabled. This applies to trunk-to-trunk transfer as well. For example:

1. Administer Outward Restriction for extension 408
2. Administer extension 408 to Call Forward to outside party 97323321589 via a menu button from the set
3. Make extension 406 call 408, and forward the call to the outside party.

If the line has "Allow Call Forwarding" administered, and a call from an outside party is initiated and routed to extension 408, the call will be forwarded to another outside party. The outward restriction only works when the set initiates outgoing calls, and fails in other scenarios.

6.13. Night Service

- 6.13.1. There are two ways to program a Night Service button on a set by using Manager. The first way:
1. Administer "Set Night Service Hunt Group" and specify the hunt group extension in the telephone number field.
 2. Administer "Clear Night Service Hunt Group" and specify the hunt group

extension in the telephone number field.

3. The user can then press the button to activate and de-activate the night service for that hunt group.

If Night Service is activated in this way, there will be no confirmation tone, and no LED indication when the user activates or de-activates by pressing the button programming. This means only one button is needed for activation / de-activation of Night Service (LED on / off), and the user can specify the hunt group from the Manager admin screen.

The second way:

1. Administer "Set Up Night Service Hunt Group" and DO NOT specify the hunt group extension in the telephone number field.

2. The user can then toggle the programming button to activate and de-activate the hunt group. The LED next to the button will be on / off to indicate the night service status.

If Night Service is activated using the second method, the members cannot be in multiple hunt groups, since it will impact all of the other members.

6.14. Intrude

6.14.1. The Intrude feature is not supported across networked switches, i.e., it will only work on calls in the same switch.

6.15. QSIG Interoperability and Support with DEFINITY®

6.15.1. There is no QSIG feature transparency between DEFINITY® Servers and AVAYA™ IP Office for Release 1.2. Basic call setup information necessary for point-to-point calling is supported. Some components of the Q.931 standard (which are considered part of QSIG) such as Name Identification and Number transport via setup message Information Elements (IEs) have been implemented across H.323 IP trunks between the two systems.

6.16. Trunk Interfaces

6.16.1. For ISDN and IP trunks, the Incoming Call Routing feature is not supported. Though, calls to valid extensions will be routed correctly, calls to non-existing extensions will give the person initiating the call a reorder tone.

6.16.2. Piggybacking: The trunk interface is not dependent on the DC voltage supplied to it. (i.e., it does not have to be -48Vdc; it could be any voltage from -20 to -100Vdc, as long as it can deliver at least 15mA).

In a 'piggyback' connection make sure that:

1. The ringing voltage is greater than 30Vrms.

2. The ringing cadence is 1 second 'on' and 4 seconds 'off'. -- If the ringing 'on' period is less than 500ms then the ringing persistency needs to be changed in IP Office Manager under Analogue trunk parameters.
3. It is also advisable to disable the CLI on the trunk interface during piggybacking.
4. Make sure that the RJ45 wiring from other PBX is the same as the IP Office trunk interface.

6.17. VCM Modules

- 6.17.1. Voice Compression Module (VCM) channels are only required for the duration of calls between IP endpoints and non-IP endpoints on IP Office. If dialing to an external non-IP endpoint, the same rule holds. However, if dialing from an IP endpoint to another IP endpoint internal to IP Office, a VCM channel is only necessary for call setup. After the call is established, the VCM channel is dropped if Direct Media Path is used. If dialing to an external IP endpoint, a VCM channel is only necessary for call setup for calls over ISDN. If the call is done over WAN/LAN, the VCM channel is used for the duration of the call regardless of the type of endpoint used. Only when Direct Media Path is used between IP endpoints is the VCM channel released after the call is established.

Data channels are only required when going from the IP network to an exchange line. Four users on IP Office surfing the Net through the same ISP would use one data channel. However, four users dialing into IP Office would each use a separate data channel. Lastly, a data channel is used every time voice mail is accessed. For further details, please refer to the IP Office Voice-Data Channel Analysis presentation on the CaLA Business Partner website. (<http://cala-businesspartner.avaya.com/>)

6.18. Telephony Features

- 6.18.1. Conferencing with internal and external users only drops all callers when the last internal caller has dropped from the conference.
- 6.18.2. Conferencing rendezvous, which allows multiple internal and external users conferencing capability, can be implemented as an extension for users to dial into. No password is needed just create a shortcode that matches the dial plan and attribute to it the Conferencing rendezvous feature.

7. Features Identified for Future Releases

The IP Office platform provides many functions and features to benefit end users. IP Office also provides a sophisticated administrative interface that will allow customizable programming. However, the features listed below, some of which may be common to small to mid size businesses, will not be available at General Availability of Release 1.2. AVAYA™ recognizes the need for these features, and we have committed to evaluating them for inclusion in a future release of IP Office. This section summarizes these features, and offers alternative programming guidelines if applicable.

