Administrator's Manual

AudioCodes 400HD IP Phones Series

IP Phone Manager Express

Version 7.2

AudioCodes

Express

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Notice

This document shows how to use AudioCodes' IP Phone Manager Express.

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Date Published: May-30-2016

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Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Related Documentation

Manual Name
420HD IP Phone User's Manual
430HD and 440HD IP Phone User's Manual
405 IP Phone User's Manual
400HD Series IP Phones Administrator's Manual
400HD Series IP Phone with Microsoft Lync Administrator's Guide
420HD IP Phone Quick Guide
430HD IP Phone Quick Guide
440HD IP Phone Quick Guide
405 IP Phone Quick Guide

Document Revision Record

LTRT	Description
91180	Initial document release

1 Introducing the IPP Manager Express - Windows Edition

AudioCodes' IP Phone Manager Express features a user interface that enables enterprise network administrators to effortlessly and effectively set up, configure and update up to 500 400HD Series IP phones in globally distributed corporations.

The IP Phone Manager Express client, which network administrators can use to connect to the server, can be any standard web browser supporting HTML5:

- Internet Explorer version 11 and later
- Chrome
- Firefox

REST (Representational State Transfer) based architecture enables statuses, commands and alarms to be communicated between the IP phones and the server. The IP phones send their status to the server every hour for display in the user interface.

The IP Phone Management Express provides zero touch provisioning capabilities for AudioCodes' 400HD Series IP Phones for Skype for Business.

A configuration file template feature lets network administrators customize configuration files per phone model, region, and device.

The IP Phone Manager Express shows in real time the statuses of the phones and can remotely perform actions such as reset and login to the IP phone web page.

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2 System Prerequisites

2.1 Small Profile

The following minimum requirements must be met in order to install the IP Phone Manager for up to 100 devices:

- Clean installation of Windows 2012 R2
- 2 GHz 64-bit processor (minimum)
- 4 GB RAM (minimum)

2.2 Large Profile

The following minimum requirements must be met in order to install the IP Phone Manager for up to 500 devices:

- Clean installation of Windows 2012 R2
- 4 GHz 64-bit processor (minimum)
- 4 GB RAM (minimum)

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3 Installation

You can download the IP Phone Manager setup file from AudioCodes' web site:
http://www.audiocodes.com/ip-phone-manager
After the download, run the IP Phone Manager's latest setup:
IP_Phone_Manager_Express_setup_VERSION.exe
Follow the installer instructions to finish the installation.

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4 Getting Started

This section shows how to get started with the IP Phone Manager Express.

➢ **To get started:**

1. Set DHCP Option 160 (see the next section)
2. Plug phones into the network (see Section 0)
3. Open the Web Admin (see Section 4.3)

4.1 Configure DHCP Server Option 160

You need to configure DHCP server Option 160.

➢ **To configure DHCP server Option 160:**

- On your DHCP server, configure DHCP Option 160 as follows:
  http://<IP_address>/firmwarefiles;ipp/dhcpoption160.cfg

  where **<IP_address>** is the IP address of the IP Phone Manager server.

When the phones are then powered up, they contact the DHCP server which sends them this URL (using Option 160).

The phones use the URL to contact the IP Phone Manager from where they can download their firmware and configuration files.

4.2 Plug Phones into the Network

Plug the phones into the network.

4.3 Open Web Admin

You need to open the Web Admin.

➢ **To open the Web Admin:**

1. Open the Web Admin from the URL **http:/ <SERVER_IP_ADDRESS>/ipp**
2. Replace **SERVER_IP_ADDRESS** with the server IP address.
3. Login as **Admin** / **Admin**; you'll view AudioCodes' IP phones in the Welcome page.

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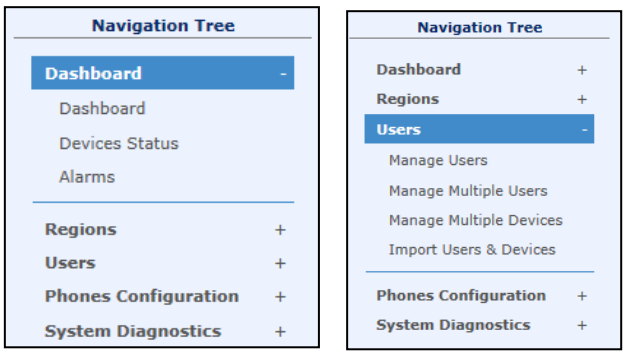
5 Monitoring and Maintaining the IP Phones Network

This section shows how to monitor and maintain the phone network in the enterprise. The following Dashboard and Users pages let you monitor and maintain the phone network:

Figure 5-1: Dashboard and Users



The sections below show what each page lets you do.

