

10. User Call Control Applications

Avaya provides the following call control application with IP Office Release 6.1:

- [Avaya one-X™ Portal for IP Office](#) ²⁷⁴
Avaya one-X™ Portal for IP Office is a server based applications that the user accesses with their web browser. It can only be purchased as part of the IP Office Office Worker, Power User and Teleworker user licenses.

one-X Portal for IP Office

The Avaya one-X™ Portal for IP Office is an application that provides users control of their telephone from a networked PC.

Avaya one-X™ Portal for IP Office can be used with any IP Office extension; analog, digital or any IP telephones, wired or wireless, and is available as part of the IP Office Office Worker, Power User or Teleworker user licenses only.

Avaya one-X™ Portal for IP Office is a server based application that the user accesses via web browser.

Via separate gadgets, Avaya one-X™ Portal for IP Office provides easy access to telephony features, call information, call and conference control, instant messaging, directory and VoiceMail Pro mailbox.

The screenshot displays the Avaya one-X Portal for IP Office interface. At the top, there is a navigation bar with 'Main' and 'Configure' tabs. The user's status is shown as 'MarkG(675) | Available' with a 'Logout' link. The main content area is divided into four sections:

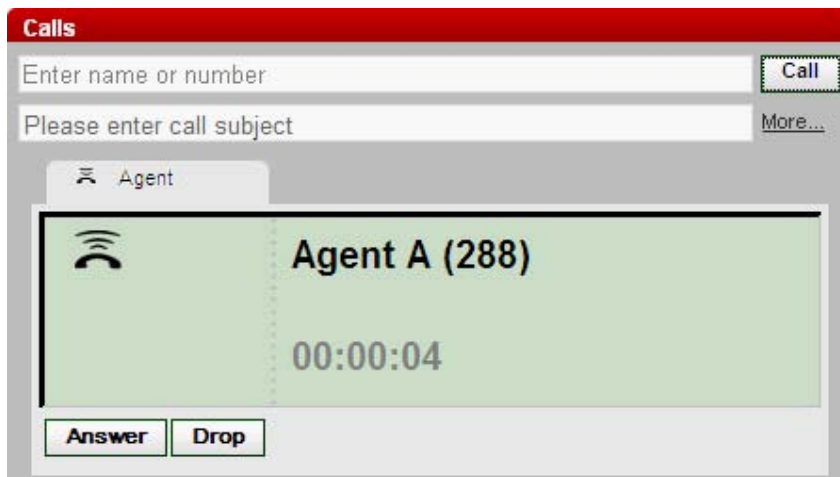
- Calls:** Shows a call in progress with 'Agent A (288)' and a timer at '00:00:04'. Buttons for 'Drop', 'Hold', 'Record', and 'Conference' are visible.
- Directory:** Lists contacts including Alex, Ashley, Andy, Brian, and Emma. Ashley's details are expanded, showing 'Call work: 1060', 'Call mobile: 5554567788', and 'E-mail work: gah@example.com'.
- Messages (7 unread):** A table listing messages with columns for State, From, Time, and Length.
- Call Log:** A table listing call records with columns for Type, Name, Time, Duration, and Calls.

Calls Gadget

Caller ID/Name Presentation

Caller ID is presented as standard (where provided) allowing users to see who's calling before answering. The caller's phone number and name (if known to IP Office) are clearly shown in the call status area.

The same information is also displayed should a second incoming call be presented, allowing users to easily switch between calls.



Desktop PC Telephony Controls

Avaya one-X™ Portal for IP Office has telephony buttons in the call gadget that activate standard telephone functions such as Answer, Drop, Hold, Retrieve, Record, Consult and Transfer so that users don't need to remember IP Office specific feature codes. These functions are context sensitive and appear depending on the status of the call. Keyboard shortcuts are available for Answer, Hold, Drop and Call functions and can be configured by the user.

Active calls can be easily parked by clicking on a park slot whilst displaying the active call. Four Call Park slots/zones, which can be shared between users and operators, or within a department on the same IP Office system, further add to the ease with which the entire call handling process is streamlined with Avaya one-X™ Portal for IP Office. Such parked calls can be retrieved either through Avaya one-X™ Portal for IP Office, Phone Manager, SoftConsole or a desktop phone. The call park slot names can be configured by the user.

