
Customization After Manual Setup

Time Estimate: 60 – 90 minutes

Task 1: Create Custom Profiles

NOTE Take a few minutes to familiarize yourself with the lab topology. Use the Lab Topology Diagram to familiarize yourself with the LAN/WAN IP addresses so that you remain oriented throughout the labs.

Step 1 Log in to the BE 3000 and access the Users/Phones -> Usage Profile menu.



Step 2 There are a number of default profiles:

Usage Profiles	
Name	Description
Standard	For regular employees
Manager	For managers
Assistant	For assistants
Power	For users like IT administrators, etc
Common Area	For uses like common area phones (meeting room phone, etc)

Step 3 Additional profiles can be created, and the exact settings and intended users of each profile should match the capabilities of the profiles with the needs of the organization. Some administrators may create profiles that match specific phone models; others will create profiles that match the intended user's job role. A mixture of these approaches and any number of different approaches are all possible.

Step 4 Our primary need in this demo is to showcase as many features as we can with just four phones, so our choices may not necessarily be the same as you might make for a production system. We'll include a copy of the table below in the demo script lab so that you have a fast reference to help you understand the capabilities of each phone in the demo kit.

Step 5 The settings for custom profiles are listed below:

Name: Setting:	ISS-4-MD	ISS-4-MM	ISS-4-SD	ISS-1
Target Model	8941	8941	6941	3905
Target User(s)	Lu P	Tao L	Suresh R	Anna T
Description	Mobility + Do Not Disturb	Mobility + Meet Me	Speed Dial	Single Line
Calls Allowed	International	International	International	Long Distance
Emergency Calls	Allow	Allow	Allow	Allow
Barge	No	No	Allow (5400)	No
Park	Allow	Allow	Allow	No
Pick Up	Allow	Allow	Allow	Allow
Reach Me	Allow	Allow	No	No
Extension Mobility	Allow/Allow	Allow/Allow	No/No	No/No
Voice Mail / Divert	Allow	Allow	Allow	No
CFB/CFNA	VM	VM	VM	5042
Hold Audio	Sample	Audio Jack	Sample	Sample
Button Template	Line Line Mobility DND	Line Line Mobility Meet Me	Line Line Line Speed Dial	Line
Mobility	Button 3	Button 3	N	N
Meet Me	N	Button 4	N	N
DND	Button 4	N	N	N
Speed Dial	N	N	CiscoHQ - 914085264000	N

Step 6 Create new profiles to better reflect the permissions and capabilities ISS employees need to be productive. Go to the standard profile and click the Add Usage Profile button:



Step 7 In the Add Usage Profile window that appears, change the settings as indicated in the table from step 2. You will create 4 profiles. Remember to click the OK button to save each profile.

Step 8 The General tab for profile ISS-4-MD should look as follows:

Add Usage Profile

General | Phone Button Template | Phone Features | Phone Applications

Profile Information

* Name: ISS-4-MD

Description: Mobility + Do Not Disturb

Allowed Calls

* Highest Level of Calls Allowed: International Calls

Emergency Calls: Allow

Call Features

Call Barge: Allow user to barge in on calls

Call Park: Allow user to park call and pick call up from another phone

Call Pickup: Allow user to pick up calls of another user

Reach Me Anywhere: Allow user to be reached on multiple phones at the same time

Extension Mobility: Allow Cisco Extension Mobility to be used on phone of user
 Allow user to use Cisco Extension Mobility service

VoiceMail: Allow user to use Voicemail service

Call Divert: Allow users to divert an incoming call to voicemail

Forward Busy Calls To: Voicemail

Forward No Answer Calls To: Voicemail

Audio For Hold: Sample Audio Source

Step 9 The Phone Button template for profile ISS-4-MD should look as follows:

Add Usage Profile

General | **Phone Button Template** | Phone Features | Phone Applications

Button Number	Feature
1	Line
2	Line
3	Mobility
4	Do Not Disturb

Step 10 The General tab for profile ISS-4-MM should look as follows:

Add Usage Profile

General | Phone Button Template | Phone Features | Phone Applications

Profile Information

* Name: ISS-4-MM

Description: Mobility + Meet Me

Allowed Calls

* Highest Level of Calls Allowed: International Calls

Emergency Calls: Allow

Call Features

Call Barge: Allow user to barge in on calls

Call Park: Allow user to park call and pick call up from another phone

Call Pickup: Allow user to pick up calls of another user

Reach Me Anywhere: Allow user to be reached on multiple phones at the same time

Extension Mobility: Allow Cisco Extension Mobility to be used on phone of user
 Allow user to use Cisco Extension Mobility service

Voicemail: Allow user to use Voicemail service

Call Divert: Allow users to divert an incoming call to voicemail

Forward Busy Calls To: Voicemail

Forward No Answer Calls To: Voicemail

Audio For Hold: Audio Jack

Step 11 The Phone Button template for profile ISS-4-MM should look as follows:

Add Usage Profile

General | **Phone Button Template** | Phone Features | Phone Applications

Button Number	Feature
1	Line
2	Line
3	Mobility
4	Meet Me Conference

Step 12 The General tab for profile ISS-4-SD should look as follows:

Add Usage Profile

General | Phone Button Template | Phone Features | Phone Applications

Profile Information

* Name: ISS-4-SD

Description: Speed Dial

Allowed Calls

* Highest Level of Calls Allowed: International Calls

Emergency Calls: Allow

Call Features

Call Barge: Allow user to barge in on calls

Call Park: Allow user to park call and pick call up from another phone

Call Pickup: Allow user to pick up calls of another user

Reach Me Anywhere: Allow user to be reached on multiple phones at the same time

Extension Mobility: Allow Cisco Extension Mobility to be used on phone of user

Allow user to use Cisco Extension Mobility service

Voicemail: Allow user to use Voicemail service

Call Divert: Allow users to divert an incoming call to voicemail

Forward Busy Calls To: Voicemail

Forward No Answer Calls To: Voicemail

Audio For Hold: Sample Audio Source

Step 13 The Phone Button template for profile ISS-4-SD should look as follows:

Add Usage Profile

General | **Phone Button Template** | Phone Features | Phone Applications

Button Number	Feature
1	Line
2	Line
3	Line
4	Speed Dial

Step 14 The General tab for profile ISS-1 should look as follows:

Add Usage Profile

General | **Phone Button Template** | Phone Features | Phone Applications

Profile Information

* Name: ISS-1

Description: Single Line

Allowed Calls

* Highest Level of Calls Allowed: Long Distance Calls

Emergency Calls: Allow

Call Features

Call Barge: Allow user to barge in on calls

Call Park: Allow user to park call and pick call up from another phone

Call Pickup: Allow user to pick up calls of another user

Reach Me Anywhere: Allow user to be reached on multiple phones at the same time

Extension Mobility: Allow Cisco Extension Mobility to be used on phone of user

Allow user to use Cisco Extension Mobility service

Voicemail: Allow user to use Voicemail service

Call Divert: Allow users to divert an incoming call to voicemail

Forward Busy Calls To: 5042

Forward No Answer Calls To: 5042

Audio For Hold: Sample Audio Source

Step 15 The Phone Button template for profile ISS-1 should look as follows:

Add Usage Profile

General | **Phone Button Template** | Phone Features | Phone Applications

Button Number	Feature
1	Line

Step 16 You now have four new profiles that can be assigned to users at a later step.

ISS-4-MD	Mobility + Do Not Disturb
ISS-4-MM	Mobility + Meet Me
ISS-4-SD	Speed Dial
ISS-1	Single Line

Task 2: Create Users, Phones and Hunt Lists

Step 1 Log in to the BE 3000 and access the Users/Phones -> Users menu.



Step 2 Click the Add User button and add information for each user as follows:

Name	Profile	User ID	Password	PIN	Admin Access	Line Numbers
Luciana P	ISS-4-MD	LuP	be3000	12345	N	5100/6100
Anna T	ISS-1	AnT	be3000	12345	N	5200/6200
Suresh R	ISS-4-SD	SuR	be3000	12345	N	5300/6300
Tao L	ISS-4-MM	TaL	be3000	12345	Y	5400/6400

Continued ...

