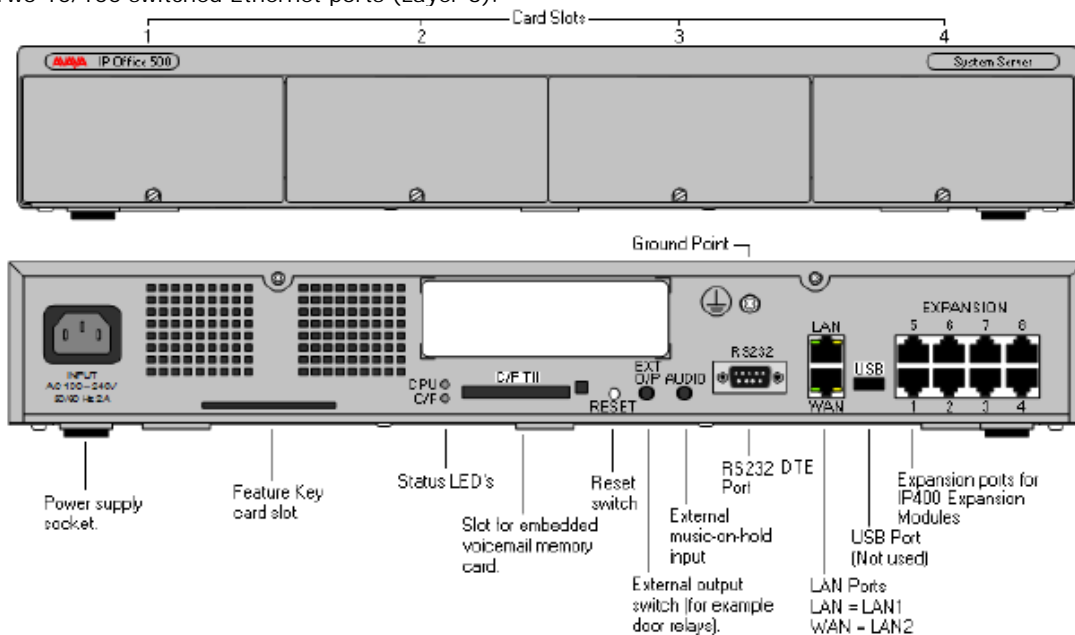


## IP office

### IP Office 500

With a greater VCM channel capacity and performance, the IP Office 500 (IP500) is the most suitable of the IP Office range for IP Telephony applications. It also provides an entry level offer into the IP Office family through IP Office Standard Edition software. The IP500 also differs from the IP412 by providing a greater trunk expansion capability of up to eight PRI/T1 circuits (maximum 192/240 trunks) on four PRI interfaces allowed per system (4 slots). The IP500 is a stackable unit with an optional 19" rack mounting kit and an optional wall mounting kit for smaller configurations. The IP500 includes:

- 4 slots to house a mixture of extension cards and VCM cards
- Digital Station 8 card
- Phone 2 and Phone 8 cards
- VCM-32 and VCM-64 cards
- Optional trunk daughter card support:
- Analog Trunk Module 4 card
- BRI-4 and BRI-8 cards (2 x 2B+D and 4 x 2B+D channels respectively)
- Single and Dual Universal PRI cards
- Support for IP400 trunk and VCM cards using a Legacy Card Carrier
- Slot for smart card Feature Key – required for system operation as well as licensing of optional features.
- 9-pin DTE Port for maintenance.
- Support for up to 8 IP500 Expansion Modules (requires upgrade to Professional Edition):
- Phone modules (8, 16, 30)
- Digital Station modules (16, 30)
- Analog Trunk Module 16
- BRI So8 module
- IP400 expansion modules (not WAN3 10/100 or Network Alchemy modules)
- External O/P socket supporting two relay on/off switch ports, e.g. for door entry systems.
- Audio input port for external music on hold source.
- 48 Data channels
- Up to 30 VoiceMail Pro ports
- Two 10/100 switched Ethernet ports (Layer 3).



### IP Office Standard Edition

By default the IP500 control unit runs a subset of full IP Office functionality called IP Office Standard Edition.

In this mode the IP500 is restricted to a maximum of 32 users in the base control unit with no expansion. Supported options include Embedded Voicemail, Phone Manager Lite/Pro/PC Softphone, SoftConsole, TAPI,

SMDR, SIP trunking, mobile twinning, VPN Phone and IP DECT, as well as licenses for voice networking (H.323 or SCN). IP Office Standard Edition does not support advanced applications (VoiceMail Pro, CCC, Conference Center, etc). This restriction can be removed by adding an IP Office Professional Edition Upgrade license to the configuration.

**IP Office Professional Edition (LUC-202959)**

By purchasing the upgrade license from Standard Edition to Professional Edition, additional functionality is enabled. This includes the ability to expand the system using up to eight external Expansion Modules, allowing the IP500 to support a maximum of 272 phones through a mixture of analog, digital or IP handsets. If additional analog trunks are required, these can be aggregated in groups of 16 on each analog expansion module. Note that the Professional Edition also enables the licensing of advanced applications such as VoiceMail Pro.

The following table shows which features are supported by Standard Edition and which require the upgrade to Professional Edition.

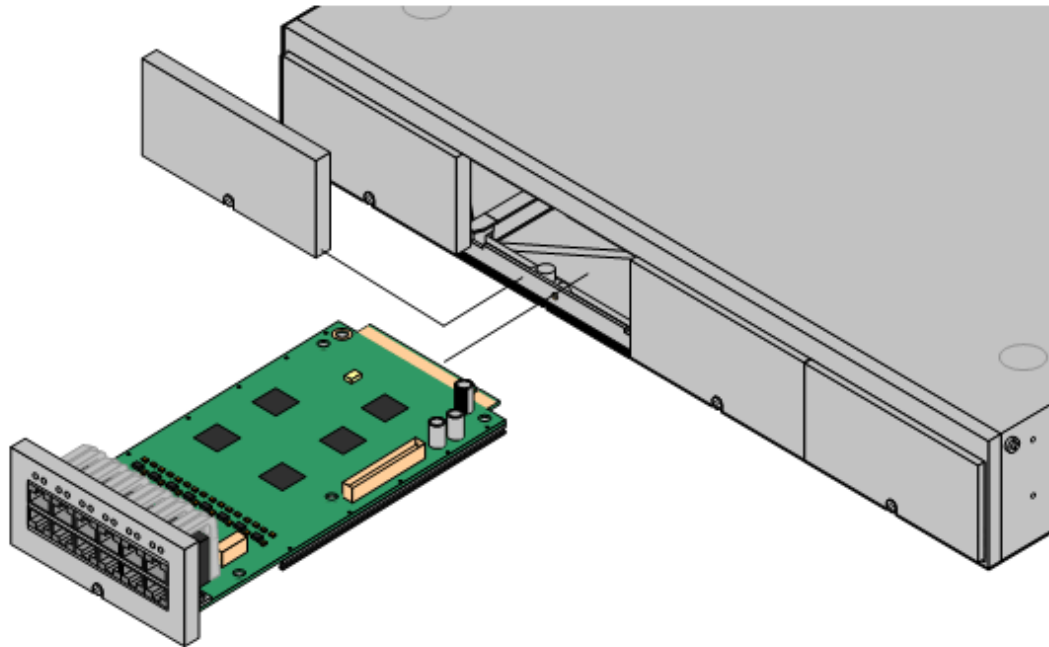
	Standard Edition		Professional Edition	
	Included	Optional	Included	Optional
Up to 32 users.	✓		✓	
IP phone support	✓		✓	
Phone Manager Lite	✓		✓	
TAPI	✓		✓	
SMDR	✓		✓	
64-way basic conferencing	✓		✓	
IP Office Manager	✓		✓	
System Status Application	✓		✓	
Voice Networking		✓		✓
Advanced Networking		✓		✓
Embedded Voicemail		✓		✓
Phone Manager Pro / PC Softphone		✓		✓
SoftConsole		✓		✓
SIP Trunking		✓		✓
IP DECT		✓		✓
Mobile Twinning and Mobility		✓		✓
VPN phone support		✓		✓
CTI Link Pro		✓		✓
32 - 272 Users supported.			✓	
Expansion Module support.			✓	
64-way Meet-Me Conferencing			✓	
VoiceMail Lite			✓	
VoiceMail Pro				✓
UMS				✓
ContactStore				✓
Conferencing Center				✓
CCC				✓
TAPI WAV				✓

**IP500 Internal Cards**

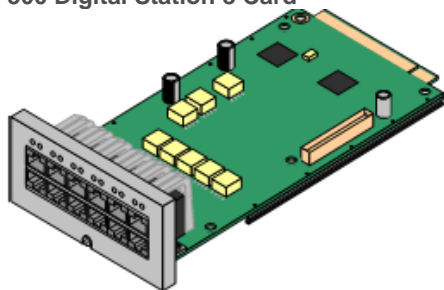
The IP500 control unit has 4 slots for the insertion of cards. These cards can be divided into two types; base cards and daughter cards. Base cards include a front panel and ports for cable connections. Daughter cards can be added to a base card in order to provide additional facilities (typically trunk connections).

The following base cards are available:

- **IP500 Digital Station 8 Card (Maximum 3).**
- **IP500 Analog Phone 2 Card and Phone 8 Card (Maximum 4).**
- **IP500 VCM Card (Maximum 2).**
- **IP500 Legacy Card Carrier (Maximum 2).**



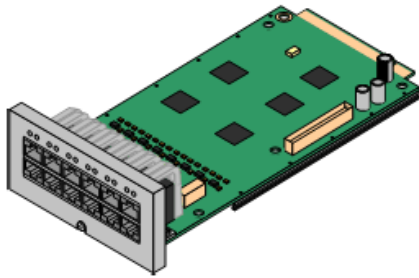
IP500 Digital Station 8 Card



This card provides 12 RJ45 ports. The first 8 ports are DS ports for the connection of Avaya digital phones other than IP phones. The card can be fitted with an IP500 daughter trunk card, which then uses the additional 4 RJ45 ports for trunk connections.

- This card accepts one IP500 trunk daughter card of any type.
- This card supports selected Avaya 2400, 5400 and 6400 series phones, plus T3 phones(EMEA only) and 3810 wireless phones (North America only).
- 4400 Series phones (4406D, 4412D and 4424D) are not supported on this card, only on Digital Station expansion modules. Therefore a maximum of 240 x 4400 Series phones are supported in the system.