Conferencing Controls

one-X Portal for IP Office allows the setting up of an ad-hoc conference call from calls on hold and/or the directory, or a meet-me conference. It is possible to configure the Conference ID of the user for meet-me conferences.

Once the conference is set up the conference originator will have the following functions:

- mute/unmute a party/oneself
- mute/unmute all
- drop a party from the conference
- hold the conference while others keep talking
- record the conference

Call Log Gadget

Call History

The call log displays details of calls you have made, received and missed and it will report the last 30 calls. Users can use the call log to make a call or add the caller to the Personal Directory.

The call log shows the actual call history, independent of whether the user was logged in at the time or not. The call log is centralized and also available on the desktop phone.

Calls are ordered in 4 tabs:

- **All:** all calls.
- **Incoming**
- **Outgoing**
- **Missed**

Call Log					
All Incoming Outgoing Missed					
Type	Name	Time	Duration	Calls	
	Spare 8 (425)	16-Jul 11:47:49 AM	8s	75	
	Chris (400)	15-Jul 3:37:24 PM	0s	7	
	Spare 8 (425)	15-Jul 3:37:24 PM	0s	7	
	MarkG (670)	15-Jul 3:36:53 PM	20s	10	
	MarkG (670)	14-Jul 3:35:39 PM	6s	45	
	Spare 8 (425)	14-Jul 8:34:17 AM	0s	1	
	Mark (431)	14-Jul 7:36:42 AM	14s	43	

Clear Tab

Each tab can be ordered by name, number, time of the call, duration, number of calls and call type. The order can be ascending or descending.

To make a call from the call log, the user simply clicks on the number they wish to call.

Messages Gadget

Voicemail Access

Avaya one-X™ Portal for IP Office will show new, saved and old voicemails received and provides access into the user mailbox allowing the user to play, rewind, fast-forward, save and delete messages.

The voicemails can be ordered by state (new, saved, read, private, urgent), caller, called party, time and length. The order can be ascending or descending.

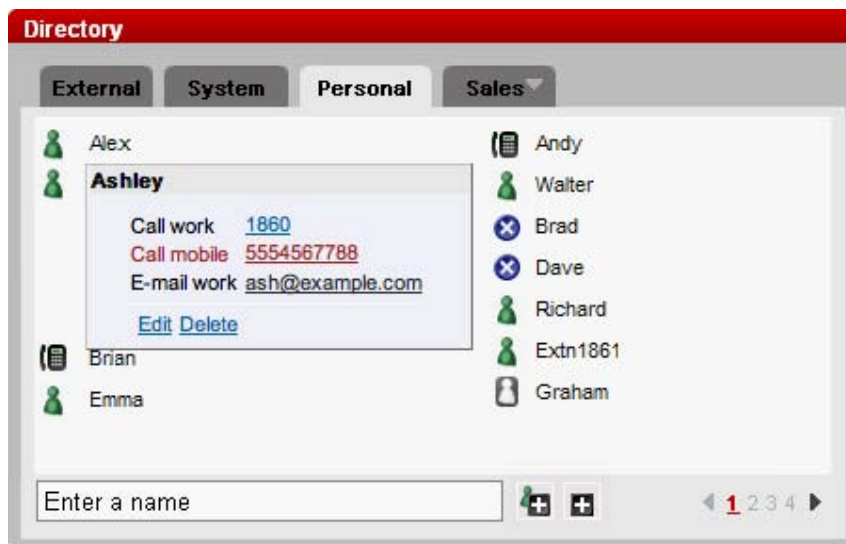
The user can easily call back the caller who left a message from the message gadget.