7.1. Dial by Name

This feature allows a caller to dial the first few characters of a user's first or last name, and have the call transferred to that user's extension. While not supported as a dedicated function, it is possible to use the tools in Voice Mail PRO GUI to create a dial by name call flow linking multiple "menus" culminating in a "transfer" to a specific extension. Similar names can also be accessed, again using a menu, e.g., "for Mark Smith dial 1, for Michael Smith dial 2."

This is not linked to the names programmed in IP Office Manager, and could be time-consuming, proportionate to the number of desired users wishing to use this functionality.

7.2. Line Emulation

Line emulation is the ability to assign specific lines to a key, receive visual status indication, and to hold and retrieve that line. IP Office does not fully support this feature.

Through programming it is possible to assign individual lines to keys for the purpose of acquiring a specific line for outgoing calls.

7.3. Call Appearance

Multiple call appearances can be set up on handsets and operate as follows:

Assume 2 call appearance keys are programmed, and trunks have been programmed directly to the extension.

- Multiple calls alerting an idle extension will only alert one call appearance key. It is also possible that after answering the first call, the second call may not appear visually or audibly as call waiting. It is further possible that after the first call is finished, the call still may not appear.
- Multiple calls alerting a busy extension will alert each of the call appearance keys. Calls can be answered and held using these keys.

The following scenarios assume 2 call appearance keys programmed and trunks programmed to alert a group containing 2 extensions.

- Multiple calls alerting an idle group will only alert one call appearance key on each handset. It is also possible that after answering the first call, the second call may not appear visually or audibly as waiting. It is further possible that after the first call is finished, the call still may not appear.
- Multiple calls alerting a busy extension will alert each of the call appearance keys. Calls can be answered and held using these keys.

7.4. Bridged Appearance

IP Office does not currently support true-bridged appearance on extensions.

Boss/Secretary, which allows an extension to program multiple extensions against its keys, will enable call indication both visually and audibly of the a call alerting at that extension, and give the user access to that call.

7.5. IP 4600 Firmware Support

Currently IP Office supports “dual connect” firmware only, and does not support the current version of 4600 set firmware (1.6). For IP Office to support the 4600 IP series handsets, firmware version 1.2 must be installed.

7.6. Outcalling on New Voice Message

Using VoiceMail Lite or VoiceMail PRO, IP Office does not currently have the capability to dial out to inform users of new messages. It is possible through IP Office Manager to select ring back to your extension, and to program its forward features to an external number. Phone Manager is the only method to remotely alter any forwarding number; there is no ability to remotely change this number through DTMF keystrokes.

8. Frequently Asked Questions

Q: *Are there special programming requirements when using Voice Mail Pro across an IP Office network?*

A: Mailboxes must have unique names when using Voice Mail Pro in an IP Office networked environment.

Q: *When using Auto Attendant on Voice Mail Pro, do the Group names in the application have to match the Group names on the switch?*

A: The configuration details must be correctly programmed on the Voice Mail Pro and the IP Office in order for the Auto Attendant to function correctly. For example, if you wish to transfer a call to a specific group using Auto Attendant, the Group name used must match the Group name within the IP Office configuration. So, “Sales” on the Auto Attendant must be the same Group “Sales” on the switch. The group names are case sensitive.

Q: *Can I select only the language files I need when I install Voice Mail Pro?*

A: The application will install the Help files for all languages during the install process. However, you can unselect the language files you do not require.

Q: *What are the license requirements when using Voice Mail Pro as Centralized Voice Mail?*

A: If you are using Voice Mail Pro as Centralized Voice Mail, you only require a Feature Key on one of the networked sites. However, you must have the license keys installed on all IP Office switches, with the IP address of the machine running the Feature Key server application.

Q: *If Voice Mail Pro is upgraded, are my application passwords reset to default?*

A: No. However, if the Manager application is open at the same time, it is possible that password changes will be made, which may then be reset by the merging of the (older) configuration file on the Manager application. To prevent this from happening, the Manager application should be closed when not in use.

Q: *How do I remove IP Office applications from a PC?*

A: If you want to completely remove an IP Office product, you must manually delete the AVAYA™™ subdirectory with the name of the product being uninstalled *after* running Uninstall. For example, if you have run Uninstall for VM Pro, you must then manually remove the VM Pro directory. It is also possible to remove the IP Office folder once you have uninstalled the last IP Office software, and the IP Office folder is empty. First, the product icon should be removed from the Start-Up menu (via a right-mouse activation of the “Start” button on the bottom line of the screen. Next, browse through “Programs” to “All users” and “IP Office” (or the equivalent on your operating system) and remove any unwanted icons from this directory. If you have removed the only (remaining) IP Office application, it is also acceptable to remove the folder itself by deleting IP Office icon from the Programs > All Users > Start programs.

