

Cisco SPA 504G

Setup and User Guide



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1. Introduction

1.1. Purpose of this Document

This guide is to show you how to install and use your Cisco SPA504G phone which you will use in conjunction with your Altos portal website (**www.telephony-cloud.com**), therefore the functionality and features described are an appropriate subset of those available. Full details of the phones capabilities can be found in the *Cisco Small Business Pro IP Phone SPA 50X User Guide* which can be obtained from the Cisco web site.

1.2. Related Documents

The *Setup and User Guide* provides guidance for the ordinary user on the facilities and features of your phone system. It should be used in conjunction with this guide.

The *System Administrators Guide* provides instruction for the Company Administrator in setting up the Altos system and configuring the features and functionality available to each user.

For Gold product Administrators there is an additional *Gold Subscribers Guide* for the Auto Attendant and Call Recording Capabilities.

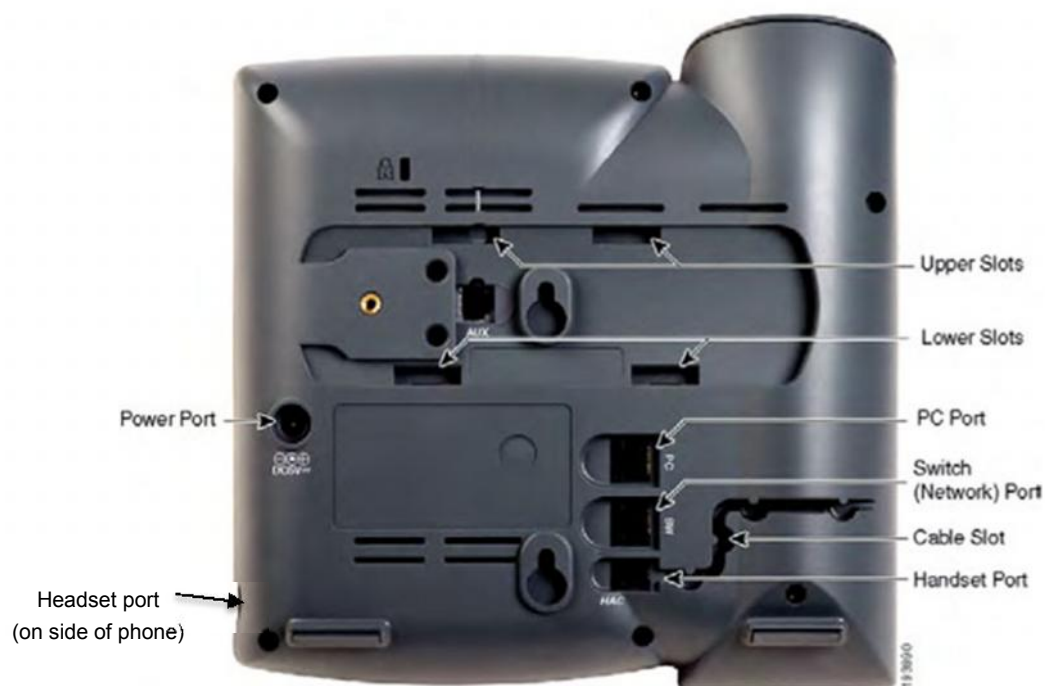
These guides can be downloaded from the Support Menu on the portal website or accessed via the **Help** menu.

2. Getting Started

2.1. Equipment Required

- Cisco SPA504G phone
- Power Supply – either unit with plug or a PoE (Power over Ethernet) switch
- Ethernet Broadband Router
- Operational Ethernet LAN
- Ethernet cable to connect telephone to router
- Configuration Details sheet giving the following information:
 - Phone number
 - Service Pin
 - Portal website logon details

2.2. Phone Assembly



- Find the longer end of the coiled phone cord. Insert it into the back of the phone base in the slot marked Handset Port.
- Insert the short end of the handset cord into the jack at the bottom of the handset (not shown)
- Attach the desk stand by lining up the tabs on the desk stand with the slots on the back of the phone. Slide the bottom tabs into the slots.
- Lightly press down on the top of the desk stand. It should easily slide into the top slots. Do not force.

-
- If you are using an external power source plug the power supply cable into the power port on the phone base.
NOTE. The Cisco SPA 504G does not ship with a power supply. If you are not using Power over Ethernet (PoE), you must order the PA-100 power supply separately.
 - If you are using Power over Ethernet (PoE) to power the phone, the phone will receive power when you connect an Ethernet cable from the phone's Network port to a switch in your network that provides PoE.
 - If you are using a headset, plug the 2.5mm jack into the port on the right hand side of the phone.