Name	Line Numbers	External Caller ID (same for both lines)
Luciana P	5100/6100	9585505100
Anna T	5200/6200	9585505200
Suresh R	5300/6300	9585505300
Tao L	5400/6400	9585505400

Step 3 Note that you associate additional line numbers by clicking on the plus symbol. In more detail, the steps are:

Click +

Line Number	External Caller ID	Call Forward All
5100	9585505100	<input type="checkbox"/> Phone Number
		<input type="checkbox"/>   

Then complete the fields of the new line number entry (in this example 6100).

Line Numbers		
Show User's Phones		
Line Number	External Caller ID	Call Forward All
5100	9585505100	<input type="checkbox"/> Phone Number
		<input type="checkbox"/>   
6100	9585505100	<input type="checkbox"/> Phone Number
		<input type="checkbox"/>   

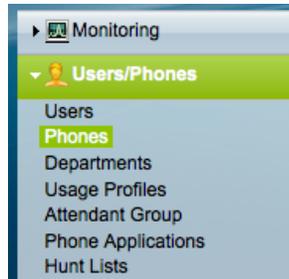
Step 4 As an example, the settings for Luciana P are shown below:

General	Speed Dials	
User Information		
First Name:	<input type="text" value="Luciana"/>	
* Last Name:	<input type="text" value="P"/>	
E-mail Address:	<input type="text"/>	
* Usage Profile:	<input type="text" value="ISS-4-MD"/>	
System and Device Access		
* User ID:	<input type="text" value="LuP"/>	
Password:	<input type="password"/> <input type="button" value="Reset Credentials..."/>	
Confirm Password:	<input type="password"/>	
	<input type="checkbox"/> User must change password at next login	
Phone PIN:	<input type="password"/>	
Confirm Phone PIN:	<input type="password"/>	
	<input type="checkbox"/> Enable Administrator Access	
Line Numbers		
Show User's Phones		
Line Number	External Caller ID	Call Forward All
5100	9585505100	<input type="checkbox"/> Phone Number
		<input type="checkbox"/>   
6100	9585505100	<input type="checkbox"/> Phone Number
		<input type="checkbox"/>   

Step 5 You should have 4 user entries when you are finished.

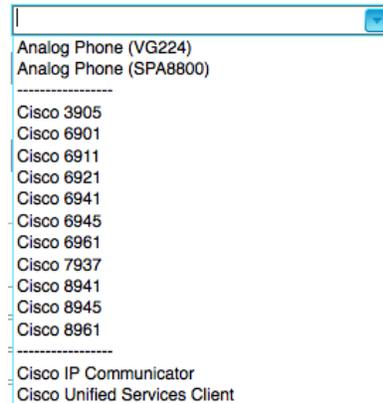
Users				
Filter	Last Name	<input type="text"/>	<input type="button" value="Go"/>	<input type="button" value="Clear Filter"/>
Last Name	First Name	User ID	Usage Profile	Line Numbers
P	Luciana	LuP	ISS-4-MD	5100, 6100
T	Anna	AnT	ISS-1	5200, 6200
R	Suresh	SuR	ISS-4-SD	5300, 6300
L	Tao	TaL	ISS-4-MM	5400, 6400

Step 6 Click on the Phones menu link.



Step 7 Click the Add Phone button.

Step 8 When you click on the down-arrow in the Phone Type drop down box you can see the types of phones that are currently supported:



Step 9 Add information for each phone as follows: (Use your own phone MAC addresses.)

Phone Type	MAC Address	Description	Extension 1	Extension 2	Owner
8941	503DE5000001	Customer Relations	5100	6100	LuP
3905	503DE5000002	Engineering	5200	6200	AnT
6941	503DE5000003	Research	5300	6300	SuR
8941	503DE5000004	Project Management	5400	6400	TaL

NOTE The phones above are as specified in the official Demo kit that is purchased by partners. You can substitute equal or better phones or CIPC software phones if you do not have the correct equipment but want to do the labs.