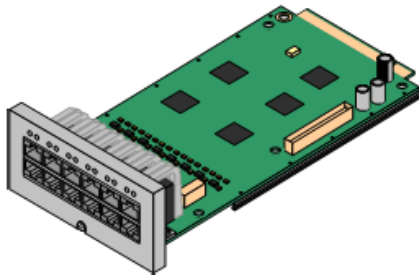
### IP500 Analog Phone 2 Card



This card provides 2 analog extension ports (1-2) for the connection of analog phones. The card can be fitted with an IP500 daughter trunk card, which then uses the last 4 RJ45 ports (9-12) for trunk connections.

- This card accepts one IP500 trunk daughter card of any type.

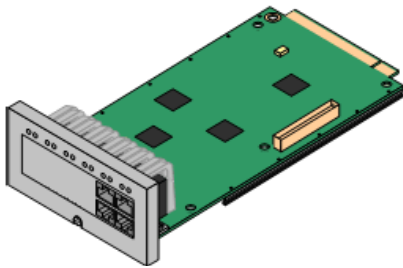
### IP500 Analog Phone 8 Card



This card provides 8 analog extension ports for the connection of analog phones. The card can be fitted with an IP500 daughter trunk card, which then uses the additional 4 RJ45 ports for trunk connections.

- This card accepts one IP500 trunk daughter card of any type.

### IP500 VCM Card



This card provides voice compression channels for use with VoIP calls, SIP trunks and IP-based voice networking. The module is available in variants supporting up to 32 or 64 channels. The actual number of channels provided is controlled by the VCM Channels licenses entered into the IP500 system configuration. Each VCM card has 4 VCM channels enabled by default. Further channels can be enabled up to the maximum (32 or 64) through adding one or more licenses (available in 4, 8, 16, 28 and 60 channel increments).

The maximum number of voice compression channels supported, using IP500 VCM base cards and / or IP400 VCM cards on IP500 Legacy Card Carriers, is 128.

Please note, the maximum number of channels which may be used on each IP500 VCM card varies according to the codec used, as shown in the following table.

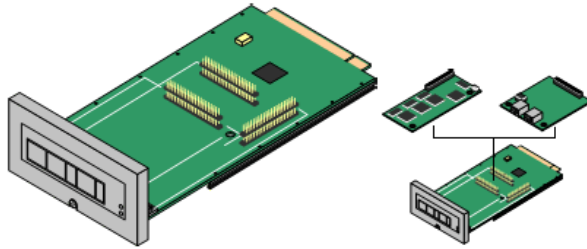
**Maximum VCM channels available, by codec type:**

	VCM 32	VCM 64
G.711	32	64
G.729	30	60
G.723	22	44

The card can be fitted with an IP500 daughter trunk card, which uses the 4 RJ45 ports for trunk connections.

- This card accepts one IP500 trunk daughter card of any type.

### **IP500 Legacy Card Carrier**



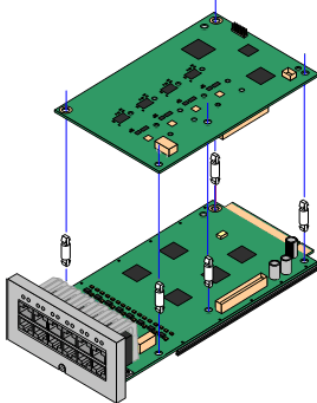
This card allows a variety of IP400 trunk and VCM cards to be used with the IP500 control unit. The front of the card includes a number of panels that can be snapped off to match the ports available when an IP400 trunk card is fitted.

- This card does not accept any IP500 daughter trunk cards.
- The IP500 control unit can accept up to 2 IP400 trunk or VCM cards by mounting each card on an IP500 Legacy Card Carrier

**• This card supports the following IP400 cards:**

- PRI T1
- Dual PRI T1
- PRI 30 E1 (1.4)
- Dual PRI E1
- PRI 30 E1R2 RJ45
- Dual PRI E1R2 RJ45
- ANLG 4 Uni
- BRI-8 (UNI)
- VCM 4
- VCM 8
- VCM 16
- VCM 24
- VCM 30

### **IP500 Trunk Cards**



IP500 daughter trunk cards can be fitted to existing IP500 base cards to provide support for trunk ports. The daughter card uses the ports provided on the base card for cable connection. The addition of an IP500 daughter trunk card is supported on IP500 Digital Station, IP500 Analog Phone and IP500 VCM base cards.

They are not supported on the IP500 Legacy Card Carrier base card.

For those base cards that support daughter cards, there are no restrictions on the combination of card types.

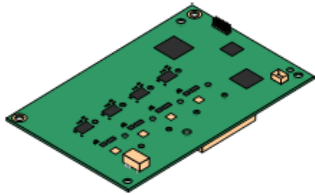
However in systems with both Analog Phone 8 base cards and analog trunk daughter cards, combining the two types are recommended as it then provides analog power failure support for one trunk/extension (Not applicable to the Analog Phone 2 base card).

**By: Sam Hassan**

Each daughter card is supplied with the spacer pegs required for installation and a label to identify the card's presence on the physical unit once installed.

- **IP500 Analog Trunk Card (Maximum 4).**
- **IP500 Universal PRI Trunk Card (Maximum 4).**

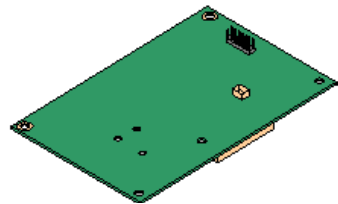
#### IP500 Analog Trunk Card



This card can be added to an IP500 Digital Station card, IP500 Analog Phone base card, or IP500 VCM card. It allows that card to then also support 4 analog loop-start trunks. It also provides one analog V.32 modem.

- When fitted to an IP500 Analog Phone 8 base card, the combination supports 1 power failure extension to trunk connection.

#### IP500 Universal PRI Trunk Card



This type of card can be added to an IP500 Digital Station card, IP500 Analog Phone card, or IP500 VCM card.

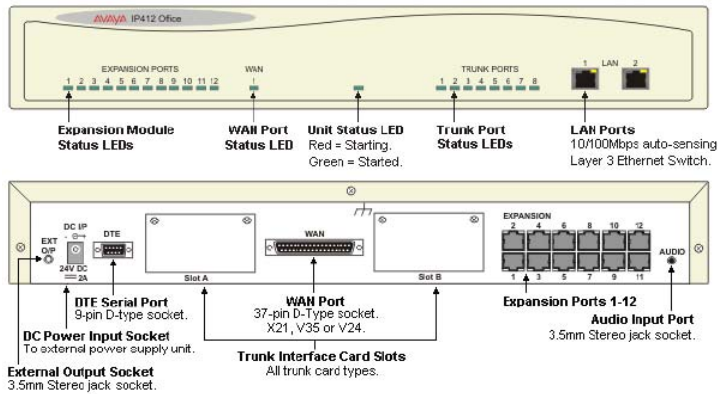
It allows that card to then also support primary rate digital trunk connections. Available in single and dual versions the IP400 PRI card provides single and dual primary rate trunk interfaces respectively. The PRI is configurable for T1, E1 or E1R2 MFC use depending on the territory.

The IP500 Universal PRI trunk cards incorporate an integrated CSU/DSU. The CSU function allows the trunk to be put in loop-back mode for testing purposes. This can be set manually, using the monitor application, or automatically from a Central Office sending a Line Loop Back (LLB) pattern. The DSU function allows the T1 trunk to be shared between data and voice services.

Here is a summary of the capabilities of the card:

- Each card is configurable to connect to T1, E1 or E1R2 lines.
- The card is available in either a single or dual PRI variant. The single variant can support up to 24 T1 channels or up to 30 E1 channels. The dual variant can support up to 48 T1 channels or 60 E1 channels.
- On each card, 8 channels per interface are enabled by default. This means that the single PRI has 8 channels enabled, while the dual PRI has 16 channels enabled. Further channels may be enabled by the purchase of additional licenses in 2-channel or 8-channel increments.
- The IP500 PRI daughter card works on any IP500 VCM or extension base card (not the Legacy Card Carrier).
- Up to four Universal PRI cards can be installed in any combination in the IP500 chassis.
- Diagnostics capabilities:
- Visual indicators to show service state
- Physical test points to monitor traffic.

## IP Office IP412 Control Unit



With a greater internal data transfer capability than the IP406-V2, the IP412 is more suitable for meeting the needs of the small contact center or businesses with a CRM focus. The IP412 differs from the IP406-V2 by providing a greater trunk expansion capability of up to four PRI trunks. The IP412 is a stackable unit with an optional 19" rack mounting kit. The IP412 includes:

- 9-pin DTE Port (for maintenance or Feature Key connection for application licensing).
- X.21/V35 WAN interface.
- Support for up to 12 IP Office Expansion Modules:

  - Phone modules (8, 16, 30)
  - Digital Station modules (16, 30)
  - Analog Trunk Module 16
  - So8 module

- External O/P socket supporting two relay on/off switch ports, e.g. for door entry systems.
- Audio input port for external music on hold source.
- Two trunk interface card slots for analog, BRI, PRI (T1, E1) or CAS (E1R2)
- 2 internal sockets for IP Telephony expansion – voice compression modules (from 4 to 30 channels)
- Internal socket for internal modem (2 or 12) for Remote Access Services
- 108 Data channels
- Up to 30 VoiceMail Pro ports
- Two 10/100 switched Ethernet ports (Layer 3).

### Expansion Modules

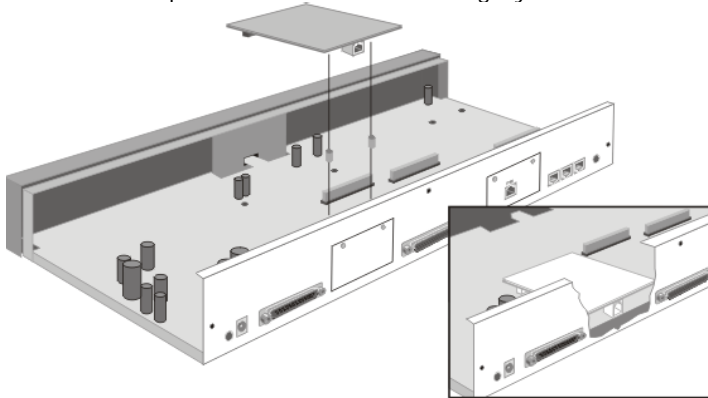
Through support of up to twelve external Expansion Modules, IP412 can be enhanced to support a mixture of analog, digital or IP phones, to maximum of 360 phones in any combination. If additional analog trunks are required, these can be aggregated in groups of 16 on each analog expansion module.