2.3. Router

Your router should be set up to perform NAT (Network Address Translation) and act as a DHCP server (or have a standalone DHCP server somewhere on your network). These features are normally enabled by default on most routers.

An IP address will be allocated to the phone automatically when you plug the Ethernet cable from your phone into your router.

Please note: you should ensure the following ports are not blocked by the firewall within your router:

Far end ports

- UDP Ports 4144 and 4244
- UDP Ports 10000 to 32767
- HTTPS Port 443
- Sys Log Port 514
- HTTP Port 80
- DNS Port 53
- NTP Port 123

Local ports

Outbound requests to standard services will be from a random port (as for a PC)

The following ports will be used to receive SIP and RTP packets

- UDP Ports 5061 and 5062
- UDP Ports 10000 to 32767
- UDP Ports 4241 to 4280

It is our strong recommendation to minimise the number of firewall rules required on the router. This will reduce the CPU load on the router and also future proof the site from future additions to the service.

This can be simply implemented by a single rule which allows all (UDP and TCP) traffic to and from 154.51.129.0 netmask 255.255.255.0 - this is a /24 network

The system can support both static and dynamic IP addresses.

2.4. Making the Connection

Plug in the network and power connections. The phone will then perform a boot-up sequence. During this sequence the line lights (on the top right of your phone) will initially glow orange and then the phone with screen will display the Cisco logo followed by 'Initializing Network'.

After your phone is successfully connected to the network and receives a basic configuration, your phone line keys should glow green.

The phone screen will then display the standard menu for the phone. The date, time and number of the phone are displayed on the top line of the LCD screen. At the bottom action commands are displayed over their associated soft keys.

You should now hear a dial tone when you pick up the handset or press the loudspeaker button. Try making a call.

2.5. Connection Failure

If at any time you don't hear a dial tone or the line lights turn orange then unplug the power supply to the phone and reboot your router. When the router has successfully rebooted plug the power back into the phone.

If the line lights still fail to turn green then this may be because there is a power failure, broadband ADSL fault or connection device failure. If you are unable to identify a fault then please contact your provider.

2.6. Phone Lines

The 4 buttons at the top right of the phone are the line buttons. A phone can have one or two lines associated with it and each line has two line buttons.

If your phone has one line, then two line buttons will be lit. If your phone has two lines, four line buttons will be lit.

For each phone line this allows you to:

- make a second call while a call is already in progress (putting the first call on hold)
- receive a second call while a call is already in progress (if Call Waiting is switched on)
- to switch between two different calls

2.7. Log on to the Portal Website

Once your connection is established open up the portal website

www.telephony-cloud.com and log in using the Username (logon ID) and Password given in the Configuration Details sheet that came with your handset.

You can now set up the particular features and facilities you would like to use on your phone service. Please see the *Setup and User Guide*.








If you experience any problems call Customer Services. The number to call can be found by hovering over the telephone icon at the top right of the **Home** page, or clicking on 'Talk to Customer Services Now'

3. Know Your Phone

3.1. Phone Features



Diag No	Phone Feature	Description
1	Handset	Pick up to place or answer call
2	Message Waiting Indicator	Displays solid red when you have a new voice mail message Flashes red during an incoming call
3	LCD Screen	Displays date and time, Phone numbers and soft key options
4	Line Buttons	Indicates phone line status when lit: Green – Line is idle Red (Steady) – Line is active or in use Red (Blinking) – Line is on hold Orange – Line is unregistered and cannot be used


Diag No	Phone Feature	Description
5	Soft Keys	Press a soft key to perform the action shown on the lable on the LCD Screen above
6	Navigation Pad	Press an arrow key to scroll left, right, up or down through items shown on the LCD screen
7	Messages Button 	Press to access Voice mail
8	Hold Button 	Press to place a call on hold
9	Setup Button 	Press to access a menu to configure phone feature and preferences
10	Mute Button 	Press to mute or unmute the phone. When the phone is muted, the button glows red.
11	Volume Button 	Press + to increase the volume and – to lower the volume of the Handset Headset Speaker (when the handset is off the phone) Ringer volume (when the handset is on the phone)
12	Headset Button 	Press to turn the headset on or off. When the headset is on the button glows green
13	Speaker Button 	Press to turn the speaker on or off. When the speaker is on the button glows green
14	Keypad	Use to dial phone numbers, enter letters and choose menu items
15	Headset Port	2.5mm Jack plug for headset (in side of phone)

4. Using Your Phone

4.1. Phone Operation

You may use the handset, the inbuilt speaker or an approved headset to make and receive calls.