5.1 Monitoring the Network from the Dashboard

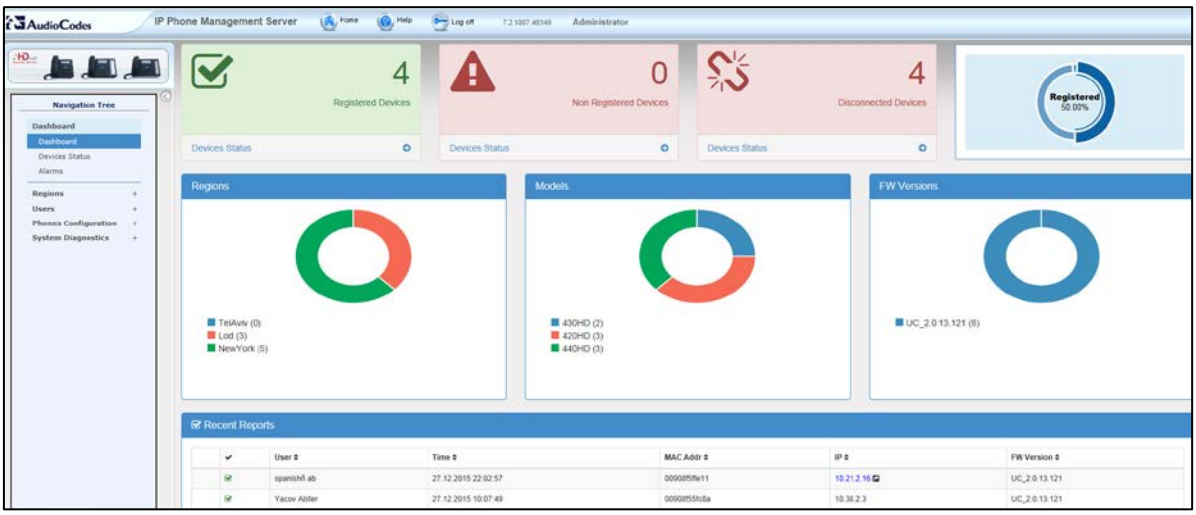
The Dashboard page lets you quickly identify

- which phones in the network are registered
- which phones in the network are non-registered
- # of registered and non-registered phones (in terms of SIP registration)
- % of registered phones
- MAC and IP address of each phone
- the time the information was reported
- the firmware version

➢ **To open the Dashboard page:**

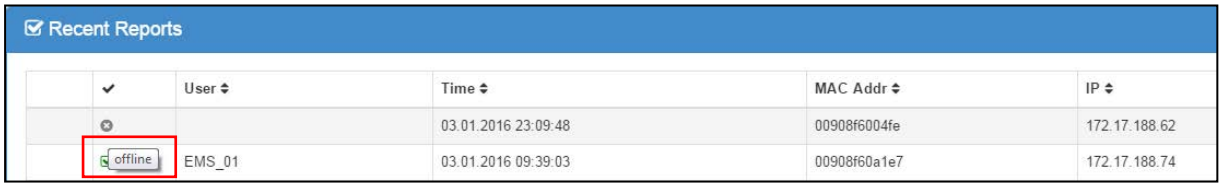
- In the navigation tree, click **Dashboard** > **Dashboard**.

Figure 5-2: Dashboard



- If a Skype for Business IP phone is signed out (offline, or not registered), you'll see a grey circle icon with an x inside, and the 'User' column will be blank, as shown in the figure below.
  It will be counted as a Non Registered Device.

Figure 5-3: Dashboard - Skype for Business IP Phone Not Registered



- Point your mouse over the icon to view the 'offline' indication (see the figure above).
- View the following status thumbnails on the Dashboard (left to right, top down):

Table 5-1: Dashboard – Status Thumbnails

Status Thumbnail	Description
	The number of registered devices. Click the **Devices Status** link to quickly access the Devices Status page.
	The number of non-registered devices. Click the **Devices Status** link to quickly access the Devices Status page.
	The number of disconnected devices. Click the **Devices Status** link to quickly access the Devices Status page.
	The percentage of registered devices.
	Pie chart showing the number of devices per region that are registered.
	Pie chart showing how many phones of each model are registered.
	Pie chart showing how many phones of each firmware version are registered.