### IP400 Trunk Interface Cards

IP400 trunk interface cards fit into the card slots on the Small Office Edition, IP406 V2 and IP412 control units and in any slot of the IP500 when combined with the IP500 Legacy Card Carrier. They provide analog, ISDN or CAS trunk connectivity. Not all interfaces are available in all territories. The following table shows how many of each card type are supported by each of control unit.

	Small Office Edition	IP406 V2	IP412	IP500*
IP400 Universal Analog Trunk 4	✗	2	2	2
IP400 Quad BRI	1	2	2	2
IP400 PRI E1	✗	2	2	2
IP400 Dual PRI E1	✗	1 (Slot A)	2	2
IP400 E1R2	✗	2	2	2
IP400 Dual E1R2	✗	1 (Slot A)	2	2
IP400 PRI T1	1	2	2	2
IP400 Dual PRI T1	✗	1 (Slot A)	2	2

\* Each card requires the use of an IP500 Legacy Card Carrier. IP500 does not support E1R2 coax cards.



#### IP400 PRI Cards (T1/E1/E1R2)

Available in single and dual versions the IP400 PRI card provides single and dual primary rate trunk interfaces respectively. The PRI is available in T1, E1 and E1R2 MFC variants depending on the territory. The dual version is only supported on the IP412, in slot A of the IP406 V2 and in the IP500 using an IP500 Legacy Card Carrier.

The Small Office Edition only supports the single T1 PRI card (not E1 or E1R2).

Details of the supported ISDN supplementary services and protocols for each PRI are given in the 'Public and Private Voice Networks' section.

T1 trunk cards incorporate an integrated CSU/DSU. The CSU function allows the trunk to be put in loop-back mode for testing purposes. This can be set manually, using the monitor application, or automatically from a Central Office sending a Line Loop Back (LLB) pattern. The DSU function allows the T1 trunk to be shared between data and voice services.

#### IP400 Universal Quad Analog Trunk (LS) Card

This card provides four analog trunk ports. These are 2-wire loop start interfaces and are available in all territories. This card supports Caller ID where provided. With IP Office R3.1 and later, this module supports optional 16ms echo cancellation.

Please note that ground start analog trunks are supported via the IP Office Analog Trunk 16 Expansion Module.

#### IP400 BRI Card

The BRI trunk card provides 4 Basic Rate ISDN T interfaces (8 trunks). Details of the supported ISDN supplementary services on BRI interfaces are given in the 'Public and Private Voice Networks' section.

## Internal Daughter Cards

Internal Daughter Cards are fitted inside the IP406 V2 and IP412 control units.

### IP400 Voice Compression Module – 4/8/16/24/30 ports

The Voice Compression Module (VCM) is used for Voice over IP (VoIP) applications in the IP406 and IP412 control units. Five VCM variants are available supporting 4, 8, 16, 24 and 30 channels of compression. The echo cancellation capabilities of the VCM cards vary. The VCM 4, 8, 16 and 24 cards offer 64ms of echo cancellation while the VCM 30 card offers 25ms.

On IP Office - Small Office Edition systems, either 3 or 16 VCM channels are built-in and cannot be changed.

The IP406 V2 supports a single VCM while the IP412 can have any two VCMs installed.

The following table shows how many of each card are supported by each platform.

	IP406 V2	IP412	IP500
IP400 VCM 4	1	2	2*
IP400 VCM 8	1	2	2*
IP400 VCM 16	1	2	2*
IP400 VCM 24	1	2	2*
IP400 VCM 30	1	2	2*
IP400 VCM 5/10/20 (no longer sold)	1	2	✗
IP500 VCM 32	✗	✗	2
IP500 VCM 64	✗	✗	2

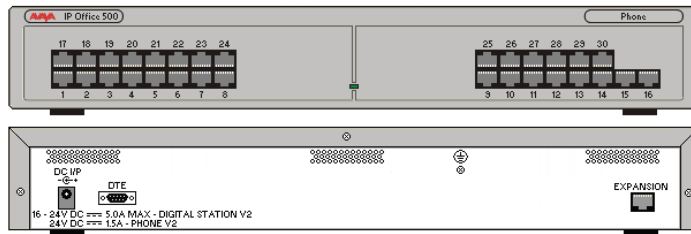
\*Each card requires the use of an IP500 Legacy Card Carrier.

### IP400 Internal Modem Card

An internal modem card with 12 modems can be installed in both the IP406 V2 and IP412 to provide dial-up capacity that is better matched to remote access requirements of customers. The Internal Modem card allows up to 12 simultaneous V.90 (56kbps) analog modem calls into the IP Office.

## External Expansion Modules

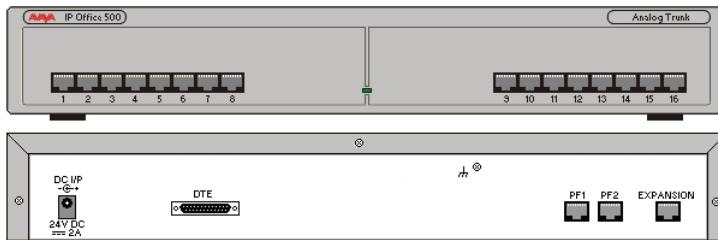
### IP500 Phone Expansion Module



This module provides additional analog telephone interfaces:

- Two Wire.
  - DTMF signaling (No rotary or Loop Disconnect).
  - Time Break Recall (No Earth Loop Recall).
  - Caller ID capable.
  - Message Waiting Indication (MWI) capable - High Voltage, Pulsed High Voltage, Line Reversal.
- The IP500 Phone module is available in 2 versions, giving 16 or 30 extensions. Telephones can be located up to 1km from the control unit. For extensions located "out-of-the-building" additional line protection will be needed.
- IP Office Phone Modules provide support for a variety of analog MWI methods. These methods are 51V Stepped, 81V, 101V and Line Reversal. The 101V method is only supported when using a Phone V2 expansion module.
  - Each analog port can support a device of maximum 1 REN.
  - On analog ports, call information is sent while the phone is ringing, and cannot be updated during a call or set on an outbound call (the phone may do a local match but this is not controlled by the IP Office).
- The primary purpose of displays is to give information about incoming calls. Where the Caller Display standard chosen supports the delivery of text (extension name) as well as the number, both are delivered.
- An analog extension port can be set for external Paging operation. It does not operate like a normal extension and is connected to external equipment through an isolation device. The Port will always be busy so it cannot be called directly and can only be accessed by using a short code. When not receiving a Page the port will remain silent, when being paged the page tone is sent before the speech path is opened.

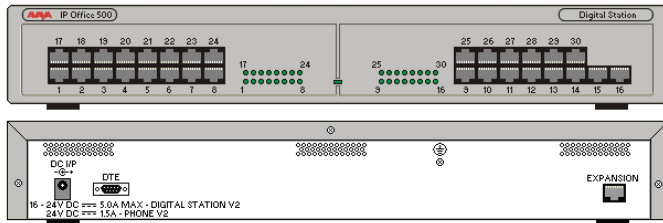
### IP500 Analog Trunk 16 Module



This expansion module provides an additional sixteen Loop Start or Ground Start two-wire analog trunks. (Ground start trunks are not available in all territories) The first two trunks on the module which are automatically switched to power fail sockets on the rear of the unit in the event of power being interrupted must be loop start for correct power fail operation.

For installations in a rack, this module requires the IP500 Rack Mounting Kit. The IP500 Analog Trunk 16 Module is functionally identical to the IP400 Analog Trunk 16 Module.

## IP500 Digital Station Module

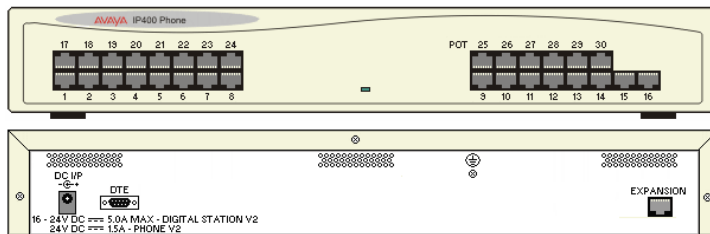


This expansion module provides additional Digital Station (DS) ports for selected Avaya 2400, 4400, 5400, 6400, T3 (EMEA only) series phones and 3810 wireless phones (North America only). The IP500 Digital Station module is available in 2 variants; 16 or 30 extensions.

For installations in a rack, this module requires the IP500 Rack Mounting Kit. The IP500 Digital Station Module is functionally identical to the IP400 Digital Station V2 Module.

- Telephones can be located up to 1km from the control unit. For extensions located "out-of-the-building" additional line protection will be needed.
- For systems where Direct Station Select (DSS) Units are being used, IP Office supports a maximum of:
  - Eight EU24 and or EU24BL per system.
  - Two XM24 units on each Digital Station expansion module to a maximum of 10 XM24 units per system.
  - Two 4450 units on each Digital Station expansion module to a maximum of 10 4450 units per system.
  - T3 DSS units.

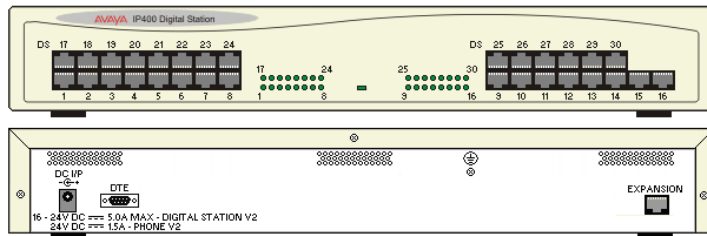
## IP400 Phone Module



This module provides additional analog telephone interfaces:

- Two Wire
  - DTMF signaling (No rotary or Loop Disconnect)
  - Time Break Recall (No Earth Loop Recall)
  - Caller ID capable
  - Message Waiting Indication (MWI) capable - High Voltage, Pulsed High Voltage, Line Reversal
- The IP400 Phone module is available in 3 versions, giving 8, 16 or 30 extensions. Telephones can be located up to 1km from the control unit. For extensions located "out-of-the-building" additional line protection will be needed. • IP Office Phone Modules provide support for a variety of analog MWI methods. These methods are 51V Stepped, 81V, 101V and Line Reversal. The 101V method is only supported when using a Phone V2 expansion module.
- Each analog port can support a device of maximum 1 REN.
  - On analog ports, call information is sent while the phone is ringing, and cannot be updated during a call or set on an outbound call (the phone may do a local match but this is not controlled by the IP Office).
- The primary purpose of displays is to give information about incoming calls. Where the Caller Display standard chosen supports the delivery of text (extension name) as well as the number, both are delivered.
- An analog extension port can be set for external Paging operation. It does not operate like a normal extension and is connected to external equipment through an isolation device. The Port will always be busy so it cannot be called directly and can only be accessed by using a shortcode. When not receiving a Page the port will remain silent, when being paged the page tone is sent before the speech path is opened.