Q: *Can I edit the Registry?*

It is not advisable for users or Business Partners to manipulate the Registry directly. It is possible to damage the operating system if the wrong keys are changed or deleted.

Q: *What Call Types does the TransTalk support?*

A: TransTalk sets can make any type of call (including Page and Automatic Intercom). TransTalk sets cannot receive Page Calls. Automatic Intercom calls to a TransTalk set will be converted to ringing calls.

Q: *What are Button Types can be programmed via IP Office Manager for TransTalk?*

A: The following button types can be programmed (via Manager) for a TransTalk 9040 set.

- Call Appearance
- Send All Calls
- Call Park
- Abbreviated Dial

All other functions that are listed in the Emulation and Advanced tab in Button Programming can be activated by feature codes only.

Q: *How do the Fixed Buttons operate on the TransTalk with IP Office?*

A: The fixed buttons work as follows:

- Scroll – This is a local button that allows the user to switch from a 2x16 to 1x16 display, giving access to four more buttons.
- Feat/P – Nothing happens when this button is pressed

- Redial – This is a local button that has the same functionality as the fixed Redial button on the 64xx sets.
- Menu – This button is local and is used for changing parameters on the set (i.e., determining the type of display). The button press is not sent to the switch. This button does NOT have the same functionality as the Menu button on other 64xx sets.
- Transfer – This button has the same functionality as the fixed buttons on the 64xx sets.
- Conference – This button has the same functionality as the fixed buttons on the 64xx sets.
- Hold – This button has the same functionality as the fixed buttons on the 64xx sets.

Q: What version of software does IP Office support for the 46xx IP Phone?

A: Release 1.2 IP Phone software. Should you need to downgrade, the following steps should be taken:

- Load the full R1.2. IP Phone software onto your TFTP server.
- Reboot the IP telephones
- The telephones will install the previous Boot code.
- Reboot; then the telephones will install the previous main code
- Reboot the switch

Q: Can I change my Terminal Name from my 64xx/46xx Handset?

A: No. You can only change the name of a Terminal from the IP Office Manager application.

Q: How is an IP Trunk configured between a DEFINITY IP600 and IP Office server with a Cajun P580 switch?

A: Please go to the following AVAYA™™ support page for more information.
(<http://support.AVAYA™.com>).

Q: When should a VCM card be used with IP Office?

A: The VCM card is used to convert non-direct media end points to interface with IP. The voice compression is incidental to the interface. However, it does assist with bandwidth, and thus performance.

The call must go through a VCM card for the following scenarios (*From* and *To* are reversible)

From	To
64xx	VoIP trunk/ IP46xx
Analog station	VoIP trunk/ IP46xx
IP PhoneManager	VoIP trunk/ IP46xx/ 64xx, Analog station
46xx	Non Direct Media IP Phone

46xx	46xx
46xx	VoIP

Q: *Can I use an IP403 configuration file on an IP406?*

A: Although it is technically possible to do this, this procedure is not recommended or supported.

Q: *How do I Hold calls on the eConsole?*

A: There are 2 ways in which eConsole can perform Hold: Local Hold and Proper Hold.

Local Hold

When a call arrives at eConsole and is answered, the call information is shown in green. The operator can put the call on Local Hold by NOT putting a target in the edit field, and pressing the F4 key. By not putting in a target, eConsole assumes that the operator is about to perform another action on the call, e.g., Transfer, and the call is left on the screen. If the operator wants to process other calls while there is a call on Local Hold, the call should be parked first. When the call is parked, it is removed from the eConsole, and placed in one of the vacant park slots. (Note: the user must take the call off Hold in order to park it).

Proper Hold

Alternatively the call can be put on Proper Hold by entering a target in the edit field (a valid target is not needed, i.e., a space will do). When the call is on Proper Hold, it is removed from the screen and is gone. The only way to get the call back is by hitting the Reclaim key. Note that there is no indicator on screen that there are calls on Proper Hold. Once the call has been properly held and the eConsole went on to handle other calls, the reclaim button is no longer able to reclaim the held call, and the operator must wait for the time out on the held call to occur to handle the call again.

Q: *How does the Call Recording feature work with Call Forwarding?*

A: If you forward your calls to another user, and you receive calls on the forwarded extension, the Call Recording feature will still play the warning message to both parties, record the call, and deposit the message in the originating extension's mailbox.

Q: *Why do I hear the Voice Record system warning message before the call has been established?*

A: If the call is across an analog trunk, the system is not able to detect whether or not the call has been answered. Therefore, the system will start recording from the time the trunk has been seized.