Making the connection

Picking up the handset, pressing the **dial** soft key or pressing the speaker button  will connect the phone to the first line on your phone. If you wish to use the second line then press the second line button on the top right of the phone. The line in use will glow red.

Pressing the **dial** soft key when the handset is on the phone will automatically invoke the speaker unless the headset is plugged in.

Integration with Portal Website

The phone is fully integrated with the portal website so that you can access your company and personal address books and use any of the short codes you have specified directly from the phone.


In addition there are many *Service Codes* that allow you to enable and disable many features of the system and to check on their current status. These are all described in *Key Phone Numbers Directory* in the *Setup and User Guide*.

The portal website supports *Click-2-Talk* which enables you to click on any number displayed on your PC in the Company or Personal address books, Call History or Voice mail and have it automatically connected to your default phone.

Dialling Assistance

As you start to dial a number the phone's LCD screen will display a list of phone numbers from your directories or recent call history list that most closely match the numbers you have entered so far. Use the navigation pad to choose the desired number and then press any dial key.

Speed Dial

In addition to using short codes for phone numbers you often call – see the *Setup and User Guide* – you can assign up to 8 numbers to the keys (2 to 9) on your phone. To set this up press the Setup button  on your phone, scroll to *Speed Dial* and press the **select** soft key. Scroll down to a *<Not Assigned>* number and press the **edit** soft key. You may then enter the phone number you want associated with this key, previously defined short codes can also be used. Finally press the **ok** soft key to confirm the assignment.

To use *Speed Dial*, just hit the appropriate number key on the phone and any dial key to connect the call.

4.2. Phone Functions

The main functions of the phone are enabled by the four buttons at the top of the phone under the LCD screen which are known as *soft keys* and can have varying actions associated with them depending on the status of the phone at any particular time. The function of each key is displayed in the LCD screen immediately above the key. More functions may be found by scrolling the LCD screen using the left and right arrow keys on the navigation pad.

Home Screen Options

When the phone is inactive the standard soft key action arrangement is:

GPickUp **dir** **dnd** **redial** ➔ **cfwd**

(where ➔ indicates scroll)


GPickUp If you are a member of a Call Pickup Group then you can pick up another group member's ringing call if they are unavailable or busy. When you hear their phone ringing press the **GPickUp** soft key, but don't pick up the handset. You will first hear an engaged tone for a short time (this tells you that the system has identified the call to pick up) and then your phone will ring. The ringing call will be transferred directly to you. See the *System Administrators Guide* for details of Call Groups.

Dir This gives you access to both the local phone directory held in your phone and the company and personal phone directories held in your online account on the portal website. You are encouraged to use the latter directories as they can be conveniently added, amended and deleted online. The 3 options presented allow you to add a 'New Entry' to the local phone directory, 'Search' the local directory or to search your online account indicated by the '*Company account name*'. Scroll down to the required option, press the **select** soft key and enter details via the phone keys.

dnd Do not disturb. Pressing this key on the phone will temporarily make your phone unavailable for receiving calls. Any calls to this phone when **dnd** is set will either hear the engaged tone or, if any Voice mail feature such as *Call Forwarding to Voice Mail* has been activated for this phone number, they will hear a short message, typically "The person on number XXX is unavailable, please leave your messages after the tone. When you have finished hang up or press the hash key".

When *dnd* is turned on, the phone handset will display **-dnd** indicating which key to press to deactivate the DND operation.

redial Displays a list of recently dialled numbers followed by the date and time the number was called and its duration. Scroll down to

the required number and dial it by lifting the handset, pressing the speaker key  or pressing the **dial** soft key which will invoke the speaker. Alternatively you can **delete** the entry, **edit** the number or **save** it in your local phone address book. Choosing this latter option will prompt you to enter a name under which the number will be stored. Pressing **cancel** will return you to the home screen.


cfwd Pressing this soft key will request a number to which all future incoming calls will be transferred. This should be the full number and not a short code. However, it is better to use the portal website facility for call forwarding as it is much more versatile.

When *cfwd* is turned on, the phone will display **-cfwd** indicating which key to press to deactivate the call forwarding operation.

Receiving a Call

When you receive a call only two soft keys are active:

answer **ignore**

answer Either pick up the handset or press the speaker key  to take the call. Pressing the answer soft key will invoke the speaker if the handset is on the phone.