## IP400 Digital Station V2 Module



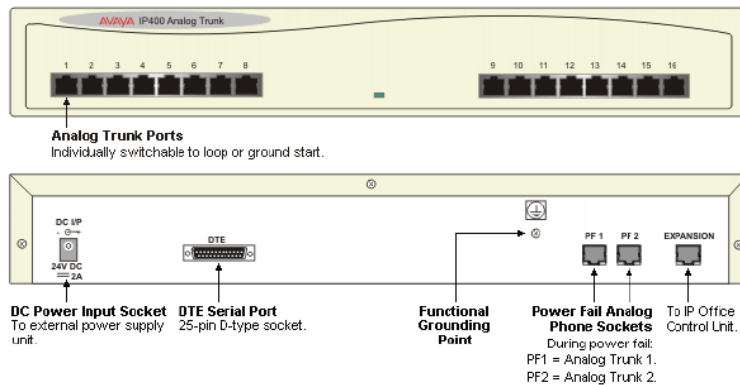
This expansion module provides additional Digital Station (DS) ports for selected Avaya 2400, 4400, 5400, 6400, T3 (EMEA only) series phones and 3810 wireless phones (NA only). The IP400 Digital Station module is available in 2 variants; 16 or 30 extensions.

- Telephones can be located up to 1km from the control unit. For extensions located "out-of-the-building" additional line protection will be needed.

For systems where Direct Station Select (DSS) Units are being used, IP Office supports a maximum of:

- Eight EU24 and or EU24BL per system.
- Two XM24 units on each Digital Station expansion module to a maximum of 10 XM24 units per system.
- Two 4450 units on each Digital Station expansion module to a maximum of 10 4450 units per system.
- T3 DSS units.

## IP400 Analog Trunk 16 Module



This expansion module provides an additional sixteen Loop Start or Ground Start two-wire analog trunks. (Ground start trunks are not available in all territories) The first two trunks on the module which are automatically switched to power fail sockets on the rear of the unit in the event of power being interrupted must be loop start for correct power fail operation.

# Voicemail

Four voicemail options are available:

- **VoiceMail Lite**
- **Embedded Voicemail** (IP Office 500)
- **VoiceMail Pro**
- **Centralized INTUITY Audix / Modular Messaging Voicemail**

Feature	Embedded Voicemail	VoiceMail Lite	VoiceMail Pro
Supported IP Office Systems	IP500, IP406 V2 and Small Office Edition.	PC Based - All IP Office systems.	
Mailboxes	IP Office automatically creates mailboxes for each user and hunt group on the system.		
Message Storage Capacity	Up to 15 hours.	1MB per minute up to hard disk capacity.	
Maximum Simultaneous Calls	4*	4.	Small Office Edition = IP406 V2 = 20 IP412 = 30. IP500 = 30.
Centralized operation.	No.	No.	Yes.
Queue Announcements	Yes.	Yes.	Yes.
Auto Attendant	Yes.	No.	Yes.
Call Recording	No.	No.	Yes.
Intuity Emulation	No.	No.	Yes.

## VoiceMail Lite

VoiceMail Lite is the IP Office basic voicemail application and can handle up to 4 simultaneous calls. Each user has the option of turning their voicemail on or off. When on, the system automatically answers their telephone when they are not available to take a call, plays a personal greeting to confirm that the intended recipient will actually receive the message, and records a message.

When a message has been left, the user will see a message-waiting lamp lit on their telephone and can press a retrieval button to collect their messages.

VoiceMail Lite can ring the extension to deliver any new messages. When voicemail messages are left they are time and date stamped and the caller's number noted. Once listened to, old messages are automatically deleted 36 hours after being left, unless the user chooses to save the message permanently. Voicemail can be collected remotely by calling into the VoiceMail Lite server. If the number the user is dialing from is recognized (home number or Mobile/Cell Phone for example), they will listen to their voicemail straight away. If the source number is not recognized, users will be prompted for a mailbox number and a PIN code for that mailbox, before they can listen to voicemail. Users have the ability to set and change their own PIN codes.

Where a voicemail needs to be copied to other users, VoiceMail Lite provides many options:

- Voicemails can be forwarded to another mailbox, or group of mailboxes
- Recipients can add their comment to the voicemail before forwarding to another mailbox or mailboxes.
- Voicemails can be forwarded as email WAV attachments.

VoiceMail Lite telephony user interface (TUI) only operates in IP Office mode, not INTUITY mode.

**Note: On the IP500, VoiceMail Lite is only supported after upgrading to IP Office Professional Edition.**

## Embedded Voicemail

**(IP500, IP406 V2 and IP Office - Small Office Edition only)**

In environments like retail or home office, where space, noise or cost considerations rule out using a PC for voicemail, Embedded Voicemail will be the preferred option for an entry-level voicemail service. With the Small Office Edition Embedded Voicemail makes use of the voice compression resources to optimize the message storage by compressing messages before storing, and expanding them during playback. By doing this up to 10 hours of messages can be stored for all users of the system. Neither the IP500 nor the IP406 V2 require voice compression modules for storing messages and both support up to 15 hours of storage.

**Key features of Embedded Voicemail include:**

- 3 Port voicemail as standard on Small Office Edition (10 ports with 16VC variants of Small Office Edition), 4 port voicemail for IP500 and IP406 V2.
- Up to 10 hours storage on Small Office Edition, 15 hours message storage on the IP500 and IP406 V2.

**By: Sam Hassan**

- Configurable record time: Default value 2 minutes, maximum value 3 minutes.
- Mailbox security codes ensure a minimum of 4 characters to be set.
- Multiple languages stored on the Flash Memory card.
- Help menus (via \*4). Greetings and Mailbox Navigation.
- From Release 4.2, it is possible to send an email containing either notification or the complete voicemail message from the Embedded Voicemail (IP406 V2 and IP500 units only).
- Voicemail Breakout/Personal Auto-Attendant: Up to 3 breakout numbers can be set up. When callers are directed to your mailbox, they can either leave a message or choose to be transferred to one of three numbers (e.g. Operator, mobile/cell phone, colleague, etc).
- Configurable system-wide short code for Voicemail collect (e.g. \*17).
- 40 independent Auto Attendants with 3 time profiles per Auto Attendant.
- Up to 12 menu items per Auto Attendant with automatic time-out to fallback number.
- Access and control of voicemail via the digital or IP terminal display (Visual Voice). This feature is supported on the 2410, 2420, 4610, 4620, 4621, 4625, 5410, 5420, 5610, 5620 and 5621 phones.
- Reply to a message to either an internal or external number (if Caller ID available).
- Support for Hunt group announcements.
- Fax option for rerouting fax calls via the auto-attendant menu.
- Support for Fast Forward (#), Rewind (\*), Skip message (9) and Call Sender (\*\*) when listening to messages.
- No License Key required.

## **Voicemail Pro**

**(on the IP500, VoiceMail Pro is only supported after upgrading to IP Office Professional Edition)**

IP Office VoiceMail Pro offers all the features and facilities of VoiceMail Lite and can be tailored to meet the individual needs of a business. It has higher call capacity by scaling up from 4 to 30 simultaneous calls. All options are available in a choice of languages; both spoken voice prompts and graphical programming interfaces and have the choice of IP Office TUI and INTUITY emulation TUI.

At the heart of VoiceMail Pro is the ability to construct call flows from a series of different building blocks. These building blocks allow automation over tasks like answer a call, listen for tone-dialed digits, make a call etc. VoiceMail Pro call flows allow far more than just guiding a user to the group or extension they require. Call flows allow VoiceMail Pro to dial back users as soon as a voicemail message is left for them, it provides remote access to phone forwarding settings should a user wish to change their Forwarding or Follow Me number from an external telephone. VoiceMail Pro provides message handling for individuals or groups, audio information to callers so assisting the operator during periods of heavy call activity and links to business applications through services such as Text-to-Speech. VoiceMail Pro provides a full telephony applications environment where call flows can be set up and interact in real time with business workflow – callers can interact via menus and data entry and VoiceMail Pro applications can speak back results. For example, users can listen to their email messages through the telephone

A single PC based VoiceMail Pro server can provide voicemail services to multiple IP Office systems in a Small Community Network over the LAN, WAN or a Frame Relay network. This is referred to as 'Centralized Voicemail' and can reduce costs, while facilitating communication between IP Office sites.

**Other uses for VoiceMail Pro include:**

- Whisper Announce that prompts callers for information (usually their name) which is recorded and passed on to the user's extension on answer, allowing them to choose to accept the call or not. This is particularly useful on "CLI/ANI withheld" numbers - usually calls from telesales companies where somebody is trying to sell you something. VoiceMail Pro will not intrude onto busy extensions.
- Assisted Transfer allows transfer of a call to a destination, but allows the call to return to VoiceMail Pro automatically for other options should the called party be engaged, or not answer within a predetermined time.
- Conditional routing of calls. Conditions are constructed from a set of basic elements. These elements can be combined within a single condition to create complex rules. For example, the Week Planner can be used to define the company's standard working hours, and then combined with the calendar to define exception days such as public holidays / vacation.
- Call modules. Modules allow you to create sequences of actions that you want to share between a number of different call routing scenarios – like a "macro" in PC applications. These modules can be used to create a library of vertical voicemail applications or just easy dissemination to other IP Office voicemail sites, thanks to its import and export functionality.
- Activation of the external relays on the IP Office system. For example, remotely checking the status of the office heating and then turning it on from your Mobile/Cell Phone on your drive in to work.
- Finally, a Speaking Clock, that takes its time from the voicemail server, is built into VoiceMail Pro to minimize call charges.