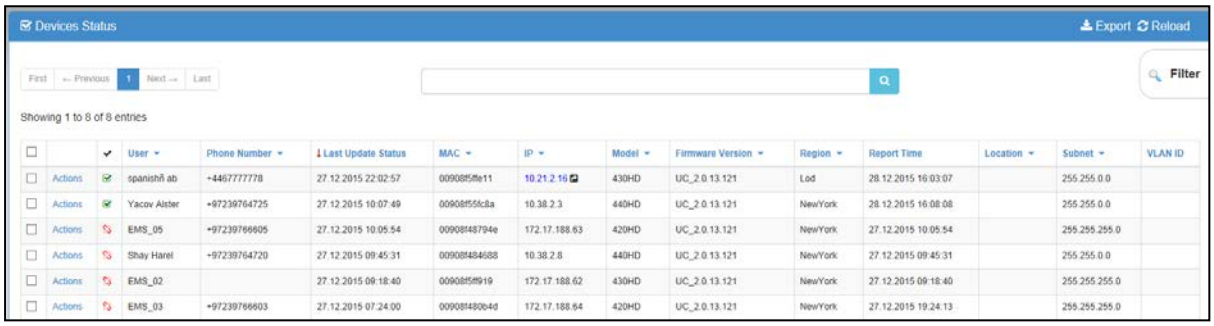
5.2 Checking Devices Status

The Devices Status page lets you check a phone's status

➢ **To check a phone's status:**

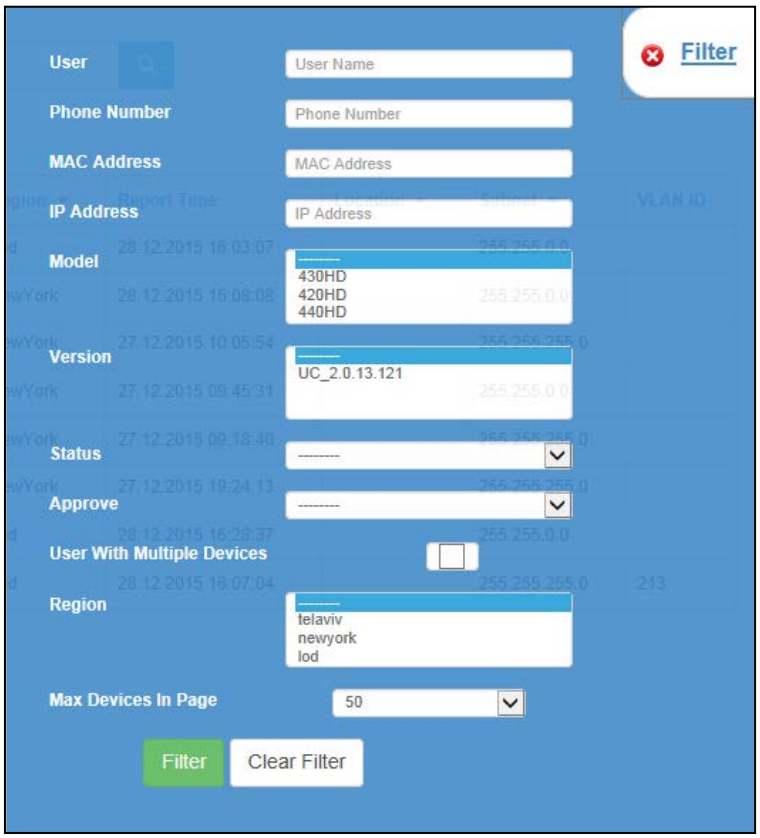
1. Open the Devices Status page (**Dashboard** > **Devices Status**)

Figure 5-4: Devices Status



2. Click the **Filter**; the filter lets you quickly access specific information in the page.

Figure 5-5: Devices Status Filter



3. You can filter per user, phone #, MAC, IP address, model, version, status (registered, offline or disconnected), approved or approval pending, users with multiple devices, region, or maximum devices shown in the page.
4. Non-Skype for Business and Skype for Business phones are displayed differently. The format of 'User Agent' for non-Skype for Business phones is for example **AUDC-IPPhone/2.0.4.30 (430HD; 00908F4867AF)** while the format for Skype for Business

phones is **AUDC-IPPhone-430HD_UC_2.0.7.70/1.0.0000.0**
Only Skype for Business phones are displayed under 'Location', non-Skype for Business phones are not.

