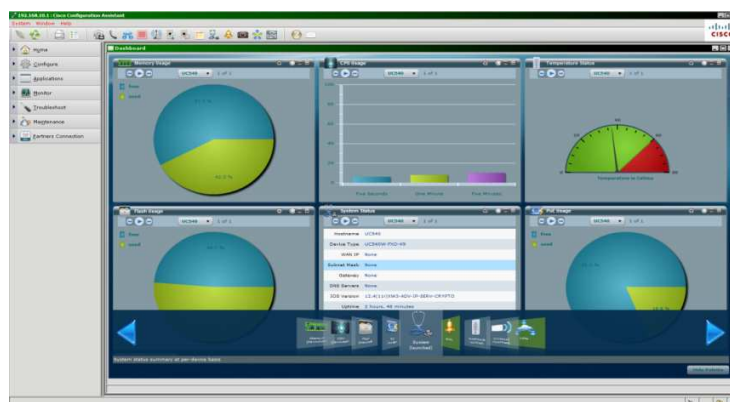


# Cisco Small Business Pro

## Smart Business Communication System

### Technical Enablement Labs



## Lab 2

### Telephony Setup Wizard for UC500

## Contents

Introduction .....	4
Telephony Wizard .....	4
Launching the TSW.....	5
Discovered Phones.....	5
Localization, SW, and Licenses.....	8
System Access .....	9
Locale .....	9
Configure WAN Connection.....	10
LAN Addressing .....	11
Networking Summary .....	12
Define Internal Dialing .....	12
FXS.....	13
Add Users .....	13
Hunt Groups and Blast Groups .....	19
Summary .....	20
Define AA .....	21
Business Hours (Schedule).....	22
Holiday Schedule.....	23
Define AA Prompts and Actions.....	23
AA Prompt management .....	24
Summary .....	25
FXO Ports.....	26
Summary .....	27
Configure Incoming Call Handling for FXO.....	28

Summary .....	29
APPLY .....	30
POST TSW .....	31
Device Access .....	31
SAVE .....	32

## Introduction

This lab is also something that should be done in a staging environment. It is the opportunity for you to enter configuration data you collected during your site survey/customer questionnaire.

For this stage/phase of the UC540 lifecycle, you will want to configure phones, primarily, and some other Attributes of the Telephony service we will walk through.

There is a Telephony Setup Wizard in CCA which can be used for systems that are factory reset (not provisioned yet, except for Lab 1). The alternative is go through the CCA Configuration drawers and configure things the same way you will later do moves adds or changes. That alternative is expert mode.

In this lab, you will:

- Use the Telephony Wizard (from a factory Reset Starting Point only)
- Add some phones without connecting II of them
- Set the Domain name servers for the UC500 and the DHCP Pool for Data VLAN
- Synchronize the system to an NTP server

Depending on your staging practice/model, you can include the actual phones so a complete configured system can be delivered and installed at the customer premise. Recognize that extension numbers for phones will be assigned (Smart Assist) according to the order they are discovered, but you can modify this subsequently.

Regarding the phones, you have a few options in order of recommended best practice:

- 1) Connect the actual Phones (exact MAC addresses you will use on site)
- 2) Optionally manually enter or import the phone data (with MAC Address) into CCA
- 3) Don't do phones until later (not a good practice)

*Note: careful for typos since the phone MAC has to match when it is later connected*

## Telephony Wizard

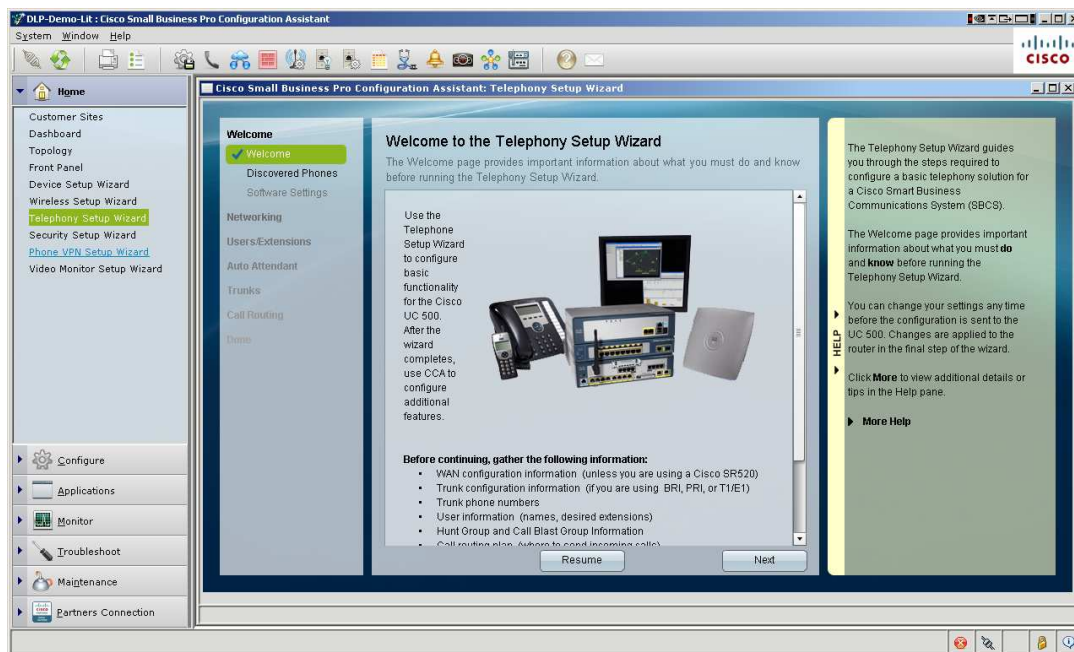
For this configuration you will need to have:

- Hostname for UC540
- Level 15 Admin User/Pass
- Locale, Language and Dial Plan (if not English and North America)
- Time Zone
- Networking: WAN Connection Information (DGW, DNS, Masks) for the UC500 (Static, PPPoE, DDNS, DHCP)
- The Local Data and Voice VLANs if not using Defaults
- Number of digits in Extension, External Dialing access code
- AA and Voice Mail Extensions
- T1/E1 PRI Interconnection information (if optionally equipped)
- Incoming Call mapping to Extensions (if T1 PRI)
- Phone assignments to Name (First/last) password and extension
- The System message you'd like displayed on all IP Phone displays

- Hunt groups / Blast Groups Names, Extensions, and membership
- FXS Station types (Fax, Common Area, User Phone)
- MAC Addresses for the actual phones to be deployed mapped to Users
- Auto Attendant Schedules, Hours, Holidays, Prompts and Prompt Actions
- Analog Trunk (FXO) Mapping to Internal stations desired
- An NTP IP address you will use for time synchronization
- The DNS IP addresses you will use for the UC540

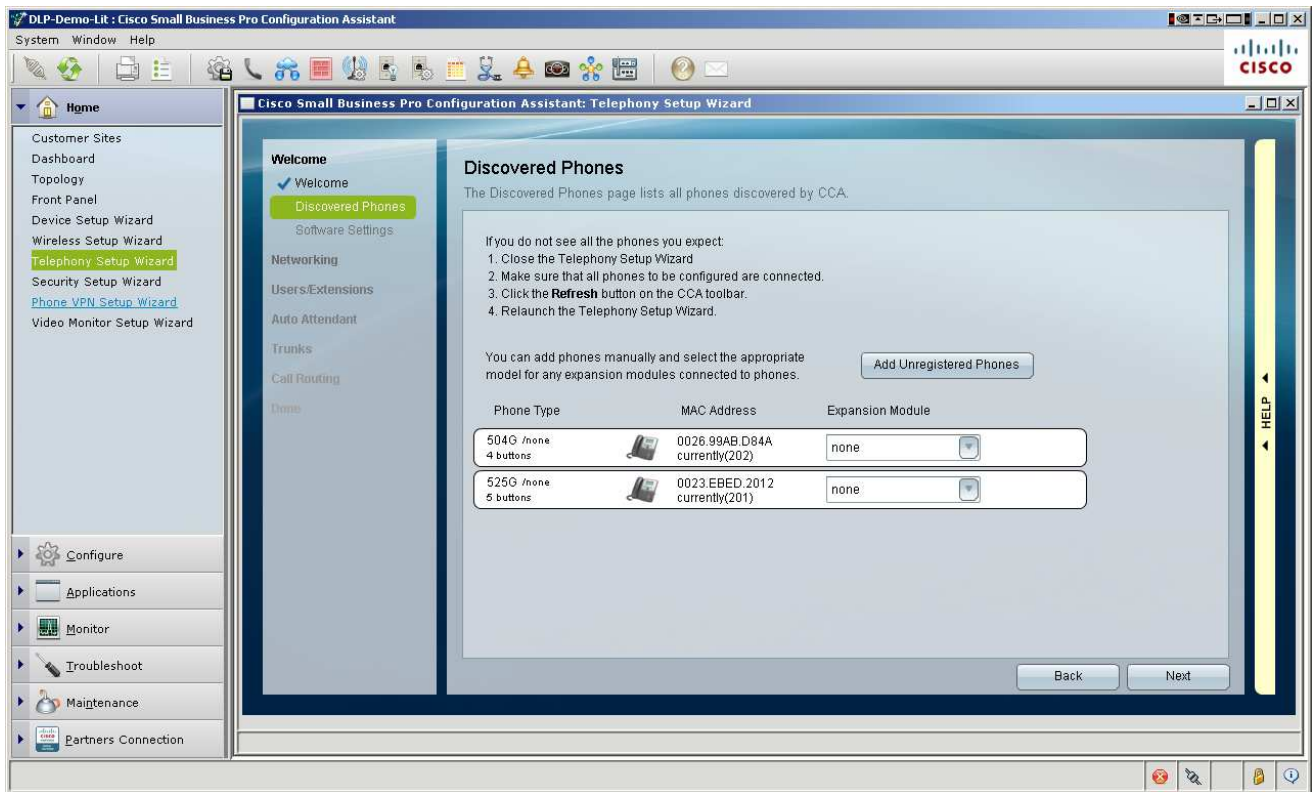
## Launching the TSW

Launch from CCA HOME drawer. As long as the system was factory reset, you will be able to use this wizard.

