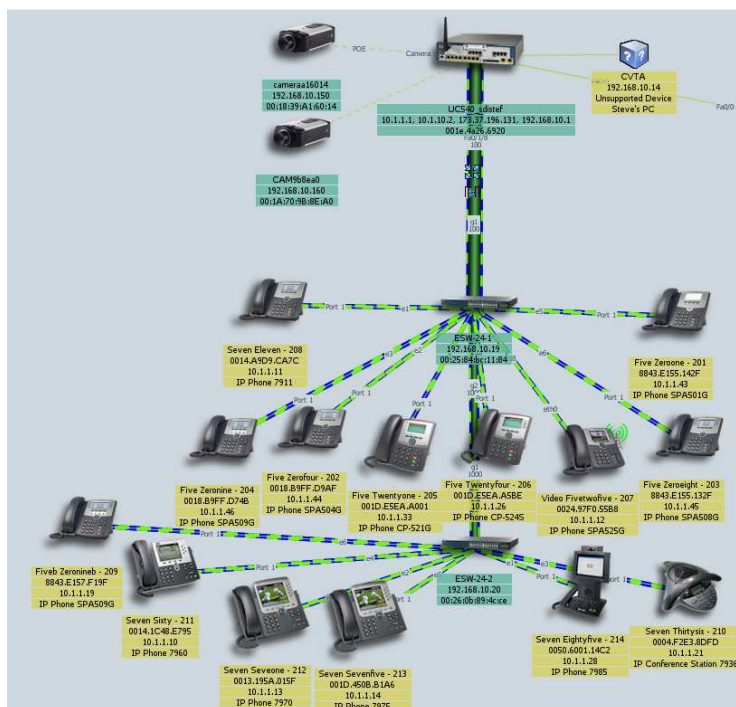


Cisco Small Business

Smart Business Communication System



Technical Enablement Lab

Configuring a UC540 using CCA 3.0 TSW and Bulk User and Phone Import

1/18/2011

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Introduction

Building a demo system in your own partner headquarters can be used as a reference architecture for what can be configured on a UC 500 using CCA 3.0.

We now configure UC540/UC560 systems completely using CCA 3.0 which brings it up to date with UC 500 SWP 8.1.0

Site Survey

A Site Survey document must be completed for any UC500 installation, in advance of partner configuration. To be successful, we would expect that most configurations based on this survey can be staged, in the partner offices prior to going on site with all the phones where some customer tweaking should be expected to occur during the familiarization and training delivered as part of the deployment.

Follow this model to configure your demo system. You can configure your system without a single phone being plugged in, a few being plugged in, or none at all ever being plugged into the system. This process will help you become familiar with what you need to do for real deployments. Simple things like collecting the MAC addresses of your devices (found on the outside of the box or on the phone itself) and the correlation/association of the phone model and MAC to a user name and extension number as you determined is required from your site survey.

HW Equipment Required

You should build a lab using all the phone models you plan to deploy, the switches you plan to use, and the applications you will utilize so that your demo system reflects what is possible to configure (most of it anyway; there will always be adjustments in each deployment) so you can use it as your lab for demos and validation of operation.

Recommended equipment required listed .

- UC540 (8 User SKU base system or higher)
- Phones as you prefer (include analog for FXS as well)
- xVC2300 IP Cameras
- ESW Switches (any model or a few models)
- CUVA-V2 or V3 Web Camera and a PC.

Software Pack Upgrade

The system needs to be factory reset to run the TSW. Follow these instructions to upgrade and check the option for factory Restart system. Even if your system is factory reset from the factory, as the default configuration file in the latest SW Pack should be used.

<https://supportforums.cisco.com/docs/DOC-14562>

CCA 3.0

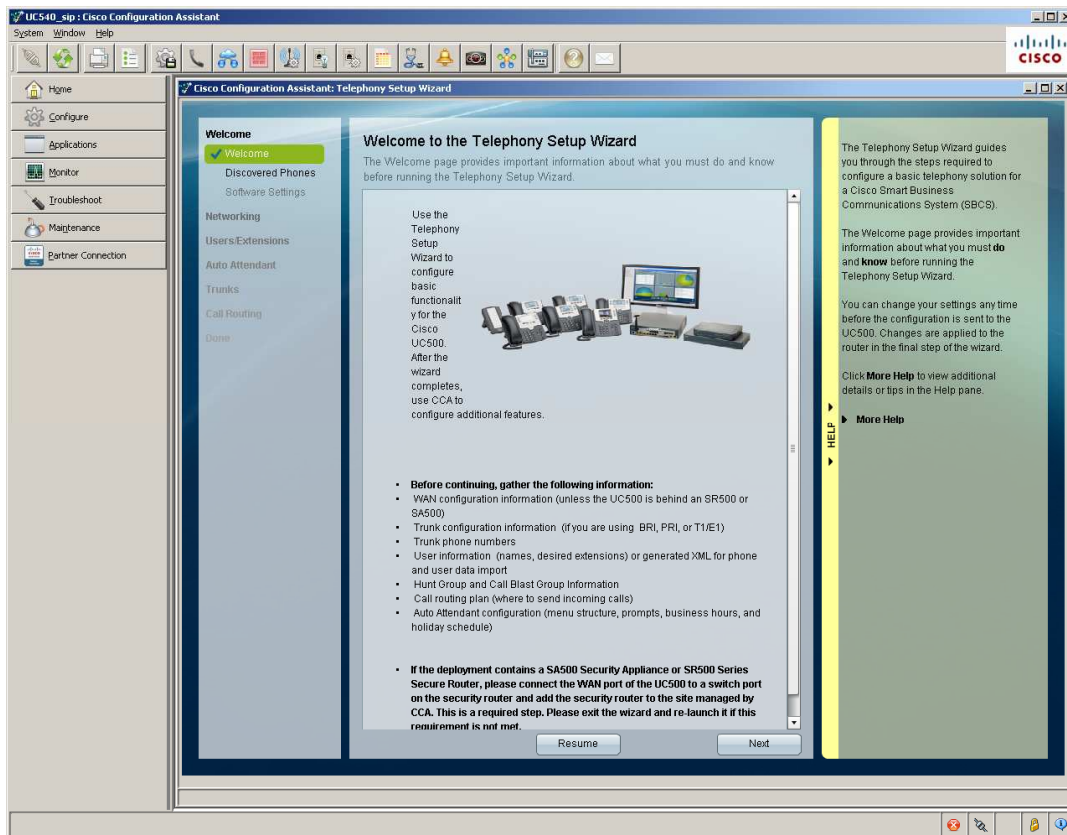
Download the latest CCA and install it on your PC. Check the CCA data sheet for supported operating SW.

<http://www.cisco.com/go/configassist>

Telephony Setup Wizard (TSW)

In the HOME drawer of CCA is the Telephony Setup Wizard (TSW). CCA will recognize your system is factory reset and should launch it automatically. Let it discover the underlying network elements until 100% complete (about 60 seconds). Do not interrupt this and do not have your PC wireless NIC enabled during this procedure. Running the TSW will take about 10 minutes to insert the data and about 30 more minutes to APPLY the final config, but a time estimate will be given before APPLY is selected.

Welcome



Phone Assignment

In this case, and this is new for SWP 8.1.0, the system now registers all connected phones, but doesn't auto assign an ephone-dn. After clicking next above, you have some options

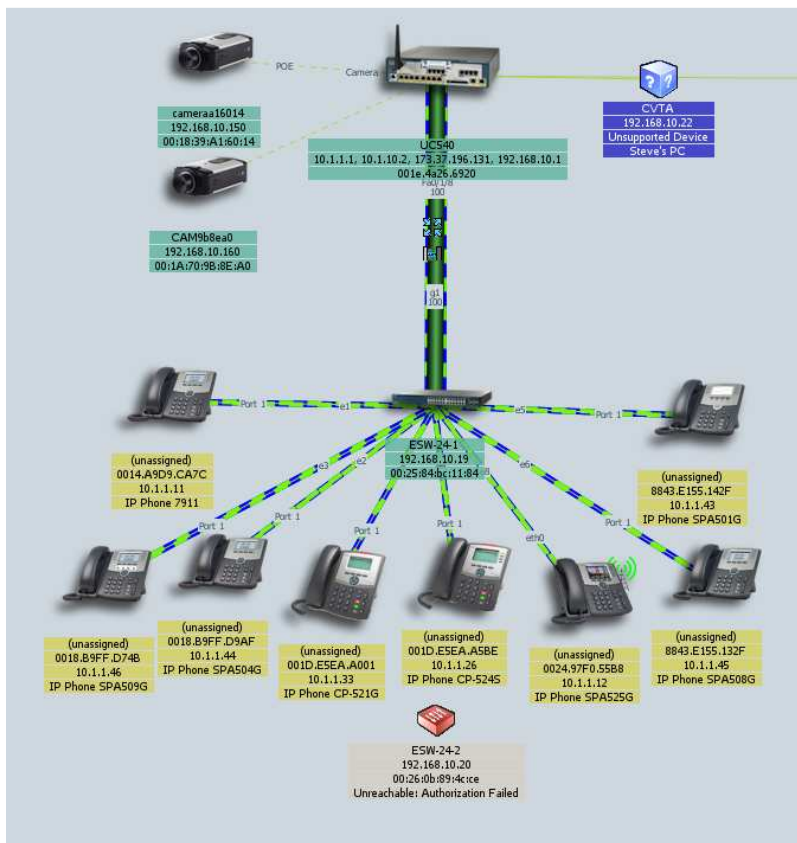
- 1) If the phones plugged in are the complete set of phones to be staged and match the exact phones to be deployed, you can assign them to users and extensions in the listed phone types displayed.
- 2) If the registered (plugged in) phones are only a partial list of the phones to be deployed, you can assign the ones registered using the TSW phone listing, and then add the remaining phones using Add Unregistered Phones (this will accept flat text file input).
- 3) If the registered (plugged in) phones are only a partial list of the phones to be deployed, you can ignore the registered phones, and use the Bulk Import of Phone and User Data.

So in this lab and reference, I have two switches planned for site deployment. ESW-24-1 and ESW-24-2.