Messages (7 unread)					
	State	From	Time	Length	
<input type="checkbox"/>		Ernie (450)	07-Jul 10:39 AM	1s	
<input type="checkbox"/>		Albert (300)	07-Jul 10:37 AM	1s	
<input type="checkbox"/>		Alex (456)	16-May 8:50 PM	22s	
<input type="checkbox"/>		Alison (289)	16-May 6:44 PM	0s	
<input type="checkbox"/>		Claire (443)	16-May 6:44 PM	5s	
<input type="checkbox"/>		John (678)	16-May 6:30 PM	0s	
<input type="checkbox"/>		Simon (455)	16-May 6:30 PM	38s	

Directory Gadget

Directories

Avaya one-X™ Portal for IP Office can display several directories of names and associated telephone numbers.



- **Personal Directory**

This is the user's own directory of names and numbers. The user can associate multiple numbers (e.g. work, home, mobile, etc.) with a name and select which number to use when making a call. They can also edit and change the directory entries. The personal directory can contain up to 100 entries. The personal directory is common with the 1400, 1600 and 9600 Series telephones (as well as T3 telephones in selected EMEA countries).

- The Avaya one-X™ Portal for IP Office user can add up to 4 additional tabs for personal directory contacts,

- **System Directory**

This is the directory of names and numbers from the IP Office telephone system plus all the users and groups on the telephone system. These entries cannot be changed, but the user can copy a system directory entry into your personal directory and modify it.

- **External Directory**

The system administrator can configure Avaya one-X™ Portal for IP Office to access one external directory (Active Directory / LDAP).

Searching the directories is easy: with the Personal Directory and the System Directory, as you enter a name or number in the box at the bottom of the tab, only matching directory entries will remain in view.

With the External Directory, you must enter a name or number to perform a search.

The user can make a call directly from the directory gadget by clicking on the number associated with the entry. If more than one number is available for this entry, they can choose which one to call.

User Status/Presence

For the directory entries of other IP Office users, Avaya one-X™ Portal for IP Office will indicate the status of the user at their work number. This status is available for users across an IP Office Small Community Network.

The status can be:

State	Icon	Description
Available		The normal state for a user when their extension is not in use.
Busy		The normal state for a user when their extension is on a call.
Do Not Disturb		The user has set Do Not Disturb . Calls to them will go to voicemail if enabled or else get busy tone unless you are in the user's Do Not Disturb exception list .
Logged Out		The user has logged out from their phone. Calls to them will most likely go to voicemail if available.
Other		This icon is used when the status is not known.

Presence within Avaya one-X™ Portal for IP Office allows the user to create sets of call redirection settings. Through the configuration tab the user can create different Presence entries and associate different rules to each such as forwarding to a different number or Do Not Disturb. In case of Do Not Disturb, the user can establish a list of numbers (DND exceptions) from whom the user wants to receive calls.

World Clock Gadget

The World Clock gadget shows you the current time in different time zones previously selected.

Agent Control Gadget

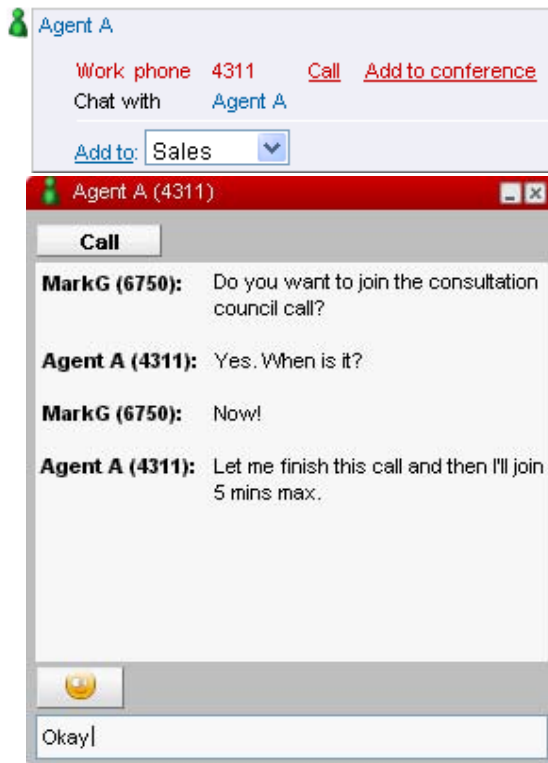
If the user is also a Customer Call Reporter agent, this gadget is displayed. Users can use it to see their current agent state and change that state.