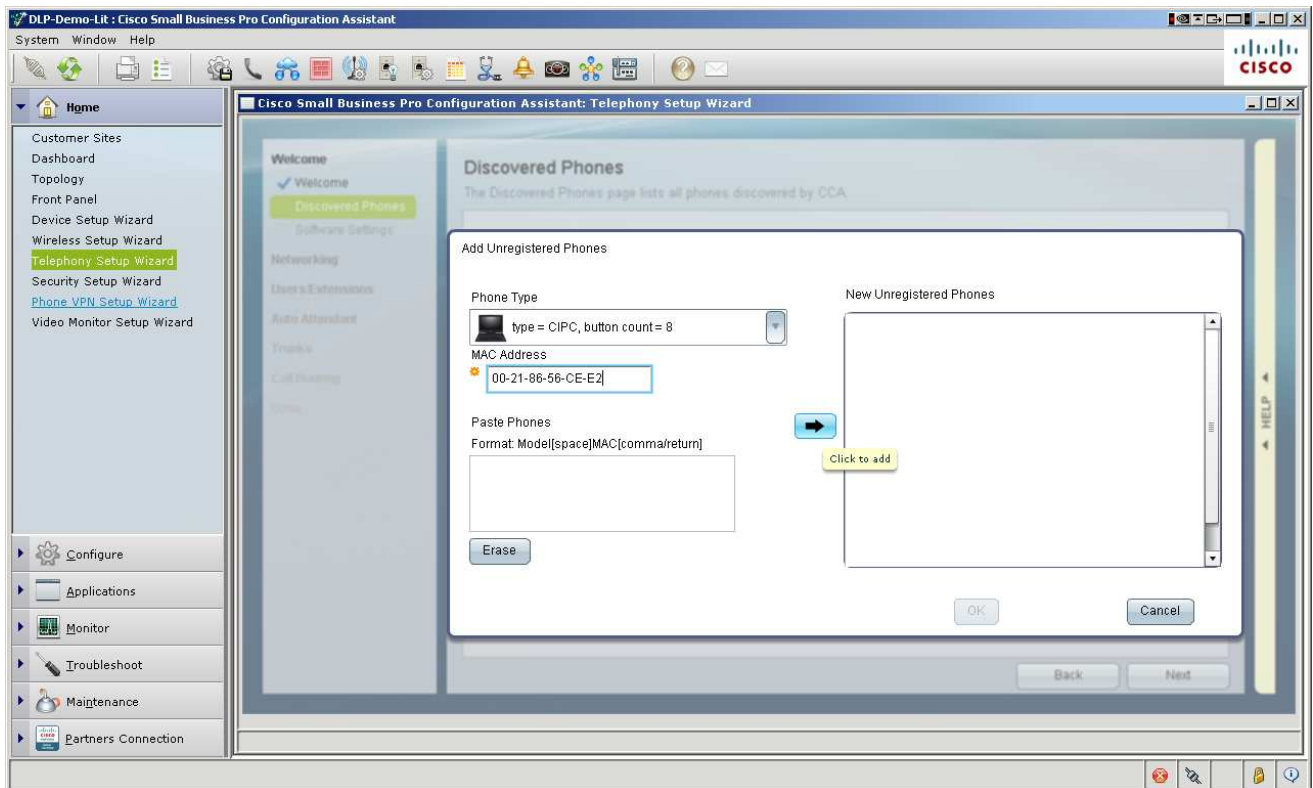


## Discovered Phones

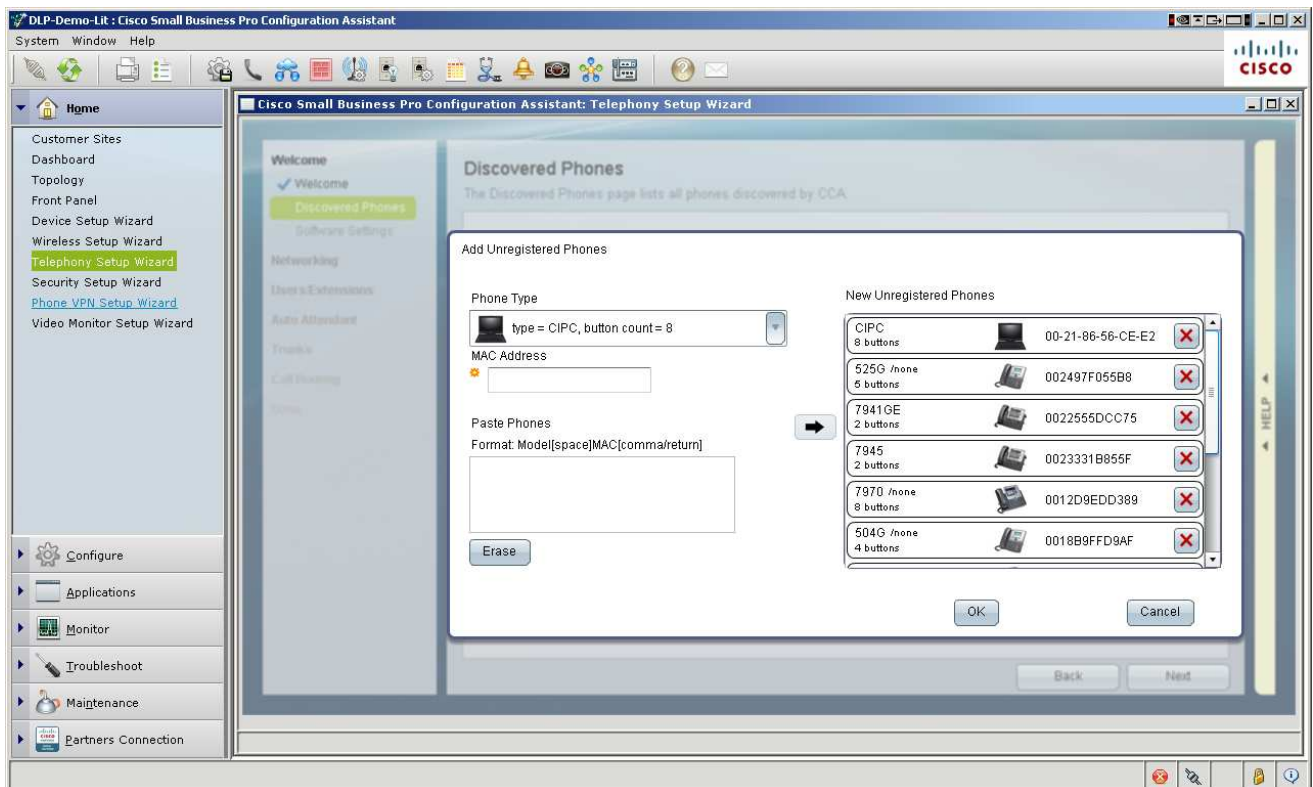
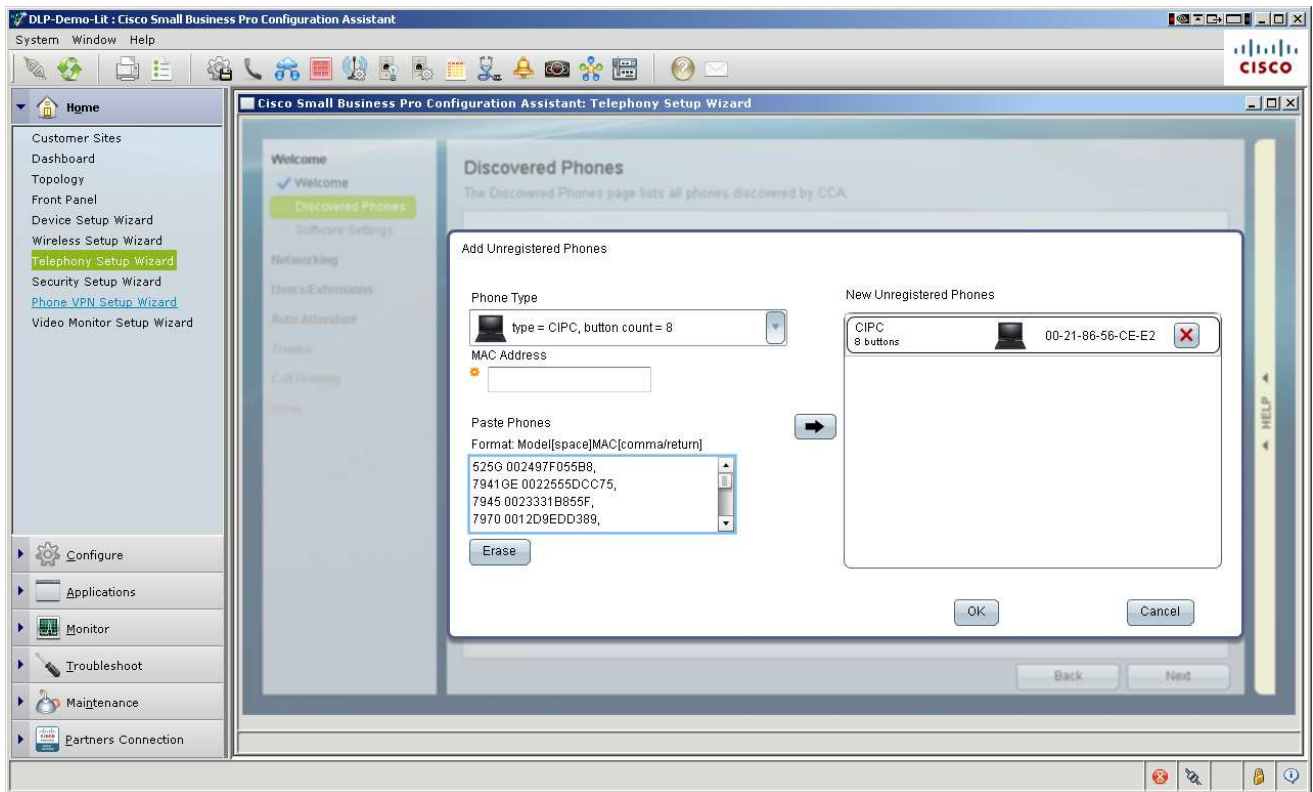
Phones that are plugged into the system will appear for assignment. You may also add phones that are not unpacked yet (if you are staging with just a few phones).

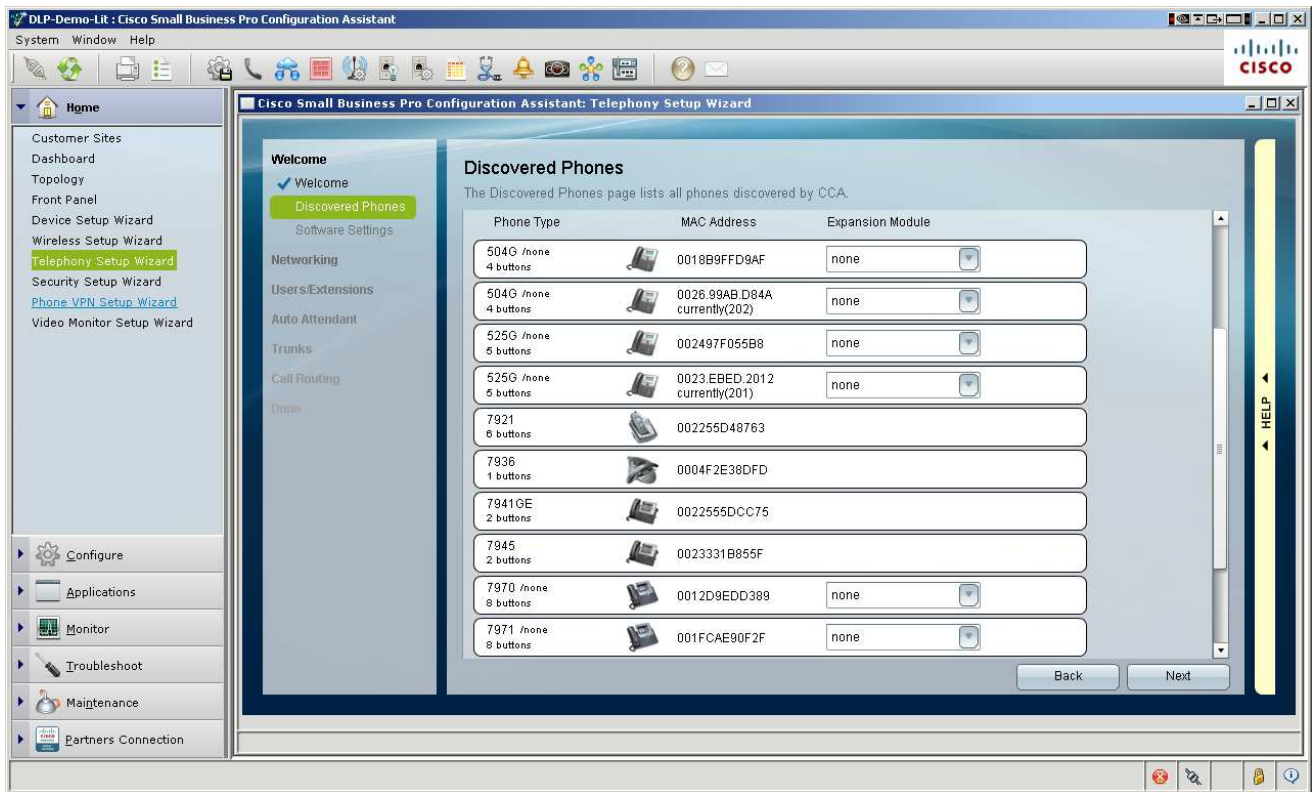


## Adding unregistered phones



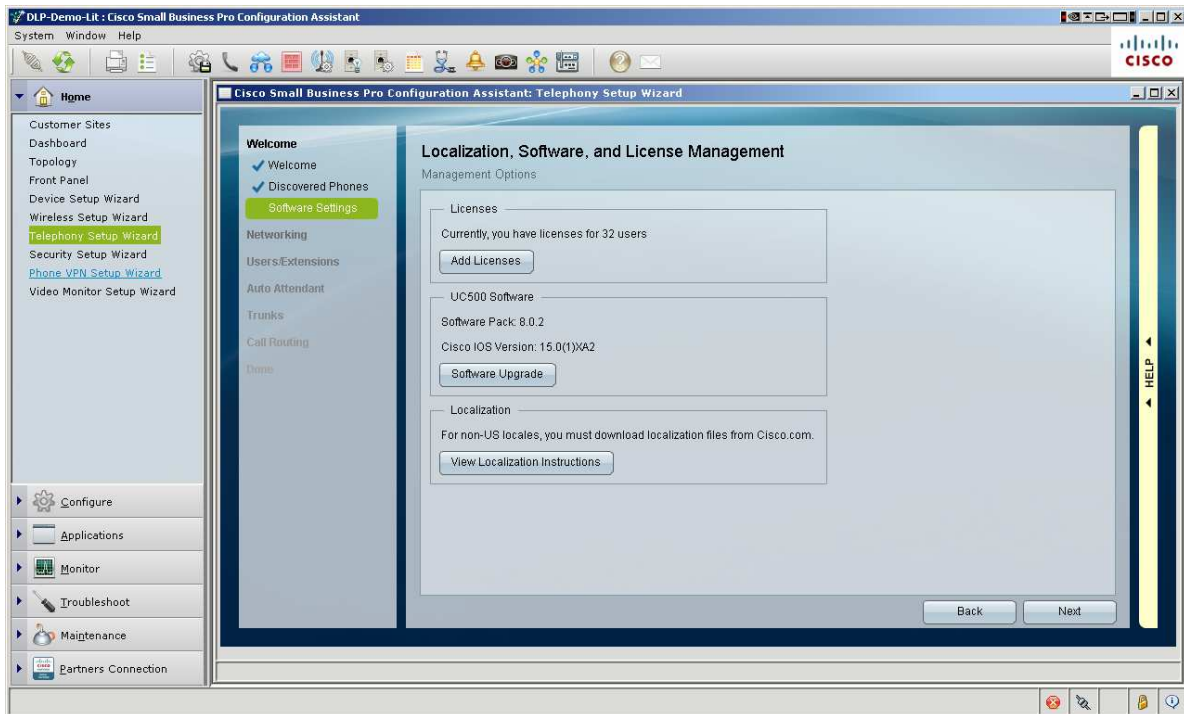
You can also use the CSV paste option:





## Localization, SW, and Licenses

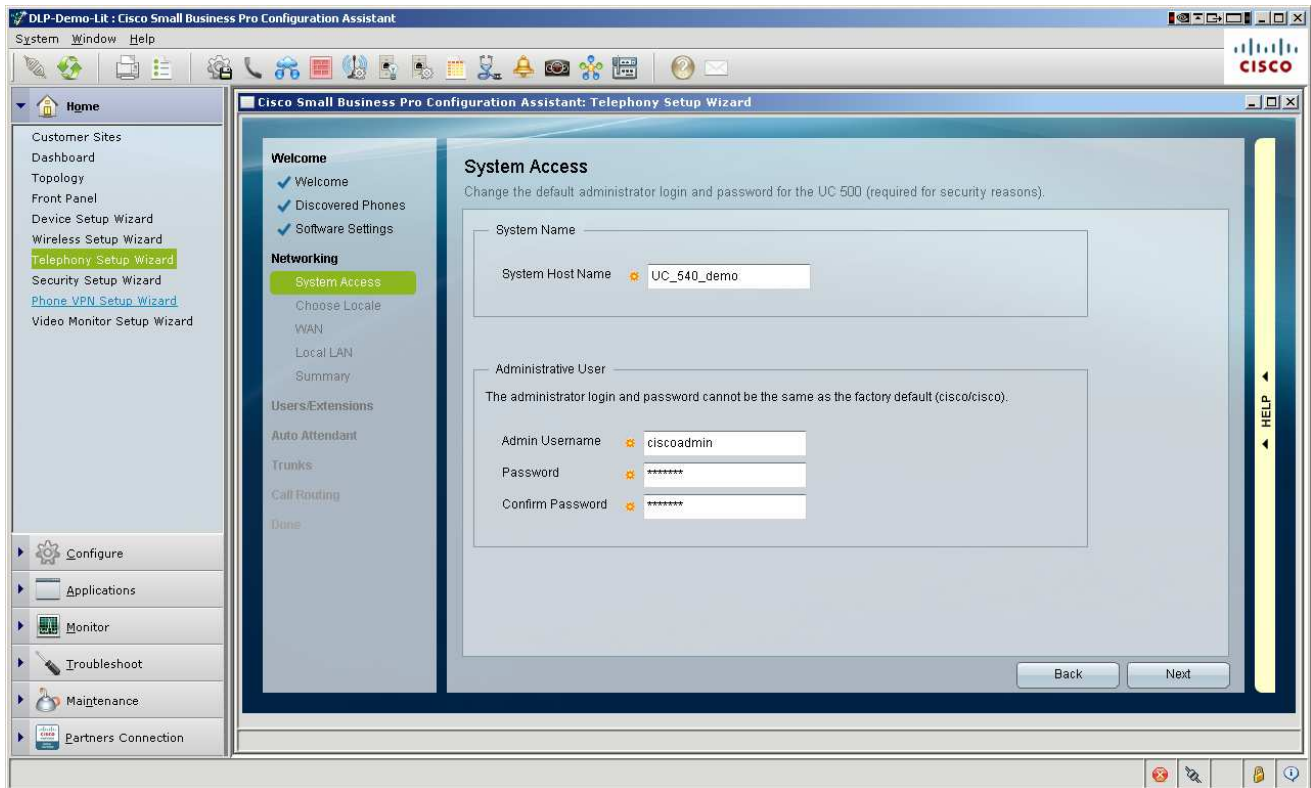
Full respect for multiple Languages and Locales. My focus here is U.S. so I just adjust the time zone.





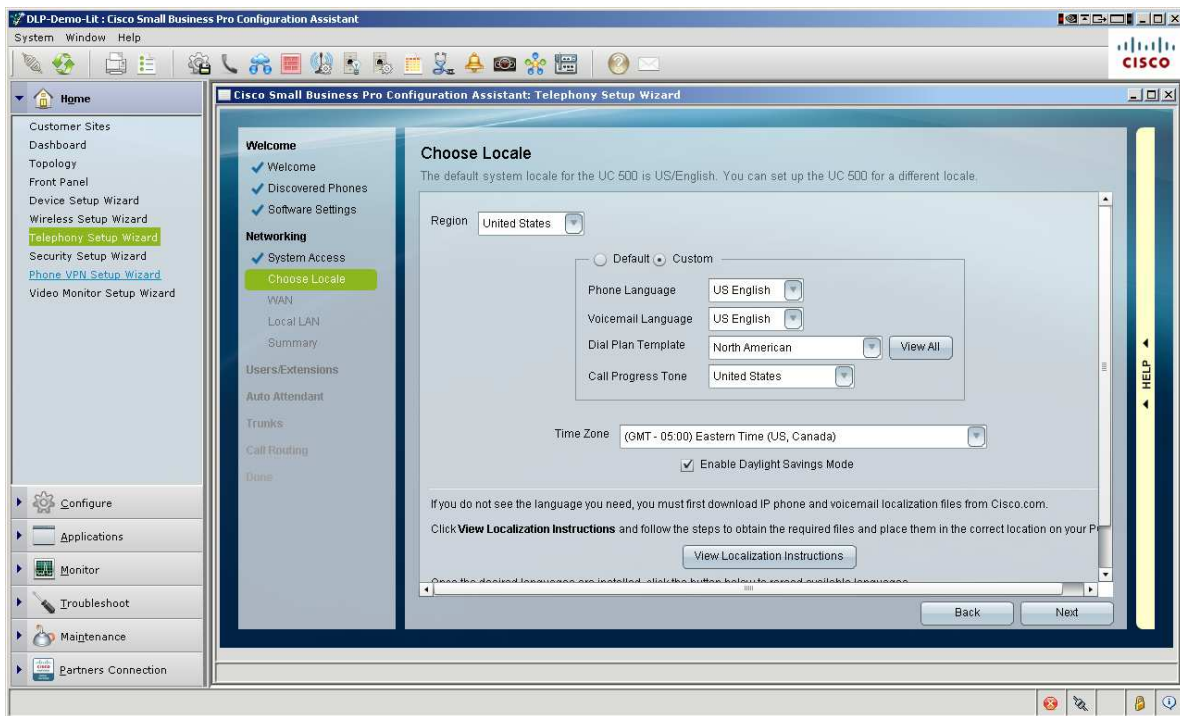
## System Access

Yes, you must change your username and password (sorry Cisco/Cisco lovers) ☺



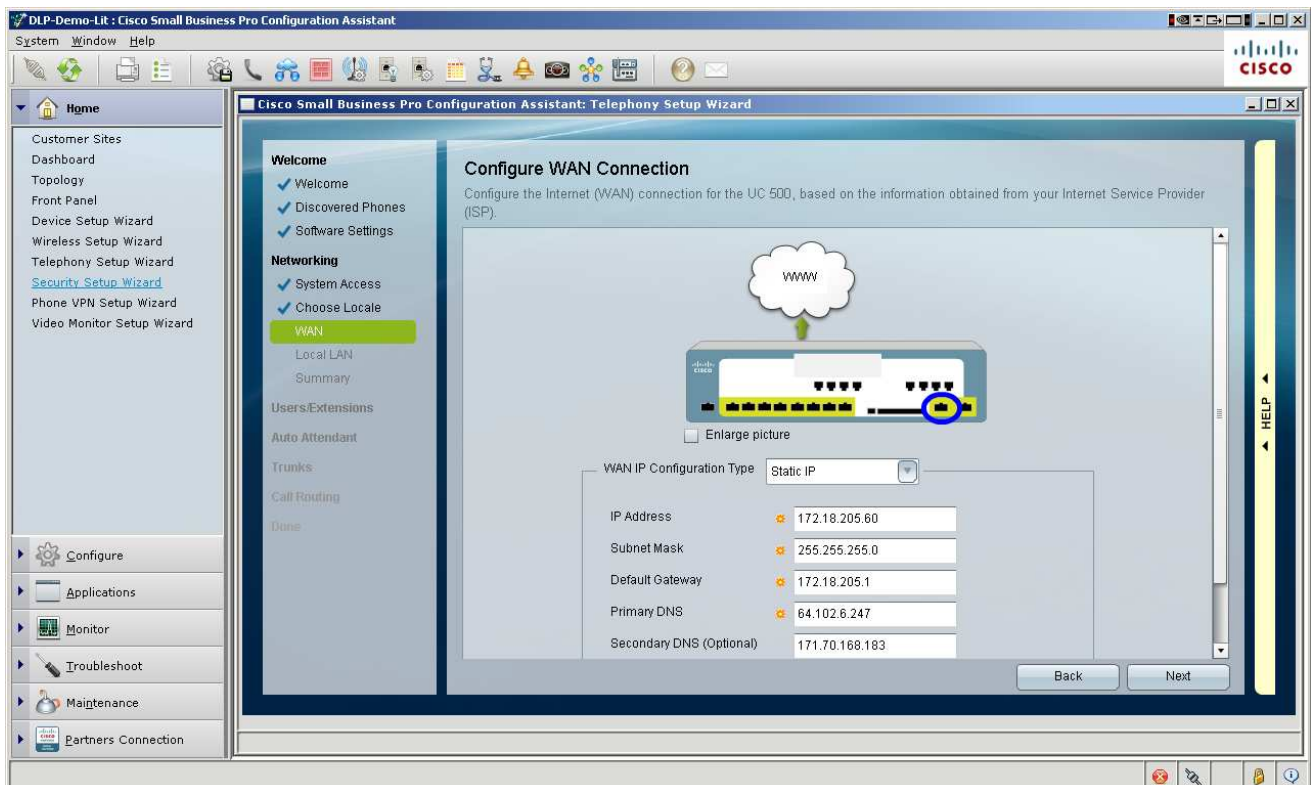
## Locale

I clicked custom, so I could select North American (which will give me 7 and 10 digit dialing). This will vary and usually SIP Trunks like 10 digits, but this is specific to your install.