**Key features of VoiceMail Pro include:**

- VoiceMail Pro client, a graphical user interface for programming and configuring applications both locally and remotely.
  - IVR for individual business requirements.
  - Personal Numbering.
  - Broadcast group messages.
  - Audiotex and Auto-Attendant services (including dial by name).
  - Sophisticated Queue Announcement facilities.
  - Conditions (e.g. test if 'out of hours').
  - Automatic and On Demand Call Recording with an option for ContactStore Search and replay of saved messages
  - Voice Forms/Questionnaire Mailboxes (Campaign Manager).
  - Personal distribution lists.
  - Access to Database information for building Interactive Voice Response (IVR) systems.
  - Tag information retrieved from a database to a call and delivers it with the call to an agent.
  - Visual Basic (VB) Script support to allow the configuration of the voicemail system through VB Scripts rather than VoiceMail Pro call flows.
  - Extended Personal Greetings to customize the information presented to a caller based upon the availability of a user.
  - Text To Speech facilities to allow emails to be read out over the telephone and/or for database information to be read to a caller in 14 languages.
  - Housekeeping facilities for the management of messages.
  - Automatic detection and routing of Fax calls within Auto Attendants and within a subscriber's voicemail box.
  - Forwarding of voicemail messages to Email systems via SMTP.
  - Unified Messaging (UMS) offers voice mail - email synchronization between VoiceMail Pro server and email client.
  - VoiceMail Pro Web Access allows access to voice mails via a web interface.
  - Support for a range of the INTUITY telephone user interface features in INTUITY emulation mode.
  - Recording of system prompts through the telephone handset or using multimedia facilities on a PC.
  - Speaking Clock.
  - 22 supported prompt languages: Chinese (Mandarin), Danish, Dutch, English (UK), English (US), Finnish, French (France), French (Canadian), German, Greek, Hungarian, Japanese, Italian, Korean, Norwegian, Polish, Portuguese (European), Portuguese (Brazilian), Russian, Spanish (Castilian), Spanish (Latin American), Swedish
  - Support for TTY hearing impaired text phone
  - Centralized voicemail within a multi-site IP Office environment.
  - Networked Messaging with other Avaya voicemail systems.
  - Capacity of up to 30 ports (depending on IP Office Control Unit).
  - Voicemail channels between VoiceMail Pro and the IP Office can be reserved for business critical functions or left unreserved for any function.
  - Access and control of voicemail via the digital or IP terminal display (Visual Voice).
  - Improved voice recording, including recording of calls made over IP endpoints (including those using Direct Media); automatic call recording triggered by Incoming Call Routes; pausing recording when call is parked or placed on hold.
  - User start points in VoiceMail Pro now include Queued and Still Queued options.
- Further details on some of the VoiceMail Pro functionality listed above are described later in this section. Further information on Queue Announcements can be found in Compact Contact Center (CCC).

**Note: on the IP500, VoiceMail Pro is only supported after upgrading to IP Office Professional Edition.**

## **Voicemail Feature Comparison**

	<b>Embedded Voicemail</b>	<b>VoiceMail Lite</b>	<b>VoiceMail Pro</b>
IP500	Yes (does not use VCM resources)	Yes*	Yes*
IP412	No	Yes	Yes
IP406 V2	Yes (does not use VCM resources)	Yes	Yes
Small Office Edition	Yes (uses in built VCM resources)	Yes	Yes

**\*IP500 running in IP Office Professional Edition mode only.**

Capacities

<b>Voicemail</b>	<b>Embedded Voicemail</b>	<b>VoiceMail Lite</b>	<b>VoiceMail Pro</b>
Number of Mailboxes supported	No specific limit on IP500, IP406 V2 or Small Office Edition. Limited only by IP Office configuration.	No Limit - Limited only by IP Office configuration.	No Limit - Limited only by IP Office configuration.
Maximum Number of Concurrent Calls (ports)	4 simultaneous calls on IP500 and IP406 V2. From 1-10 simultaneous calls on IP Office - Small Office Edition depending up on available VCM resources	4 simultaneous calls on IP Office - Small Office Edition, IP406 V2 and IP412	Up to 30 dependent on license and platform (IP Office - Small Office Edition=10, IP406 V2 =20, IP412=30, IP500 = 30).
Recording Time	IP Office 50 and IP406 V2: 15 hours. IP Office - Small Office Edition: 10 hours.	PC dependent (Requires 1MB per minute)	PC dependent (Requires 1MB per minute)

Features

	Embedded Voicemail	VoiceMail Lite	VoiceMail Pro
Runs as a service	No	No	Yes
Multi-lingual support	Yes	Yes	Yes
Voicemail for Individual users	Yes	Yes	Yes
Voicemail for Virtual users	Yes	Yes	Yes
Voicemail for Hunt Groups	Yes	Yes	Yes
Centralized Voicemail Services	No	No	Yes
Voicemail Ringback	Internal only	Internal only	Internal and external
Voicemail Help TUI	No	Yes	Yes
Message Waiting Indication	Yes	Yes	Yes
Visual Voice (interactive menu on phone display)	Yes	No	Yes
Integration with Phone Manager Pro	No	No	Yes
Personalized Greeting	Yes	Yes	Yes
Extended personal Greetings	No	No	Yes*
Continuous Loop Greeting	No	Yes	Yes
Forward to Email	Yes	Yes	Yes
Copy to Email	Yes	Yes	Yes
Listen To Email (Text To Speech)	No	No	Yes*
Send Email notification	Yes	Yes	Yes
Unified Messaging Service (UMS)	No	No	Option
Save Message	Yes	Yes	Yes
Delete Message	Yes	Yes	Yes
Forward Message to another Mailbox	Yes	Yes	Yes
Forward to Multiple Mailboxes	Yes	Yes	Yes
Forward with a Header Message	Yes	Yes	Yes
Repeat Message	Yes	Yes	Yes
Rewind Message	Yes	Yes	Yes
Fast Forward Message	Yes	Yes	Yes
Pause Message	No	No	Yes
Skip Message	Yes	Yes	Yes
LIFO/FIFO Message Playback Option	No	No	Yes
Set Message Priority	No	No	Yes*
Set automatic message deletion timeframe	No	No	Yes
Alphanumeric Data Collection	No	No	Yes*
Callers Caller ID, time and date announced	Yes	Yes	Yes
Call Back Sender (if Caller ID available)	Yes	Internal only	Yes
Remote Access to Mail Box	Yes**	Yes	Yes
User Definable PIN Code	Yes	Yes	Yes
Known Caller ID PIN Code By-Pass	Yes	Yes	Yes
Breakout to Reception	Internal and external.	Internal only	Internal and external.

• \*Intuity mode only.

• \*\*Remote access can be provided via the embedded Auto Attendant on the Small Office Edition.

	Embedded Voicemail	VoiceMail Lite	VoiceMail Pro
Multi-Level Tree Structure	Yes	No	Yes
Message Announcements	No	No	Yes
Whisper Announce	No	No	Yes
Alarm Calls	No	No	Yes
Assisted Transfers	No	No	Yes

	Embedded Voicemail	VoiceMail Lite	VoiceMail Pro
Call Recording	No	No	Yes
Test Conditions	No	No	Yes
Personal Numbering	No	No	Yes
Speaking Clock	No	No	Yes
Campaign Manager	No	No	Yes
VoiceMail Pro Manager	No	No	Yes
Customized Voicemail	No	No	Yes
Intuity TUI emulation mode.	No	No	Yes
Forward Emails to External Systems (VPIM)	No	No	Yes
Third Party Database Access (IVR)	No	No	Yes
Text To Speech within call flows	No	No	Yes
Support for Visual Basic Scripts	No	No	Yes

## IP Office Conferencing

IP Office provides a flexible conferencing solution with from 3 to 64 way calling on an IP500 or IP406 V2 or 128 conference resources on an IP412. IP Office Small Office Edition provides 2 to 6 way calling with a maximum of 24 conference resources. This means that several conferences of different sizes can all run at the same time if the total calls do not exceed the systems conference resources. IP Office does not impose limits on the mix of internal and external calls in conference, but if all except one call disconnects from the conference bridge, the last calls is disconnected automatically by the system for added security.

Maximum Participants	Small Office Edition	IP406 V2	IP412	IP500
E1 ISDN (Rest of World)	6	64	120	64
T1/PRI-T1	6	64/64	96/92	64/64
IP	6	30	60	64
Internal users	6	64	2x64	64
<b>Total max.</b>	<b>24</b>	<b>64</b>	<b>2x64</b>	<b>64</b>

### Conference limitations:

#### 1. Analog Trunk Restriction

In conferences that include external analog line calls, a maximum of two analog line calls are allowed per conference.

#### 2. External Participants

Each external caller requires a digital trunk/VoIP channel (for example 1 T1 allows 23/24 external parties, 1 E1 allows 30 parties and a VCM-20 allows 20 parties).

#### 3. Use of Conference Resources by Other Features

System features such as call intrusion, call recording and silent monitoring all use conference resources, as does automatic recording if enabled. When any of these features are active the number of slots available for conference parties is reduced.

#### 4. The IP412 Supports Two 64-party Conference Banks

When a new conference is started, the bank with the most-free capacity is used for that conference. However once a conference is started on one conference bank, that conference cannot use any free capacity from the other conference bank (i.e. no more than 64 parties in any one conference).

**5.Meet-Me Conferencing on IP500 requires Professional Edition**

IP Office Standard Edition supports 64-way basic conferencing, but if Meet-Me capabilities are required the Upgrade License to IP Office Professional Edition should be purchased.

**6.IP Office Conferencing Center**

If IP Office Conferencing Center is installed, 5 resources are reserved for use by the system. The maximum number of callers in any one conference and the total number of people on conference calls is reduced by 5. The maximum number of conferences on the system for IP406 V2, IP412 and IP Office 500 is reduced by 2.

## Licenses and Feature Keys

Some applications and devices for IP Office require the entry of licenses before they will work. They may also require licenses to enable certain features and numbers of users, port or channels

### Licenses

License keys are also known as **RFA (Remote Feature Activation)** codes. Each license is a 32-character string based on:

- The Serial Number of the IP Office Feature Key dongle.
- The feature and software being enabled

### Feature Keys

The Feature Key is a hardware device used to validate the licenses installed on an IP Office system. Each IP Office using licenses requires its own Feature Key.