In Agent Control Gadget, Agents are offered the ability to set their state as:
Available
After Call Work
Busy Not Available

It can also be used to change the membership status in the different Customer Call Reporter queues to which the user belongs.

Instant Messaging Another Avaya one-X™ Portal for IP Office User

From the Directory entry of a user the option **chat with** allows the establishment of an instant messaging session. Such sessions can be established only with other logged on one-X Portal users and can be established while on multiple calls.



Personalizing the Layout

There are a number of ways in which the one-X Portal for IP Office gadgets layout can be adjusted. Any changes made are stored by the one-X Portal for IP Office in your user settings so the saved version is always available when the user logs in again.

Change the one-X Portal for IP Office Layout

- Select a Skin – there are 2 skins available to choose from
- Change the Column Widths – the screen is in divided in two columns of variable width.
- Show/Hide a Gadget – it is possible to minimize unused gadgets and use the available space for the used ones.
- Resize a Gadget – by dragging the resize icon at the bottom of the gadget it is possible to change size to a specific Gadget.
- Move a Gadget – by dragging the gadget itself
- Default the Layout – go back to the factory default.

Profiles

By setting and creating using profiles the user is able to easily control where your calls are directed and how they are treated.

There are 3 default profiles, called Office, Mobile and Home. These can be edited but not deleted. The user can create up to 5 additional profiles. A special profile called Detected may also appear and it is displayed when the current telephone system settings don't match any of the profiles.

By selecting which of the saved profiles is the current one, the user applies that set of settings to the telephone system.

When creating or editing a profile, there are 4 settings that the user will have to select:

- Mobility - The user can choose between:
 - The default desk phone
 - A number to forward the calls to
 - Mobile Twinning with the number to twin
 - Telecommuter with the number where the user is based
- Voicemail - The user can choose to activate/deactivate the following options
 - Voicemail on call not answered
 - Voicemail ringback
 - Voicemail Outcalling
 - Voicemail to be listened on PC or on phone.
 - Active Greeting – The user can choose which recorded greeting to make active.
- Call Pick Up – on/off

Call Assistant

Call Assistant is an optional desktop application that enables the following functions:

Screen pop when receiving a call.

The screen will show the name (if in the personal or system directory) and number of the caller and the user can answer or drop the call by clicking on the relevant button

Outlook Contact Pop

It will also give the option to automatically pop up the Outlook 2003/2007 Contacts entry for the caller or the called.

Hot Key

The one-X Call Assistant can be used to make a call by dialling a number selected in a Windows application. To do this, simply select or highlight the number in the Windows application and then press your one-X Call Assistant's hot key combination.

Feature Summary

Feature	Phone Manager Lite	PMPPro	one-X Portal for IP Office
Web browser based	-	-	Yes