## Configure WAN Connection

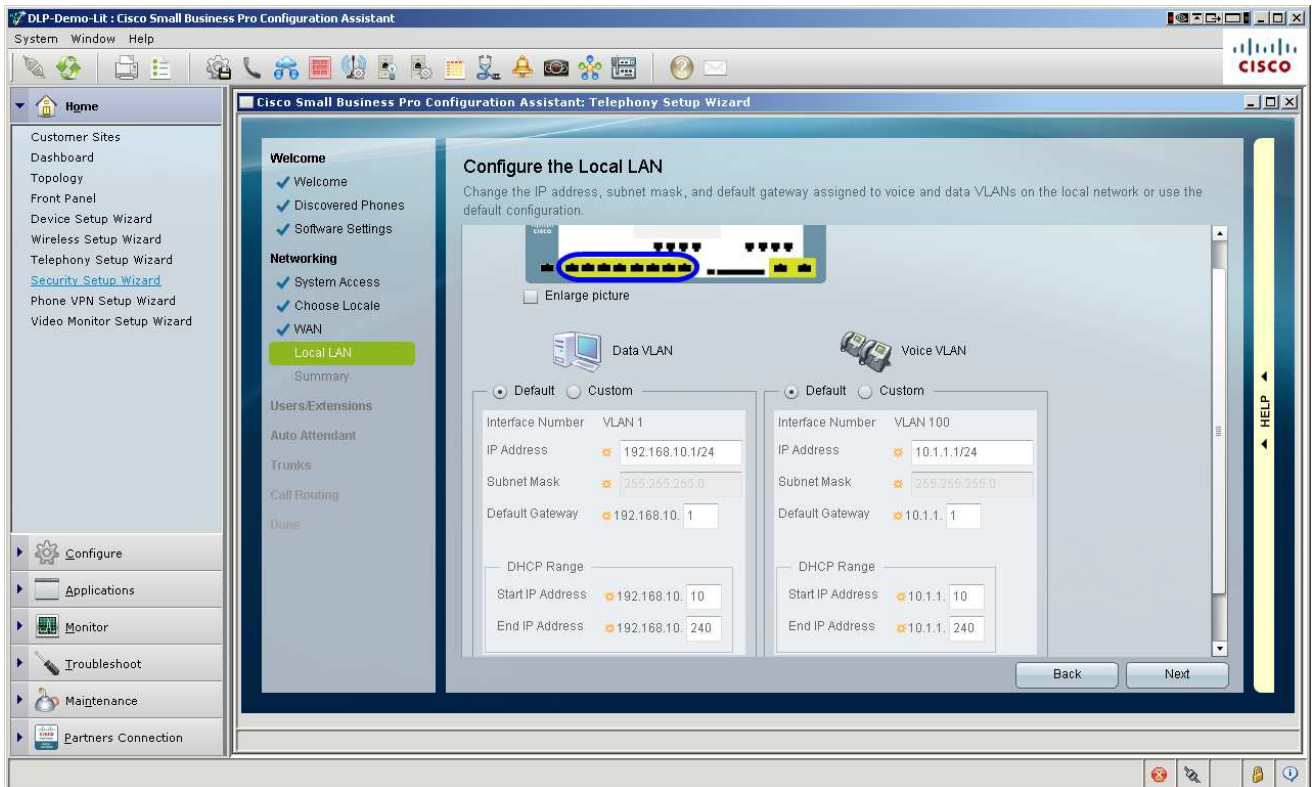
WAN access assigned to FE 0/0. This is usually the IP assigned by your SIP Trunk S.P. (Public and routable; usually Static or DDNS). DDNS, DHCP, Static, or PPPoE all allowed.



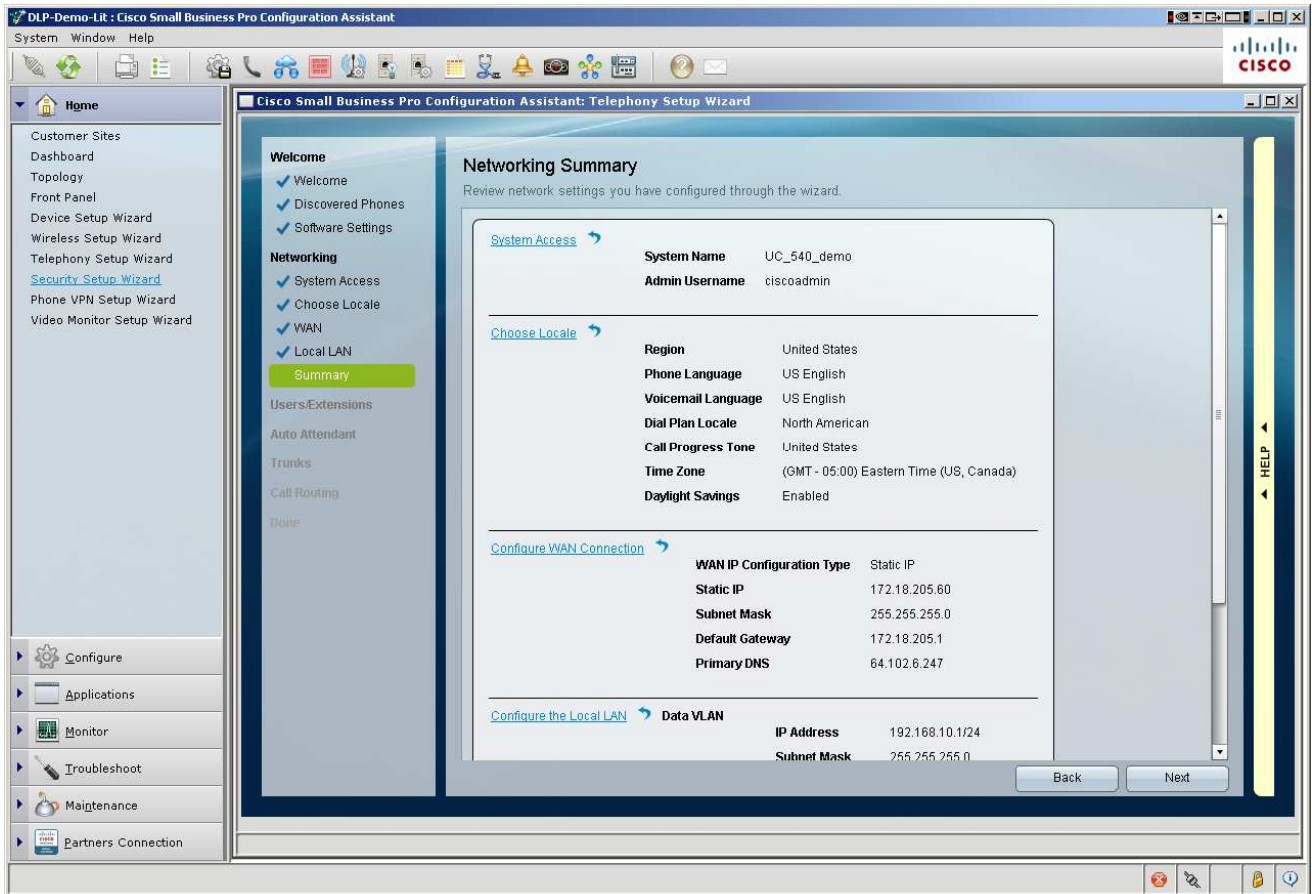
## LAN Addressing

Care to change the Local Data VLAN or Voice VLAN network? You can if you want.

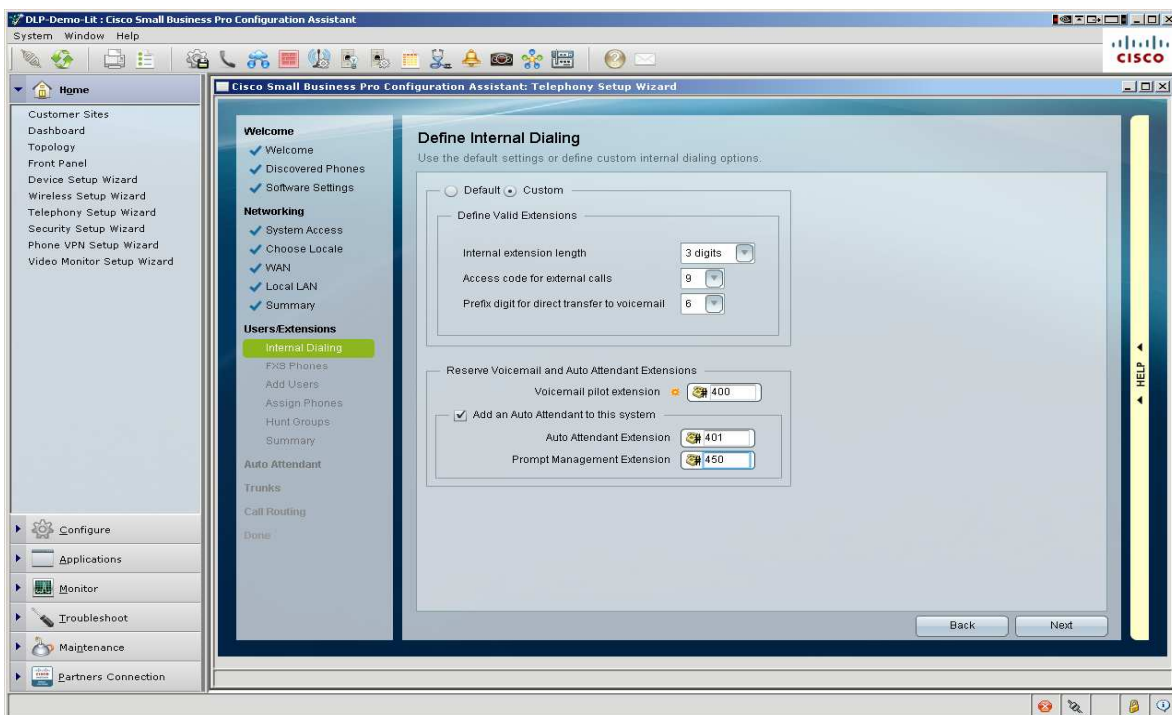
Changing the local DATA or VOICE VLAN is something you do only at startup as a best practice recommendation. Otherwise very difficult to do. So make sure you know that you can use the default DATA VLAN especially before proceeding. This means the client PCs and Servers will be in 192.168.10.0/24. If this is a site to be integrated into Multi-site, you must make the data VLAN unique (192.168.20.0/24, 192.168.30.0/24...etc.).



# Networking Summary

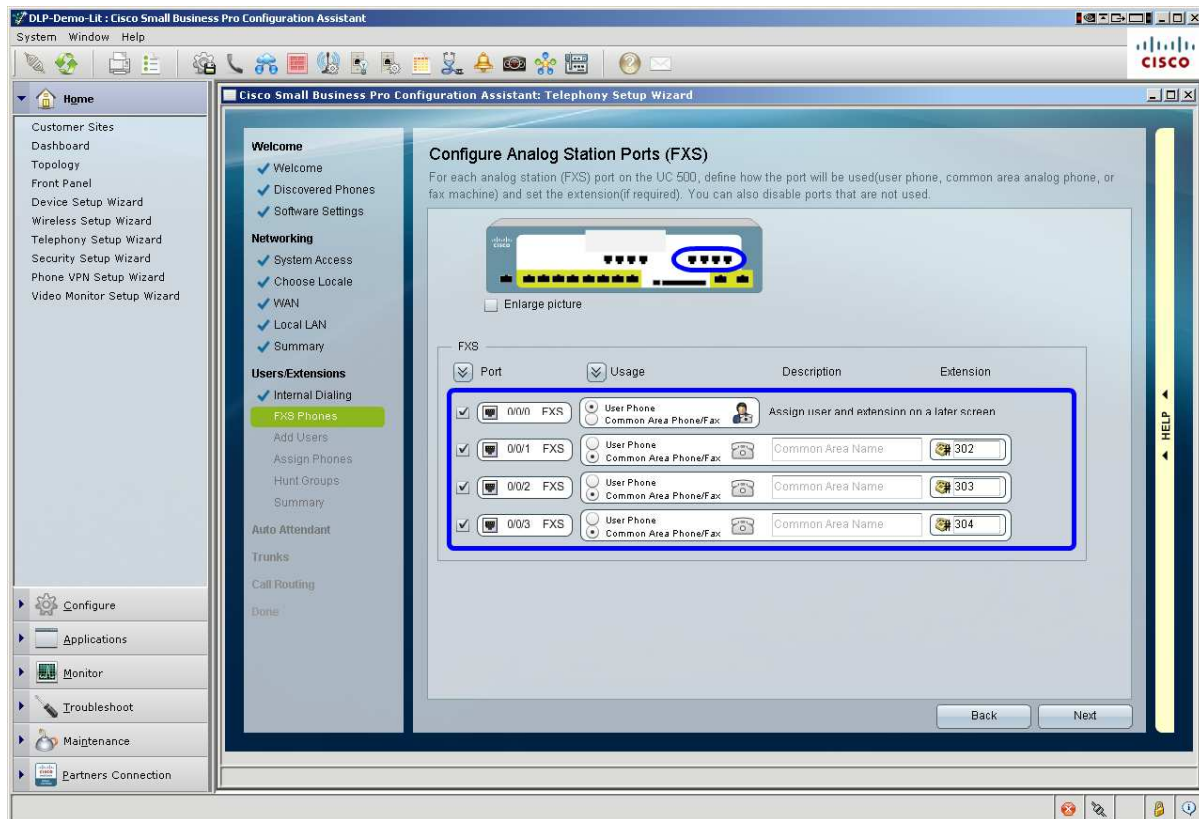


# Define Internal Dialing



## FXS

Recognize there are multiple types of FXS (read the help). Common Area or FAX types will not appear as users to assign names or passwords to. Users will. I did something a little odd here, but recognize that after the Wizard, you have Expert Mode, with two settings in the GUI Drawers called CONFIGURE. Go to Ports → Analog Port Settings and Voice Trunk Settings, allowing you to adjust as you may desire