**Parallel Port License Key Dongle**



**Serial License Key Dongle**

**USB License Key Dongle**



The IP500 uses a smart card feature key dongle.



## IP office 500 Summary

### IP500 Control Unit (700417207)

Includes: 4 x front slots for combinations of extension/VCM cards and trunk daughter cards, 1 x smart cardslot for locale settings and license feature key, 1 x compact flash slot for embedded voicemail option, 2-port Layer-3 LAN switch, 9-pin DTE serial port for system diagnostics, 3.5 mm jack for Music-on-Hold audio input and 2-switch external door-relay control port. 8 x external expansion module ports to support additional analog trunks, digital or analog extensions. Includes auto ranging internal power supply. Regional power cord and software/documentation CD pack not included. Only one variant of control unit is available, but regional locale is determined by the appropriate smart card feature key (mandatory):

• **IP Office 500 Software License Feature Key Mu-Law (700417470)**

Configures the control unit for Mu-law voice encoding and US locale settings

### IP Office Professional Edition (202959)

This is an upgrade license from Standard Edition to Professional Edition. This includes the ability to expand the system using up to eight external Expansion Modules, allowing the IP500 to support a maximum of 272 phones through a mixture of analog, digital or IP handsets. If additional analog trunks are required, these can be aggregated in groups of 16 on each analog expansion module. Note that the Professional Edition also enables the licensing of advanced applications such as VoiceMail Pro.


Name	Description	Country	SAP Code
IP500 Base Unit	IP Office 500 Base Unit		700417207
Smart Card Feature Key	Smart Card Feature Key (MU-Law)		700417470
	Smart Card feature Key (A-Law)		700417488
	CEE7/7	Europe	700289762
	BS1363	United Kingdom	700289747
	NEMA5-15P	America	700289770
	China	China	700261977
IP500 Rack Mounting Kit	IP500 Rack Mounting Kit		700429202
IP500 Wall Mounting Kit	IP500 Wall Mounting Kit		700430150
IP500 Blanking Plate Kit	IP500 Blanking Plate Kit		700429194

### IP412 Control Units

Includes: 2-port Layer-2 LAN switch, 9-pin DTE serial port for license feature key and system diagnostics, 37-pin WAN port, 3.5 mm jack for Music-on-Hold audio input and 2-switch external door-relay control port. Internal expansion slots to support 1 x 12-port remote access modem module and 2 x Voice Compression Modules (including VCM24 and 30 for non-blocking IP/dual-PRI applications). 12 x external expansion module ports to support additional analog trunks, WAN interfaces, digital or analog extensions. Includes 60W earthed external power supply. Regional power cord and software/documentation CD pack not included.

• **IP412 Office Mu-Law Base Unit (700350408)**

Mu-law voice encoding base unit pre-configured for US locale settings. 2 x trunk module slots to support US T1 PRI and 4-port analog trunk cards.

Item	Variant	Country	SAP Code
IP412 Office	A-Law	Rest of World	700234479
	U-Law	North America	700350408
	CEE7/7	Europe	700289762
	BS1363	United Kingdom	700289747
	NEMA5-15P	America	700289770
	China	China	700261977
IP400 Rack Mounting Kit		All	700210800

### **IP Office External Expansion Modules**

Except where noted, all the following are supported by the IP406 V2, IP412 and IP500 control units. Note that external expansion modules are only supported by the IP500 when running in IP Office Professional Edition mode.

#### **IP500**

- **IP Office 500 Expansion Module Phone 16 (700449507)**

Adds an additional 16 analog Plain Ordinary Telephone ports to control units.

- **IP Office 500 Expansion Module Digital Station 16 (700449499)**

Adds an additional 16 Digital Station ports to control units.

- **IP Office 500 Expansion Module Phone 30 (700426224)**

Adds an additional 30 analog Plain Ordinary Telephone ports to control units.

- **IP Office 500 Expansion Module Digital Station 30 (700426216)**

Adds an additional 30 Digital Station ports to control units.

- **IP500 BRI So8 Module (700449515)**

Provides 8 ISDN BRI S-interface device lines to the desktop.

- **IP500 Analog Trunk 16 - North America only (700449473)**

Provides an additional 16 Analog trunks (loop start or ground start) and two power fail sockets.

#### **IP400**

- **IP400 Phone 8 Module V2 (700359896)**

Adds an additional 8 analog Plain Ordinary Telephone ports to control units.

- **IP400 Phone 16 Module V2 (700359904)**

Adds an additional 16 analog Plain Ordinary Telephone ports to control units.

- **IP400 Phone 30 Module V2 (700359912)**

Adds an additional 30 analog Plain Ordinary Telephone ports to control units.

- **IP400 Digital Station 16 Module V2 (700359839)**

Adds an additional 16 Digital Station ports to control units.

- **IP400 Digital Station 30 Module V2 (700359847)**

Adds an additional 30 Digital Station ports to control units.

- **IP400 Analog Trunk 16 - North America only (700211360)**

Provides an additional 16 Analog trunks (loop start or ground start) and two power fail sockets.

- **IP400 Analog Trunk 16 EU (700241680)**

Provides an additional 16 Analog trunks (loop start) and two power fail sockets. European CTR21 specification.

### **IP500 Voice Compression Modules**

- **IP Office 500 Media Card Voice Coding Module 32 (700417389)**

Voice Compression Module required for IP trunks and extensions. 4 channels are enabled by default. Additional channels up to the maximum of 32 are enabled through license keys. Includes 128ms echo cancellation.

- **IP Office 500 Media Card Voice Coding Module 64 (700417397)**

Voice Compression Module required for IP trunks and extensions. 4 channels are enabled by default. Additional channels up to the maximum of 64 are enabled through license keys. Includes 128ms echo cancellation.

### **IP500 Base Cards**

Only supported in the IP500.

- **IP Office 500 Extension Card Digital Station 8 (700417330)**

- **IP Office 500 Extension Card Phone 8 (700417231)**

- **IP Office 500 Extension Card Phone 2 (700431778)**

- **IP500 Media Card Voice Compression Module 32 (700417389)**

Voice Compression Module required for IP trunks and extensions. 4 channels are enabled by default. Additional channels up to the maximum of 32 are enabled through license keys. Includes 128ms echo cancellation.

- **IP500 Media Card Voice Compression Module 64 (700417397)**

Voice Compression Module required for IP trunks and extensions. 4 channels are enabled by default. Additional channels up to the maximum of 64 are enabled through license keys. Includes 128ms echo cancellation.

- **IP Office 500 Carrier Card (700417215)**

Supports a range of IP400 trunk cards.

### **IP500 Trunk Daughter Cards**

Only supported in the IP500. Each requires an IP500 base card other than the IP500 Carrier card.

- **IP Office 500 Trunk Card Analog 4 Universal (700417405)**
- **IP Office 500 Trunk Card Primary Rate 1 Universal (700417439)**
- **IP Office 500 Trunk Card Primary Rate 2 Universal (700417462)**
- **IP Office 500 Trunk Card Basic Rate 4 Universal (700417413)**
- **IP Office 500 Trunk Card Basic Rate 8 Universal (700417421)**

#### **IP400 Voice Compression Modules**

All of the following can be installed in the IP Office 500 using the IP500 Legacy Card Carrier (700417215).

- **Voice Compression Module 4 (700359854)**

4 Channel Voice Compression module required for IP trunks and extensions. Includes 64ms echo cancellation.

- **Voice Compression Module 8 (700359862)**

8 Channel Voice Compression module required for IP trunks and extensions. Includes 64ms echo cancellation.

- **Voice Compression Module 16 (700359870)**

16 Channel Voice Compression module required for IP trunks and extensions. Includes 64ms echo cancellation.

- **Voice Compression Module 24 (700359888)**

24 Channel Voice Compression module required for IP trunks and extensions. Includes 64ms echo cancellation.

- **Voice Compression Module 30 (700293939)**

30 Channel Voice Compression module required for IP trunks and extensions. Includes 25ms echo cancellation.

#### **IP400 Modems cards**

- **IP400 Modem 12 (700343452)**

Internally fitted card allowing twelve simultaneous V.90 modem calls. Not supported on the IP500.

#### **IP400 Trunk Interface Cards**

Except where noted, all of the following can be installed in the IP500 using the IP500 Legacy Card Carrier (700417215).

- **IP400 BRI-8 (UNI) (700262017)**

Interface card for the Small Office Edition, IP406 and IP412 providing 4 x ISDN T-Bus Basic Rate Interface ports (8 lines).

- **IP400 PRI 30 E1 (1.4) (700272461)**

Interface card for the IP406 and IP412 providing 1 x ISDN Primary rate port (30 lines).

- **IP400 PRI 30 E1R2 RJ45 - CALA (700241631)**

Interface card for the IP406 and IP412 providing 1 x E1R2 Primary rate port (30 lines). RJ45 termination.

- **IP400 PRI 30 E1R2 COAX - CALA (700241656)**

Interface card for the IP406 and IP412 providing 1 x E1R2 Primary rate port (30 lines). Co-Ax termination. Not supported on the IP500.

- **IP400 Dual PRI E1 (700185184)**

Interface card for the IP406 and IP412 providing 2 x ISDN Primary rate ports (60 lines).

- **IP400 PRI T1 (700185200)**

Interface card for the IP406 and IP412 providing 1 x T1/PRI port (24 lines).

- **IP400 Dual PRI T1 (700185218)**

Interface card for the IP406 and IP412 providing 2 x T1/PRI (48 lines).

- **IP400 Quad Analog Trunk (Universal) (700359938)**

Interface card for the IP406 and IP412 providing 4 x Loop start analog trunks. Universal variant supports specifications for North America, Europe and New Zealand.