I maintain an EXCEL file of the devices and the planned assignments:

Model	Name/Ext	Model/MAC	Switch	port	User Group	Combined
524G		524G 001de5e89df4,			not mounted	
501G	Five Zeroone 201,	501G 8843e155142f,	ESW-24-1		5 8a	UC540-sip
504G+500S	Five Zerofour 202,	504G 0018B9FFD9AF,	ESW-24-1		2 8a	UC540-sip
508G	Five Zeroeight 203,	508G 8843e155132f,	ESW-24-1		6 8a	UC540-sip
509G	Five Zeronine 204,	509G 0018b9ffd74b,	ESW-24-1		3 8a	UC540-sip
521G	Five Twentyone 205,	521G 001de5eaa001,	ESW-24-1		7 8a	UC540-sip
524G	Five Twentyfour 206,	524G 001DE5EAA5BE,	ESW-24-1		4 8a	UC540-sip
525G	Video Fivetwofive 207,	525G 002497F055B8,	ESW-24-1		8 8a	UC540-sip
7911	Seven Eleven 208,	7911 0014A9D9CA7C,	ESW-24-1		1 8a	UC540-sip
509G	Fiveb Zeronineb 209,	509G 8843e157f19f,	ESW-24-2		6 8e	UC540-sip
7936	Seven Thirtysix 210,	7936 0004F2E38DFD,	ESW-24-2		3 8e	UC540-sip
7960	Seven Sixty 211,	7960 00141c48e795,	ESW-24-2		4 8e	UC540-sip
7970	Seven Sevenone 212,	7970 0013195a015f,	ESW-24-2		2 8e	UC540-sip
7975	Seven Sevenfive 213,	7975 001D450BB1A6,	ESW-24-2		5 8e	UC540-sip
7985	Seven Eightyfive 214,	7985 0050600114C2,	ESW-24-2		1 8e	UC540-sip

I also have 2 PVC2300 cameras on the UC 540 and for this demonstration, I only plug in ESW-24-1. Notice in my topology shows the unreachable ESW-24-2 (that's only there because it is created in this site already).



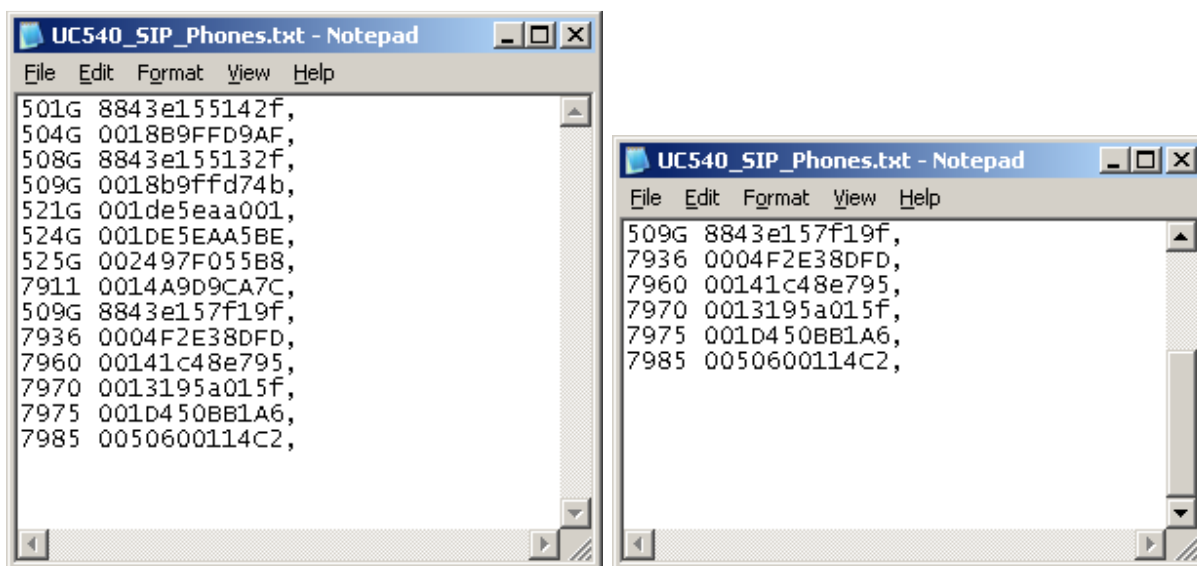
Notice SWP 8.1.0 with CCA 3.0 is different that prior releases. See the phones are registered, but not automatically assigned anything (see 'unassigned' in topology view).

So now you have the options described above (1,2,3).

If you used option #2 to add phones that aren't already showing up, or if you didn't plug any phones in, you can click Add Unregistered Phones, there will be a PASTE function. Having your data in a NOTEPAD file ready to go will speed up the process. Simply paste it into the input box using the following format:

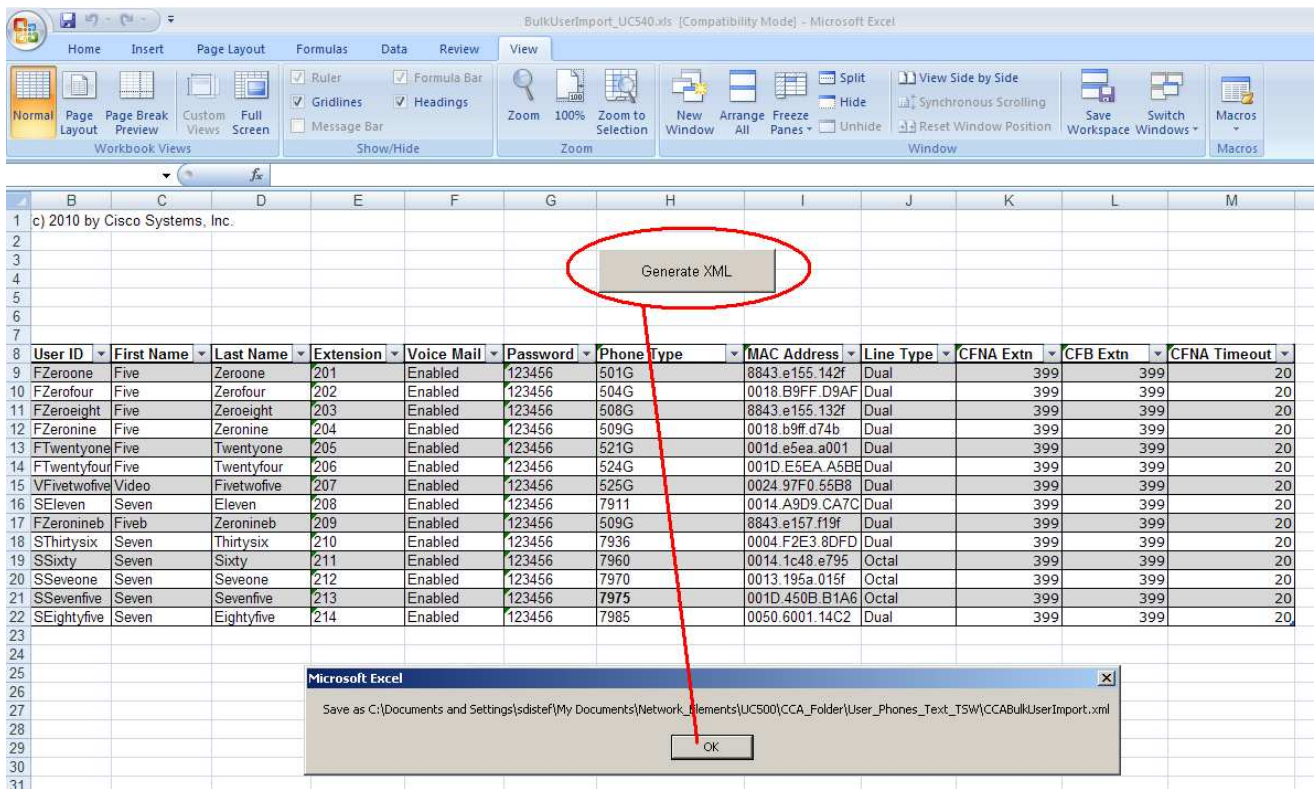
Model[space]MAC[comma/return]

You use YOUR specific MACs found on phone or phone box. If using CIPC, it will be the PC Ethernet MAC address (ipconfig /all in a dos window) or one you manually specify and can adjust within CIPC Preferences tab later on. In my case I am showing the whole file, but since half of them are registered already, I would only need the phones attached to ESW-24-2 (second notepad), if I used that option.



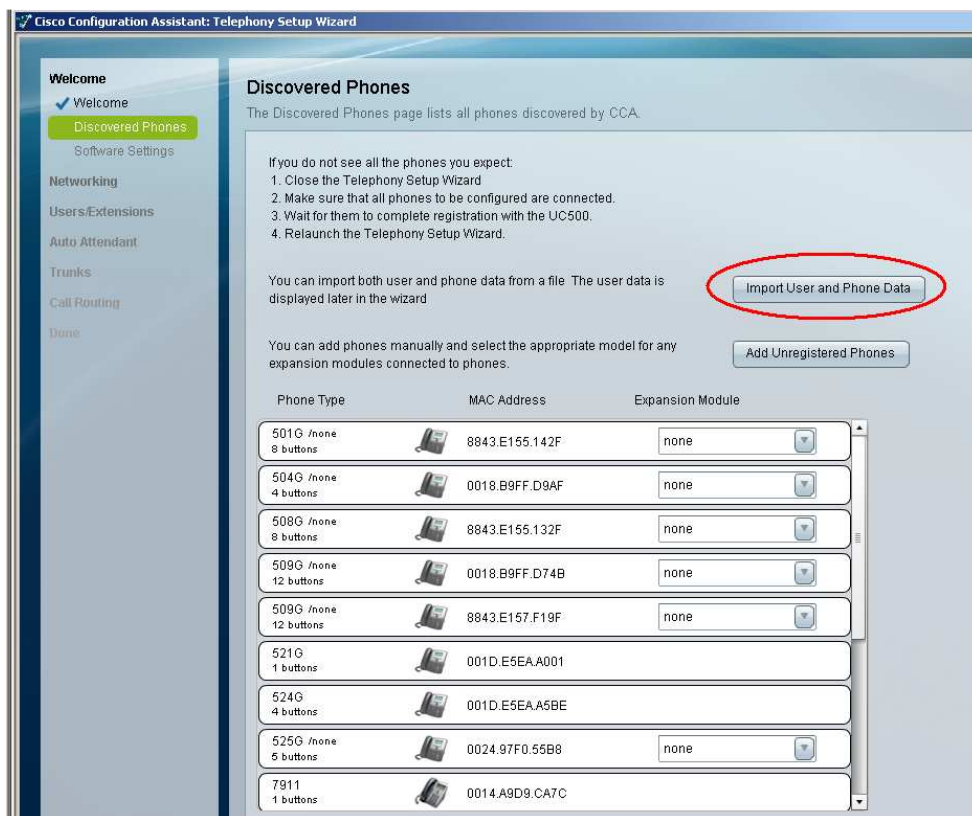
If using "Importing user and phone data", you must create the data and export it to XML. A sample Microsoft Excel file named BulkUserImport.xls is provided for this purpose. This file is located in the CCA installation directory on your PC in the appdata folder C:\Program Files\Cisco Systems\CiscoSMB\Cisco Configuration Assistant\appdata. The .xls file contains macros and a Generate XML button that must be used to export the data to an XML file in the format expected by the wizard. To import the data, click Import User and Phone Data, browse to the location of the generated XML file, and click Open. Review the data and click OK.