5. You can click an individual user's **Actions** link; the following menu is displayed:

Figure 5-6: Actions Menu - Single User

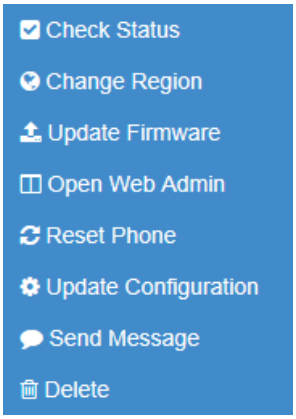
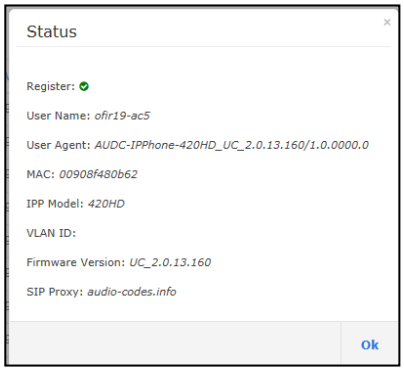
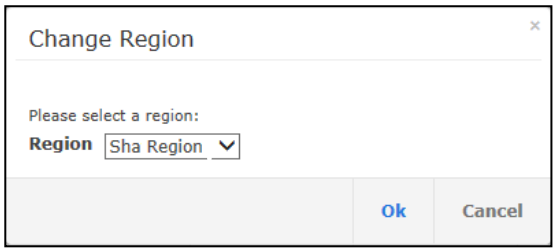
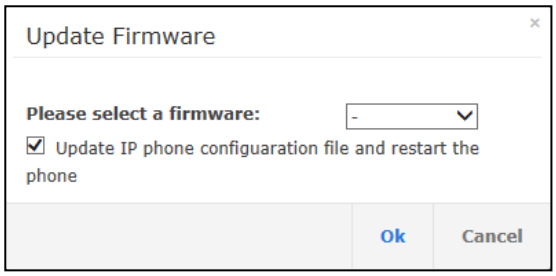


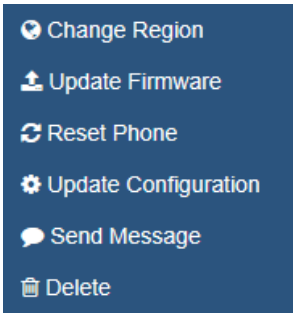
Table 5-2: Actions Menu

Action	Description
Check Status	Select the 'Check Status' option; the status is displayed: 
Change Region	Select the 'Change Region' option:  From the dropdown, select the region, and then click **Ok**.

Action	Description
Update Firmware	You can update firmware per device, or for multiple selected devices (see step 6 below). Select the 'Update Firmware' menu option:  From the dropdown, select the firmware file, and then click **Ok**.; the firmware file is updated.
Open Web Admin	Opens the Web interface (see the phone's *Administrator's Manual*). By default, the Web interface opens in HTTPS.
Reset Phone	Sends a reset command to the selected device/s. Note that some phone models wait for the user to finish an active call, while others may perform an immediate restart.
Update configuration	Sends a command to the phone to check whether there is a new configuration file to upload and updates the phone after a configurable 'Delay Time' (Default = 2 seconds).
Send Message	Lets you send a message to the LCD/s of the selected device/s. Enter the message in the 'Text' field. You can configure for how long the message will be displayed in the LCD/s.
Delete	Deletes the devices from the Status table.

6. You can select multiple users and then click the **Selected Rows Actions** link; the following menu is displayed:

Figure 5-7: Actions Menu - Selected Rows



See the table above for descriptions. Any action you choose will apply to all selected rows. For example, select rows, click the **Selected Rows Actions** link, and then select the **Update Firmware** option; all selected devices will be updated with the firmware file you select.

5.3 Monitoring Alarms

AudioCodes IP phones send alarms via the REST protocol. The EMS forwards them as mail, SNMP traps, etc.

The Alarms page (**Dashboard** > **Alarms**) shows you

- each phone alarm in the network
- a description of each alarm
- MAC address of the phone (source)
- alarm severity
- IP address of the phone
- last action time
- date and time of receipt of the alarm

Figure 5-8: Alarms

The management server displays *active* alarms, not historical alarms.

Red indicates a severity level of Critical

Orange indicates a severity level of Major

Click ⓘ for more information about the alarm

After an alarm is cleared, it disappears from the Alarms screen.

The table below shows the three alarms that users can receive.

Table 5-3: Alarms

Alarm Name	IP Phone Type	Severity
Login Failure	Microsoft Skype for Business	Critical
Registration Failure	Generic (non Skype for Business)	Critical
Survivable Mode Start	Microsoft Skype for Business	Major

6 Setting Global IP Phone Configurations

Templates and Placeholders are used to update the phone configuration file. In this way, you can change the configuration file for a group of phones.

