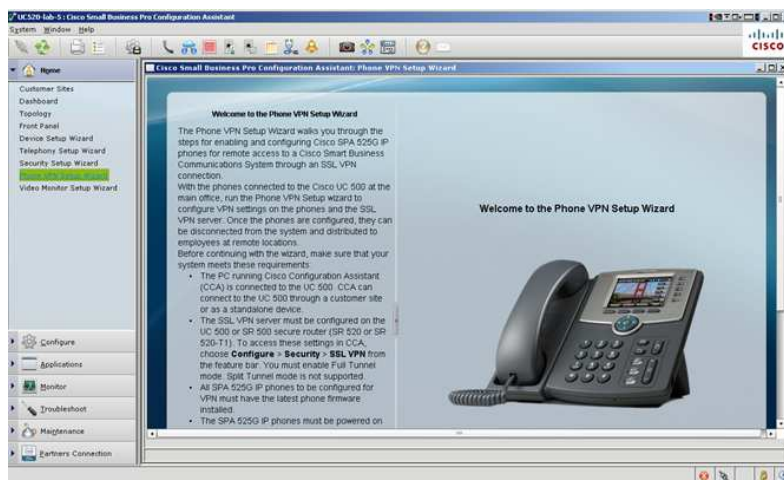


Cisco Small Business Pro Smart Business Communication System Technical Enablement Labs



SPA525G Remote Phone with built in SSL
VPN client

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Introduction

The SPA525G or SPA525G2 phone models can be established as Remote Teleworker phones behind any router with a public internet connection. CCA 2.2.2 introduced the wizard to make this easier to deploy. This technical enablement lab walks you through it using CCA 3.0.1.

You must configure the SPA phones at the host UC 500 before you can use them at the remote locations.

Once the phone is configured and remotely connected to the UC500, you can continue to administer it using CCA connected to the host UC500.

Prerequisites

The SPA525G phone(s) must be staged at the hosting UC 500 site using a setup wizard introduced in CCA 2.2, prior to being operated at a remote location (connected to the public internet).

In my case I am going to use a SPA525G which is already created in the host UC560 office and a new SPA525G2 that has never been configured on the system.

Connect the SPA525 phones to the UC500 (or POE switch) and make sure they are both discovered. In CCA 3.0 or later, we no longer 'auto assign' an 'ephone-DN' to it, so the new phone it will show up with the System Message in the lower left side of the display, the date and time in the upper left, and nothing more.

Both will appear in CCA topology; the SPA525G assigned and created, and the new SPA525G2 unassigned:



Navigate to the CCA Configuration drawer to 'Users and Extensions' and notice CCA discovered the proper phone type (G is different from G2 so don't overwrite that) and see that "NoInfo" for name, number, voicemail ...etc., is shown for the unassigned G2 phone, which you then EDIT.

Edit Phone

Phone Information

MAC Address: 68EF.8DCC.AA02
 Phone Type: 525G2
 Expansion Module: none
 Use as Teleworker Phone

User Information

First Name: Spa
 Last Name: Gtwo
 User ID: SGtwo
 Password: *****

Extension Mobility

To enable Extension Mobility, go to "Extension Mobility>Phone Profile" tab to define Phone Profiles. The selected Phone Profile will override and be shown on the button assignment table below.

Enable Extension Mobility

Associate Phone Profile to this phone: Select Phone Profile

Button Assignments | Speed Dial

Line	Type	Extension	Label	Mailbox
1	Normal	270	270-label	<input checked="" type="checkbox"/>
2	None	n/a	n/a	<input type="checkbox"/>
3	None	n/a	n/a	<input type="checkbox"/>
4	None	n/a	n/a	<input type="checkbox"/>
5	None	n/a	n/a	<input type="checkbox"/>

Total Rows: 5

Button 1

Button Type: Normal

Parameters: Call Hold Alert

Extension: 270
 Button Label: 270-label
 Description: 270-SPA525G2

Enable Voicemail
 Block Restricted Numbers

Permissions: unrestricted

Call Forward Busy: 399
 Call Forward No Answer: 399
 CFNA Timeout (seconds): 20
 PSTN Number: No DID mapped

OK Cancel Help

Original value:

Lets check the SPA525G and make sure we check the box for Teleworker Phone (this places MTP on its ephone).