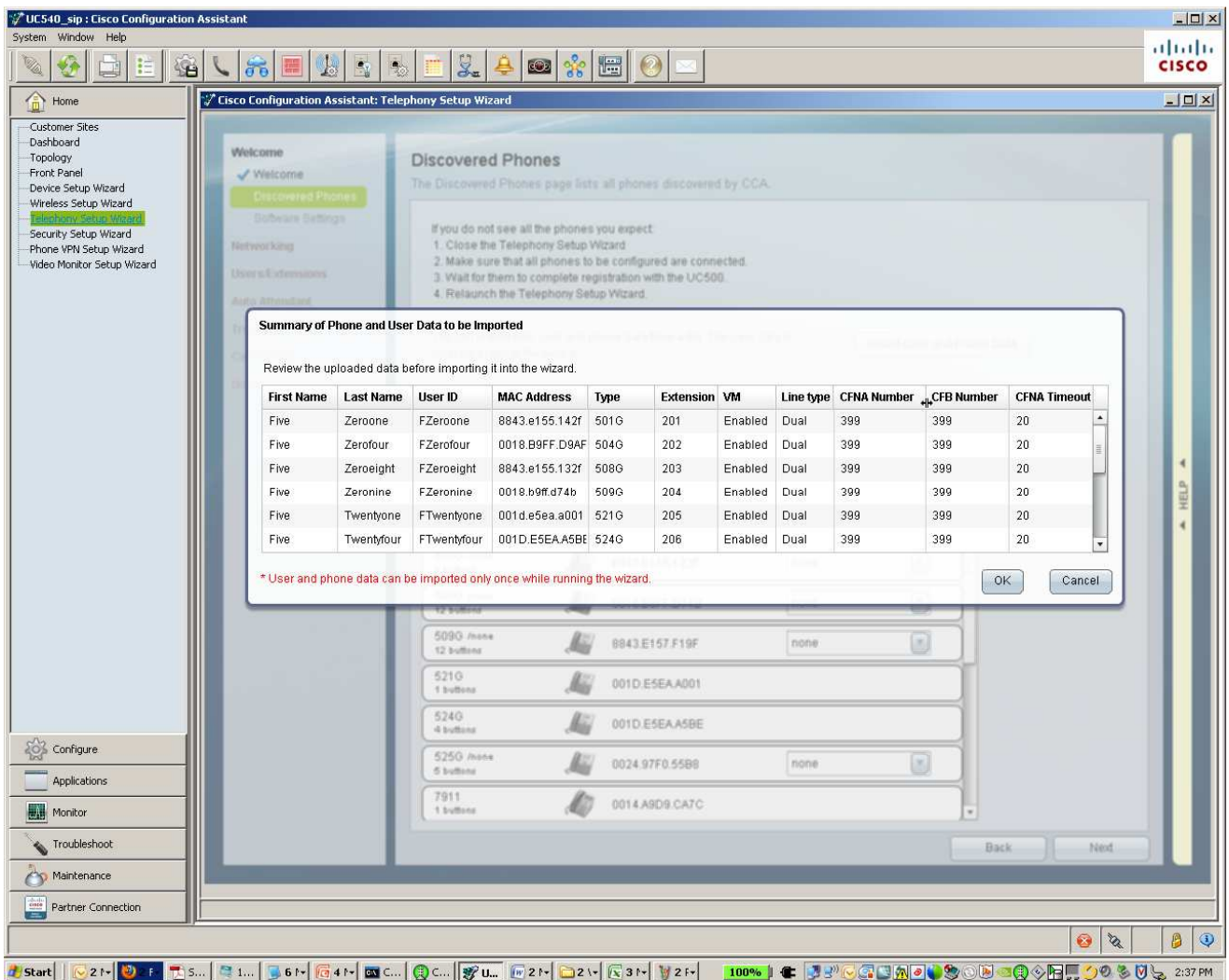
I am going to use it for all the phones actually, so I will import phones that are plugged in and those that are not.



To click the generate XML button, you must enable MACROS to run in EXCEL Security settings.

Now back to TSW and import the xml file:





Add sidecars where applicable:

Welcome

- ✓ Welcome
- Discovered Phones**
- Software Settings

Networking

Users/Extensions

Auto Attendant

Trunks

Call Routing

Done

Discovered Phones

The Discovered Phones page lists all phones discovered by CCA.

If you do not see all the phones you expect:

1. Close the Telephony Setup Wizard
2. Make sure that all phones to be configured are connected.
3. Wait for them to complete registration with the UC500.
4. Relaunch the Telephony Setup Wizard.

You can import both user and phone data from a file. The user data is displayed later in the wizard

You can add phones manually and select the appropriate model for any expansion modules connected to phones.

Phone Type	MAC Address	Expansion Module
501G /none 8 buttons	8843.e155.142f	none
504G /500S 36 buttons	0018.B9FF.D9AF	500S
508G /none 8 buttons	8843.e155.132f	none
509G /none 12 buttons	8843.e157.f19f	none
509G /none 12 buttons	0018.b9ff.d74b	none
521G 1 buttons	001d.e5ea.a001	
524G 4 buttons	001D.E5EA.A5BE	
525G /none 5 buttons	0024.97F0.55B8	none
7911 1 buttons	0014.A9D9.CA7C	

Software Settings

After confirming the correct information above and clicking NEXT, you come to Localization, SW and License management page (for world market, you may have to localize here (not shown)).

Software Upgrade and License Management

Licenses

Currently, you have licenses for 22 users

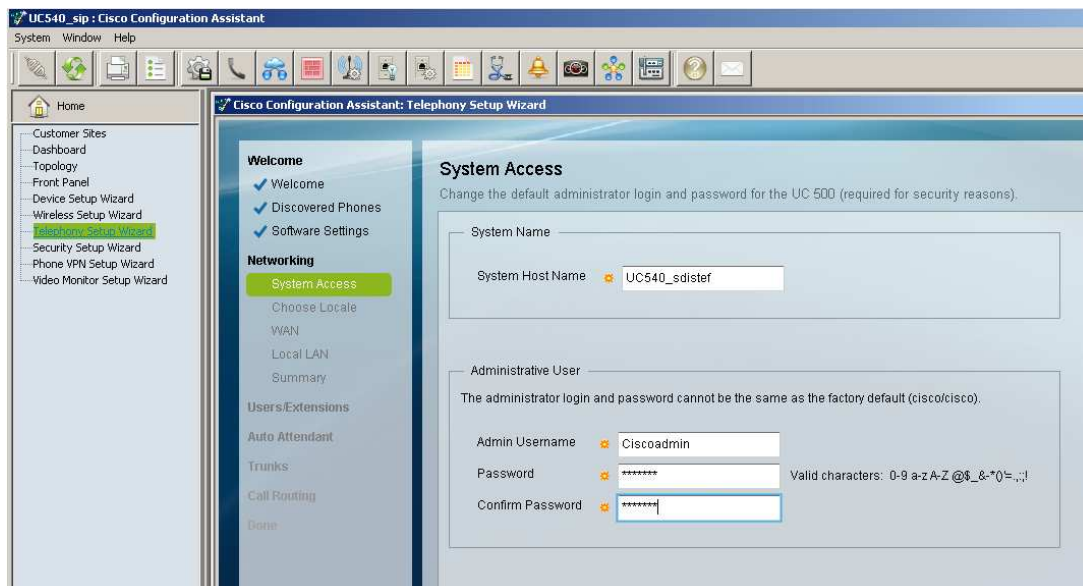
UC500 Software and License Packs

Software Pack: 8.1.0

Cisco IOS Version: 15.1(2)T2

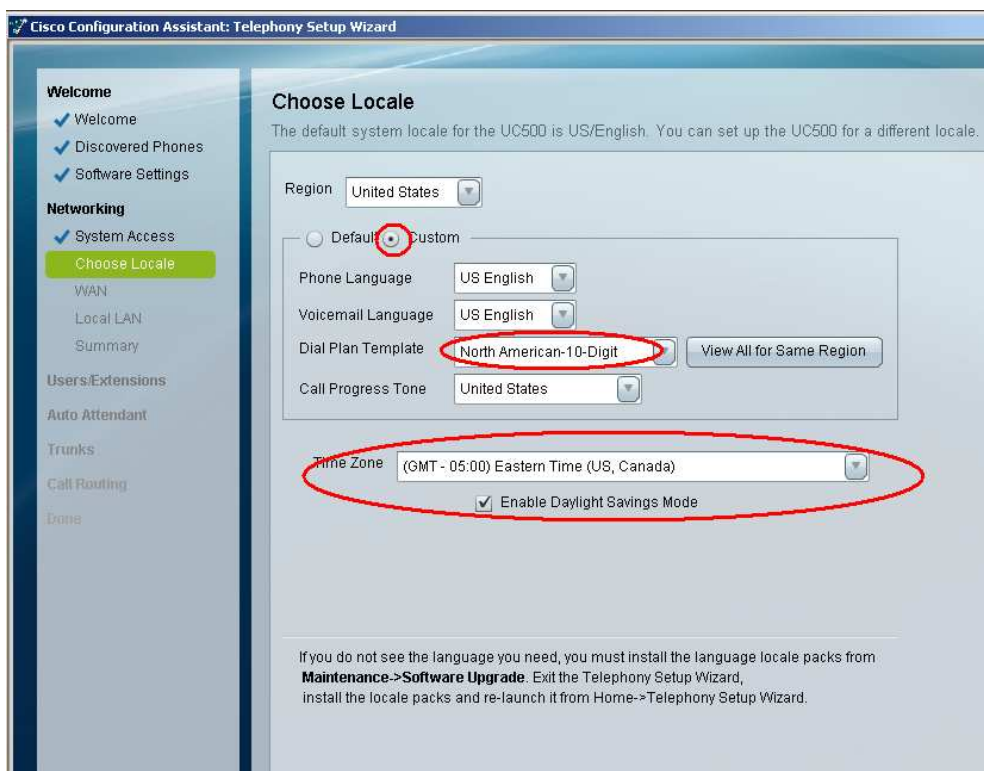
System Access

For System Access, you must now change the default cisco/cisco and we recommend ciscoadmin/ciscosb for the demo system. The hostname is what you will see on the UC500 CLI prompt, not the MOTD, so you may leave that as is.