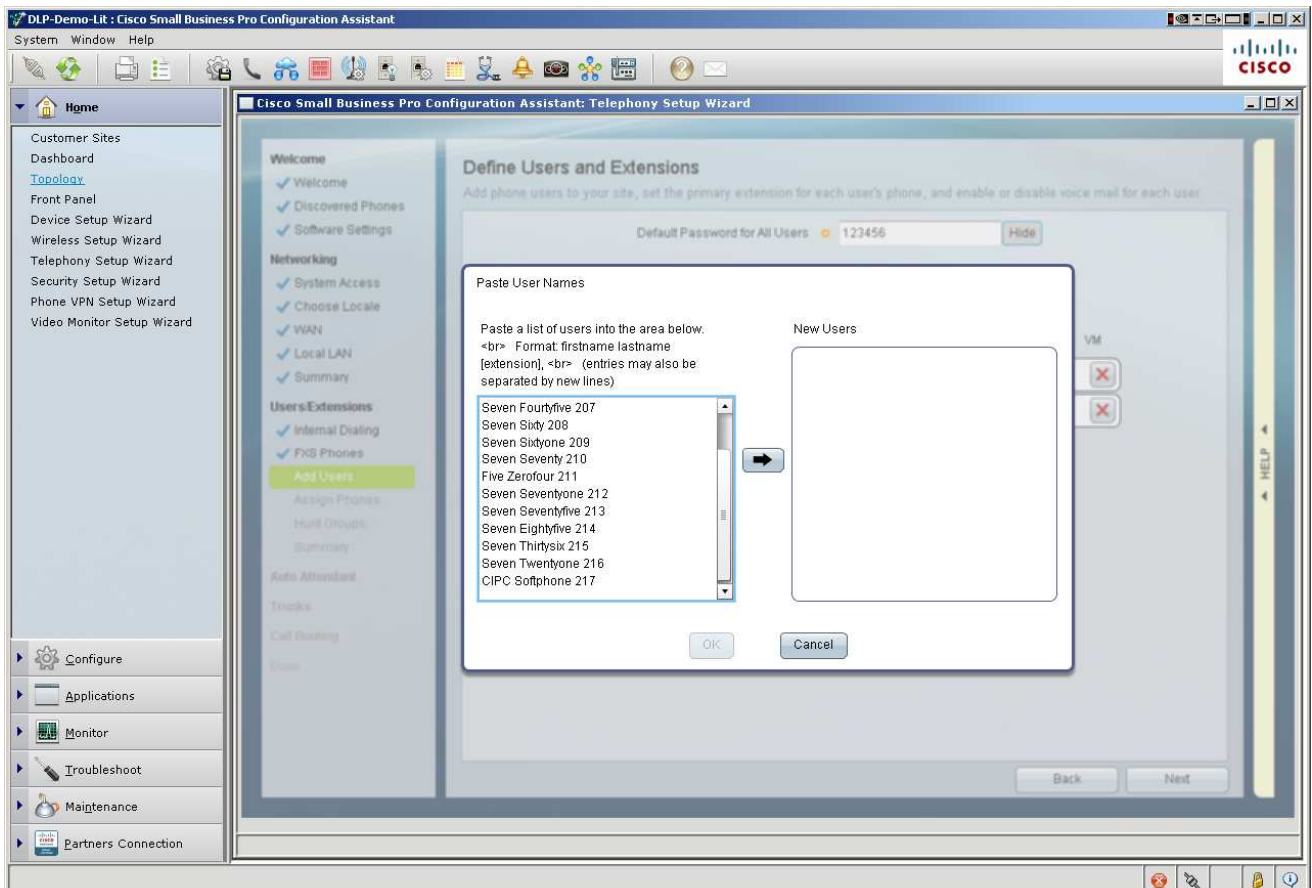
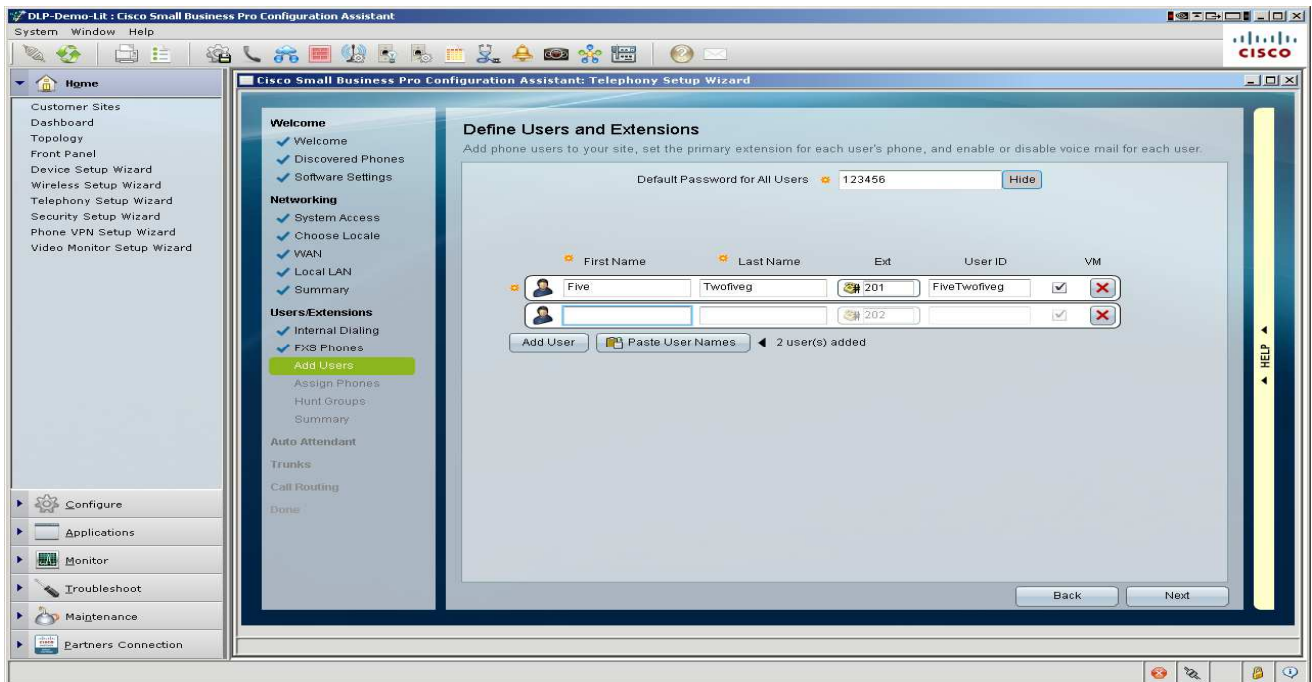


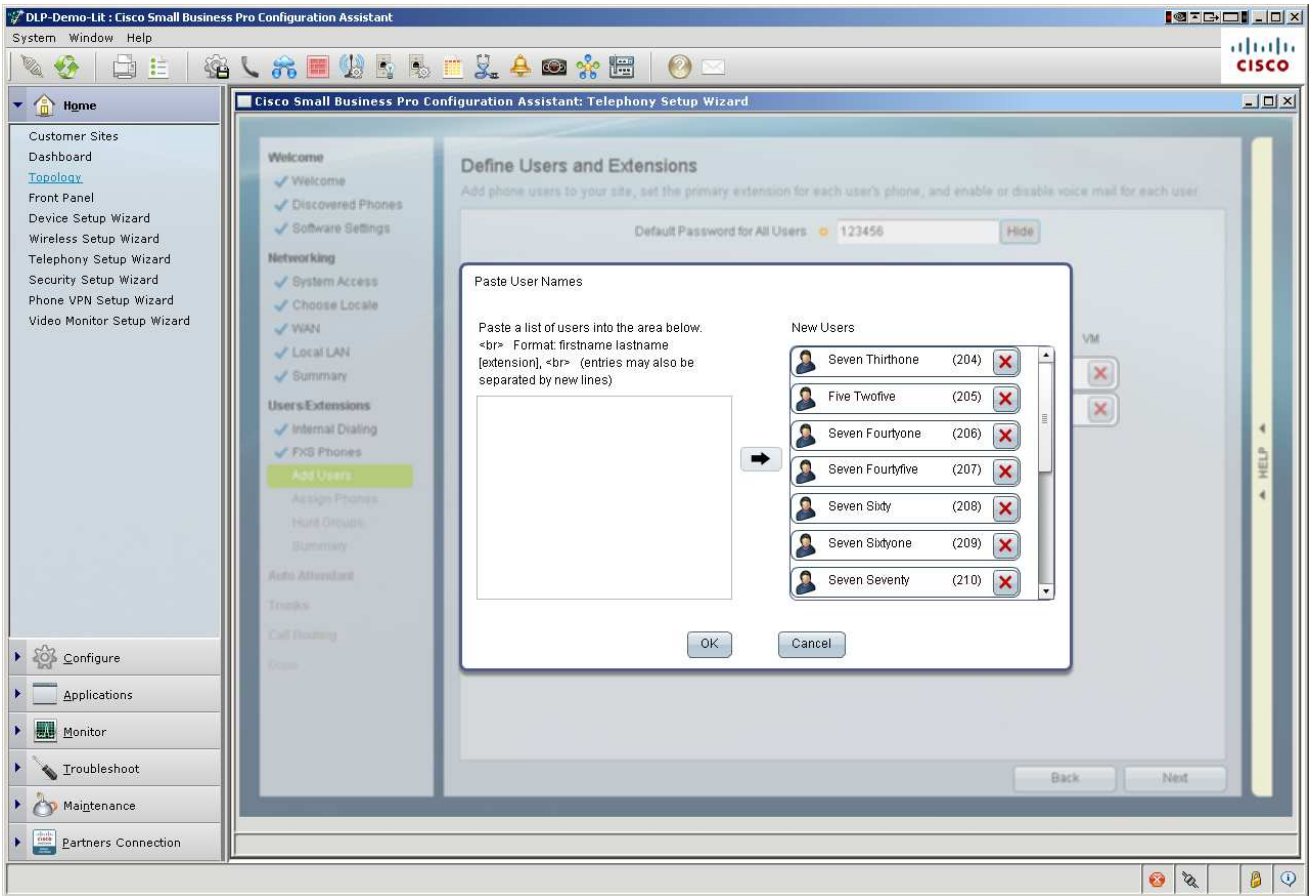
## Add Users

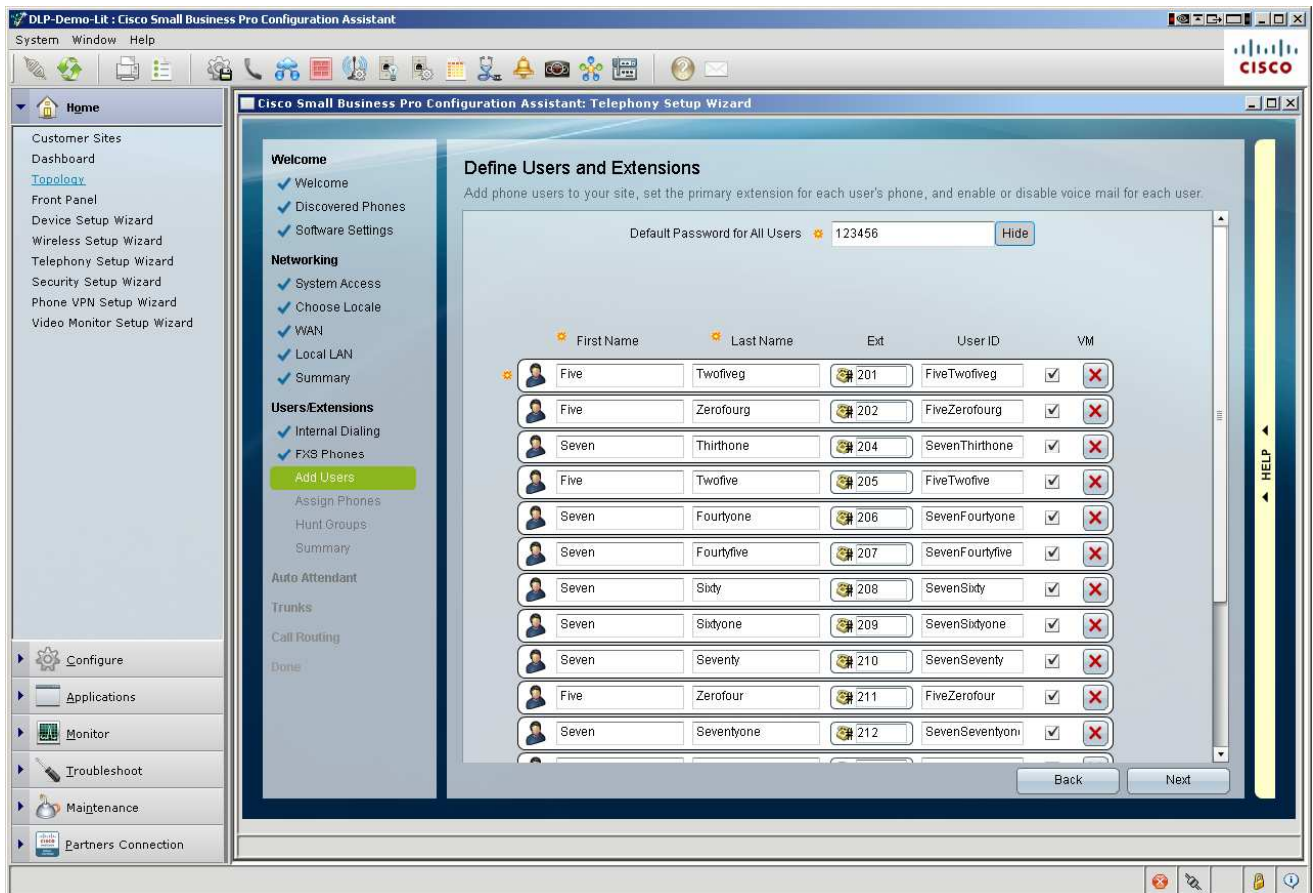
You can add them one at a time or in bulk.