Ignore If you do not wish to take an incoming call on your phone press the **ignore** soft key. The caller will then either hear the engaged tone or, if any Voice mail feature such as *Call Forwarding to Voice Mail* has been activated for this phone number on the portal website, they will hear a short message, typically "The person on number XXX is on the phone, please leave your messages after the tone. When you have finished hang up or press the hash key".

The **ignore** command deactivates automatically on the incoming call terminating.

Making a Call

When you enter a phone number to make a call the soft keys become:

dial **delChr** **clear** **cancel** → **<<** **>>** ***code** **alpha**

- dial** Once you have entered a number or short code you can invoke dialling by either picking up the receiver, pressing the speaker key  or pressing the **dial** soft key which will use the speaker if the handset is on the phone.
- delChr** Allows you to delete the last number or character on the LCD display.
- clear** deletes all the numbers or characters on the LCD display.
- cancel** Cancels the current operation and takes you back to the previous state.
- << >>** Moves cursor left or right through an entry without deleting characters.
- *code** Allows you to choose to activate some special function 'star codes'. Full details can be found in the *Cisco Small Business Pro IP Phone SPA 50X User Guide* which can be obtained from the Cisco web site. However, you should be aware that the portal website allows you to set up many of these functions in a more convenient and controlled way and which can be used on other, external phones
- alpha** Switches between numbers and letters on the phone *keyboard*.

Call Connected Options

When your call is connected the soft key arrangement changes to:

hold **endCall** **conf** **xfer** → **bxfer**

- hold** If you wish to put a current call on hold then either press the **hold** soft key or the button with the hand symbol. This keeps the other party on the line (hearing either silence or *Music on Hold* if that has been configured) but communication is suspended until you press the **Resume** soft key on the handset. Note that pressing the hand symbol button again will not resume the call.
- endCall** Terminates the call.

Putting a Call on Hold

Pressing **hold** makes the soft keys:

resume **endCall** **newCall** **redial** ➔ **dir** **cfwd** **dnd** **park**

resume Resumes a call on **hold**.

endCall No action

newCall Allows you to call another number while keeping the original call on **hold**.

redial Displays a list of recently dialled numbers, see description above.

dir Gives access to both local and online directories, see description above.

cfwd Requests a number to which all future incoming calls will be transferred, see description above.

dnd Do not disturb. See description above

park Parks the call at an unused extension to be picked up by another member of your Call Group as setup by your System Administrator. See the chapter on Advanced Phone Features for more information.

3-Way Calling

conf To share a call between 3 parties you make use of the conference facility on your phone. Call the first person you wish to speak to and when they answer press the **conf** soft key on your phone. This places the first call on hold and you will hear the dial tone again. Call the second person you wish to hold a joint call with by using the soft key options now presented. When they answer you can have a private conversation with them as they first person is still on hold. Finally press the **conf** soft key once more and all 3 of you will be connected.

If you want to leave the call but still permit the other 2 parties to continue the call press the **join** soft key. However, as you initiated the call you will be billed for the whole call whether you are involved or not.

Transferring a Call

xfer **Attended Transfer** - To transfer an attended call to another phone press the **xfer** soft key on the phone. This puts the call into hold and you will hear a dial tone. Call the person you wish to transfer the call to either by entering their number or by using the soft key options now presented and when they answer you may speak privately to them before transferring the call. To complete the transfer of the call press the **xfer** soft key once more and the call will be transferred and you may hang up.

Unattended Transfer - To transfer an unattended call to another phone press the **xfer** soft key on the phone. This puts the call into hold and you will hear a dial tone. Call the person you wish to transfer the call to either by entering their number or by using the soft key options now presented and as soon as you hear a ringing tone press the **xfer** soft key once more and the call will be transferred and you may hang up.

bxfer **Blind Transfer** If you want to make an unattended call transfer where the receiving phone displays the originating call details, rather than the transferring phone details, then press the **bxfer** soft key (you may need to scroll the handset display to the right using the navigation pad). Call the person you wish to transfer the call to by entering their number followed by the **dial** soft key and as soon as you hear a ringing tone hang up. The call will be transferred.

Missed Calls

If you have missed calls on your phone it will display a message telling you how many calls you have missed and offers you the following options:

lcr — — **miss**


lcr This dials the last call received

miss Shows the missed calls list detailing the number that called, the date and time and duration of the call. If the number is in your address book it will also display the name of the caller. No number will be shown if the number is withheld by the caller. You can **dial**, **delete**, **edit** or **save** the number that called.