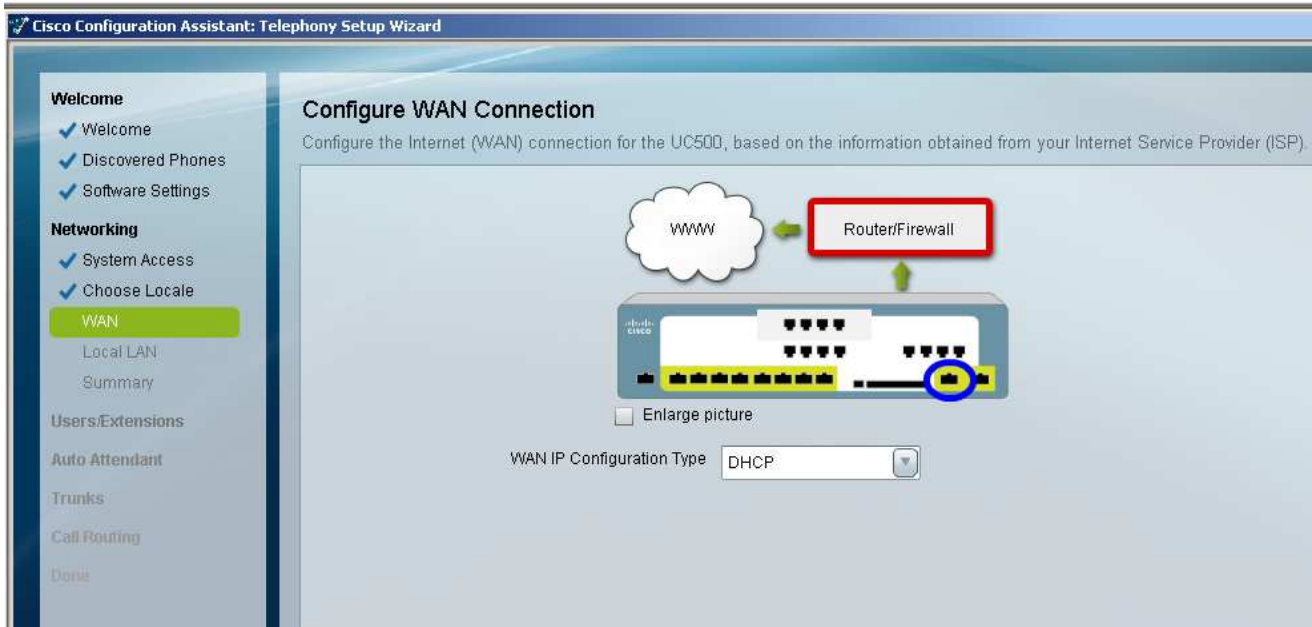
Choose Locale

For Choose Locale, in the U.S. Market, select custom and select North American 7 or 10 and set your time zone and click next.



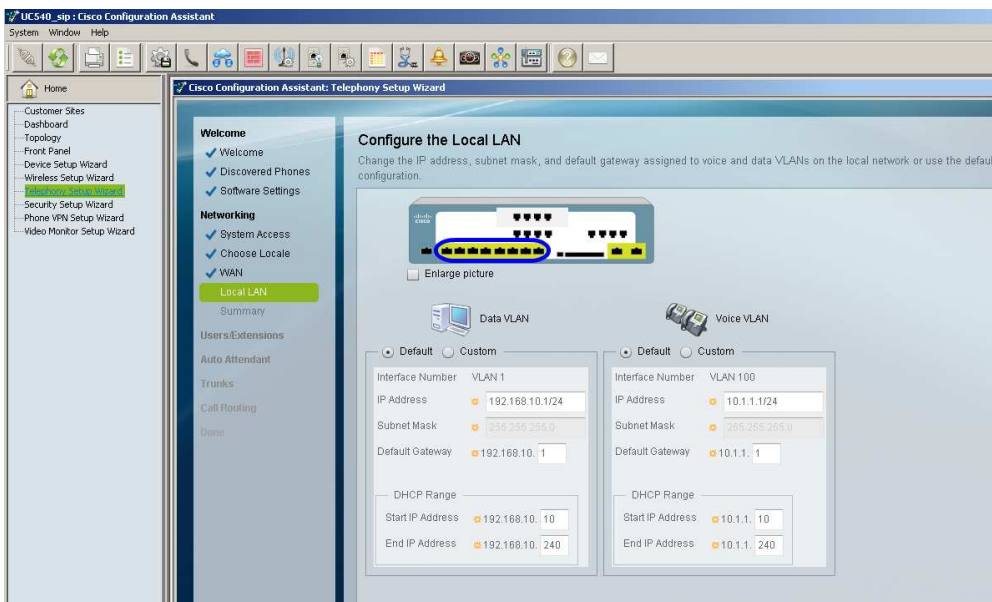
WAN

The WAN IP is not required for the DEMO System, but you can see your options. Set it if you have WAN connectivity. I have set mine for Cisco LAB access (shown as example only):



Local LAN

Configure the Local LAN may be left at default values, but you can see this is where you would change it if you needed to in case this was the second system of a multisite, or if you are integrating into an existing data VLAN.

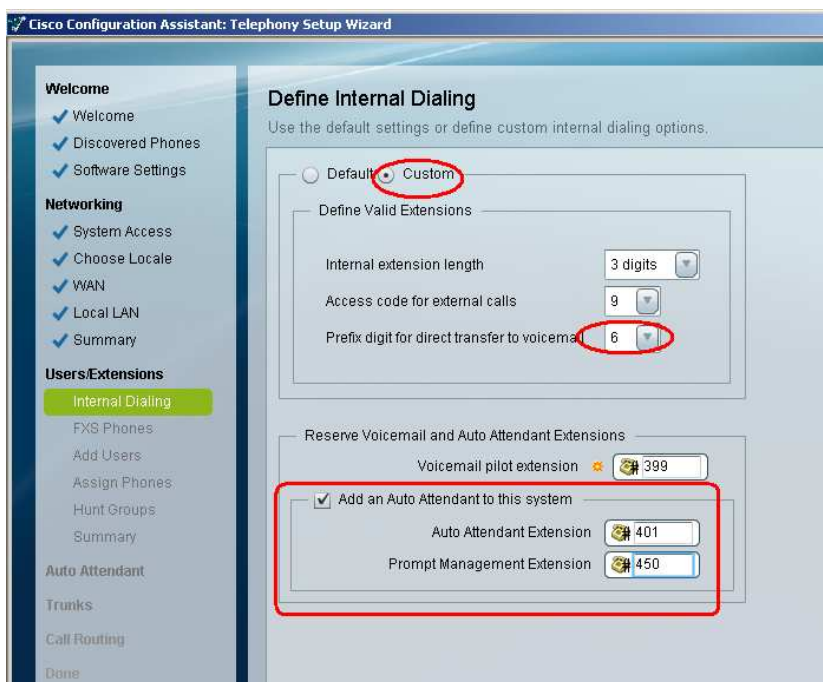


This will bring you to a summary page where you confirm your entries and click NEXT.

User Extensions

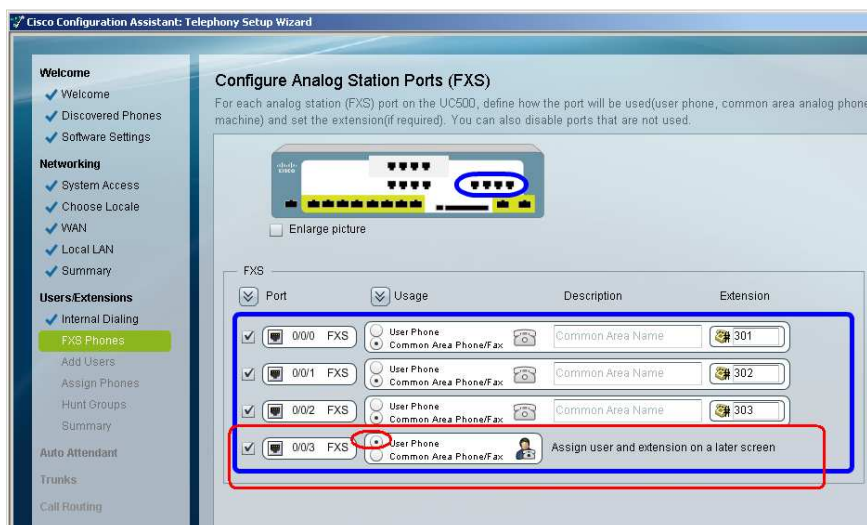
Internal Dialing

Click CUSTOM, and confirm 399 for Voice Mail extension, 9 for Prefix digit, then check the AA box and enter 401 for AA extension and 450 for Prompt Management extension.