Feature	Phone Manager Lite	PMPPro	one-X Portal for IP Office
OS independent (Windows, Linux, Mac support)	-	-	Yes
Click to dial	-	-	Future
Citrix/terminal server support	-	-	Future
Inbound/outbound call handling	Yes	Yes	Yes
Phone call control	Yes	Yes	Yes
Configure phone preferences	Yes	Yes	Yes
Configure keyboard short cuts	Yes	Yes	Yes
CLI (ANI) / Name display	Yes	Yes	Yes
Speed dial / Busy Lamp Field management	Yes - 15 icons maximum.	Yes - 100 icons maximum per tab.	Yes - from Personal & System Directory
Speed Dial tabs (to group Busy Lamp Field icons)	Yes - 1 tab.	Yes - 10 tabs maximum.	Yes - 5 Personal Directory tabs maximum.
Transfer call by drag and drop to a speed dial icon	-	Yes	-
View internal users' presence	Yes (Telephony + LCS[1])	Yes (Telephony + LCS[1])	Yes (Telephony + User Status)
Send Instant Messages (IM) to internal users	Yes (requires LCS[1])	Yes (requires LCS[1])	Yes
Telecommuter mode	-	Yes (not PC SoftPhone)	Yes
Mobile Twinning Configuration	-	-	Yes
Call Pick Up	-	-	Yes
Compact mode	-	Yes	Yes - Call Assistant
Personal Phone Directory	-	Yes - 1000 entries maximum.	Yes - 100 entries maximum
System Phone Directory	-	Yes - 5000 entries maximum.	Yes - 5000 entries maximum
External Phone Directory (e.g. LDAP/Active Directory)	-	Yes - 5000 entries maximum.	Yes - unlimited
Call history log - all, missed, messages.	Yes - while logged in.	Yes- while logged in.	Yes - 24/7 call log
Separated incoming/outgoing call log.	-	Yes	Yes
Collect new voicemail messages.	Yes	Yes	Yes
Voicemail box control (Intuity and IP Office modes).	-	Yes	Yes
Personal Distribution List set up (Intuity mode)	-	Yes	-
Incoming call scripting.	-	Yes	-
Time on call.	-	Yes	Yes
Advice of Charge (ISDN service provider dependent)	Yes	Yes	-
Door opening control.	-	Yes	Yes (via analog extension)
Queue monitoring.	-	Yes - 2 Queues	Future
Conference Control Display.	Yes	Yes	Yes
Audio Conference Management	No	No	Yes
'Screen pop' contacts with Outlook	-	Yes	Yes
Simple Outlook contact record creation.	-	Yes	-
Agent Mode.	-	Yes	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	Yes (with Power User and Teleworker licenses only)

Feature	Phone Manager Lite	PMPro	one-X Portal for IP Office
Video Softphone	-	-	Yes (with Power User and Teleworker licenses only)

1. LCS: Microsoft Live Communications Server 2003

Server, Browser and Other Requirements

- **Phone support**
Any telephone connected to IP Office, although handsfree operation is only supported on suitable Avaya Digital and IP telephones.
- **Server and Browser requirements**
 - Avaya one-X™ Portal for IP Office supports the following browsers:
 - Microsoft Internet Explorer versions 7 and 8.
 - Mozilla Firefox version 3.0 and above.
 - Windows Safari and Apple Safari 3.1 and above.
 - The server requirements are:
 - Intel Pentium D945 core/AMD Athlon 64 4000+; with 3 GB RAM and 20 GB free hard disk space.
 - OS supported: Windows Server 2003 (32 and 64 bit).
 - 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.
- **Licensing**
Avaya one-X™ Portal for IP Office requires a Avaya one-X™ Portal for IP Office license for each user. This license is part of the IP Office Power User, Office Worker or Teleworker user licenses and is not available separately. The Telecommuter mode and SoftPhone are available only with Power User and Teleworker. Softphone does require an Avaya IP Phone license on IP Office and it is part of profile licensing.

IP Office Video Softphone

With Release 6 IP Office introduces – as part of the Teleworker and Power User package – a new Softphone application.

With Release 7 a number of new features have been added to Video Softphone:

- Busy Lamp Field allowing to see telephone status of colleagues including pickup of alerting calls
- HD Video support, delivering high quality Video conferences between Softphone users as well as with other supported Video endpoints.