<b>IP Office 500 Main Module ** Require Feature Key Card and Power Lead ***</b>	
LUC-700417207	IP Office 500 System
LUC-700417470	IPO 500 Feature Key MU-Law
LUC-700289770	Power Lead for IP500

<b>IP Office 500 Internal Station Cards</b>	
LUC-700417330	IPO 500 Digital Station 8 (Maximum 3)
LUC-700431778	IPO 500 Phone 2 (Analog Ports) ** Maximum 4 **
LUC-700417231	IPO 500 Phone 8 (Analog Ports) ** Maximum 4 **

<b>IP Office 500 External Station Cards *** Requires Upgrade Professional Edition ***</b>	
LUC-700426224	IPO 500 Phone 30 (Analog Station)
LUC-700426216	IPO 500 Digital Station 30
LUC-700449473	IPO 500 Analog Trunk 16
LUC-700449499	IPO 500 Digital Station 16
LUC-700449507	IPO 500 Phone 16 (Analog Station)
LUC-700449515	IPO 500 BRI SO 8
LUC-202959	IPO 500 Upgrade Express (Standard)to Professional
LUC-700289770	Power Lead for IP500
LUC-700429202	IPO 500 Rack Mounting Kit

<b>IP Office 500 Internal Trunk Cards *** Goes Off one of the Internal Station Cards ***</b>	
LUC-700417405	IPO 500 Trunk 4 *** Goes Off one of the Internal Station Cards ***

<b>IP Office 500 Internal T1/PRI Cards *** Goes Off one of the Internal Station Cards ***</b>	
<b>4.1 or higher Cards Only</b>	
LUC-700417439	IPO 500 Single T1/PRI ** 8 Channels initially - Requires Lic Upgrade **
LUC-700417462	IPO 500 Dual T1/PRI ** 16 Channels initially - Requires Lic Upgrade **
<b>T1/Pri Licenses for additional Channels</b>	
LUC-215180	IPO RFA T1/PRI License Adds 2 CH
LUC-215181	IPO RFA T1/PRI License Adds 8 CH
LUC-215182	IPO RFA T1/PRI License Adds 22 CH

<b>IP Office 500 SIP Trunking Licenses ** Optional on the Standard and Professional Edition ***</b>	
LUC-202967	IPO LIC. SIP Trunking RFA 1
LUC-202968	IPO LIC. SIP Trunking RFA 5
LUC-202969	IPO LIC. SIP Trunking RFA 10
LUC-202970	IPO LIC. SIP Trunking RFA 20
LUC-205820	IPO LIC. SIP Trunking RFA Trial RFA 1

<b>IP Office Legacy Internal CO Cards *** Requires Legacy Card Upgrade # 700417215 ***</b>	
LUC-700343452	Internal Modem 12 Card
LUC-700185200	T1/PRI 24 Channels
LUC-700185218	T1/PRI 48 Channels

LUC-700359938	Analog 4 Line Mod.
LUC-700417215	IPO 500 Legacy Card Carrier ** Maximum 2 *** Supports 1 IP400 Internal Legacy Cards

**IP Office 500 Core Applications \*\* Requires Upgrade to Professional Edition \*\*\***

LUC-202959	IPO 500 Upgrade Express to Professional Required for VM Pro / Lite, Meet-me-Conferencing, Voice Networking with H323, Q.Sig or Small Community Networking, Contact Store, Conferencing Center, Compact Contact Center, and Expandability from 33 to 272 Users
LUC-202960	IPO 500 RFA Standard Networking Base 4 Voice Networking Channels
LUC-205650	IPO 500 RFA Standard Networking Adds 4 Voice Networking Channels
LUC-202966	IPO 500 or 400 RFA Advanced Networking <b>(1 Needed per site)</b>

**IP Office 500 VCM Cards and Expansion Licenses**

LUC-700417389	IPO 500 MC VCM 32 (Comes w/ 4 VCM)
LUC-700417397	IPO 500 MC VCM 64 (Comes W/ 4 VCM)
LUC-202961	IPO 500 RFA VCM License 4 Channels
LUC-202962	IPO 500 RFA VCM License 8 Channels
LUC-202963	IPO 500 RFA VCM License 16 Channels
LUC-202964	IPO 500 RFA VCM License 28 Channels
LUC-202965	IPO 500 RFA VCM License 60 Channels

**IP Office Legacy VCM Modules \*\*\* Requires Legacy Card Upgrade # 700417215 \*\*\***

LUC-700359854	Voice Comp. 4 Mod.
LUC-700359862	Voice Comp. 8 Mod.
LUC-700359870	Voice Comp. 16 Mod.
LUC-700359888	Voice Comp. 24 Mod.
LUC-700293939	Voice Comp. 30 Mod.

**IP Office Voicemail Pro \*\*\* Requires Professional Edition Upgrade #202959 \*\*\***

LUC-171991	Voicemail Pro RFA (4 Ports)
LUC-174459	2 Additional Voicemail Ports RFA
LUC-174460	4 Additional Voicemail Ports RFA
LUC-174461	8 Additional Voicemail Ports RFA
LUC-174462	16 Additional Voicemail Ports RFA
LUC-171990	Integrated Messaging RFA

**IP Office Embedded Voicemail**

LUC-700343460	Embedded Messaging Card (406V2 and IP500)
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<b>IP Office 500 PC Phone GUI interface</b>	
LUC-177468	Phone Manager Pro (1 User)
LUC-177469	Phone Manager Pro (5 Additional User)
LUC-177470	Phone Manager Pro (10 Additional User)
LUC-177471	Phone Manager Pro (20 Additional User)
LUC-177472	Phone Manager Pro (50 Additional User)
LUC-177473	Phone Manager Pro (100 Additional User)
LUC-177474	Phone Manager PRO Unlimited
LUC-171992	IP Soft Phone (1 User) - Requires Phone Mgr Pro
LUC-174463	IP Soft Phone (5 User) - Requires Phone Mgr Pro
LUC-174464	IP Soft Phone (10 User) - Requires Phone Mgr Pro
LUC-174465	IP Soft Phone (20 User) - Requires Phone Mgr Pro
LUC-174466	IP Soft Phone (50 User) - Requires Phone Mgr Pro
LUC-174467	IP Soft Phone (100 User) - Requires Phone Mgr Pro
LUC-171987	SoftConsole
LUC-174456	SoftConsole 1 Additional User

<b>IP Office Core Applications *** Requires Professional Edition Upgrade ***</b>	
LUC-171994	RFA, CCC SVR.
LUC-171996	RFA, CCC Supervisor
LUC-184730	RFA CCC SPV 5
LUC-184731	RFA CCC SPV 10
LUC-184732	RFA CCC SPV 20
LUC-171999	RFA, CCC Designer
LUC-171995	RFA 5, CCC Agent
LUC-174469	RFA 10, CCC Agents
LUC-174470	RFA 20, CCC Agents
LUC-174471	RFA 50, CCC Agents
LUC-172786	RFA 5, CCC PCW
LUC-174472	RFA 10, CCC PCW
LUC-174473	RFA 20, CCC PCW
LUC-174474	RFA 50, CCC PCW
LUC-176196	RFA 4, CCC Wallboard
LUC-179072	RFA, CCC E-Mail
LUC-179073	RFA, CCC WEB Chat
LUC-184726	RFA CCC Report 5
LUC-184727	RFA CCC Report 10
LUC-184728	RFA CCC Report 20
LUC-187166	IP Office Contact Store
LUC-171993	RFA, Compact Bus. Center ** No Upgrade Required **
LUC-171988	RFA, CTI Link
LUC-182300	RFA, VB Scripting
LUC-182302	RFA, PowerConferance

<b>IP Office VPN Phone Licenses</b>	
<b>Licenses Only available at 4.1 or higher software</b>	
LIC-213980	IPO RFA VPN Phone 1 License
LIC-213981	IPO RFA VPN Phone 5 License
LIC-213982	IPO RFA VPN Phone 10 License
LIC-213983	IPO RFA VPN Phone 20 License
LIC-213984	IPO RFA VPN Phone 50 License
LIC-213985	IPO RFA VPN Phone 100 License
LIC-213986	IPO RFA VPN Phone Unlimited License
LIC-213987	IPO RFA VPN Phone 10 Trial License

<b>IP Office Twinning RFA ** New Feature for 3.2 or Higher **</b>	
LUC-195569	IPO LIC Mobile Twinning RFA 1
LUC-195570	IPO LIC Mobile Twinning RFA 5
LUC-195571	IPO LIC Mobile Twinning RFA 10
LUC-195572	IPO LIC Mobile Twinning RFA 20
LUC-195573	IPO LIC Mobile Twinning RFA 50
LUC-195574	IPO LIC MOBILE TWINNING TRIAL RFA 5

<b>IP Office 500 Accessories</b>	
LUC-700429202	IPO 500 Rack Mounting Kit
LUC-700289770	Power Lead for IP500
LUC-700430150	IPO 500 Wall mounting Kit
LUC-700429194	IPO 500 Blanking Plate Kit
LUC-700417470	IPO 500 Feature Key MU-Law

## **Features**

**I will only mention some of the unique features of the IP office platform**

### **Hot Desking**

Hot Desking allows a number of users non-exclusive use the same extension. Each user logs in with their own identity so they can receive calls and can access their own Voicemail and other facilities. For example, sales personnel who visit the office infrequently can be provided with telephony and Voicemail services without being permanently assigned a physical extension. When finished, they simply log off to make the extension available to others or if users log on at another phone, they are automatically logged off the original extension.

### **Remote Hot Desking**

- The ability for a user to Hot Desk to other locations within the Small Community Network.
- Available on Digital, Analog and IP phones.

#### **Benefit**

- A user can make and receive calls from any office as if using the phone on their own desk.
- Single number, improved mobility and easy access to familiar features.
- Great for consultants, managers, lawyers working on different offices on different days.

#### **Description**

IP Office 4.0 supports remote hot desking between IP Office systems within a Small Community Network. The system on which the user configured is termed their 'home' IP Office, all other systems are 'remote' IP Offices.

To log on at a remote IP Office requires that IP Office to have a Small Community Advanced Networking license. A license is not necessary on the user's home IP Office.

**Note:** Remote Hot Desking is not supported for use with CCC. Features handled by the telephone itself are not affected by Hot Desking (e.g. call log and phone speed dials).

### **Telecommuter Mode**

Phone Manager Pro allows the making and receiving of calls and the retrieving of voicemails from an external phone number as if they were in the office, with Phone Manager providing the call control. The typical scenario is the remote worker that occasionally works from home or from a hotel room.

This feature also provides billing convenience and potential cost savings for remote workers and mobile work force as all the calls are established by IP Office: there is no need to check bills, nor to pay for expensive hotel calls.

### **Twinning and Mobility**

Twinning allows a primary extension and a secondary number (extension or external) to operate together as a single telephone. When a call is presented to the primary phone the secondary will ring. If the primary telephone does not ring, for example in Do Not Disturb, the secondary phone will not ring.