FXS Phones

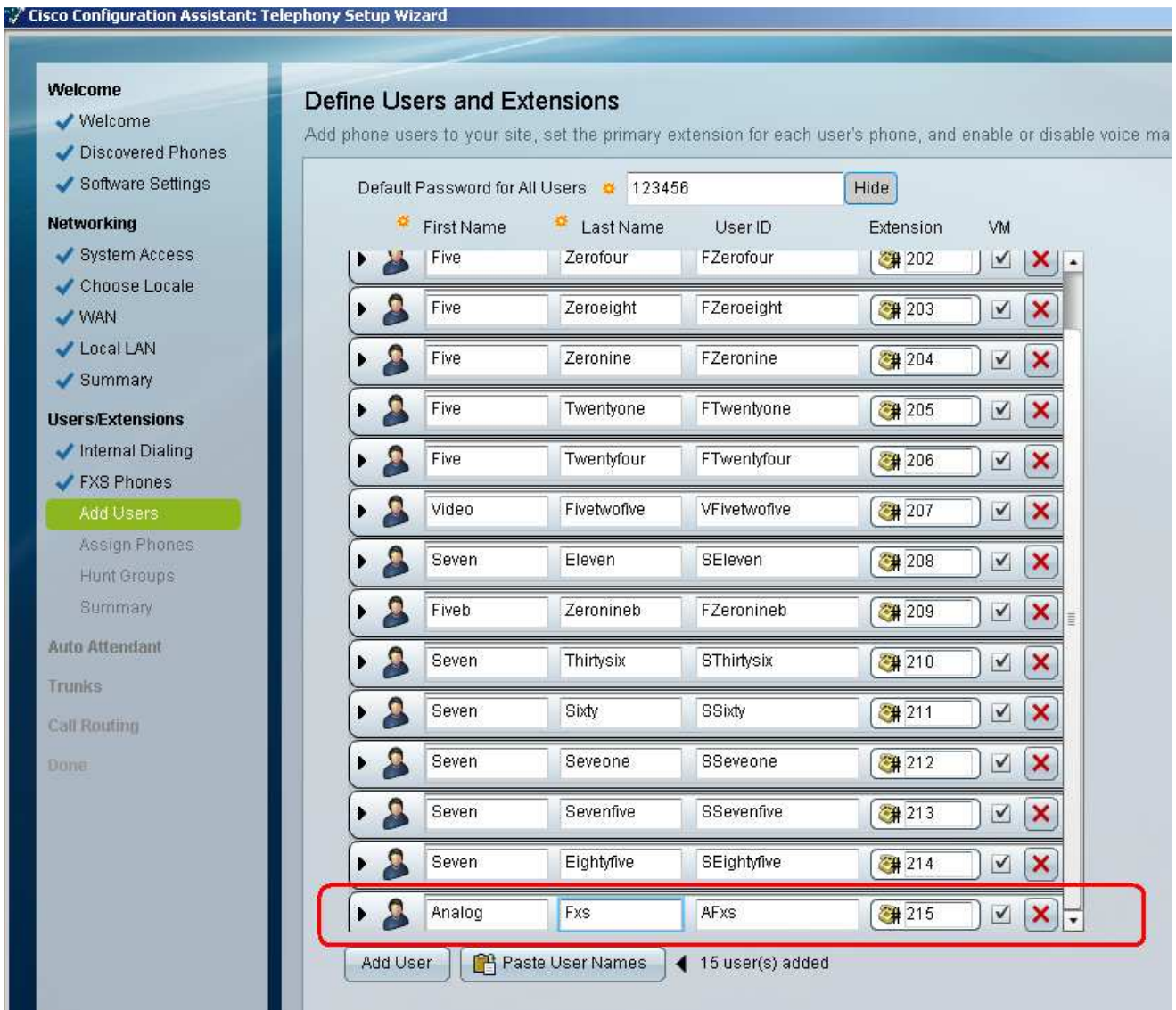
We will configure a single analog station with a voice mail box and some feature capability (Feature Access Codes). Use FXS port 0/0/3 to 'user mode phone' (uses an SCCP feature license). This corresponds to the FXS port that connects to FXO port 0 when there is a power failure so a good choice if you have just one analog phone.



Add Users

When the Add Users screen appears, you will see the data you entered with Bulk Import. Note: minimum PIN length required by Office Manager supported by CCA (6 characters). A default here is 123456.

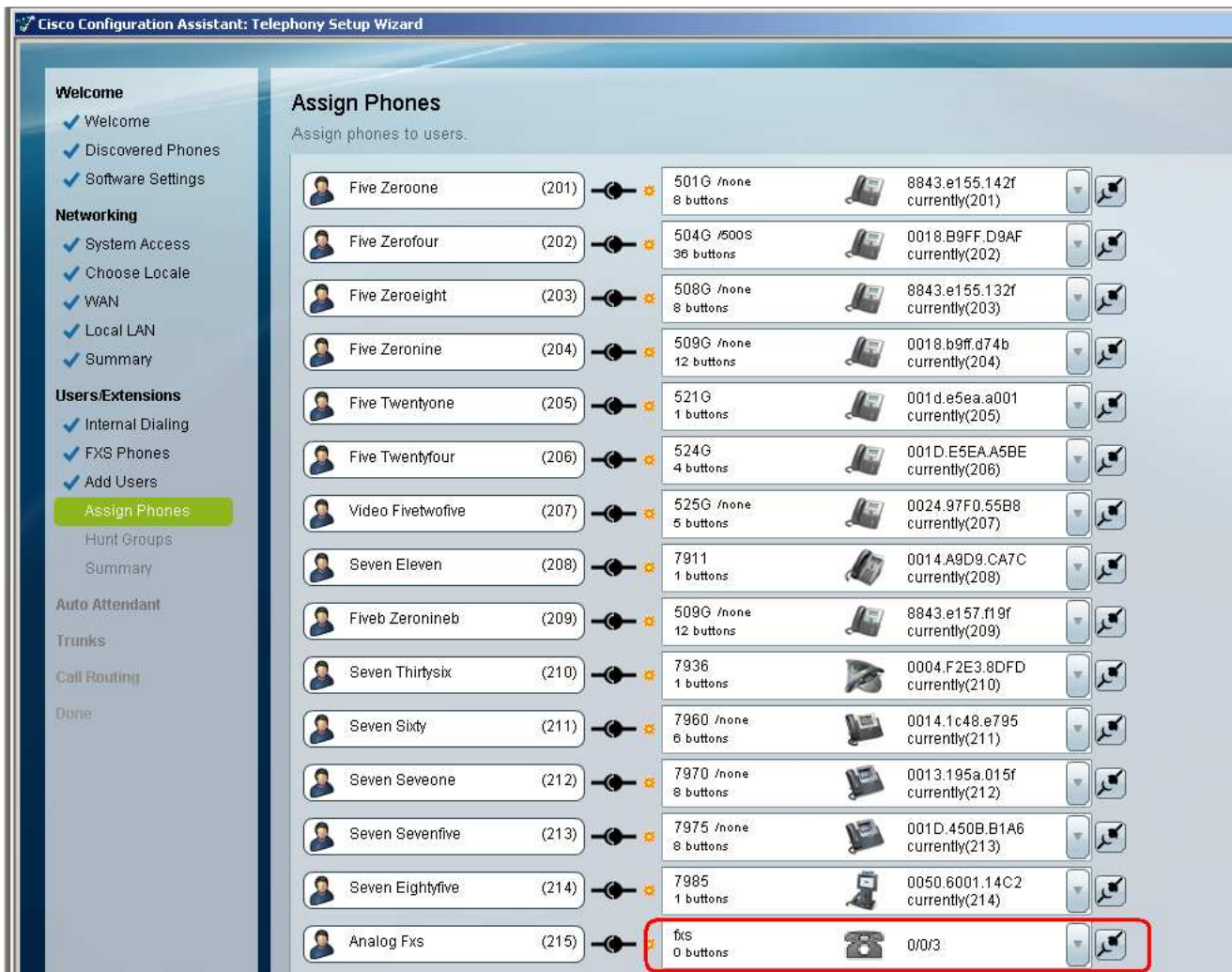
Add the FXS User Mode Phone (in red)



If you were not using the Import Users function and instead used add unregistered phones, you would PASTE USER NAMES and an input screen opens to allow you to paste a list of users from a NOTEPAD file. Format: firstname lastname [extension],
 (entries may also be separated by new lines).

Assign Phones

Since we added by importing the xml file, the only thing left to do is add the FXS port.



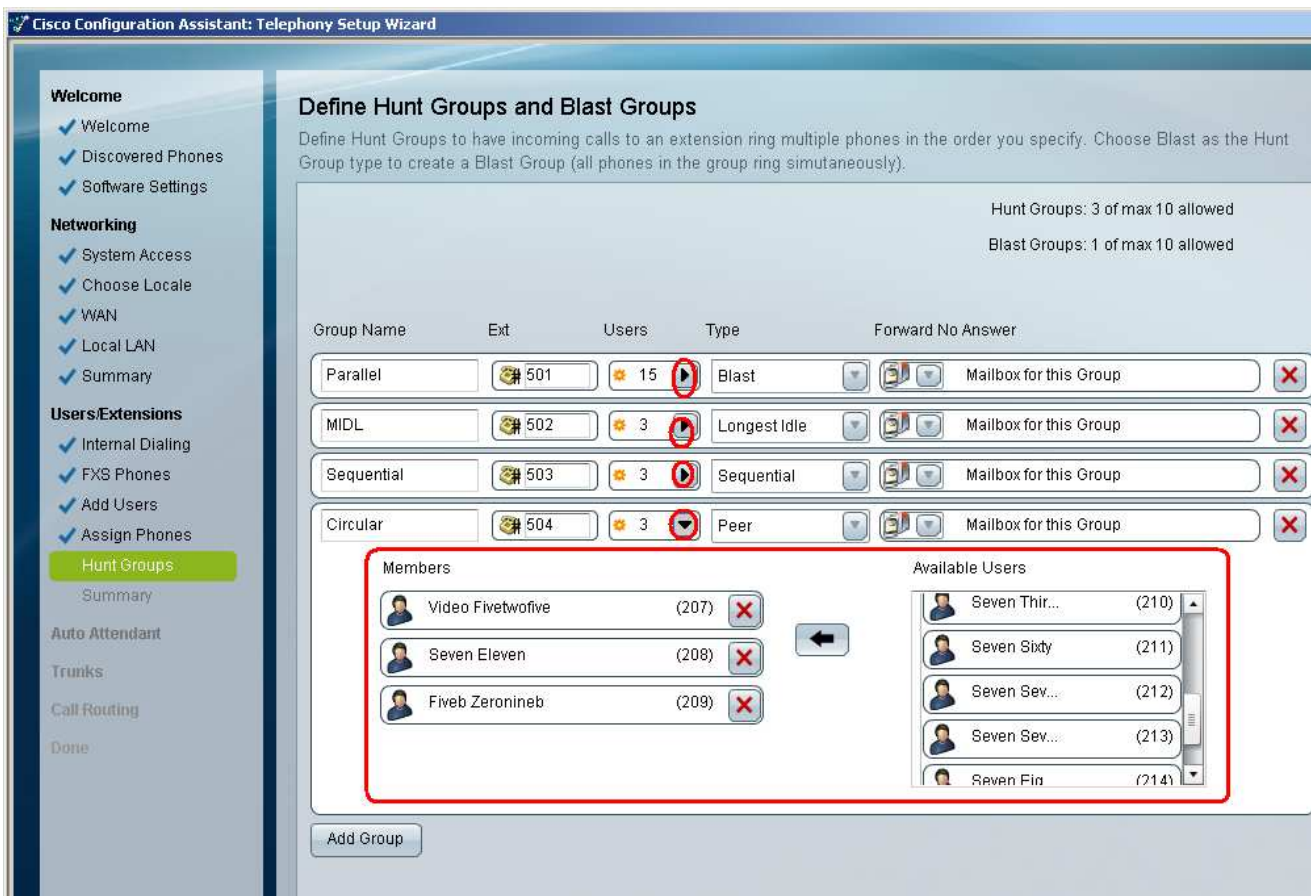
Hunt Groups

We will add:

- A Voice Hunt Group (Parallel or 'Blast Group') with extension 501 with all members of the team
- A Longest Idle Hunt Group with extension 502 including 3 members (201-3)
- A Sequential Hung Group 503 with members (204-6)
- A Circular Hint Group 504 with members (207-9)

Select users and adding them using the center arrow button.