Step 10 Set up a shared line on Suresh's phone so that its third button uses the same extension as Tao's primary extension. Click the edit link for Suresh's phone and select extension 5400 for line 3.

Step 11 The settings for the Suresh's phone at extension 5300 are shown below:

* Phone Type: Cisco 6941

* MAC Address: 503DE5E941EA

Device Name: SEP503DE5E941EA

Description: Research

Do Not Disturb

Extensions

	Extension	Extension Owner
* 1	5300	SuR
2	6300	SuR
3	5400	TaL
4		
5		
6		

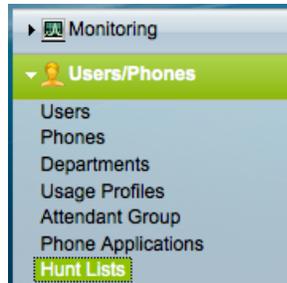
Step 12 Click Save.

Step 13 Take note of the logic when assigning extensions to lines. Assigning the same extension to lines on two different phones creates a shared line. Assigning the same extension to two different lines on the same phone creates a rollover line.

Step 14 You should have 4 phone entries when you are finished: (Your MAC addresses will be different than those shown.)

Phones					
Filter	Extension		Go	Clear Filter	
Name	Owner	Extension	Description	Model	Actions
SEP503DE5000001	LuP	5100	Cust Relations	Cisco 8941	Edit Delete...
SEP503DE5000002	AnT	5200	Engineering	Cisco 3905	Edit Delete...
SEP503DE5000003	SuR	5300	Research	Cisco 6911	Edit Delete...
SEP503DE5000004	TaL	5400	Proj Mgmt	Cisco 6941	Edit Delete...

Step 15 Click on the Hunt Lists link.



Step 16 Click Add Hunt List.

Step 17 Create a hunt group using the following settings:

Pilot Extension: 5041

Name: ISS-BroadcastGroup

Hunt Type: Broadcast

Selected Extensions: 5100, 5200, 5300, 5400

Forward if no extensions are available: 5400

Step 18 Your settings should look similar to the following:

General

* Pilot Extension: 5041

* Name: ISS-BroadcastGroup

* Hunt Type: Broadcast

Extensions

Available

- 6400 (TaL)
- 6200 (AnT)
- 6300 (SuR)
- 6100 (LuP)

Selected

- 5100 (LuP)
- 5200 (AnT)
- 5300 (SuR)
- 5400 (TaL)

Forward if no extensions are available 5400 (TaL)

Step 19 Click OK.

Step 20 Create a hunt group using the following settings:

Pilot Extension: 5042

Name: ISS-TopDown

Hunt Type: Top Down

Selected Extensions: 5100, 5300, 5400

Forward if no extensions are available: 5400

Step 21 Your settings should look similar to the following:

The screenshot shows a configuration window for a hunt group. It is divided into two main sections: 'General' and 'Extensions'.

General Section:

- Pilot Extension:** A text input field containing '5042'.
- Name:** A text input field containing 'ISS-TopDown'.
- Hunt Type:** A dropdown menu set to 'Top Down'.

Extensions Section:

- Available:** A list box containing the following extensions: 6400 (TaL), 6200 (AnT), 5200 (AnT), 6300 (SuR), and 6100 (LuP).
- Selected:** A list box containing the following extensions: 5100 (LuP), 5300 (SuR), and 5400 (TaL).
- Navigation:** Four buttons between the lists: '>', '<', '>>', and '<<'.

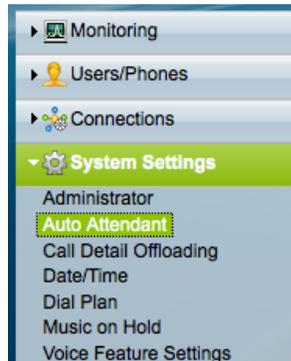
Forward if no extensions are available: A checkbox is checked, and a dropdown menu is set to '5400 (TaL)'.

Step 22 You should have two hunt groups when you are finished:

Hunt List		
Pilot	Name	Type
5041	ISS-BroadcastGroup	Broadcast
5042	ISS-TopDown	Top Down

Task 3: Configure Auto Attendant

Step 1 Access the System Settings -> Auto Attendant menu.