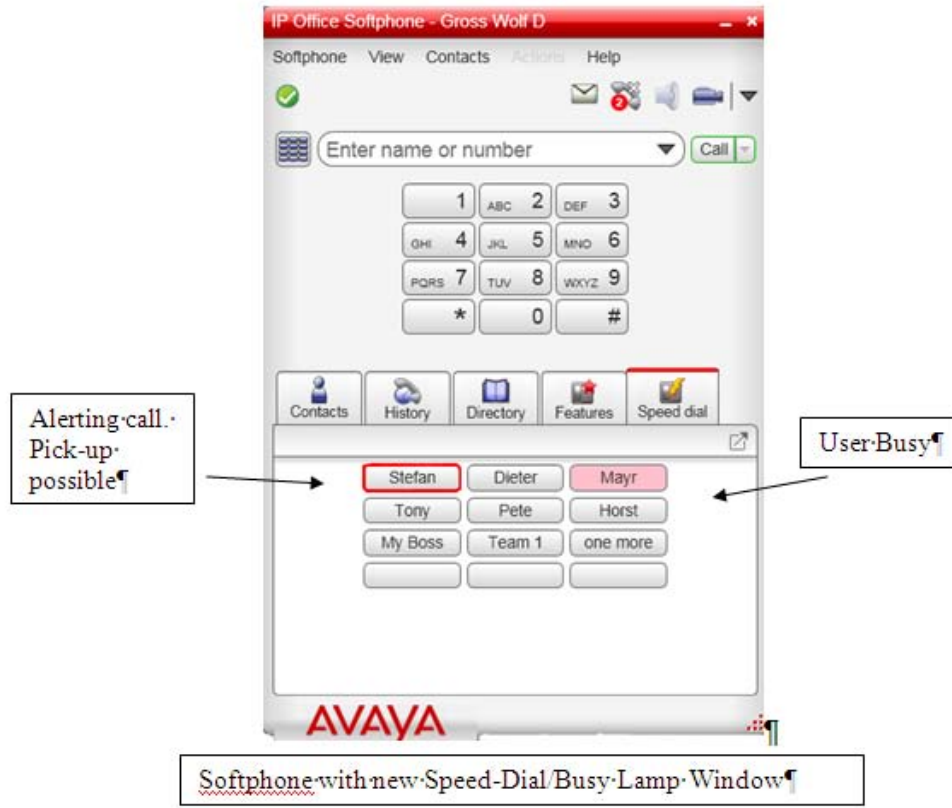
The Softphone is a full feature telephony client that supports standard telephony features on a PC running supported Microsoft operating systems including new Microsoft Windows 7.

Support of several audio options including support of wireless headsets with full hook-switch support provides a flexible telephone option, especially for people on the move.

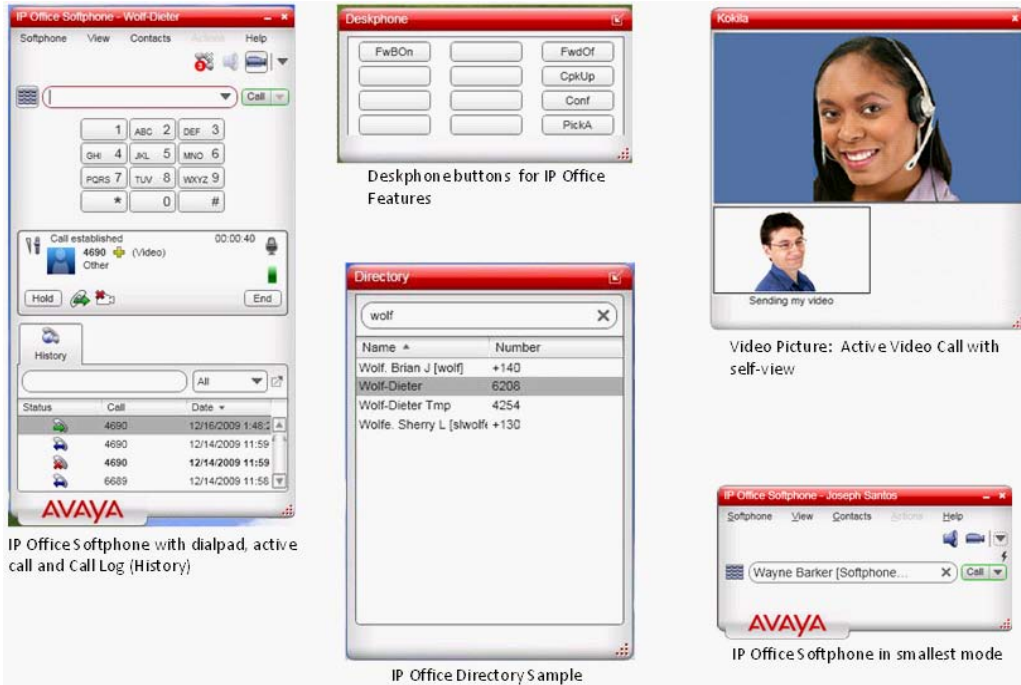
Softphone is part of the Teleworker and the Power user package. An applicable Teleworker/ Power User license for the user of the Softphone is required; however Softphone does not require any additional license, e.g. no (Avaya) IP-station license.