In order to display the second hunt group, collapse the member list of the first created group(red circles):

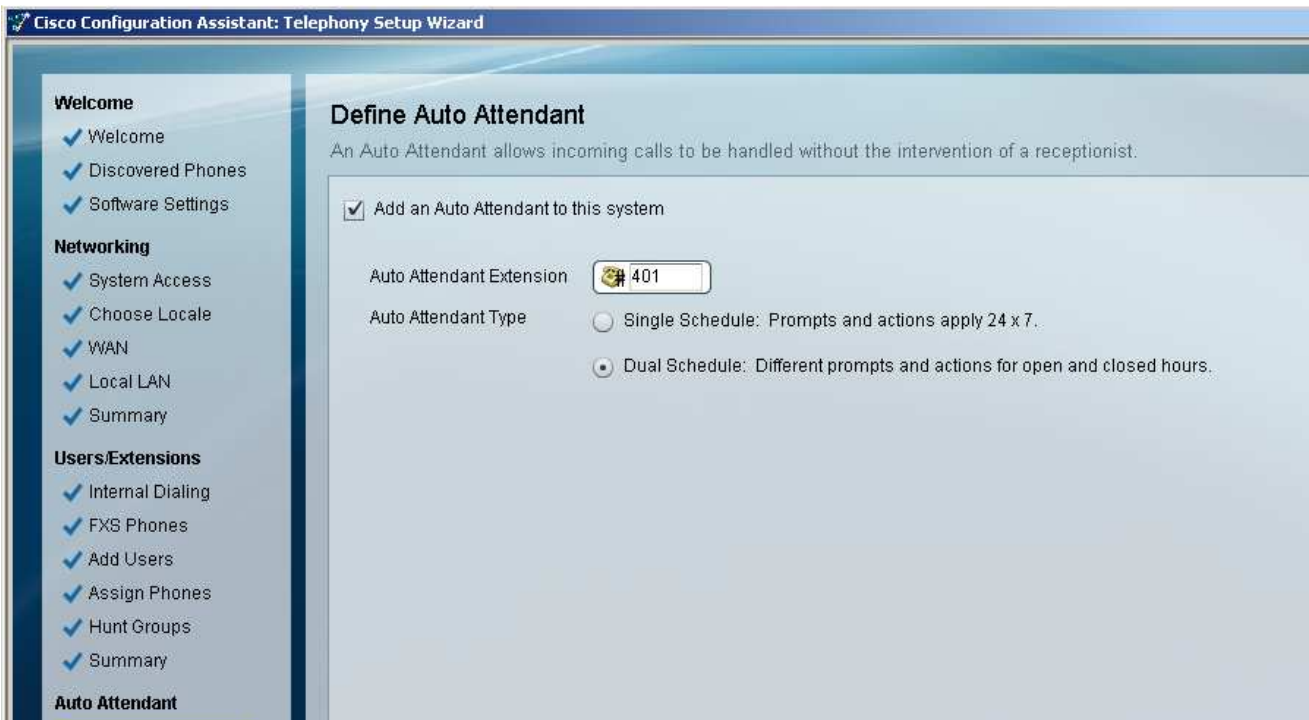


Summary

Confirm the summary and click NEXT.

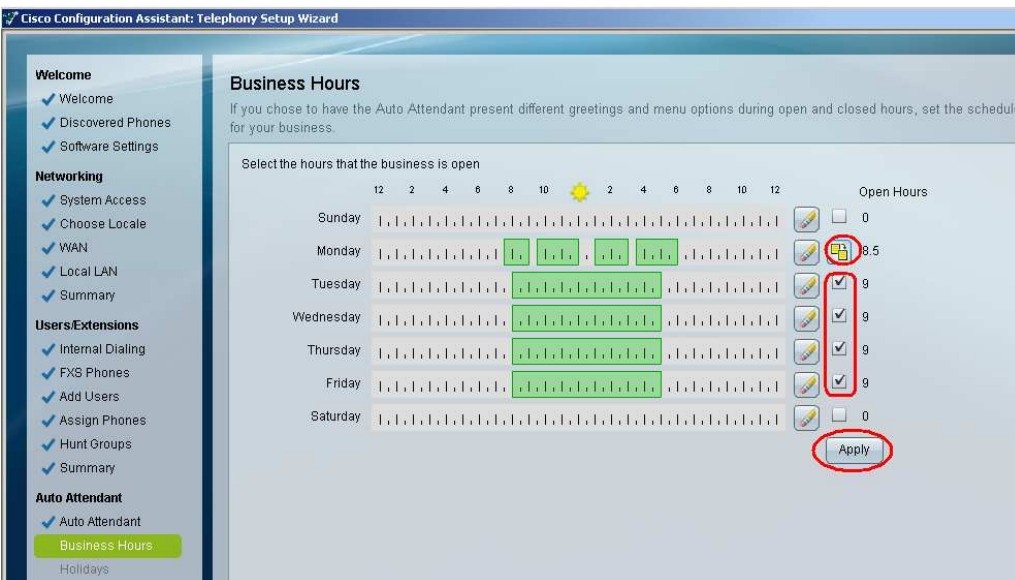
Auto Attendant

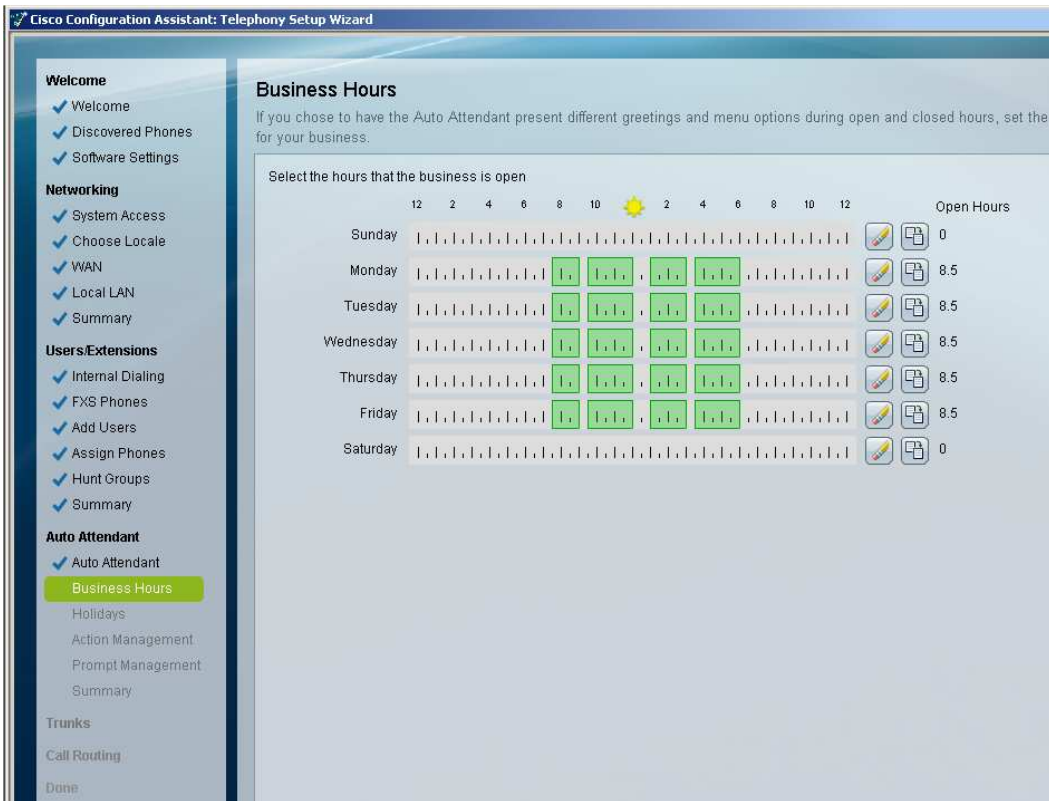
Since we specified an AA, we will now configure it the way we want it. We want a DUAL SCHEDULE, so check that box before clicking NEXT.



Business Hours

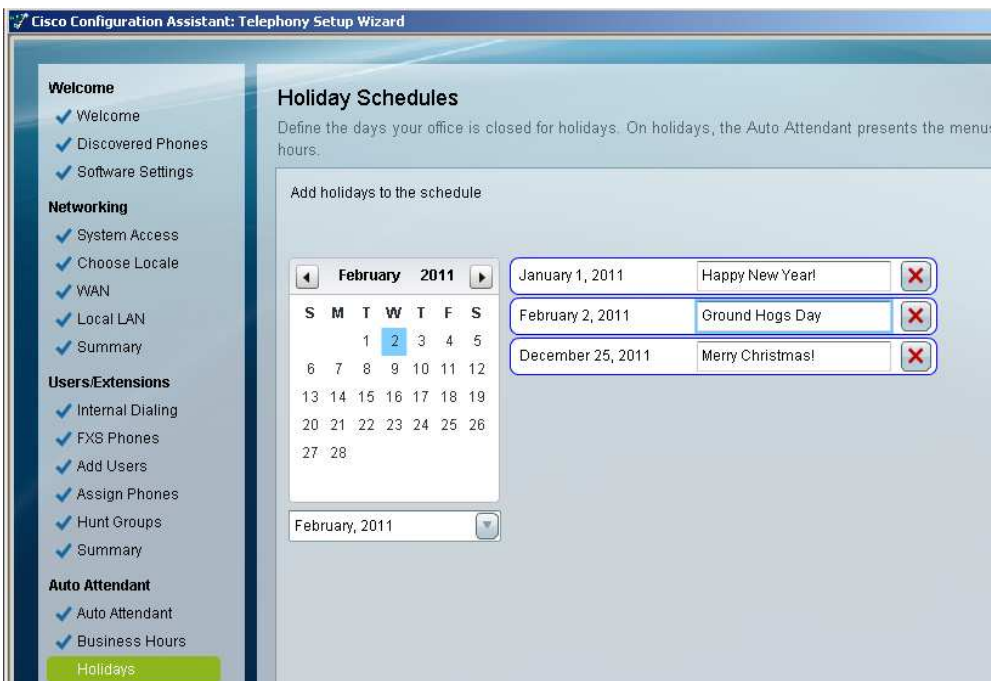
Considering you want this to operate as if you were open most of the time, slide the hours so the Green appears with multiple Open/Closed hours for Monday, then use the copy paste buttons to copy that schedule for T-F, and click APPLY, and then NEXT.