Edit Phone

Phone Information

MAC Address: 0026.996D.3230
 Phone Type: 525G
 Expansion Module: none
 Use as Teleworker Phone

User Information

First Name: Spa
 Last Name: Fivetwofive
 User ID: SFivetwofive
 Password: *****

Extension Mobility

To enable Extension Mobility, go to "Extension Mobility>Phone Profile" tab to define Phone Profiles. The selected Phone Profile will override and be shown on the button assignment table below.

Enable Extension Mobility

Associate Phone Profile to this phone: Select Phone Profile

Button Assignments | Speed Dial

Line	Type	Extension	Label	Mailbox
1	Normal	263	263-SPA525G	<input checked="" type="checkbox"/>
2	None	n/a	n/a	<input type="checkbox"/>
3	None	n/a	n/a	<input type="checkbox"/>
4	None	n/a	n/a	<input type="checkbox"/>
5	None	n/a	n/a	<input type="checkbox"/>

Total Rows: 5

Button 1

Button Type: Normal

Parameters: Call Hold Alert

Extension: 263
 Button Label: 263-SPA525G
 Description: spa525G 263

Enable Voicemail
 Block Restricted Numbers

Permissions: unrestricted

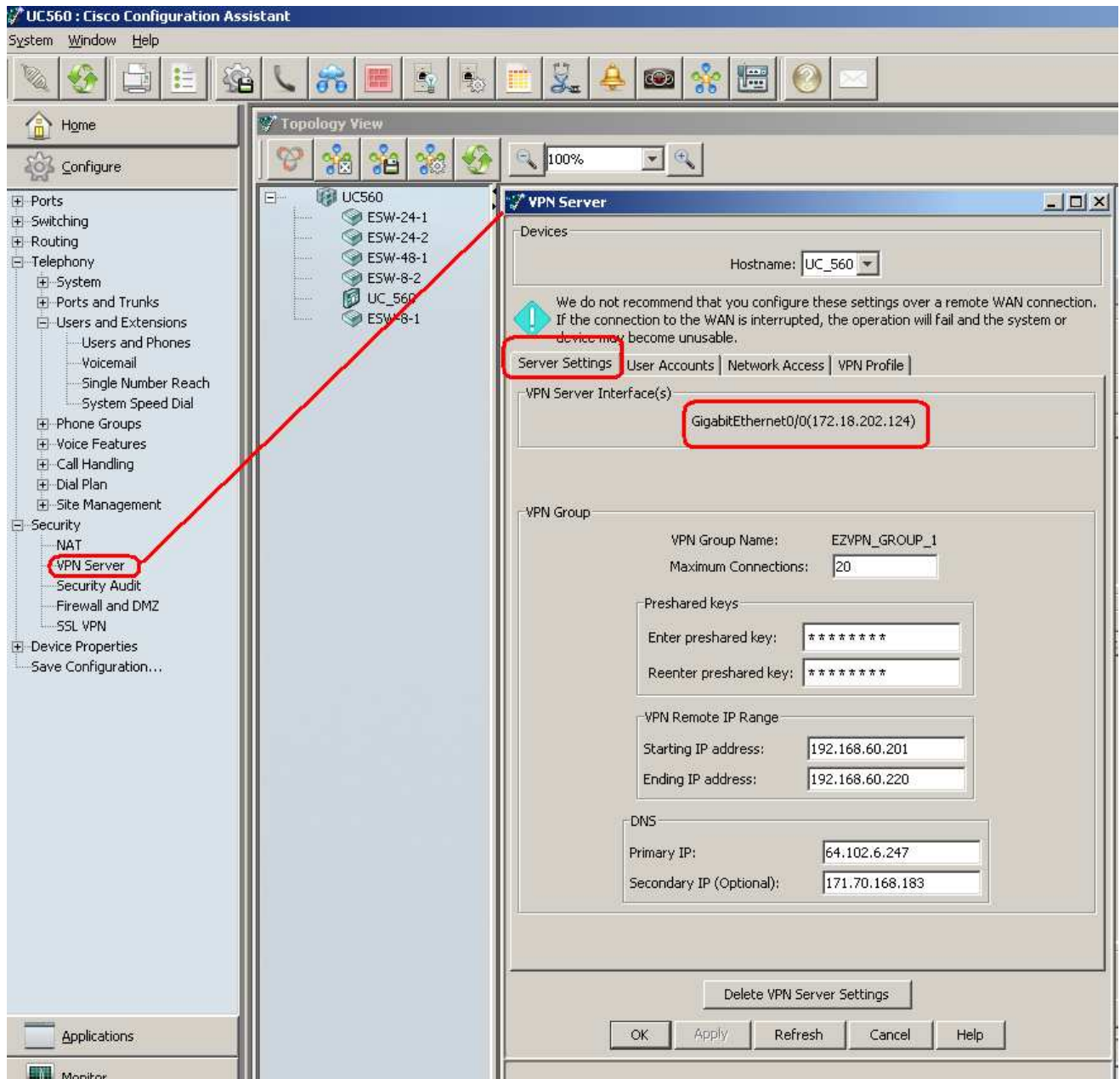
Call Forward Busy: 399
 Call Forward No Answer: 399
 CFNA Timeout (seconds): 20
 PSTN Number: No DID mapped