Softphone can run in two different operating modes:

a) Softphone client mode: The Softphone provides its own User interface, similar to a standard IP Office telephone for making calls, transferring calls, multiple call appearances or making conference calls. A programmable feature button list allows one-touch access to standard IP Office features. This is the preferred usage scenario for customers not running other IP Office productivity applications like one-X portal. It is also the preferred operation mode for users who want to smoothly migrate from their desktop phone or who use Softphone only occasionally and prefer a phone-centric user-interface, with optional dial pad and standard phone feature keys. The user interface is flexible, allowing adjustment for personal preferences with detachable specific windows like the directory and call log window. The attached picture shows the Softphone with dial pad and feature keys, plus a view of the contacts of Softphone.



Softphone can also be configured to be minimized to the system tray when not in use to smaller or larger configurations to save desk-space.



IP Office Softphone with dialpad, active call and Call Log (History)

Deskphone buttons for IP Office Features

Video Picture: Active Video Call with self-view

IP Office Directory Sample

IP Office Softphone in smallest mode

b) Application mode: the Softphone runs in the background and standard call control is accomplished through productivity applications, such as one-X Portal for IP Office that is part of the User profiles described above.

If run with one-X portal it provides the following additional value:

1. Consistent user interface when using one-X Portal with a desktop phone, in telecommuter mode or in combination with Softphone.
2. Off-line call log with updates even when Softphone is not logged in
3. Additional features of one-X Portal e.g. presence and instant messaging.

Video Support

As well as audio calls, IP Office Video Softphone supports end to end video calls on a single IP Office or within an IP Office Small Community Network. Currently, video is limited to end to end calls, no multi-party conferencing is supported.



Video adds a new level of interaction to the standard phone communication so this is especially useful for users working from a remote location, needing to get in touch with colleagues in the main site or when used in an IP Office Small Community Network.

Feature Overview

The following feature overview is applicable when using the Softphone in Client mode. When used in application mode, functionality depends on that application.

- Making and receiving calls
- Multiple Call Appearances (No bridged or line appearances)
- Hold, transfer (attended and unattended)
- Message waiting with direct voicemail access
- Audio Conference (IP Office based)
- Local call log, local directory
- Access to IP Office directory (system, corporate, personal)
- Feature keys for up to 12 IP Office features like:
 - Forwarding (various methods like all, busy, no answer)
 - Park/Unpark
 - Pick up (any, group, member)
 - Voice-Mail on/off
- Speed Dial Tab with Busy Lamp Status:
 - Free Configurable Speed Dials: 12-60 Buttons
 - Visual Indication of User Status (Busy, Alerting)
 - Pick-Up of Alerting calls

Features keys can be selected and self administered from a list of features that is downloaded from IP Office.

If equipped with an audio device with hook switch control, Softphone allows calls to be made or answered even when the screen-saver of a PC is activated and the PC is locked. Until the PC is unlocked, no screen will be shown but ringing calls can be accepted through e.g. a headset with hook-switch.

Licensing and Provisioning

IP Office Video Softphone forms part of the Teleworker or Power User profile. A user can log onto the Softphone using their normal username and password. License entitlement will be checked against that user before the login is accepted.

Unlike Avaya hard telephones, Softphone does not require an Avaya IP Phone License to work on IP Office.

While the Softphone is a thick client application, it is extremely easy to install and provision. Installation of the application on a standard PC requires minimal to no configuration as all provisioning of the product is done from the IP Office as a provisioning server.

If a DHCP server is present and set up correctly, Softphone will completely configure itself. The user only needs to enter the username and password to get connected.

If DHCP is not available, the user needs to enter a single IP address of the IP Office; all other parameters will be set automatically.

Softphone can be set up so that, when the PC starts up, the application is automatically started with the default username and password. The user can disable automatic login as well as interrupt it any time.

Username and Twinning

When logged in to Softphone with their username and password, the user will automatically be logged off from their existing desktop extension, so the user is fully available on their normal number without any additional steps.