Holidays

Set some relevant Holidays for the coming year. Add as many as you like to that for 2010 and 2011.



Action management

We will be using the Latest AA script for UC500 which now includes the 'no action transfer'. CCA comes loaded with this since CCA 2.2.5 so all we have to do is specify the actions we want inserted. As you can see, we will have two greetings for OPEN and CLOSED (you type these in the fields provided). For this demo, the actions are different for Open versus clodes for the menu actions differentiated with Sun and Moon.

No Action Transfer to Pam (202)

The screenshot shows the Cisco Configuration Assistant (CCA) interface for configuring an Auto Attendant. The main window is titled "Define Auto Attendant Prompts and Actions". On the left, a navigation pane lists various configuration steps, with "Action Management" highlighted in green. The main area is divided into two sections: "Company Greeting" and "Auto Attendant Actions".

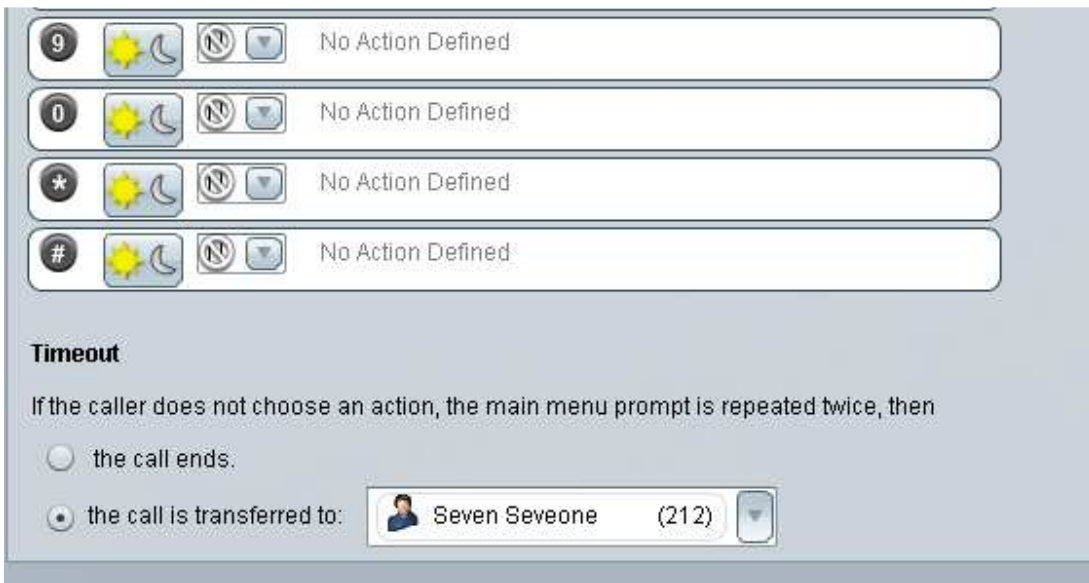
Company Greeting

Hours	Prompt
	Open
	Closed

Auto Attendant Actions

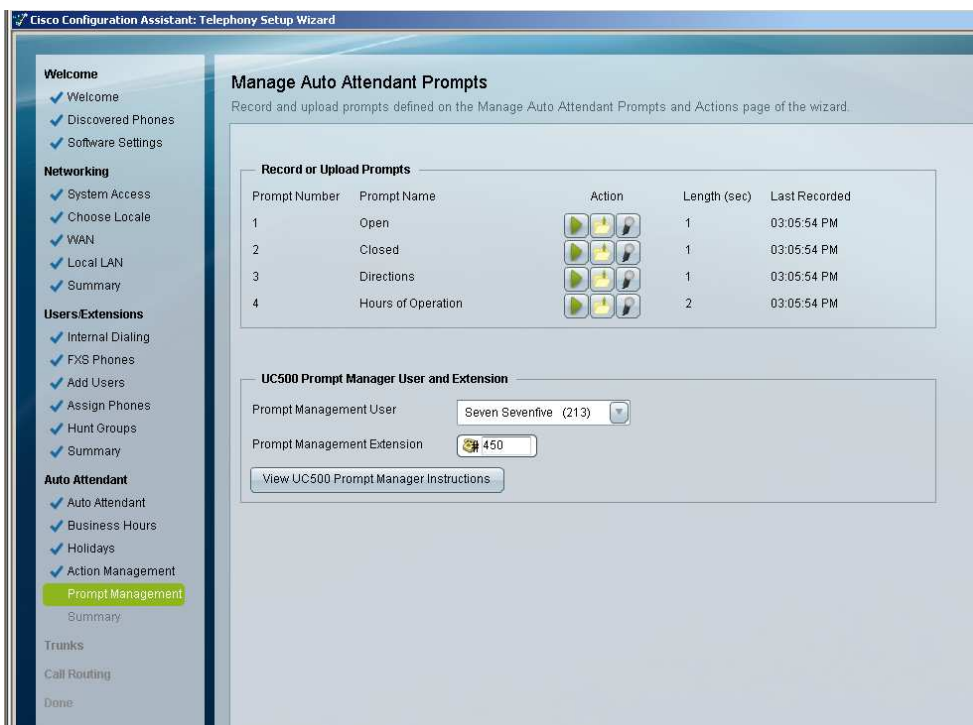
Key	Hours	Actions
1		Directions
2		Hours of Operation
3		Dial By Number
4		Dial By Name
5		VM Main Menu (399)
6		Parallel (501)
		No Action Defined
7		Seven Seveone (212)
		No Action Defined
8		[0/0/0] (301)
		No Action Defined
9		No Action Defined
0		No Action Defined

At the bottom right, there are "Back" and "Next" buttons.



Prompt Management

When you click NEXT above, you will now have an opportunity to record the prompts and greetings, using your PC Microphone. Do that to satisfy the GUI and populate the CUE with placeholders, which are much easier to rerecord, since they are already assigned in the AA script. You will rerecord later with an IP phone. There are three prompts; Open, Closed, and Directions.

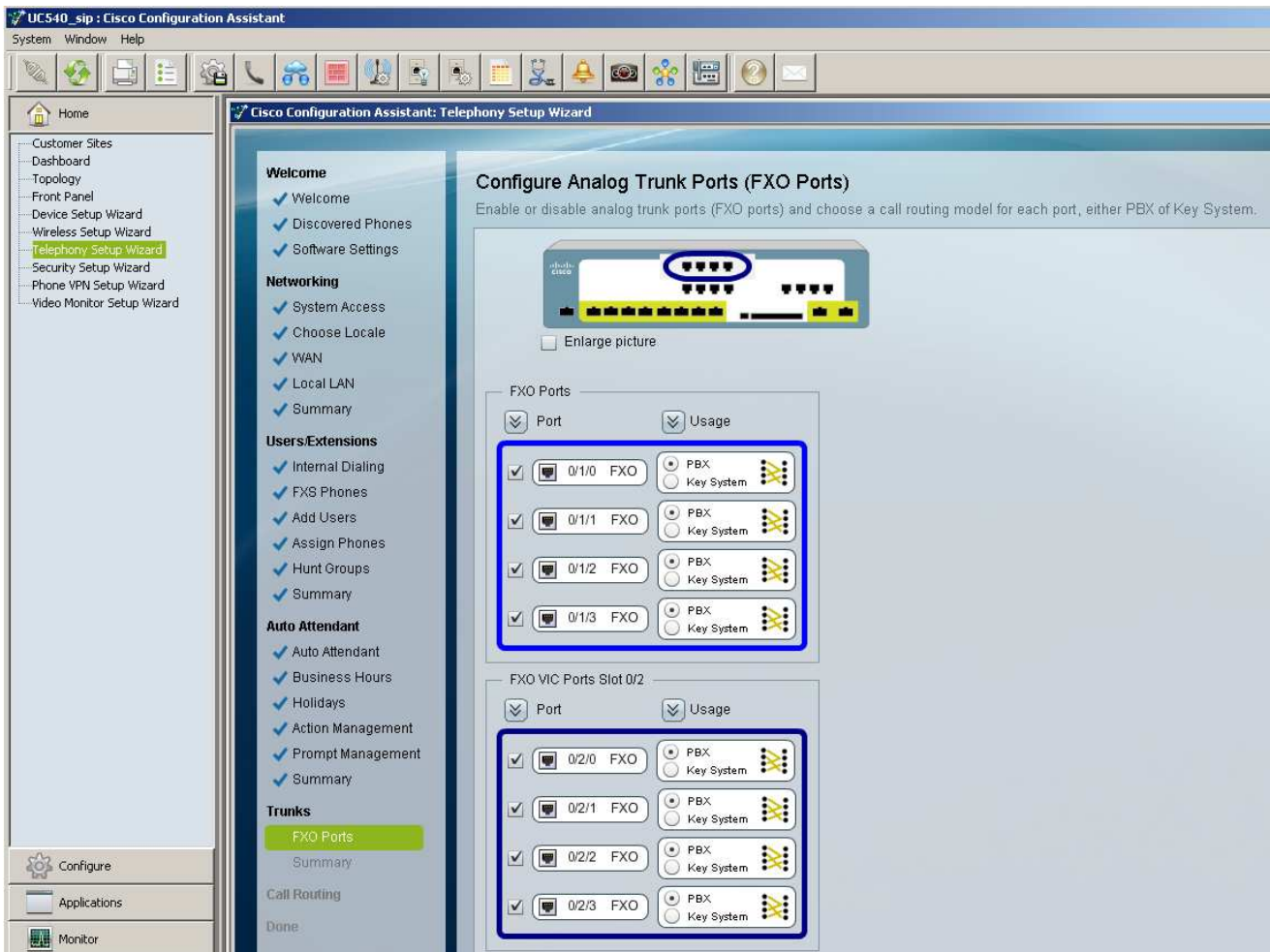


Summary

Confirm the Summary and click NEXT

Trunks (FXO Ports)