OK Cancel Help

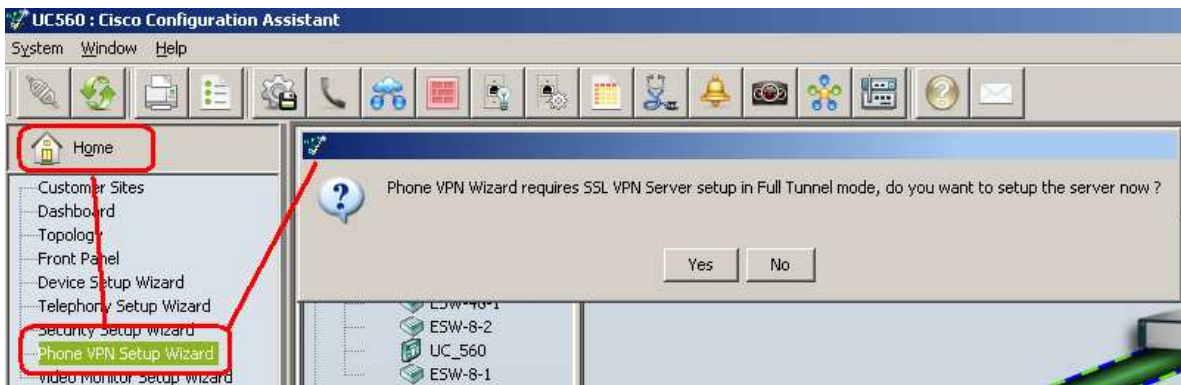
Original value: spa525

The phone will then be discovered in the CCA topology with that configuration (you can click the discover icon so you don't have to wait for the next automatic discovery).