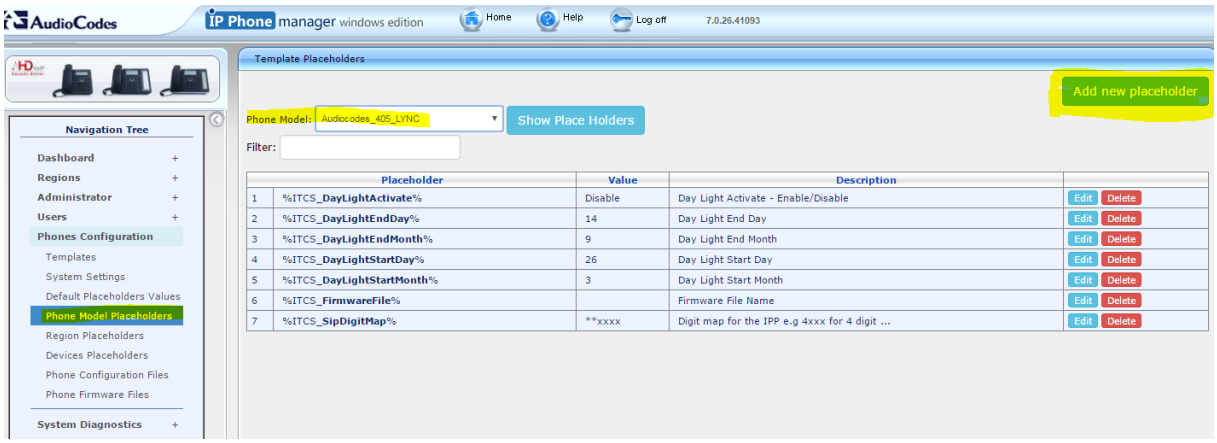
6.1 Setting Placeholders

This section shows how to set Placeholders.

➢ **To set the Placeholder value:**

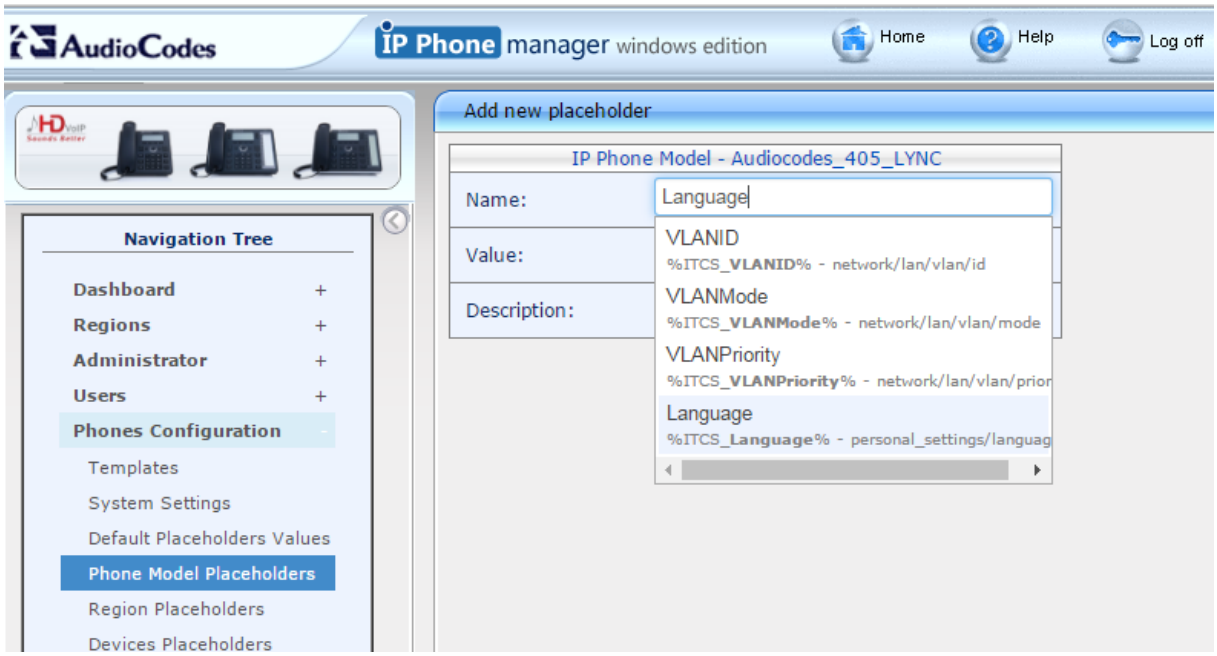
1. Click **Phone Configuration** > **Phone Model Placeholders**.

Figure 6-1: Placeholders



2. Choose a Phone Model and click **Add new placeholder**.
3. Enter the placeholder name (e.g., language), value and description, and click **Submit**.