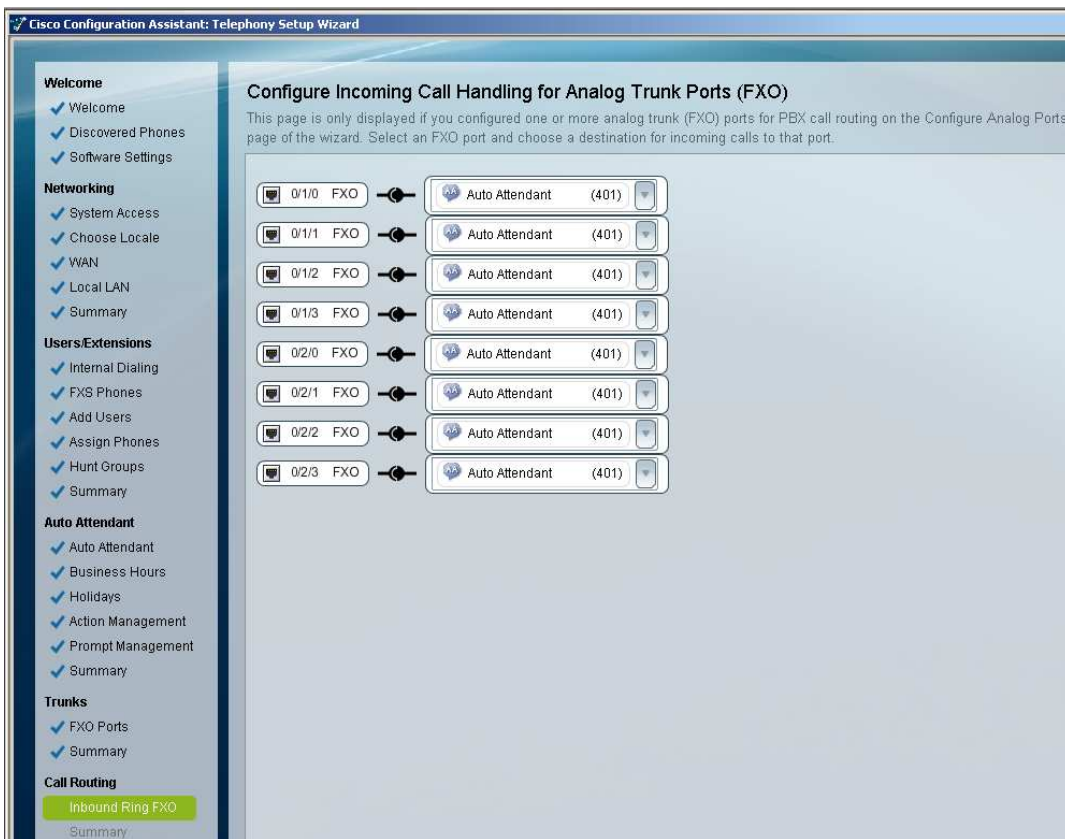
Leave the defaults (PBX) mode. Notice I have a FXS VWIC added.



Confirm the summary and click NEXT.

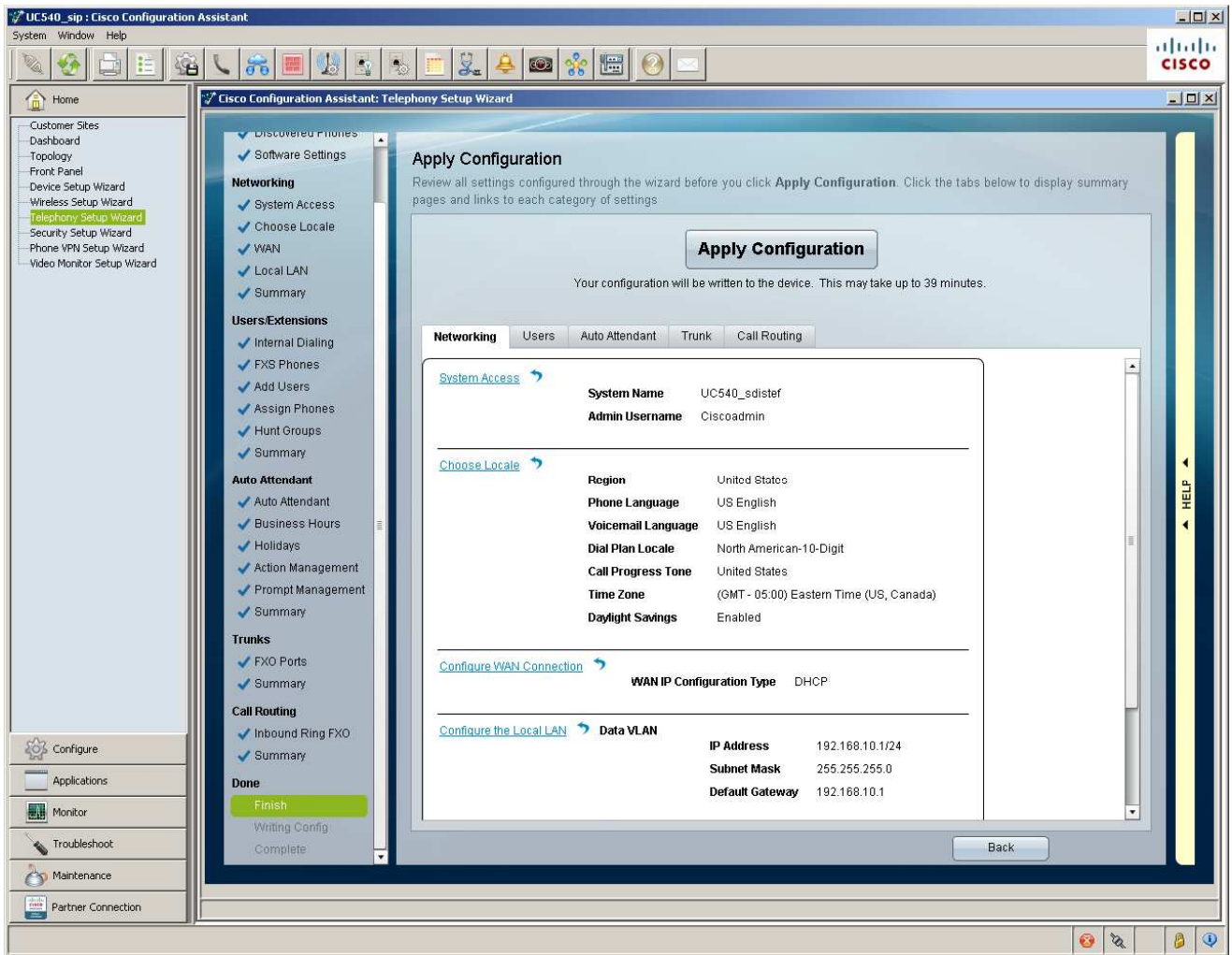
Routing

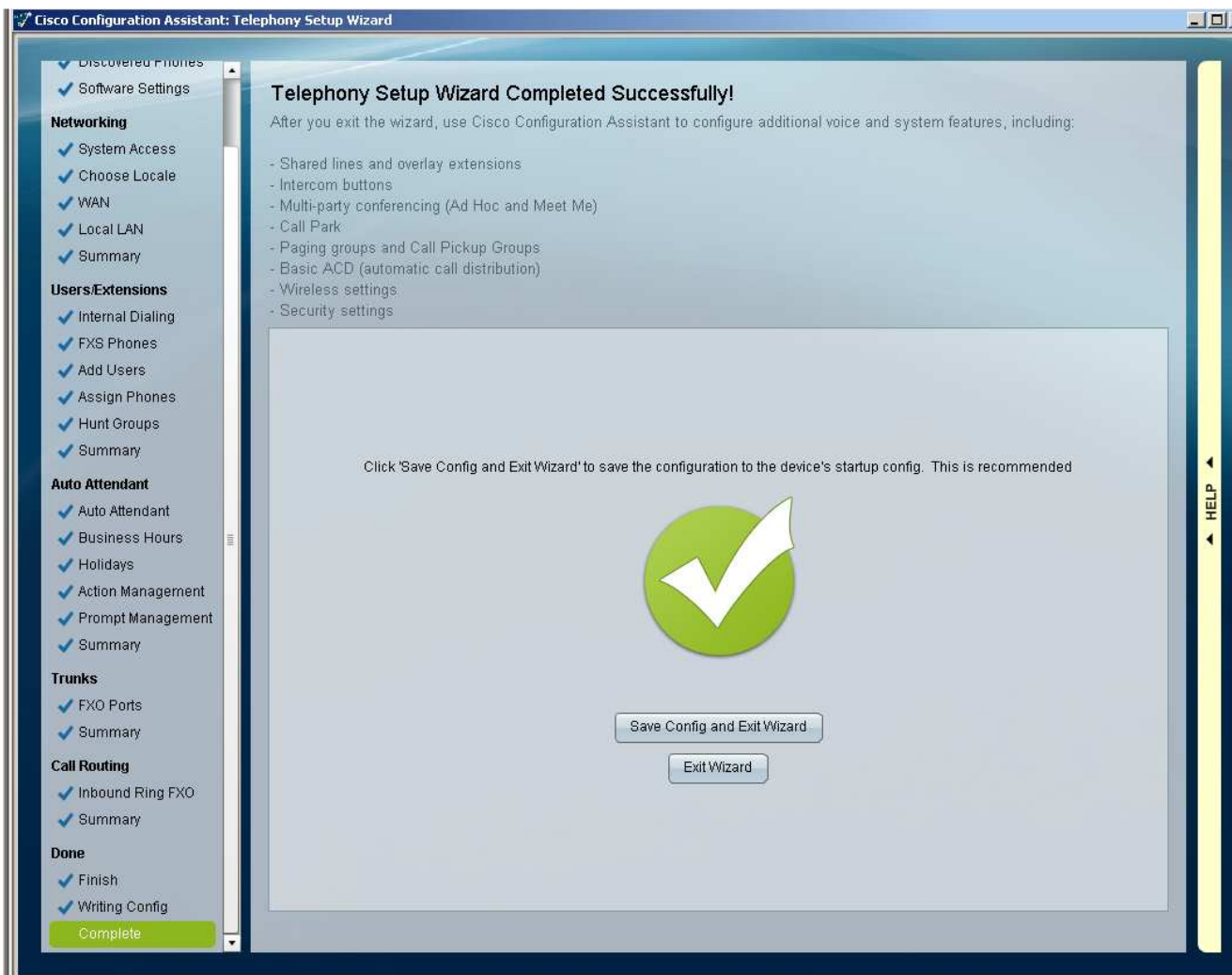
This is the last input for the FXO and leaving them mapped to the AA is fine as an incoming dial plan:



APPLY and Save

At this point, you click apply and let CCA configure the system. Do not plug in any phones yet. Let the system complete this. Takes about 25 minutes, but depending on what's entered, could be as high as 45 minutes. CCA will save this for you as well when done.





CLICK SAVE CONFIG and EXIT WIZARD

You don't have to at this point, but if you wanted to, you could connect the second switch to see everything comes up correctly. It is configured at this point, so you could continue with Expert Mode to configure the rest of the system in staging, without the actual phones plugged in.