#### **Internal Twinning**

This is typically used in scenarios like workshops or warehouses where team supervisors may have a desk with a fixed phone but also have a wireless extension (e.g. DECT). When a call is made from either twinned phone, the call will appear to have come from the primary phone (when the secondary is an extension on the IP Office system). Other users of the system need not know that the supervisor has two different phones. The supervisor's Coverage Timer and No Answer Time are started for the call and if the call is not answered within that time, the call will be delivered to available coverage buttons (if applicable) and then Voicemail (if applicable).

#### **Mobile (external) Twinning**

A typical use for Mobile Twinning would be for a salesperson who has a desk extension but is often out of the office. They can give out one phone number to clients, but it will ring their mobile/cell phone as well as the desk extension. External mobile devices can be set as twinning targets even if the primary telephone is logged out (e.g. in the case of a "virtual" extension).

From IP Office 4.2 onwards, the following additional Mobility features are available in addition to simple mobile twinning (but need to be separately enabled per user in IP Office Manager):

### Mobile Call Control

This allows a user who has answered a twinned call on their mobile phone to dial a DTMF sequence \*\* (star-star) to put the call on hold and receive IP Office system dial tone. The user will then be able to perform supervised and un-supervised transfers, shuttle (switch between held calls), and conference (Conference add and transfer to a meet-me conference).

In IP Office 4.2 the existing Mobile Twinning license has been renamed to Mobility license. The license now enables the use of Mobile Call Control and one-X Mobile client features as well as Mobile Twinning. An instance of the license will be consumed for every user who has Mobility Features checked in IP Office Manager. With either internal or external twinning, users may be allowed to enter a twinned number, or may just be able to activate/deactivate the twinning function depending on administrative settings. Such user activation can be achieved through deskphone buttons, Phone Manager or VoiceMail Pro.

## Applications

# Phone Manager

The IP Office Phone Manager application provides users control of their telephone from a networked PC. Phone Manager can be used with any IP Office extension; analog, digital or any IP telephones, wired or wireless, and is available in three versions: **Phone Manager Lite, Phone Manager Pro and Phone Manager PC Softphone** subject to licensing.

### Phone Manager Lite



Phone Manager Lite is included as part of the IP Office solution free of charge for every user and provides easy access to telephony features, call information and call control. Phone Manager will normally run in the Windows system tray once the user is logged on, minimizing screen space when not in use.

Phone Manager has telephony buttons on a tool bar that activate standard telephone functions such as Answer, Transfer, Hold, Account codes and Conference etc. so that users don't need to remember IP Office specific feature codes. Personal settings such as Do Not Disturb (including exceptions list), call forwarding, mobile twinning and voicemail transfer option settings can be easily set up using Phone Manager.

All versions of Phone Manager feature a Busy Lamp Field (BLF) and Speed Dials. This allows users to customize the application to reflect the status of their department, immediate colleagues or the whole company as desired. The Direct Station Select allows you to dial regularly used internal and external numbers via a single-click. A single Direct Station Select icon allows you to dial their work, mobile/cell phone and home numbers. The Busy Lamp Field feature allows you to see at a glance, who is available to take a call, who is already on a call and who has placed their phone on Do Not Disturb. BLF information is also available on remote users as long as they are on a Small Community Network (SCN). Phone Manager Lite supports up to 15 Speed-Dial/BLF entries.

## Phone Manager Pro

Phone Manager Pro is licensed on a per-user basis and provides all of the Phone Manager Lite features plus the following:

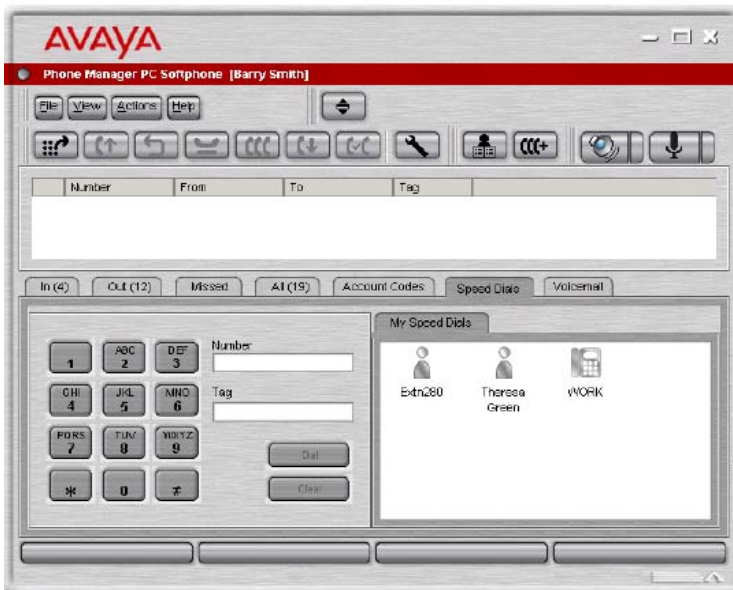
- **Personal Productivity and Collaboration**

Phone Manager Pro offers increased capacity from 15 to 1000 Speed Dial/BLF entries. These are distributed across 10 tabs to allow users to group speed-dial/Busy Lamp Field icons by department or location, for example Sales, Support, etc. Each speed-dial tab supports up to 100 speed dial/BLF entries.

- **Telecommuter Mode**

Phone Manager Pro allows making and receiving calls and retrieving voicemails on an external phone number as if they were in the office, with Phone Manager providing the call control. It also provides billing convenience and potential cost savings for remote workers and mobile work force. Access to the feature is controlled by the administrator in the User Rights.

## Phone Manager PC Softphone (IP Softphone)



Phone Manager PC Softphone is licensed on a per-user basis and provides all of the Phone Manager Pro functionality. In PC Softphone mode, both audio and call control operations are handled on the PC so no additional telephone is needed. When using PC Softphone, the user will need an audio device such as a headset or USB handset, both USB and soundcard interfaces can be used with PC Softphone. PC Softphone can be twinned with another IP Office extension offering mobility and choice so that calls can be answered on either endpoint.

Phone Manager PC Softphone has the significant advantage for mobile users with wireless or wired remote access to the LAN, providing 'a phone within their laptop' with all the features available in the office. From IP Office 4.2 onwards, users can also login as a call center agent using Softphone. PC Softphone is supported on Windows Vista Business/Ultimate.

## Phone Manager Feature Summary

Feature	Phone Manager Lite	Phone Manager Pro and PC SoftPhone
Inbound/outbound call handling.	Yes	Yes
Phone call control.	Yes	Yes
Configure phone preferences.	Yes	Yes
Configure keyboard short cuts.	Yes	Yes
CLI (ANI) / Name display.	Yes	Yes
Speed dial / Busy Lamp Field management.	Yes - 15 icons maximum.	Yes - 100 icons maximum per tab.
Speed Dial tabs (to group Busy Lamp Field icons)	Yes - 1 tab.	Yes - 10 tabs maximum.
Microsoft Live Communications Server (LCS) Integration	Yes	Yes
View internal users' presence via LCS	Yes	Yes
Send Instant Messages (IM) to internal users via LCS	Yes	Yes
Telecommuter mode	-	Yes (not PC SoftPhone)
Compact mode	-	Yes
Local Phone Directory.	-	Yes - 1000 entries maximum.
Call history log – all, missed, messages.	Yes	Yes
Separated incoming/outgoing call log.	-	Yes
Collect new voicemail messages.	Yes	Yes
Voicemail box control (Intuity and IP Office modes).	-	Yes
Personal Distribution List set up (Intuity mode)	-	Yes
Incoming call scripting.	-	Yes
Time on call.	-	Yes
Advice of Charge (ISDN service provider dependent)	Yes	Yes
Door opening control.	-	Yes
Queue monitoring.	-	Yes - 2 Queues
Conference Control Display.	Yes	Yes
Conferencing Center action buttons	Yes	Yes
'Screen pop' contacts (Outlook, Goldmine, ACT! and Maximizer).	-	Yes
Simple Outlook contact record creation.	-	Yes
Agent Mode.	-	Yes
Distinctive Ringing (WAV file).	-	Yes
Post Connect dial (sending DTMF while connected to another party).	Yes	Yes
VoIP mode (to run as an PC Softphone)	-	Optional license

## Phone Manager PC Requirements

- **Phone support:**

Any telephones connected to IP Office, although hands-free operation is only supported on suitable Avaya Digital and IP telephones.

- **PC requirements:**

- Always refer to the latest Avaya IP Office Technical Tip or Technical Bulletin for any updated information with regard to Operating Systems, Service Packs or PC hardware
- Refer to Technical Specifications section of the Product Description for Operating System and Hardware requirements

- **Licensing:**

- **Phone Manager Pro:**

Requires a Phone Manager Pro license for each user.

- **Phone Manager PC Softphone:** Requires an IP Office PC SoftPhone license in addition to the Phone Manager Pro user license. There must be equal or greater Phone Manager Pro licenses than PC SoftPhone licenses. The use of a headset is strongly recommended. Operation through standard speakers and integral PC microphones is possible but not recommended.

- Phone Manager Pro screen popping provides integration with Microsoft Outlook 2000/2003/XP, Act! 6.0 and 2005, Maximizer 7.5 and 8.0 Enterprise, Goldmine 6.0 and 6.7.

- Phone Manager PC Softphone supports QoS in the form of DiffServ for both Windows XP/2000.

- Phone Manager PC Softphone can be used over a wireless LAN; in this configuration no more than 3 simultaneous calls can be supported per access point.

- Up to 360 Phone Manager users can be supported on the same LAN subnet as IP Office. Where remote subnet Phone Manager users are deployed, up to 10 remote users will receive BLF updates.

- Up to 5 Phone Manager users can be supported on a single Citrix thin client server

- Instant Messaging options require the network to have a Microsoft Live Communication Server (LCS) with both a server license and client licenses for each user. Phone Manager has been verified as compatible with Microsoft LCS 2003 and 2005. No additional license is required in IP Office.

## SoftConsole

SoftConsole is the PC based Windows Operator Console for IP Office. SoftConsole has been designed to improve operator service by providing the operator with call information and available call actions to simplify call handling and give the appropriate response to the caller. With this easy to use software tool the operator can maintain visibility of the number and type of calls waiting and so ensure that clients are greeted in a professional manner. SoftConsole has a similar look and feel to the Phone Manger application and can be minimized in the Windows system tray when not in use, but will pop up on the screen when a call is received.