Definitions of Users and Extensions in a *Staging environment* is made possible through the import of text files of a given format (shown here). This means you don't have to connect the actual phones do this. If you do connect the phones, that will look different as the phones will be discovered and appear in the Wizard.

Using this method means you need to have the MAC addresses of the phones (on the box as well as the phone) associated to the phone type and user to be assigned to it at this point. The default PW is for the phone users and it's a good practice to set this to a default until the users get comfortable and then adjust it later.

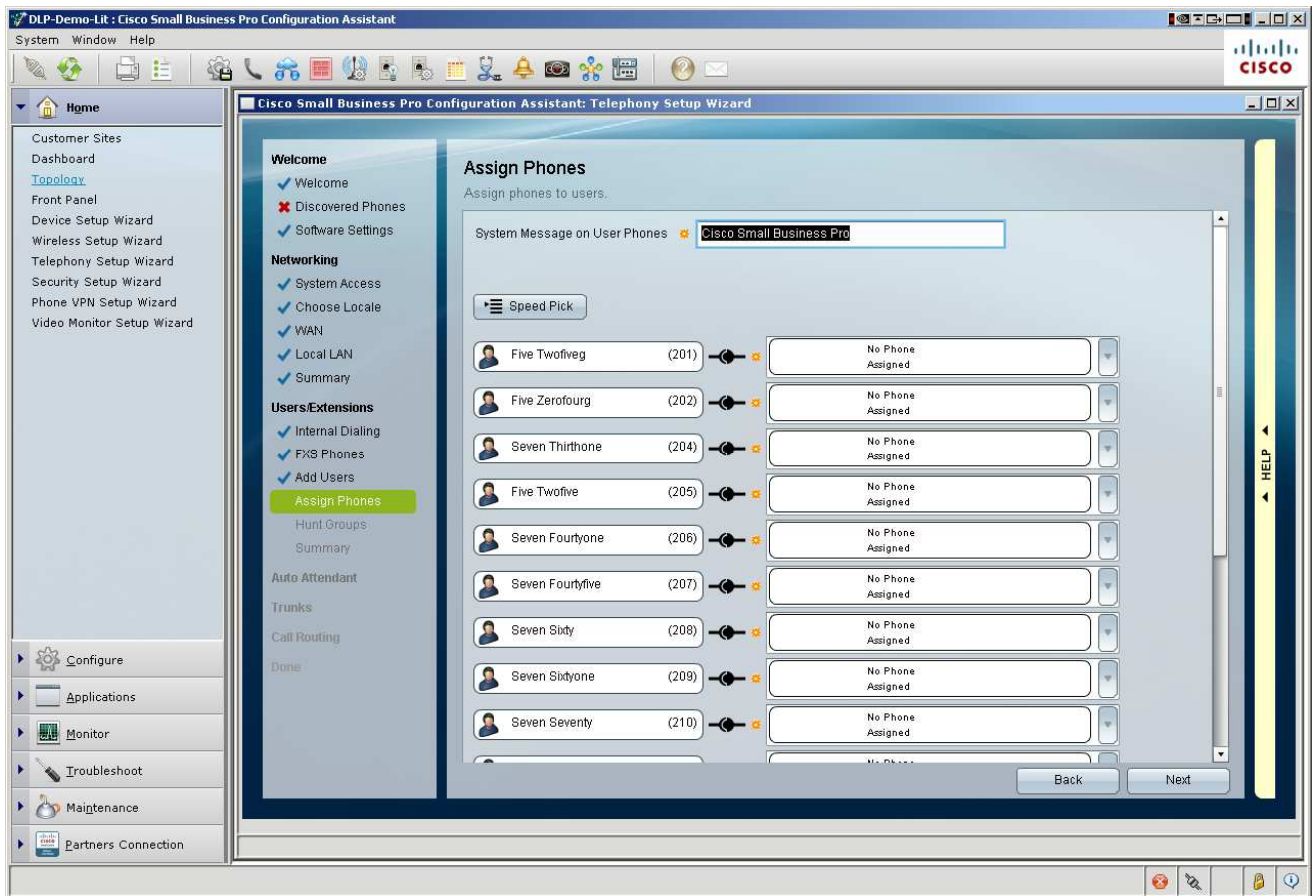






Now you assign them





You can go BACK/NEXT here, no problem, if you forgot a name, or have an extra name. In the end, they are all assigned:

DLP-Demo-Lit : Cisco Small Business Pro Configuration Assistant

System Window Help

Home

- Customer Sites
- Dashboard
- Topology
- Front Panel
- Device Setup Wizard
- Wireless Setup Wizard
- Telephony Setup Wizard
- Security Setup Wizard
- Phone VPN Setup Wizard
- Video Monitor Setup Wizard

Configure

- Applications
- Monitor
- Troubleshoot
- Maintenance
- Partners Connection

Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard

Welcome

- ✓ Welcome
- ✓ Discovered Phones
- ✓ Software Settings

Networking

- ✓ System Access
- ✓ Choose Locale
- ✓ WAN
- ✓ Local LAN
- ✓ Summary

Users/Extensions

- ✓ Internal Dialing
- ✓ FXS Phones
- ✓ Add Users
- Assign Phones**
- Hunt Groups
- Summary

Auto Attendant

Trunks

Call Routing

Done

### Assign Phones

Assign phones to users.

Five Zerofour (202)	504G /none 4 buttons	0026.99AB.D84A currently(202)	
Five Twofive (205)	525G /none 5 buttons	002497F055B8	
Seven Fourtyone (206)	7941GE 2 buttons	002255DCC75	
Seven Fourtyfive (207)	7945 2 buttons	0023331B855F	
Seven Seventy (210)	7970 /none 8 buttons	0012D9EDD389	
Five Zerofour (211)	504C /none 4 buttons	0018B9FFD9AF	
Seven Seventyone (212)	7971 /none 8 buttons	001FCAE90F2F	
Seven Seventyfive (213)	7975 /none 8 buttons	001D450BB1A6	
Seven Eightyfive (214)	7985 1 buttons	0050600114C2	
Seven Thirty six (215)	7936 1 buttons	0004F2E38DFD	
Seven Twentyone (216)	7921 6 buttons	002255D48763	
CIPC Softphone (217)	CIPC 8 buttons	00-21-86-56-CE-E2	

Back Next

HELP

# Hunt Groups and Blast Groups

**Define Hunt Groups and Blast Groups**

Define Hunt Groups to have incoming calls to an extension ring multiple phones in the order you specify. Choose Blast as the Hunt Group type to create a Blast Group (all phones in the group ring simultaneously).

Hunt Groups: 1 of max 10 allowed  
Blast Groups: 0 of max 10 allowed

Group Name	Ext	Users	Type	Forward No Answer
Hunt1	501	2	Longest idle	Mailbox for this Group

**Members**

- Five Twofive (201)
- Five Zerofour (202)

**Available Users**

- Five Twofive (205)
- Seven Fourtyone (206)
- Seven Fourtyfive (207)
- Seven Seventy (210)

Buttons: Add Group, Back, Next

# Summary

The screenshot shows the Cisco Small Business Pro Configuration Assistant interface. The main window is titled "Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard". The left sidebar contains a navigation menu with sections: Home, Customer Sites, Dashboard, Topology, Front Panel, Device Setup Wizard, Wireless Setup Wizard, Telephony Setup Wizard, Security Setup Wizard, Phone VPN Setup Wizard, and Video Monitor Setup Wizard. Below these are icons for Configure, Applications, Monitor, Troubleshoot, Maintenance, and Partners Connection. The main content area is titled "Users Summary" and includes a "Welcome" section with a checklist of completed steps: Welcome, Discovered Phones, Software Settings, Networking (System Access, Choose Locale, WAN, Local LAN, Summary), Users:Extensions (Internal Dialing, FXS Phones, Add Users, Assign Phones, Hunt Groups), Auto Attendant, Trunks, Call Routing, and Done. The "Summary" step is highlighted. The "Users Summary" section contains a summary of settings for internal dialing, analog station ports (FXS), users defined, available phones, and hunt/blast groups. At the bottom right, there are "Back" and "Next" buttons.

**Welcome**

- ✓ Welcome
- ✓ Discovered Phones
- ✓ Software Settings

**Networking**

- ✓ System Access
- ✓ Choose Locale
- ✓ WAN
- ✓ Local LAN
- ✓ Summary

**Users:Extensions**

- ✓ Internal Dialing
- ✓ FXS Phones
- ✓ Add Users
- ✓ Assign Phones
- ✓ Hunt Groups

**Summary**

Auto Attendant

Trunks

Call Routing

Done

### Users Summary

Review settings for internal dialing, analog station (FXS) ports, phone users and extensions, phone assignments, and hunt groups you have configured through the wizard.

[Define Internal Dialing](#)

Internal extension length	3
Access code for external calls	9
Prefix digit for direct transfer to voicemail	6
Voicemail pilot extension	400
Auto Attendant Extension	401
Prompt Management Extension	450

[Configure Analog Station Ports \(FXS\)](#)

FXS ports configured as User Phones	1
FXS ports configured as Common Area Phone/Fax	3
FXS ports disabled	0

[Define Users and Extensions](#)

Users defined	14
---------------	----

[Assign Phones](#)

Available phones	0
------------------	---

[Define Hunt Groups and Blast Groups](#)

Hunt Groups created	1
Blast Groups created	0

Back Next

# Define AA

**DLP-Demo-Lit: Cisco Small Business Pro Configuration Assistant**

System Window Help

**Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard**

**Welcome**

- ✓ Welcome
- ✓ Discovered Phones
- ✓ Software Settings

**Networking**

- ✓ System Access
- ✓ Choose Locale
- ✓ WAN
- ✓ Local LAN
- ✓ Summary

**Users:Extensions**

- ✓ Internal Dialing
- ✓ FXS Phones
- ✓ Add Users
- ✓ Assign Phones
- ✓ Hunt Groups
- ✓ Summary

**Auto Attendant**

- Auto Attendant**
- Action Management
- Prompt Management
- Summary

Trunks

Call Routing

Done

**Define Auto Attendant**

An Auto Attendant system allows incoming calls to be handled without the intervention of a receptionist.

Add an Auto Attendant to this system

Auto Attendant Extension

Auto Attendant Type

Single Schedule: Prompts and actions apply 24 x 7.