Step 2 Change the Auto Attendant mode to Auto Attendant with different Menus for Open and Closed Hours.

Step 3 Note that the Auto Attendant Extension is 5000 – this is the number that we will direct outside callers to so that we can efficiently handle their calls.

Step 4 By default all days of the week are selected as business days – deselect Saturday and Sunday.

Step 5 Note that the default start time is 8AM and the default duration is 9 hours. This implies that the close time is 5PM.

Step 6 In our lab, the Open Hours tab will control the Auto Attendant behavior from Monday to Friday, 8AM to 5PM and the Closed Hours tab will control Auto Attendant behavior from 5PM to 8AM the next day.

Step 7 The Business Hours tab should look similar to the following:

Business Hours			
Time Zone : (GMT-5:00) America/New_York			
Run Open Hours Menu during following Times			
<input type="checkbox"/> Day	Start Time (hh:mm)	Duration (Hours:Minutes)	End Time (hh:mm)
<input type="checkbox"/> Sunday	08 : 00	09 : 00	
<input checked="" type="checkbox"/> Monday	08 : 00	09 : 00	17 : 00
<input checked="" type="checkbox"/> Tuesday	08 : 00	09 : 00	17 : 00
<input checked="" type="checkbox"/> Wednesday	08 : 00	09 : 00	17 : 00
<input checked="" type="checkbox"/> Thursday	08 : 00	09 : 00	17 : 00
<input checked="" type="checkbox"/> Friday	08 : 00	09 : 00	17 : 00
<input type="checkbox"/> Saturday	08 : 00	09 : 00	

Step 8 Click on the Open Hours tab and apply the following settings:

Enable callers to dial lines directly: Enabled

Key 1 Enabled, 5100

Key 2 Enabled, 5200

Key 3 Enabled, 5300

Key 4 Enabled, 5400

Key 5 Enabled, 5041

Key 6 Enabled, 5042

Step 9 The Open Auto Attendant audio greeting should match the features that have been enabled. We have provided a sample file that you can use or you can create and upload your own file. Click the Browse button and access the .wav file of your choice. Our sample file is named ISS-Open.wav

Step 10 Your settings should look similar to the following:

The screenshot shows the configuration interface for an Auto Attendant. At the top, the mode is set to "Auto Attendant with different Menus for Open and Closed Hours". Under the "General" section, the "Auto Attendant Extension" is 5000. The "Open Hours" tab is selected. In the "Greeting Options" section, the "Audio Greeting" is set to "Play" with a "New File" field containing "ISS-Open.wav" and a "Browse..." button. The "Dial by Extension" checkbox is checked, with the label "Enable callers to dial lines directly". Below this, a table lists keys and their corresponding transfer lines:

Key	Transfer to Line
1	<input checked="" type="checkbox"/> 5100(LuP)
2	<input checked="" type="checkbox"/> 5200(AnT)
3	<input checked="" type="checkbox"/> 5300(SuR)
4	<input checked="" type="checkbox"/> 5400(TaL)
5	<input checked="" type="checkbox"/> 5041(ISS-BroadcastGroup)
6	<input checked="" type="checkbox"/> 5042(ISS-TopDown)

Step 11 Note that * will always be used to access voicemail and # will always hang up the call.

Step 12 Click on the Closed Hours tab and apply the following settings:

Enable callers to dial lines directly: Enabled

Key 1 Enabled, 5041

Key 2 Enabled, 5042

Step 13 The Closed Auto Attendant audio greeting should match the features that have been enabled. We have provided a sample file that you can use or you can create and upload your own file. Click the Browse button and access the .wav file of your choice. Our sample file is named ISS-Closed.wav

Step 14 Your settings should look similar to the following:

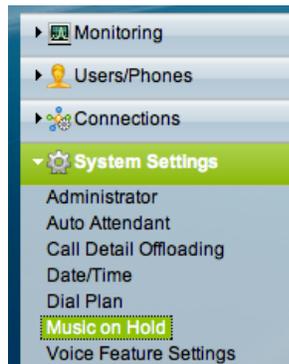
The screenshot shows the configuration interface for an Auto Attendant. At the top, the Mode is set to "Auto Attendant with different Menus for Open and Closed Hours". Under the "General" section, the Auto Attendant Extension is 5000. There are three tabs: "Business Hours", "Open Hours", and "Closed Hours", with "Closed Hours" currently selected. The "Greeting Options" section includes an "Audio Greeting" field with a "Play" button, a "New File" field containing "ISS-Closed.wav" and a "Browse..." button, and a "Dial by Extension" checkbox which is checked with the label "Enable callers to dial lines directly". Below this is a "Key Transfer to Line" section with two entries: "1" with a checked checkbox and "5041(ISS-BroadcastGroup)", and "2" with a checked checkbox and "5042(ISS-TopDown)".

Step 15 Click Save.

Step 16 Play the sample Audio Greetings for Open and Closed Hours to confirm that the audio message matches the auto attendant key settings. Click on the play button next to the Audio Greeting on each tab.

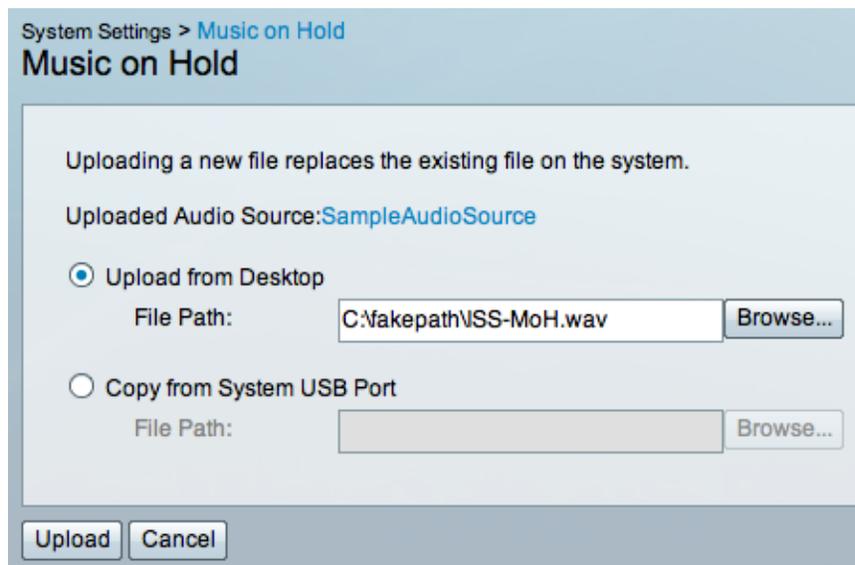
Task 4: Configure Custom Music on Hold (MoH)

Step 1 Access the System Settings -> Music on Hold menu.



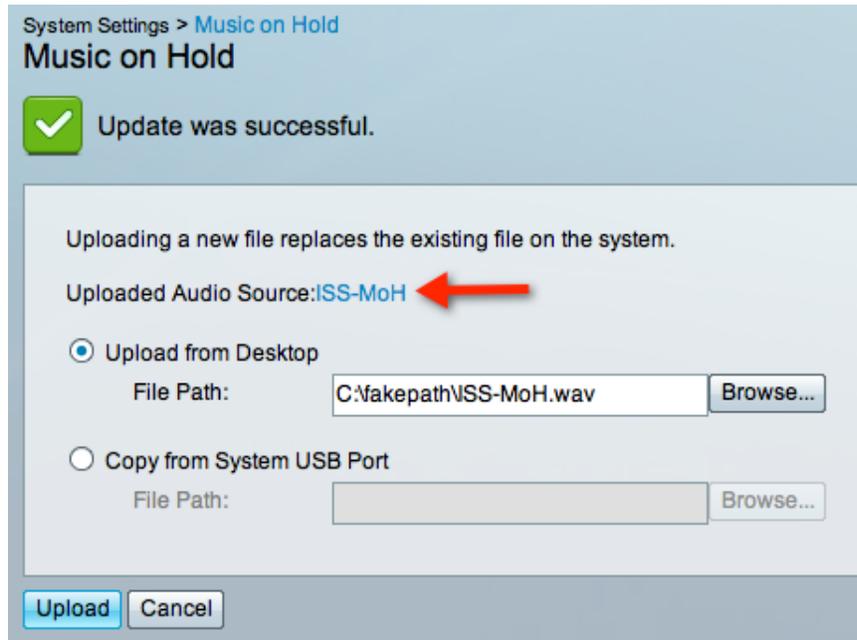
Step 2 We have provided a sample file that you can use or you can create and upload your own file. Click the Browse button and access the .wav file of your choice. Our sample file is named ISS-MoH.wav