Q: *Can Outward Restricted Call Barring be overridden?*

A: Yes. If an extension has Outward Restricted Call Barring, a user could program the extension to an external number. The user would then have to go to another extension, dial his original extension, and wait for the call to be forwarded to their pre-programmed outward number.

Q: *Can I intrude on a call that is in progress on another switch?*

A: No. The intrude feature will only work if the call to be intruded is on the same switch.

Q: *How should I set Night Service if a user is a member of multiple hunt groups?*

A: There are two ways to program a Night Service button on a handset. Please note that when a user is in multiple hunt groups, programming method 2, below, should be adopted.

1) Administer "Set-Up Night Service Hunt Group", and DO NOT specify the hunt group extension number in the telephone field. The user can now toggle the programmed button to activate and de-activate the night service for the single hunt group the user is a member of.

2) Administer "Set-Up Night Service Hunt Group", and specify the hunt group extension in the telephone field. Administer "Clear Night Service Hunt Group" and specify the hunt group extension in the telephone field. The user can now toggle the specific hunt group in and out of Night Service.

Q: *Can IP Phones validate passwords?*

A: IP phones do not validate passwords. This is correct behaviour. If you have Auto-Creation switched on and change the phone number being logged on, the system will be able to accept any password for the first time. If the user re-attempts to log the same extension number with a different password, it will not be accepted.

Q: *Can I listen to Wav files through Phone Manager Pro?*

A: To enable the playing of Wav files, the "Play Sounds" check box in Configuration Preferences in the Phone Manager tab needs to be enabled.

Q: *Can the IP 46xx handsets be associated with the eConsole application?*

A: The IP 46xx handsets cannot be associated with the eConsole application.

Q: *How do I transfer a call using Phone Manager Pro?*

A: The recommended method to transfer a call when using Phone Manager Pro is to use the F1/F2 or transfer icon within the application. If the user simply hangs up the handset, the call will not be transferred successfully.

Q: *When does the call flow timeout start when using VM Pro?*

A: The timeout starts when the VM Pro is alerted of the call, not after the network sends a Connect message. Therefore, if a No Answer timeout within a call flow is set to five seconds, the user will only have two seconds before the timeout feature is implemented, because the voice mail alerts for approximately three seconds before the network sends the Connect message. Increasing the No Answer timeout setting will avoid early timeouts.

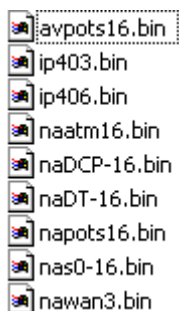
Q: When transferring a call, how do I retrieve the original call if the destination is busy or diverted to Voice Mail?

A: If, when transferring a call, the party you have called does not want to take the call, or is unavailable for any reason, you must press the “Drop” button on the terminal to revert back to the original call. The “Drop” function can be programmed under a key via the User Form on the Manager Program.

Q: How do I upgrade the IP Office software in the Working Directory?

A: On the PC running your IP Office Manager, open Explorer and go to the file "C:\Program Files\AVAYA™\IP Office\Manager."

Rename the following files to a relevant name (e.g., avpots16.bin to avpots16old.bin):



Copy the new IP Office .bin files from source, and Paste into "C:\Program Files\AVAYA™\IP Office\Manager".

If you now run the Upgrade Wizard, the “Available” software will now be the new “.bin files.”

Always make a backup copy of the system configuration before running the Upgrade Wizard.

Q: I receive error messages when using the Repair function on VM Pro.

A: The error messages “Severe” and “Invalid Service Account” may appear when using the Repair function to upgrade VM Pro on a WIN 2000 PC. These messages are cosmetic and do not affect the upgrade process.

Q: How do I set up the Firewall to be able to PING a device on the other side of it?

A: There is no radio button for ICMP, so you would have to set up a custom entry. Further information on how to set up this entry is described in the Help section of Custom.

Q: Can I connect to a DEFINITY using FoIP?

A: FOIP is supported between the two switches, however it is recommended that on the DEFINITY you use MedPro Version 27, further details of MedPro can be found at (<http://support.AVAYA™.com>).

Q: Can I record outgoing calls on Hunt Groups?

A: This functionality is not supported in the current software, but may be supported it in future releases. Users are encouraged to check back with AVAYA™ at a later date.

Q: *Will the system automatically change the time at daylight saving?*

A: Yes, the system will normally take its time from the Time Server programmed on the System Manager Tab (please see Section 6.8.5, above, for possible exception). However, the terminals will only update when they are next used, i.e., the next time they go on/off hook.

Q: *Can I record my own Wav file for directory entry in Phone Manager Pro?*

A: Yes. Locate the file 'New Call.wav' in the directory where Phone Manager is installed, and remove the read-only status of this file.

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