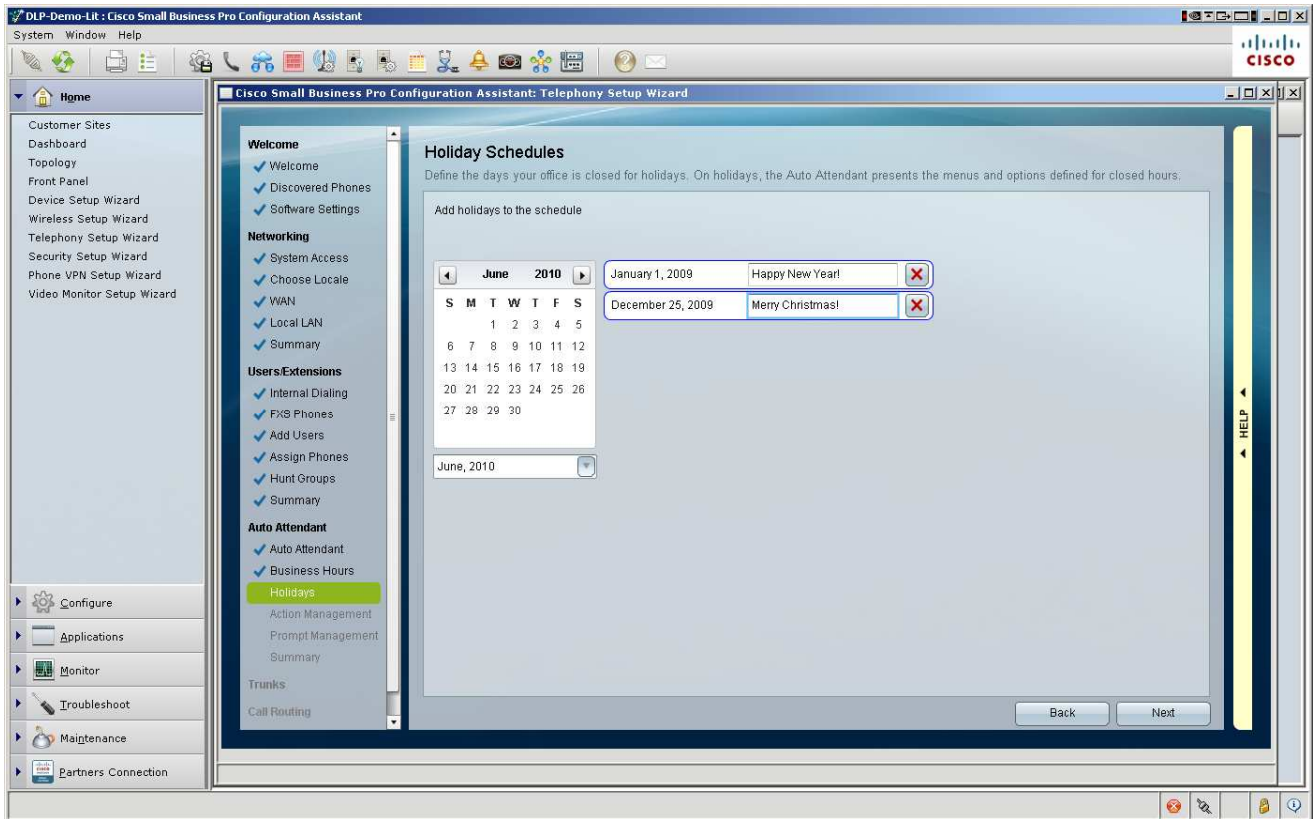
Dual Schedule: Different prompts and actions for open and closed hours.

Back Next

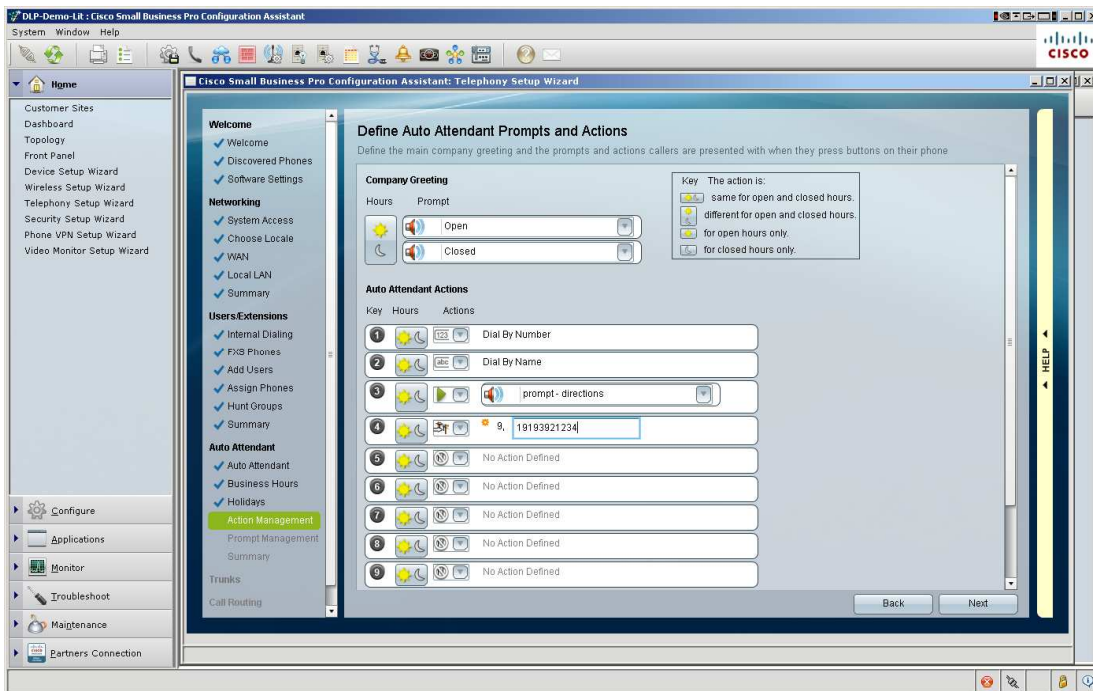
HELP



# Holiday Schedule

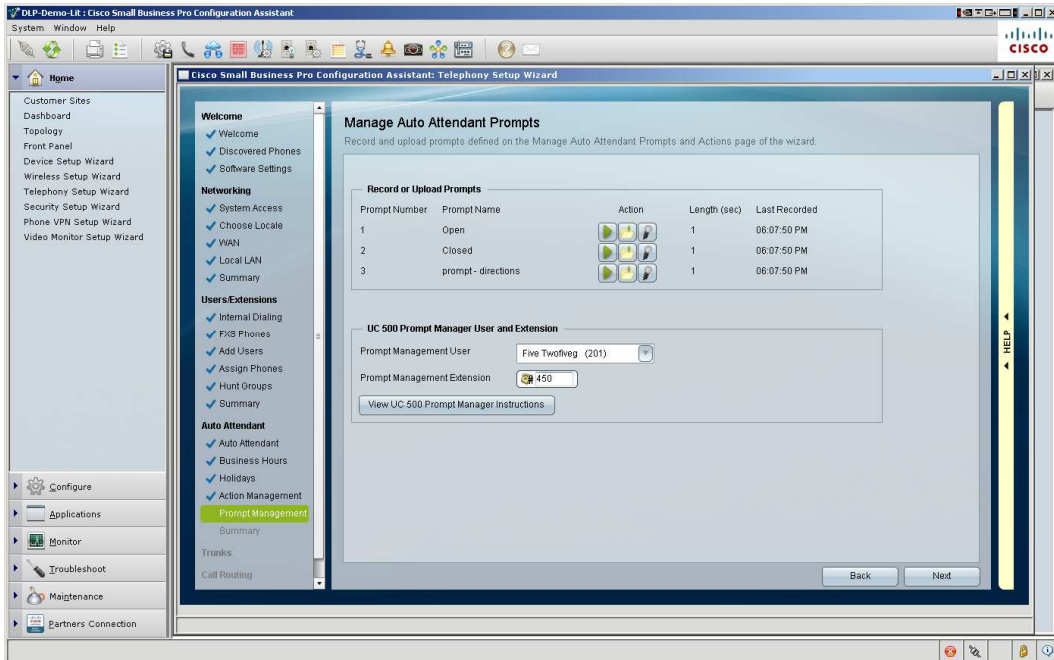


# Define AA Prompts and Actions



## AA Prompt management

You can set some basic AA prompts, actions and recordings. The recordings will be a lot higher quality later when you use a IP Phone to record it later (expert mode), but this uses a PC Mic, which can be good too if you want to use it (just make sure you have a decent mic.)





# Summary

The screenshot displays the Cisco Small Business Pro Configuration Assistant interface. The main window is titled "Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard". On the left, a navigation pane shows a tree view with categories like "Customer Sites", "Networking", "Users/Extensions", and "Auto Attendant". The "Auto Attendant" section is expanded, and "Summary" is selected. The main content area shows the "Auto Attendant Summary" screen, which includes a "Welcome" message and a list of configuration items with their values:

- Auto Attendant extension number:** 401
- Auto Attendant schedule type:** Dual Schedule
- Open hours per week:** 45
- Scheduled holidays:** 2
- Prompts in use:** 3

The "Define Auto Attendant Prompts and Actions" section provides details on caller greetings and options:

- Callers will be greeted by the "Open" message during business hours and will have the following options to choose:
  - Press 1 -- Dial By Number
  - Press 2 -- Dial By Name
  - Press 3 -- Hear: prompt - directions
  - Press 4 -- Dial: 9, 19193921234
- After hours and during holidays callers will be greeted by the "Closed" message and will have the following options:
  - Press 1 -- Dial By Number
  - Press 2 -- Dial By Name
  - Press 3 -- Hear: prompt - directions
  - Press 4 -- Dial: 9, 19193921234

At the bottom of the summary area, there are "Back" and "Next" buttons. The interface also features a top menu bar with "System", "Window", and "Help" options, and a bottom taskbar with various system icons.

# FXO Ports

The screenshot shows the Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard. The main window is titled "Configure Analog Trunk Ports (FXO Ports)" and includes the instruction: "Enable or disable analog trunk ports (FXO ports) and choose a call routing model for each port, either PBX or Key System." Below this is a diagram of a Cisco switch with four FXO ports highlighted. A table below the diagram allows for configuring each port:

Port	Usage
<input checked="" type="checkbox"/> 0/1/0 FXO	<input checked="" type="radio"/> PBX <input type="radio"/> Key System
<input checked="" type="checkbox"/> 0/1/1 FXO	<input checked="" type="radio"/> PBX <input type="radio"/> Key System
<input type="checkbox"/> 0/1/2 FXO	<input type="radio"/> PBX <input type="radio"/> Key System
<input type="checkbox"/> 0/1/3 FXO	<input type="radio"/> PBX <input type="radio"/> Key System

The left sidebar contains a navigation menu with categories: Home, Customer Sites, Networking, Users/Extensions, Auto Attendant, and Trunks. The "Trunks" section is expanded, showing "FXO Ports" as the active step. At the bottom right of the main window are "Back" and "Next" buttons.

# Summary

The screenshot shows the Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard. The window title is "DLP-Demo-Lit: Cisco Small Business Pro Configuration Assistant". The interface includes a menu bar (System, Window, Help), a toolbar with various icons, and a sidebar with navigation options. The main content area displays the "Trunking Summary" screen, which reviews trunk settings. A table lists the number of ports for different types of FXO ports.

**Trunking Summary**  
Review trunk settings you have configured through the wizard.

Category	Value
Number of FXO ports disabled	2
Number of key system FXO ports	0
Number of PBX FXO ports	2

Navigation buttons: Back, Next, HELP

# Configure Incoming Call Handling for FXO

**Configure Incoming Call Handling for Analog Trunk Ports (FXO)**

This page is only displayed if you configured one or more analog trunk (FXO) ports for PBX call routing on the Configure Analog Ports page of the wizard. Select an FXO port and choose a destination for incoming calls to that port.

FXO Port	Destination
01/0 FXO	Auto Attendant (401)
01/1 FXO	Hunt1 (501)

**Navigation Menu:**

- Networking
  - System Access
  - Choose Locale
  - WAN
  - Local LAN
  - Summary
- Users/Extensions
  - Internal Dialing
  - FXS Phones
  - Add Users
  - Assign Phones
  - Hunt Groups
  - Summary
- Auto Attendant
  - Auto Attendant
  - Business Hours
  - Holidays
  - Action Management
  - Prompt Management
  - Summary
- Trunks
  - FXO Ports
  - Summary
- Call Routing
  - Inbound Ring FXO**
  - Summary
- Done

**Buttons:** Back, Next

# Summary

The screenshot displays the Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard. The interface includes a left-hand navigation pane with categories like Home, Customer Sites, and various setup wizards. The main content area is titled "Call Routing Summary" and provides a review of phone button assignments for incoming calls. A summary table shows that 1 FXO Trunk is assigned to Auto Attendant and 1 FXO Trunk is assigned to Hunt/Blast Groups. The "Summary" option under "Call Routing" is highlighted in the left pane. "Back" and "Next" buttons are visible at the bottom of the main content area.