Step 3 Your settings should look similar to the following:

A screenshot of the 'Music on Hold' configuration page. The page title is 'System Settings > Music on Hold'. Below the title, there is a message: 'Uploading a new file replaces the existing file on the system.' Below that, it says 'Uploaded Audio Source: SampleAudioSource'. There are two radio button options: 'Upload from Desktop' (which is selected) and 'Copy from System USB Port'. Under 'Upload from Desktop', there is a 'File Path:' label, a text input field containing 'C:\fakepath\ISS-MoH.wav', and a 'Browse...' button. Under 'Copy from System USB Port', there is a 'File Path:' label, an empty text input field, and a 'Browse...' button. At the bottom of the form, there are 'Upload' and 'Cancel' buttons.

Step 4 Click Upload. An upload status message will appear, wait for it to complete.

Step 5 Notice that the default MoH file has now changed to your uploaded version.



Step 6 All usage profiles that previously depended on the default audio file are automatically updated to use the new file that has just been uploaded. In our case, usage profiles ISS-4-MD, ISS-4-SD and ISS-1 will be updated and as a result, users LuP, SuR, and AnT will now have updated MoH settings.

Task 5: Assign IP Addresses and Network Parameters to IP Phones

NOTE While production systems will likely have an available DHCP server to assign IP addresses to IP phones, we will not make that assumption for the demo. Therefore we will assign IP address and related parameters manually to the IP phones for the purposes of this demonstration. You will not need to re-do the IP address assignments again for your demo unit unless the phone's configuration is erased.

- Step 1** Attach an Ethernet cable to the network port on the back of each phone and plug it into an available port on the Cisco 300 series PoE-capable switch. Ensure that the switch is also powered up.
- Step 2** Each phone will begin its boot process and will eventually display a message, such as "Phone not registered".
- Step 3** Press the Setup button; it looks like a gear wheel. A menu will appear on the phone display.



Use the down arrow to navigate down to Administrator Settings,



and then press the select button



- Step 4** From the Administrator Setting menu, choose Network Setup and press the select button.
- Step 5** From the Network Setup menu, choose IPV4 Setup and press the select button.

Step 6 On the IPV4 Setup menu configure the following settings:

NOTE The screens and navigation may vary by phone model. Generally you will use the up/down keys to navigate to an entry, the select key to begin editing that entry and the select key a second time to complete an entry. When editing IP addresses the "*" button is used to place a dot "." There will typically be a soft button configured as a backspace or erase key if you need to delete digits or characters.

DHCP Enabled: No

IP Address: <As per table below>

Subnet Mask: 255.255.255.0

Default Router: 192.168.1.1

DNS Server: 192.168.1.1

TFTP Server 1: 192.168.1.250

TFTP Server 2: 192.168.1.250

User	Model	Extension	IP Address
Luciana P	8941	5100	192.168.1.11
Anna T	3905	5200	192.168.1.12
Suresh R	6941	5300	192.168.1.13
Tao L	8941	5400	192.168.1.14
If you add phones continue with this addressing scheme			

Step 7 When finished editing these settings, press the Apply soft button and then continue to exit the editing process until you have exited the entire menu system.

Step 8 It may expedite the phone booting process if you unplug the Ethernet cable from the phone, wait a few seconds, and then plug the cable back in.

Step 9 Each phone will come up with its configured extensions and will be ready for further configuration and testing.

Step 10 This completes the lab.