Figure 6-2: Placeholders



4. Generate the configuration files for the relevant phones (see the next section).

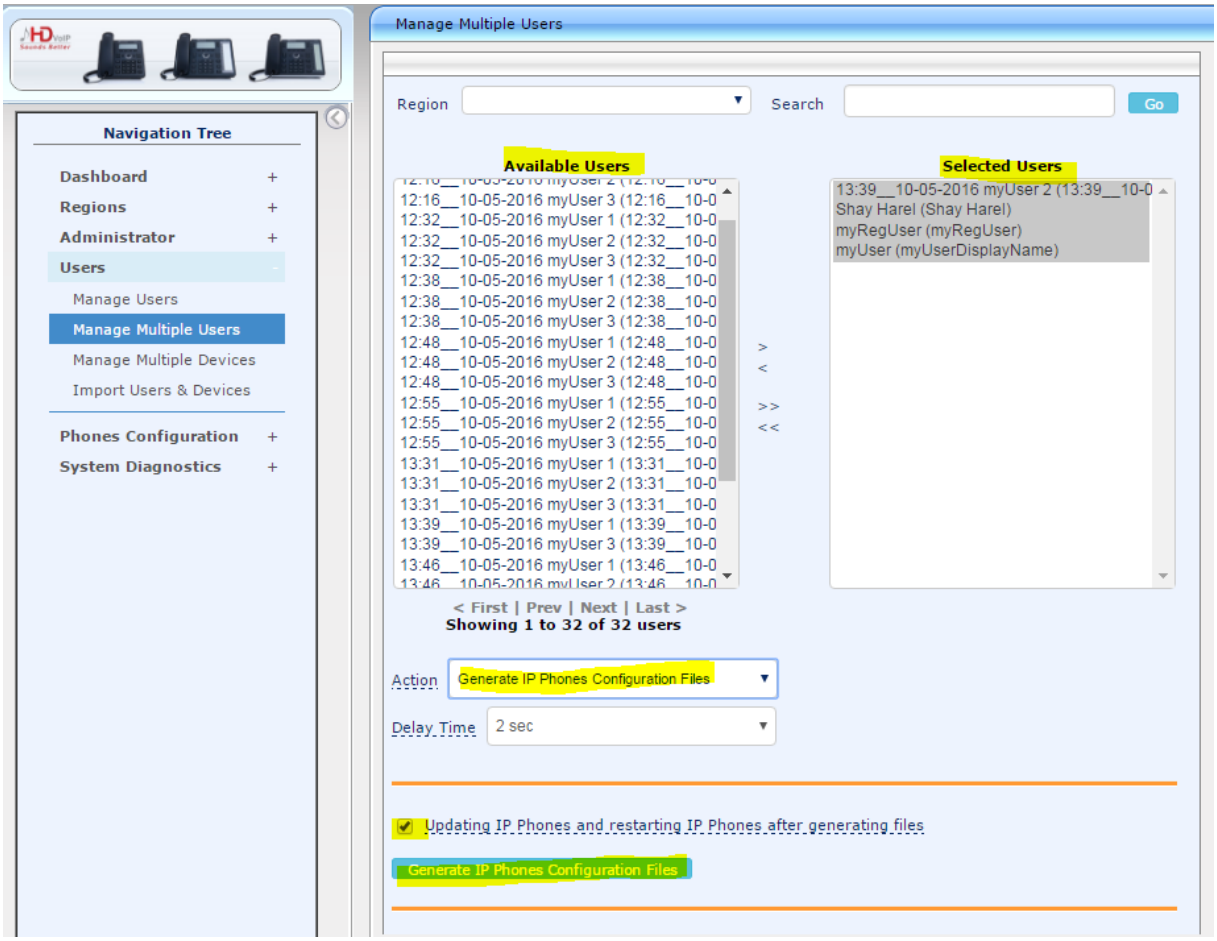
6.2 Generating New Configuration Files

This section shows how to generate new configuration files.

➢ **To generate new configuration files:**

1. Open menu **Users** > **Manage Multiple Users**.
2. Use the search option to locate the relevant users.
3. Move the users from the 'Available Users' to the 'Selected Users'.
4. Select the action **Generate IP Phones Configuration Files** for the action to take effect. Leave the **Updating IP Phones and restarting IP Phones after generating files** option cleared.
5. Click **Generate IP Phones Configuration Files**

Figure 6-3: Generate New Configuration Files



7 Changing IP Phone Firmware

This section shows how to change the IP phone firmware.