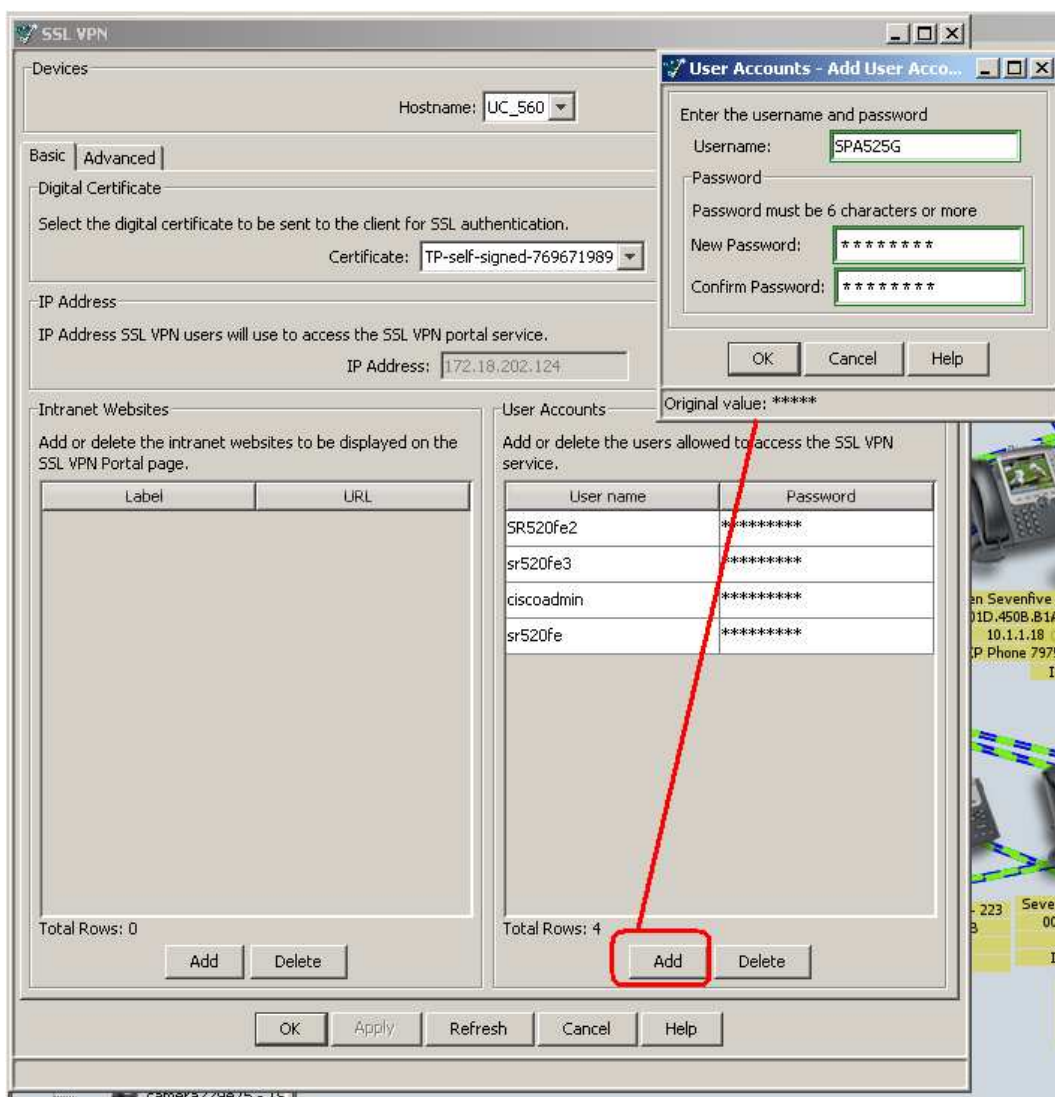
Last prerequisite is to make sure the UC500 uses a DDNS or Static WAN IP so that an SSL VPN server can be created. CCA will not allow you to create the VPN server if it detects a DHCP IP.