For users that are using a physical telephone e.g. in the office, this is very convenient as they do not use a different extension for Softphone calls. All calls will be routed automatically to the Softphone when logged in. There is no need to use twinning to tie the Softphone to the standard desktop phone.

Supported Audio and Video Hardware

Softphone can run with any Windows sound device supporting full-duplex quality.

If possible, audio devices are automatically detected and allocated to the Softphone.

Softphone supports simultaneous operation of two sound devices, e.g. a headset or USB handset for normal calls and a USB handsfree unit for handsfree operation. It is possible to switch between the sound devices at any time during the call.

For alerting, in addition to that the PC speakers can be activated to ring the phone.

For ease of use, similar to desktop telephones, Softphone supports USB devices for audio as well as for call control, e.g. accepting and terminating a call. Softphone supports the "HID" standard for USB devices allowing generic USB devices to be configured.

A number of USB devices have been tested with Softphone for interoperability, including Hook switch control as well as dialing (if supported by that device).

- Audio Devices:
 - Plantronics DSP (USB headset)
 - Plantronics 510 (Bluetooth headset with USB base)
 - Plantronics CS50 (USB wireless headset)
 - GN Netcom 8120 (USB headset adapter for GN Netcom headsets)
 - Yealink W1DL (Cordless USB phone with Dialpad)
 - Yealink P1K (Corded USB Phone with Dialpad)
 - Generic USB soundcard and USB HID interface support (with configuration assistant)
- Video Cameras:
 - Logitech QuickCam Pro 4000, 5000, 9000
 - Creative Webcam NX Pro
 - Microsoft Lifecam VX-3000
- Video Cameras for HD Video.
 - Logitech Webcam Pro 9000:

Supported Audio and Video Codecs

Softphone supports G.711 and G.729 Audio Codecs. Audio Codec negotiation is done by IP Office in order to ensure best quality for local or SCN calls. At login, the user can select the default mode, e.g. best quality or low bandwidth for remote operation.

For Video, Softphone supports H.263, H.263+ and H.264 Video Codecs with resolution of up to 1280*768 pixels and 30 frames per second.

Resolution	Pixel	Typical Net Video Bandwidth Requirement	
		H.263	H.264
Low	176 x 144 (QCIF)	64 kbps	45 kbps
Standard	320 x 200 (QVGA)	162 kbps	114 kbps
High	640 x 480 (VGA)	776 kbps	545 kps

Note: The above numbers show an average bandwidth requirement but peak usage might be higher. The above numbers do not include the audio-bandwidth.

Supported Languages

Currently the following languages are supported:

- **English,**
- **French,**
- **Spanish,**
- **Italian,**
- **Portuguese**
- **Simplified Chinese**

Over the time, new languages can be added to the product.

PC Requirements

- **Processor:**
 - Minimum: Pentium 4 2.4 GHz or equivalent, Video Card with DirectX 9.0c support
 - Optimal: Intel Core 2 Duo or equivalent, Video Card with DirectX 9.0c support.
- **Memory:**
 - Minimum: 1 GB RAM
 - Optimal: 2 GB RAM
- **Hard Disk Space:** 50 MB
- **Operating System:** Windows XP Service Pack 2, Windows Vista, 32-bit and 64-bit, Windows 7 32-bit and 64-bit.
- **Additional:** Microsoft Windows Installer 3.1, Microsoft .NET 3.5 SP1, Microsoft VC 9.0 Runtime Service Pack 1
- **Connection:** IP network connection (broadband, LAN, wireless)
- **Sound Card:** Full-duplex, 16-bit or use USB headset

For HD video, the minimum requirements are Intel Core 2 Duo 2.3 GHz or equivalent, hardware video acceleration, camera and 2GB RAM

Note that these are recommendations. Depending on other applications on the PC, Softphone cannot guarantee uninterrupted Voice and/or Video quality. While Softphone runs with high priority on the PC in order not to be impacted by normal applications other programs with similar priority could impact Softphone performance. Example applications could be other Multimedia or communication applications like web-sharing programs or programs that are essential for PC performance like some Virus-scanners or firewall programs.