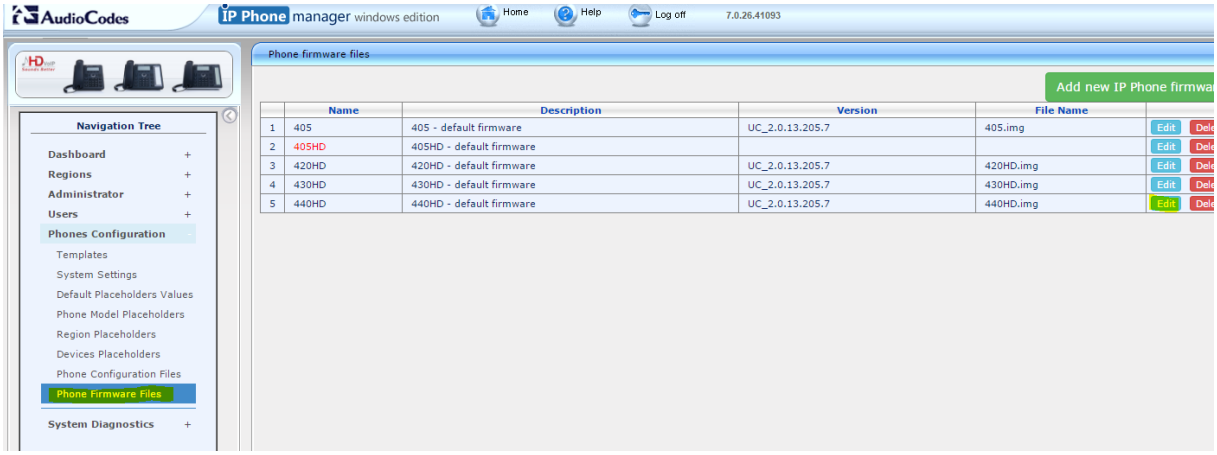
7.1 Upload New Firmware

This section shows how to upload new firmware.

➢ **To upload new firmware:**

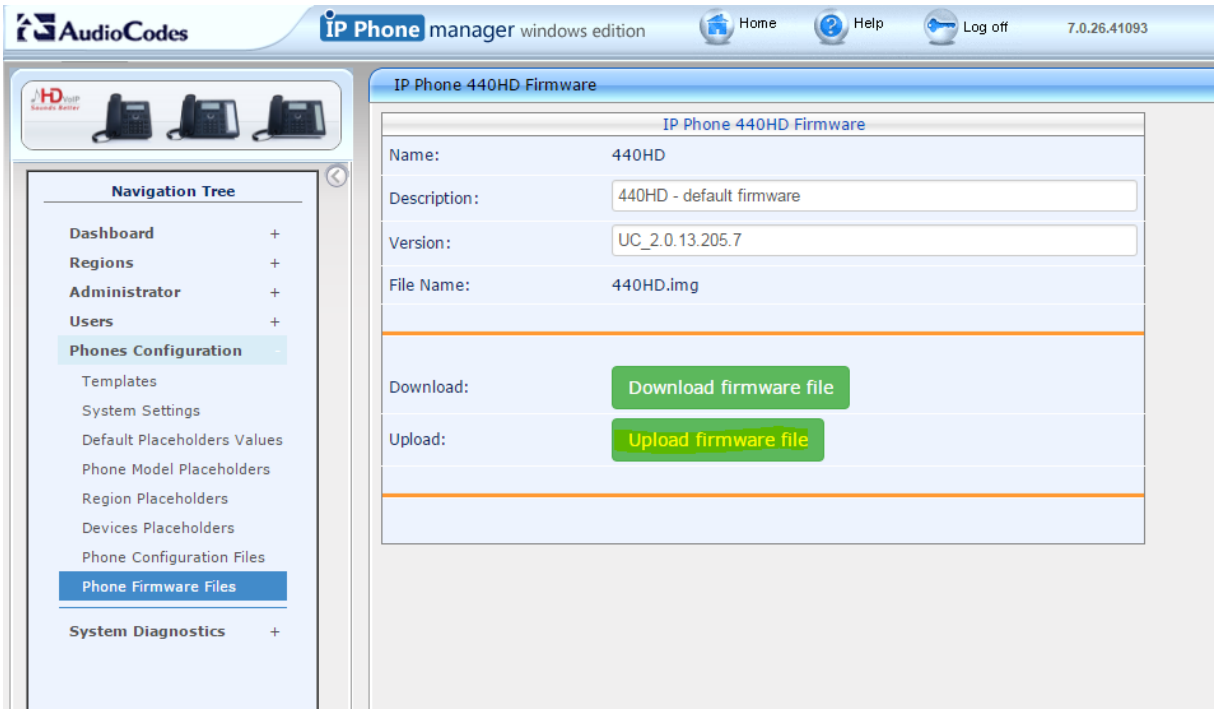
1. Click **Phone Configuration** > **Phone firmware files** > **Edit**.