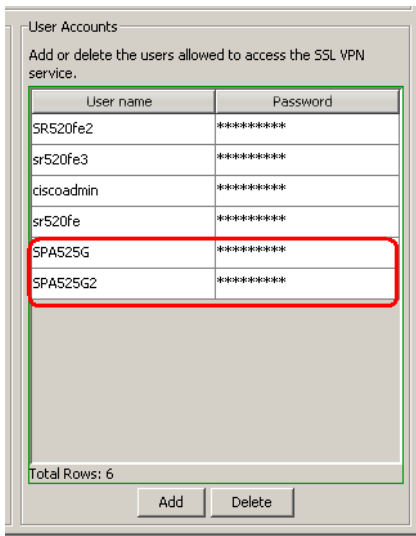
CCA Wizard Steps



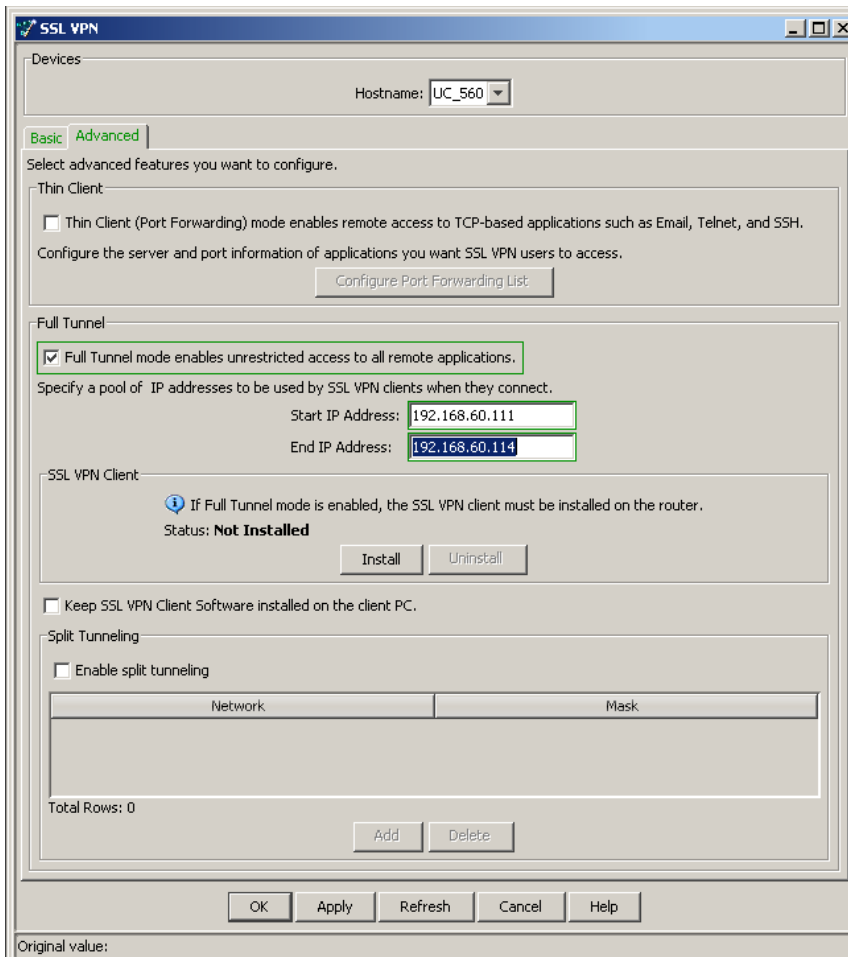
Click YES and add 2 new user accounts. I am also running SR520 remote teleworkers so you can ignore them. Don't ever remove your main Cisco admin user.



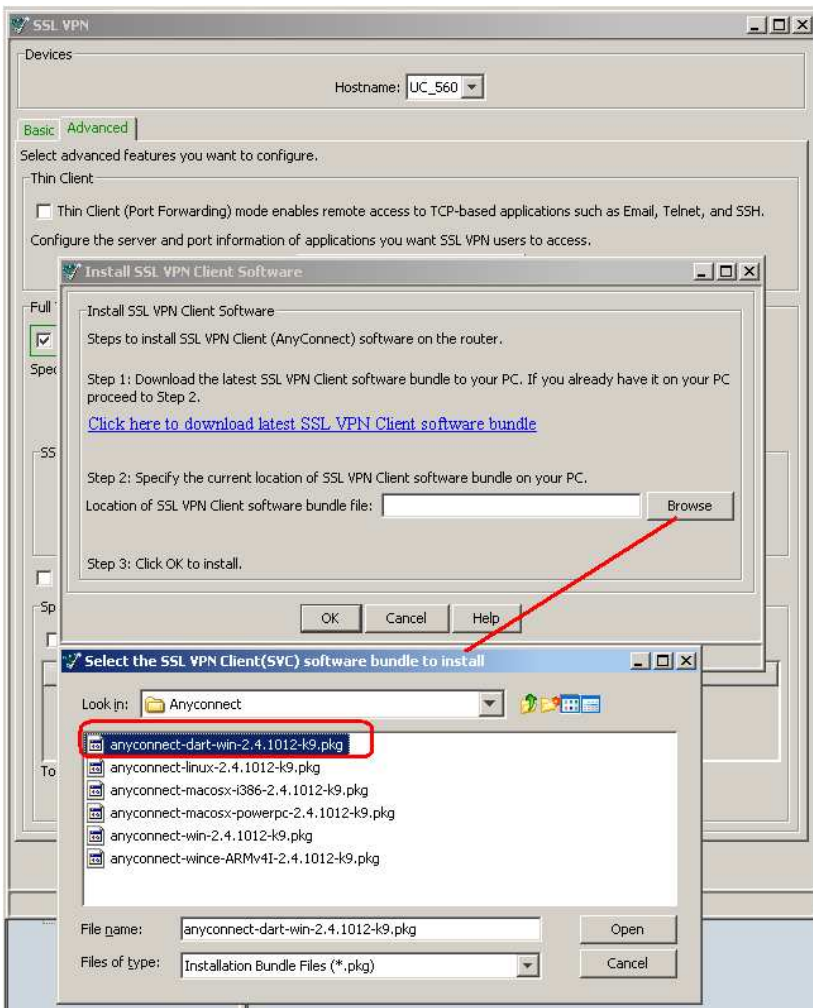
I added SPA525G and SPA525G2 (both with password 'cisco123')