**Call Routing Summary**  
Review phone button assignments for key system lines and destinations for incoming calls to ISDN BRI, or ISDN PRI trunks that you have configured through the wizard.

<a href="#">Configure Incoming Call Handling for Analog Trunk Ports (FXO)</a>	
<b>FXO Trunks assigned to Auto Attendant</b>	<b>1</b>
<b>FXO Trunks assigned to Hunt/Blast Groups</b>	<b>1</b>

**Navigation Pane:**

- Home
- Customer Sites
  - Dashboard
  - Topology
  - Front Panel
  - Device Setup Wizard
  - Wireless Setup Wizard
  - Telephony Setup Wizard
  - Security Setup Wizard
  - Phone VPN Setup Wizard
  - Video Monitor Setup Wizard
- Configure
- Applications
- Monitor
- Troubleshoot
- Maintenance
- Partners Connection

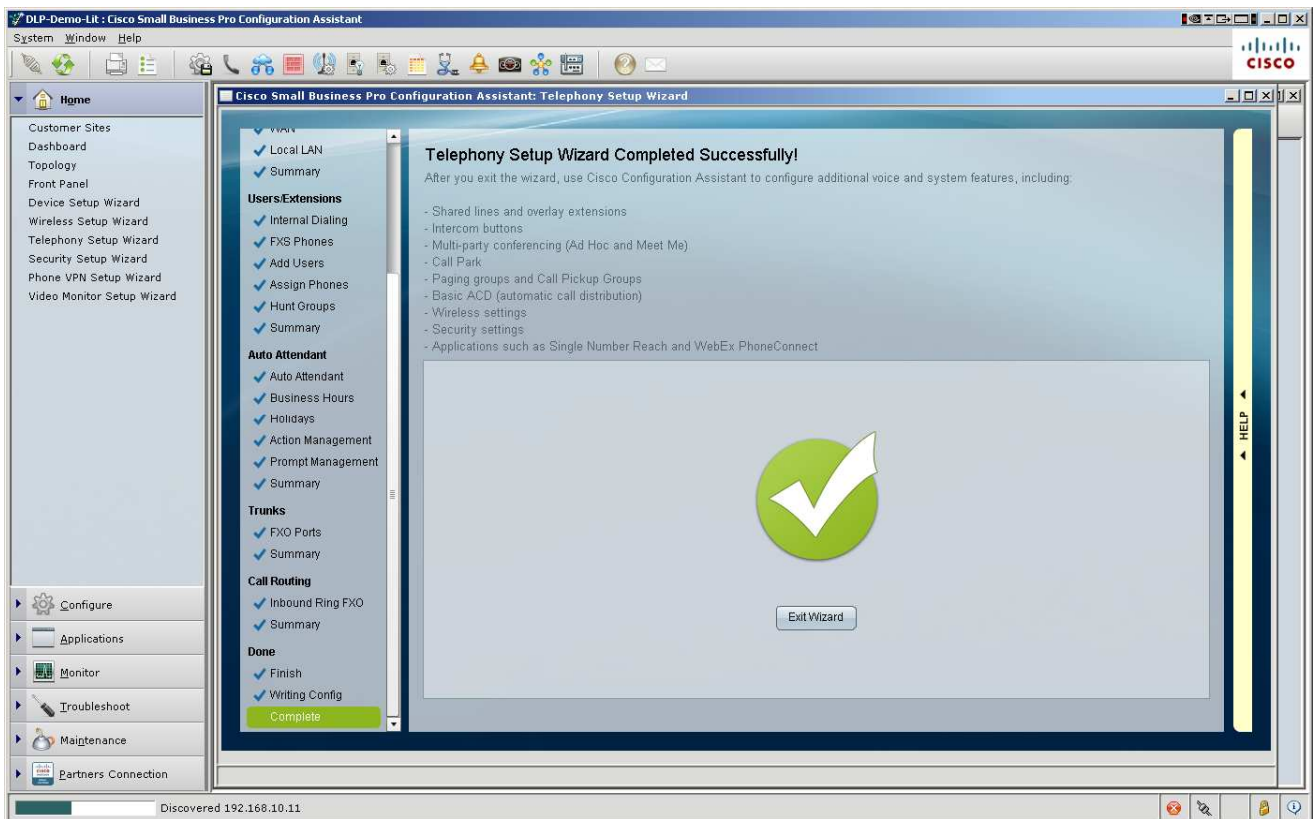
**Wizard Progress:**

- Networking
  - System Access
  - Choose Locale
  - WAN
  - Local LAN
  - Summary
- Users/Extensions
  - Internal Dialing
  - FXS Phones
  - Add Users
  - Assign Phones
  - Hunt Groups
  - Summary
- Auto Attendant
  - Auto Attendant
  - Business Hours
  - Holidays
  - Action Management
  - Prompt Management
  - Summary
- Trunks
  - FXO Ports
  - Summary
- Call Routing
  - Inbound Ring FXO
  - Summary**
- Done

# APPLY

The screenshot shows the 'Apply Configuration' screen of the Cisco Small Business Pro Configuration Assistant. The window title is 'Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard'. The left sidebar contains a navigation menu with categories like 'Home', 'Customer Sites', 'Dashboard', 'Topology', 'Front Panel', 'Device Setup Wizard', 'Wireless Setup Wizard', 'Telephony Setup Wizard', 'Security Setup Wizard', 'Phone VPN Setup Wizard', and 'Video Monitor Setup Wizard'. Below these are icons for 'Configure', 'Applications', 'Monitor', 'Troubleshoot', 'Maintenance', and 'Partners Connection'. The main content area is titled 'Apply Configuration' and includes a 'Review all settings configured through the wizard before you click Apply Configuration' message. A large 'Apply Configuration' button is centered, with a note: 'Your configuration will be written to the device. This may take up to 29 minutes.' Below this, there are tabs for 'Networking', 'Users', 'Auto Attendant', 'Trunk', and 'Call Routing'. The 'Networking' tab is active, showing 'System Access' and 'Choose Locale' sections. The 'System Access' section displays: System Name: UC\_540\_demo, Admin Username: ciscoadmin. The 'Choose Locale' section displays: Region: United States, Phone Language: US English, Voicemail Language: US English, Dial Plan Locale: North American, Call Progress Tone: United States, Time Zone: (GMT - 05:00) Eastern Time (US, Canada), Daylight Savings: Enabled. At the bottom of the Networking section, there is a 'Configure WAN Connection' section with 'WAN IP Configuration Type' set to 'Static IP'. A 'Back' button is located at the bottom right of the main content area. The bottom status bar shows system icons and a Cisco logo.

The screenshot shows the 'Writing Configuration' screen of the Cisco Small Business Pro Configuration Assistant. The window title is 'Cisco Small Business Pro Configuration Assistant: Telephony Setup Wizard'. The left sidebar is identical to the previous screenshot. The main content area is titled 'Writing Configuration' and includes a message: 'You have successfully completed the Telephony Setup Wizard. Your configuration is being written to the device. This may take up to 29 minutes.' Below this is a progress bar labeled 'Current progress 0%'. The 'Done' section in the sidebar is highlighted, with 'Writing Config' as the active step and 'Complete' below it. The bottom status bar shows system icons and a Cisco logo.



## POST TSW

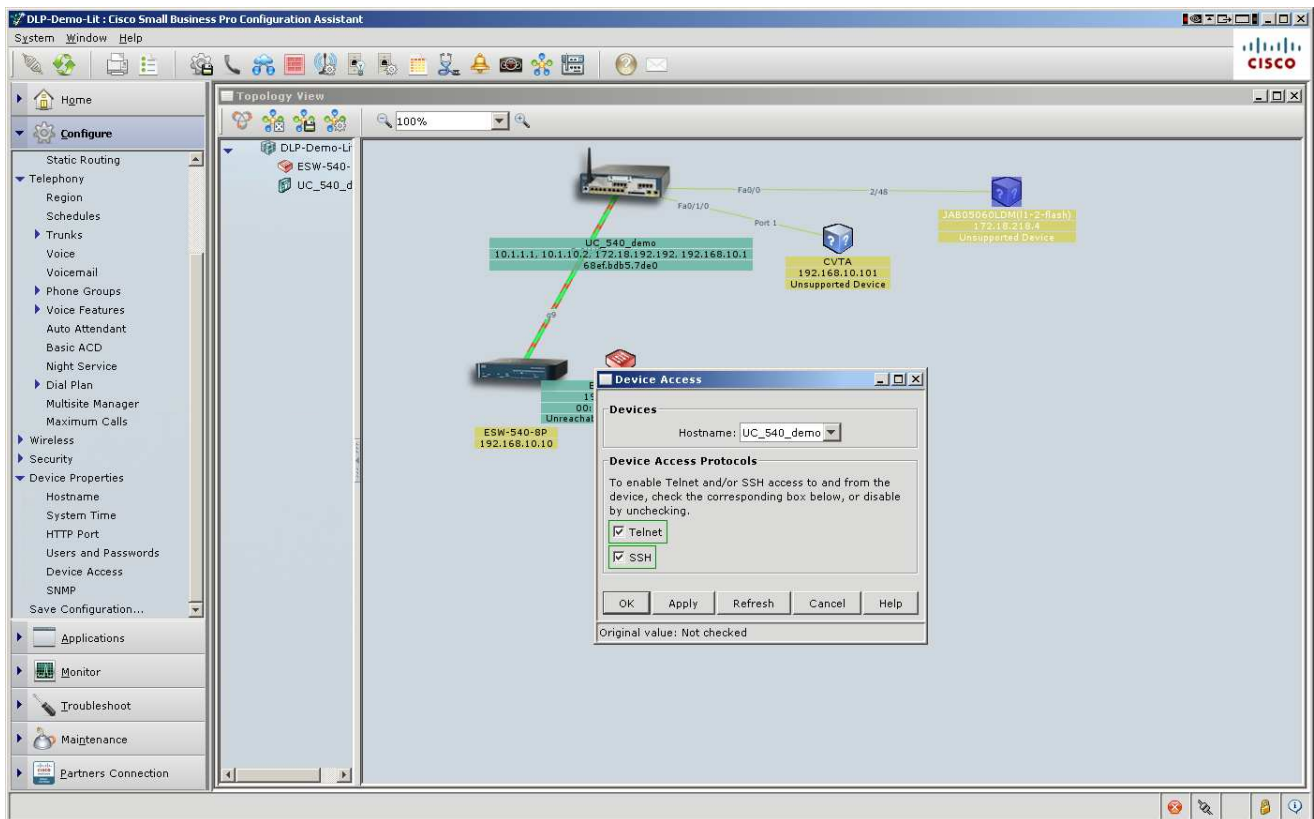
You have now completed the TSW. From this point forward, you will use what is called CCA Expert Mode. This is where you use the 'drawers' (that's what we call the left frame containers) to manage the SBCS deployment. You can fine tune any of these elements we setup in TSW and do much more.

## Device Access

There are some operations that CCA will absolutely require SSH or Telnet (in that order) access to the system or it won't function. While we have raised this as an enhancement request to perhaps default at least SSH to ON, they are both currently defaulted to OFF.

Please go ahead and turn one or both ON at this point:

This would be in the Configuration Drawer, Under Device properties, click Device access. Check the boxes (read the help), and Apply.



## SAVE

Get familiar with the Save function. TSW automatically saves the running config to startup-config. CCA will remind you each time you exit to Save the topology and the device running configuration. That last one is extremely important, or if you power off the UC500 without doing this, the next time it reloads, it will not have any of your changes. Get familiar with this and use it often:



**DLP-Demo-Lit : Cisco Small Business Pro Configuration Assistant**

System Window Help

Home

**Configure**

- Static Routing
- Telephony
  - Region
  - Schedules
  - Trunks
  - Voice
    - Voicemail
    - Phone Groups
    - Voice Features
      - Auto Attendant
      - Basic ACD
      - Night Service
    - Dial Plan
    - Multisite Manager
    - Maximum Calls
  - Wireless
  - Security
  - Device Properties
    - Hostname
    - System Time
    - HTTP Port

**Topology View**

100%

DLP-Demo-Lit

- ESW-540-
- UC\_540\_d
- Neighbors
  - CVTA
  - ESW-540-
  - JAB05060I

UC\_540\_demo  
10.1.1.1, 10.1.10.2, 172.18.192.192, 192.168.10.1  
68ef.bdb5.7de0

CVTA  
192.168.10.101  
Unsupported Device

ESW-540-8P  
192.168.10.10

ESW-540-8  
192.168.10.  
00:26:cb:3a:d  
Unreachable: Connec

**Save Configuration**

Devices

Hostname: All Devices

Save Cancel Help