Voice Mail

If you have configured your system to take Voice mail messages via your account on the portal website – see *Setup and User Guide* – you can access the messages directly from your phone without having to go online. A full description of all the options available can be found in the *Setup and User Guide* under the *Picking up messages via an external phone section*.

You will know you have a message waiting as the *Message Waiting Indicator* strip at the top of your phone will be glowing a steady red.

To listen to your messages simply press the Voice mail button  and you will be first be given a count of how many new and old messages you have and a menu of options, the most important of which is to “press 1 to listen to your messages”. The playing of your message will be followed by a list of options to press:

- 3 – Advanced Options. You will be presented with options to send a reply, hear the message details or to make an outbound call
- 5 – Repeat current message
- 6 – Play Next message
- 7 – Delete current message
- 8 – Forward message to another phone
- 9 – Save to Folder. You will be presented with the list of possible folders

When the message is playing * will rewind to the start of the message and # will fast forward to the end of the message.

4.3. Advanced Phone Features

Call Waiting

Call Waiting On

To turn Call Waiting on dial *service code* *56 on your phone handset. There is no confirmation given, but Call Waiting will remain active until turned off.

If you are on another call when a third party calls, Call Waiting will let you know there is an incoming call by momentarily ringing your phone and flashing the *Voice Mail Notification* strip at the top of the phone handset and if you have another line available it will also flash that line button. There will also be an occasional bleep heard on your phone.

If a Voice mail feature has not been activated for this phone number then the third party will stay on the line hearing a ringing tone indefinitely until you either terminate your current call or press the second line button. In this latter case you remain connected to your original call, which is put on hold, and you may switch between the two using your line buttons.

If a Voice mail feature has been activated for this phone number then the third party will stay on the line only for the time you specified in *Voice mail* settings on the portal website at which point they will hear the Voice mail message.

Call Waiting Off

To turn Call Waiting off dial service code *57 on your phone handset. There is no confirmation given, but Call Waiting will remain inactive until turned on.

In this case if you are on another call when a third party calls they will either be given a busy signal or, if a Voice mail feature has been activated, they will receive the Voice mail message.

Call Parking and Retrieval

Call parking allows you to put an incoming call on hold on one phone and then pick it up on another. This is achieved using the phone's *hold* facility and particular *Service Codes*.

The *Call Parking* action effectively transfers a call to an unused extension number and puts it on hold. It remains on hold for up to 10 minutes until picked up by another extension or the original phone. If the call is not picked up within the 10 minute time limit then it transfers back and rings the phone that originally parked it.

Your phone has a *park* soft key that you will need to scroll the handset display to the right to find it.

Parking a call

Answer a call on your phone

Put the call on hold by pressing the **hold** soft key on your handset

The caller will either hear music if you have selected the *Music on Hold* option for the particular phone or they will hear a message requesting them to "Please wait while your call is being transferred".

Dial service code *83 and press any dial key or press the **park** soft key.

You will then hear a message "The caller has been parked at extension XXX"

The call has now been parked and the phone can be used to make or receive other calls.

Retrieving a parked call

From any other Company phone dial service code *84XXX where XXX is the extension the call was parked to and then press any dial key.

Initially a line busy tone will be heard followed a few seconds later by a ringing tone that should be answered by pressing the **answer** soft key on your handset.


Fault messages

If no call can be found to park after dialling *83 or pressing the call **park** soft key you will get a message "There are no valid calls to park".


If the wrong extension (XXX) number is keyed with *84 you will get a message "Unable to find a valid call to pick up".

Call History

You can access a partial history of calls made, received or missed without going to your account on the portal website as the phone stores a list of the last 60 calls in each category.

To access the phones Calls History press the Setup button  and scroll to the type of call you would like to review – *Redial List*, *Answered Calls* or *Missed Calls*. Press **select** and the LCD display shows a list of recently dialled numbers followed by the date and time the number was called and its duration. Scroll down to the required number and press any dial key. Alternatively you can **delete** the entry, **edit** the number or **save** it in your local phone address book. Choosing this latter option will prompt you to enter a name under which the number will be stored. Pressing **cancel** will return you to the inactive state.

Change Ring Tone

You can have a different ring tone for each line of your phone. To change the ring tone press the Setup button  The LCD display shows the lines (they are shown as Ext 1 to 4) and the name of the current ring tone. Scroll down to the required line number and press the **change** soft key. You will then be shown a list of alternative ring tones that you can scroll over. You can listen to them by pressing the **play** soft key and, if appropriate, you can then **select** one to replace the current tone.