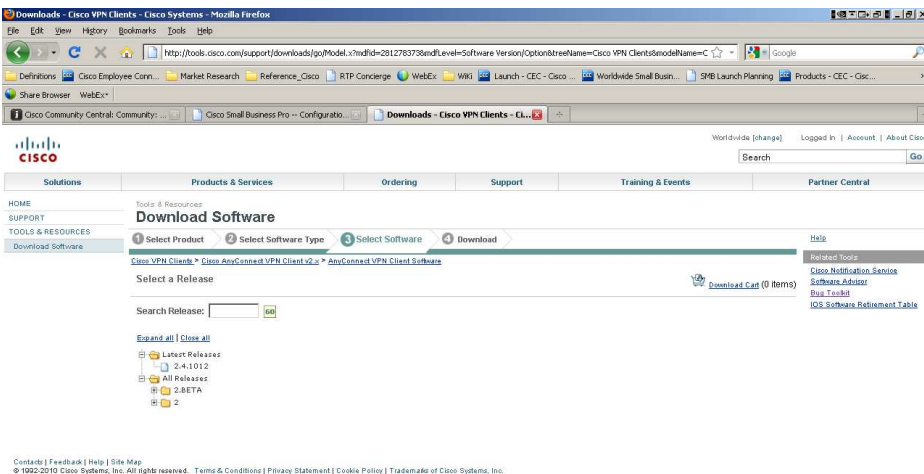
Now go to the advanced tab, click Full Tunnel and add the DHCP IP Pool....



Next you will need to click "install" for the SSL VPN Client. You will see the URL to download it to your PC. Its already on mine.

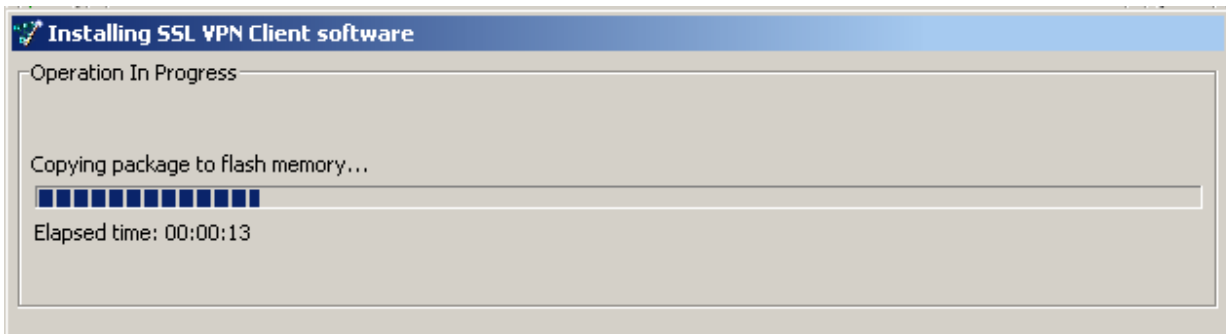


If you didn't have it, its on CCO:

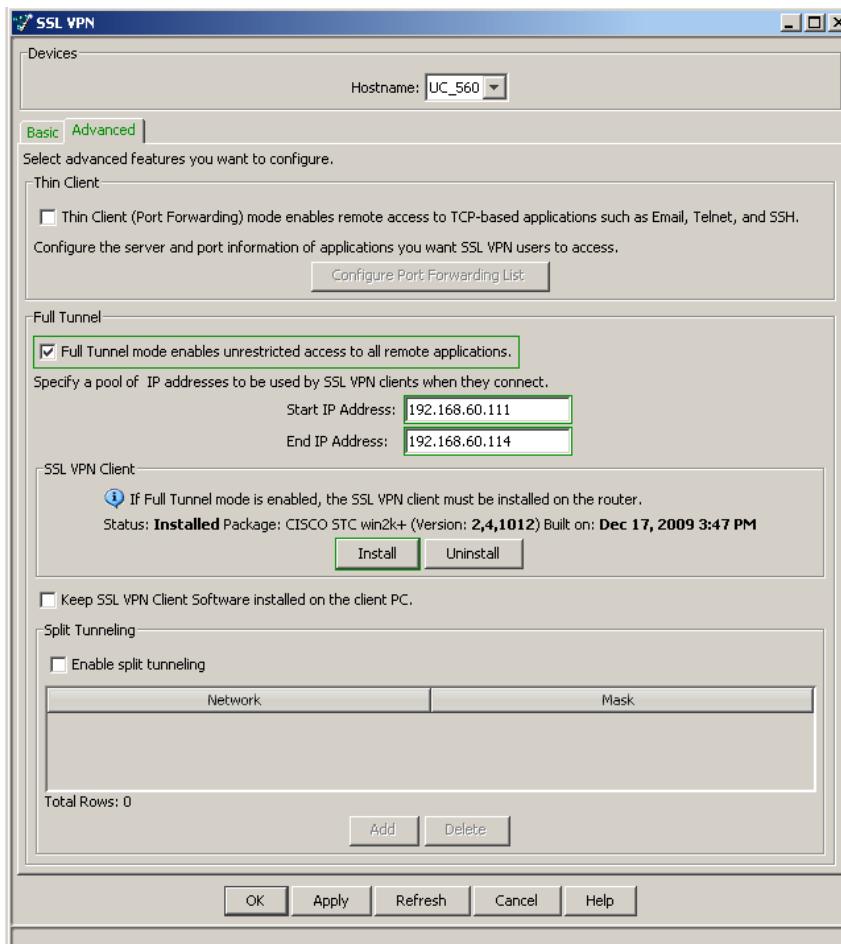


Done

Let it install:



When complete, it looks like this below (Installed). Then you click APPLY or OK.



Now you click the Wizard, it will be ready to identify phones for you:

Welcome to the Phone VPN Setup Wizard


The Phone VPN Setup Wizard walks you through the steps for enabling and configuring Cisco SPA 525G IP phones for remote access to a Cisco Smart Business Communications System through an SSL VPN connection.

With the phones connected to the Cisco UC 500 at the main office, run the Phone VPN Setup wizard to configure VPN settings on the phones and the SSL VPN server. Once the phones are configured, they can be disconnected from the system and distributed to employees at remote locations. Before continuing with the wizard, make sure that your system meets these requirements:

- The PC running Cisco Configuration Assistant (CCA) is connected to the UC 500. CCA can connect to the UC 500 through a customer site or as a standalone device.
- The SSL VPN server must be configured on the UC 600 or SR 500 secure router (SR 520 or SR 520-T1). To access these settings in CCA, choose **Configure > Security > SSL VPN** from the feature bar. You must enable Full Tunnel mode. Split Tunnel mode is not supported.
- All SPA 525G IP phones to be configured for VPN must have the latest phone firmware installed.
- The SPA 525G IP phones must be powered on and connected to the UC 500 through a LAN port on the UC500 or through a switch or wireless AP that connects to the UC 500.
- The SPA 525G phones must be registered to the UC 500 and display an extension.
- It is recommended (but not required) that user extensions be configured before running the wizard.

If your system meets these requirements, click **Next**.

Welcome to the Phone VPN Setup Wizard



Back Next

Click next and add the User ID / password for the phones to use (match what you added in SSL server):

Cisco Configuration Assistant: Phone VPN Setup Wizard

VPN Settings on SPA525G Phones

The wizard has discovered these VPN-capable Cisco SPA 525G IP phones.

- To enable VPN for a phone in the list, place a check in the box for that phone. The MAC Address, Extension, and User fields are read-only.
- For each VPN-enabled phone, enter a VPN username and password. Up to 64 characters can be entered in the user name. The password you enter must have at least 6 characters and cannot contain spaces or special characters such as +, ?, ^, {, }, [,], |, ~, *, "and %.
- The wizard automatically creates these VPN user accounts for you. Up to 10 VPN users can be connected simultaneously.
- If the wizard detects that a phone has an existing VPN configuration, it is checked. To remove VPN settings from a phone, uncheck the box for that phone. You can also edit the VPN username and password for an existing phone.
- Check **Display Passwords as Plain Text** to see passwords as you enter them.

The VPN Parameters section of the page displays the SSL VPN server IP address discovered by the wizard. This information is read-only.

Click **Next** when you are finished selecting phones and configuring VPN users.