Figure 7-1: Upload New Firmware



2. Click **Upload firmware file**.

Figure 7-2: Upload Firmware File



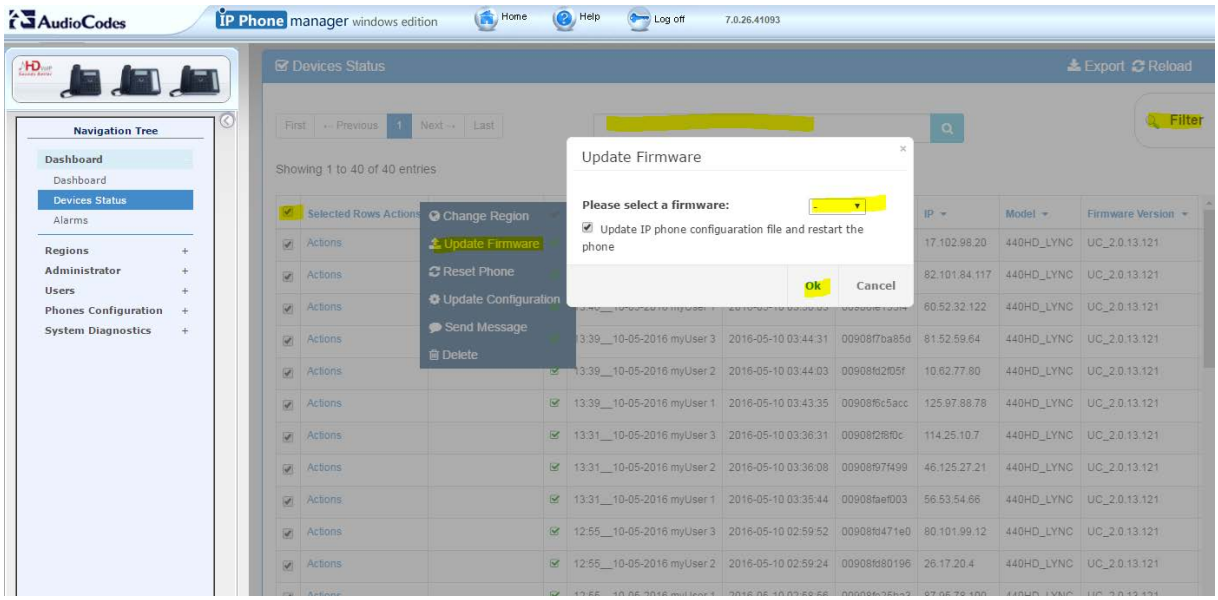
7.2 Update Firmware to the Phones

This section shows how to update firmware to the phones.

➢ **To update firmware to the phones:**

1. Open the Device Status page.
2. Filter for relevant devices using the filter button or the search text,
3. Select all devices and click **Selected Rows Actions**.
4. Choose **Update Firmware**.
5. In the popup, choose the firmware and click **OK**.

Figure 7-3: Upload Firmware File



8 Migrating Phones to the EMS IP Phone Manager Pro

This section describes the flow when migrating phones from the IP Phone Manager Express to the EMS IP Phone Manager Pro. Follow the procedures described in the next sections.

8.1 Reconfigure DHCP Option 160

You need to reconfigure DHCP Option 160.

➢ **To reconfigure DHCP Option 160:**

1. On your DHCP server, reconfigure DHCP Option 160 to point to the EMS:
   http://<EMS_IP_address>/firmwarefiles;ipp/dhcpoption160.cfg
   where **<EMS_IP_address>** is the IP address of the EMS server.
2. Check that one of the phones can connect to the EMS (recommended).

8.2 Update Templates

You need to make the phones read DHCP Option 160 again.

➢ **To make the phones read DHCP Option 160 again:**

1. Open the Templates page (**Phone Configuration** > **Templates**).
2. Click **Edit** and then click **Edit Configuration Template**.
3. Update row from 'provisioning/method=STATIC' to 'provisioning/method=DYNAMIC'.
4. Click **Save** and then click **Generate Global Configuration Template**.
5. Do this for all templates.

8.3 Update All Phones

You need to generate the phones' configuration files and upload them to the phones.

➢ **To generate the phones' configuration files and upload them to the phones:**

1. Open the Manage Multiple Users page (**Users** > **Manage Multiple Users**).
2. Transfer all users from the 'Available Users' list to the 'Selected Users' list.
3. Choose the action **Generate IP Phones Configuration Files**
4. Make sure the checkbox **Update IP Phones and restarting…** is checked.
5. Click **Generate IP Phones Configuration Files**.

   If a phone doesn't move to the EMS IP Phone Manager Pro after a few minutes, try restarting it.

8.4 Migrate Regions and Templates

Users who want to also migrate all regions and templates can **Export All** from the IP Phone Manager Express and **Import All** to the EMS IP Phone Manager Pro.

Note:

- Import/Export is available from version 7.2.2000 and later only. If you have an earlier version, you'll need to upgrade before the migration.
- The IP Phone Manager Express supports up to 500 phones. It does not support advanced features like Backup/Restore and HA. Best practice is therefore to migrate to the EMS IP Phone Manager Pro.

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