VPN Settings for Cisco SPA525G Phones

	MAC Address	Extension	User	VPN Username	VPN Password
<input type="checkbox"/>	0024.97F0.55B8	238	Video Fivetwofive		
<input checked="" type="checkbox"/>	0026.998D.3230	263	Spa Fivetwofive	SPA525G	cisco123
<input checked="" type="checkbox"/>	68EF.BDCC.AA0	270	Spa Gtwo	SPA525G2	cisco123

Display Passwords as Plain Text

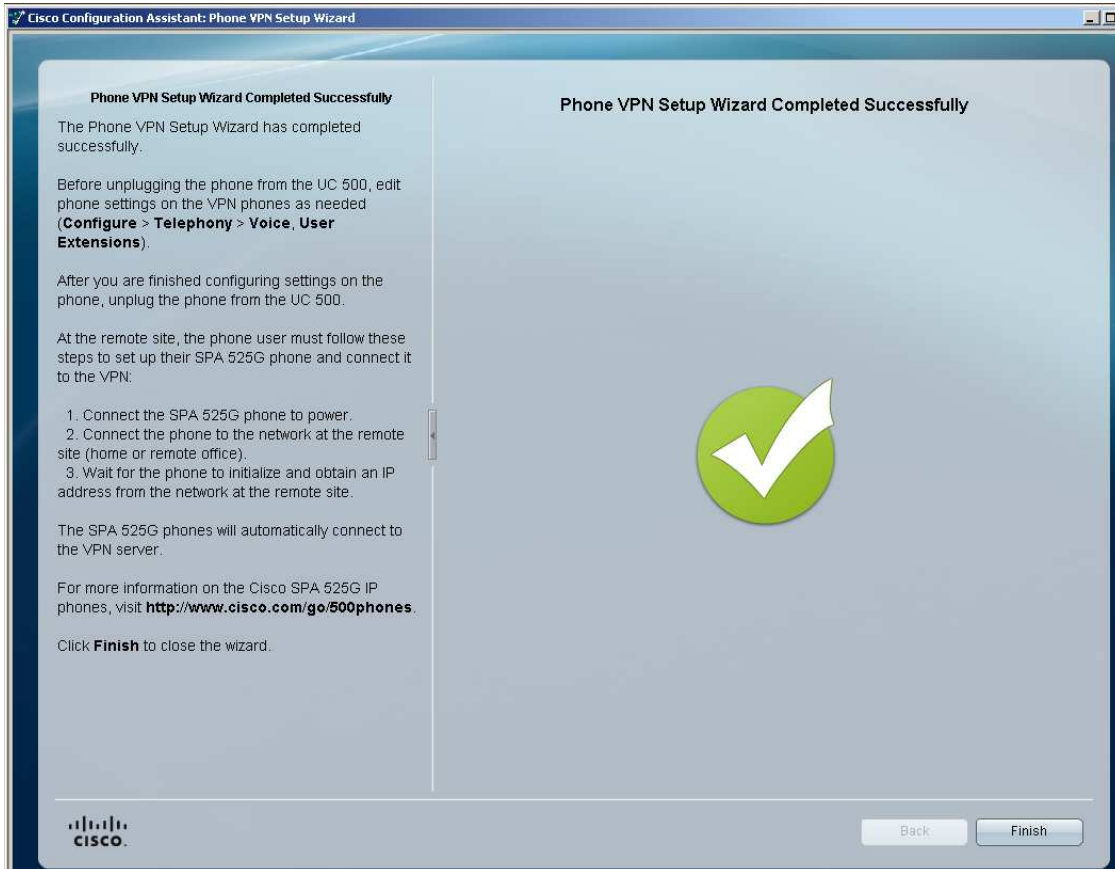
VPN Parameters

SSL VPN Server Address: 172.18.202.124

Back Next

Click NEXT and then APPLY.

When you see the Green Check you can click finish:



Double check the phone GUI itself to make sure you see the VPN configuration you specified.

Setting: Network Configuration: VPN

Now take the phone to a remote location, in my case a different router/switch in the lab on a different network and let it connect.

That's it. You are done. The phone is now a Remote Teleworker.

Remember, you cannot connect a PC to the Switch port in back of the SPA525G in an attempt to connect the PC to the data LAN of the UC500 server. That is not supported. It can also not support remote video. This is also not supported when the UC500 is sitting behind a SA500 router at the host UC500 site as a head end.

Check out the finished product: <http://www.youtube.com/watch?v=Hw9IR1ZDFCo>