User's Manual

AudioCodes High Definition IP Phones Series

445HD IP Phone for Microsoft® Skype™ for Business

Version 3.0.4

Microsoft Partner
Gold Communications

Skype for Business

audiocodes

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Abbreviations and Terminology

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

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Related Documentation

Document Name
400HD Series IP Phones for Microsoft Skype for Business Release Notes
400HD Series IP Phones for Microsoft Skype for Business Administrator's Manual
445HD IP Phone for Microsoft Skype for Business Quick Guide
400HD Series IP Phones for Skype for Business Hosting Partner (LHPv2) Environment Configuration Note

1   Introducing the 445HD IP Phone

AudioCodes' 445HD IP Phone for Microsoft Skype for Business is based on AudioCodes High Definition voice technology, providing clarity and a rich audio experience in Voice-over-IP (VoIP) calls.

> **Note:** Microsoft rebranded *Lync* as *Skype for Business* so whenever the term *Skype for Business* appears in this document, it applies also to Lync.

The 445HD IP phone is an advanced high-end business phone with a 4.3" color screen. The 445HD includes an integrated, dedicated LCD sidecar displaying contacts and their presence.

The phone is a 1-line, 2 concurrent calls per line, premium model which includes a large, color, multi-language graphic Liquid Crystal Display (LCD).

The phone is a fully-featured telephone that provides voice communication over an IP network, allowing you to place and receive phone calls, put calls on hold, transfer calls, make conference calls, etc.

AudioCodes IP phones can be offered as part of our of Managed IP Phones solution which defines the phone as an IT-managed entity and delivers unique and complete lifecycle management of end-user desktop devices.

Read this *User's Manual* carefully to learn how to operate the product and take advantage of its rich feature set.

1.1   About AudioCodes' Series of High Definition IP Phones

AudioCodes Series of High Definition IP Phones offers a new dimension of voice call quality and clarity for the IP Telephony market. This new series of IP Phones further expands AudioCodes' VoIP product offering for the service providers' hosted services, Enterprise IP telephony and Enterprise contact centers markets. As a natural addition to the AudioCodes Mobile Clients, Media Gateway, Media Server & Multi-Service Business Gateway products, the AudioCodes Series of High Definition IP Phones enable Systems Integrators and end-customers to build end-to-end solutions that rely on AudioCodes' technological advantage and proven track record in providing state-of-the-art products. The AudioCodes Series of High Definition IP Phones meet a growing demand for High Definition VoIP solutions in end-user phones and terminals, improving the productivity and efficiency of business communications with new quality standards set by the High Definition voice technology.

1.2   Cutting Edge Voice Quality & HD VoIP

Based on AudioCodes' advanced, robust and field-proven VoIPerfectHD™ software, AudioCodes' IP Phones are designed to utilize wideband coders. The phones feature enhanced proprietary capabilities such as packet loss concealment, high quality wideband acoustic echo canceler, and low-delay adaptive jitter buffers to enrich the HDVoIP experience.

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2   Setting up the Phone

2.1   Unpacking

When unpacking, ensure that the following items are present and undamaged:
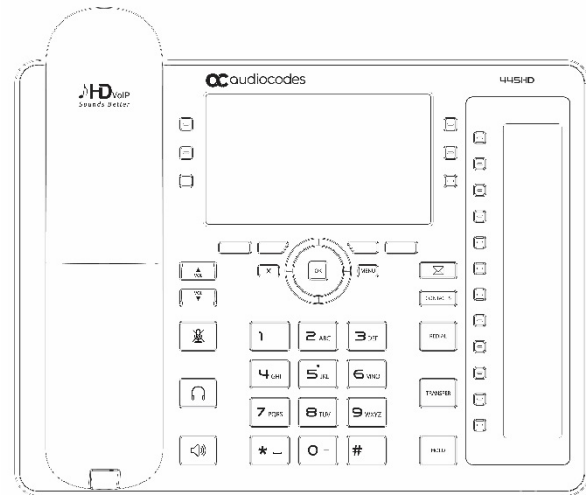
IP Phone / Stand   **Handset / Cord**
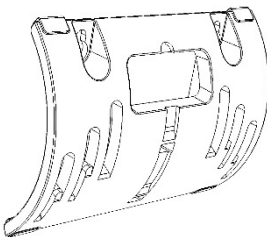
Cat 5e Ethernet Cable   **AC Power Adapter (Optional)**
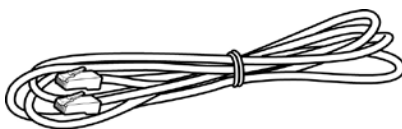
If anything appears to be missing or broken, contact the distributor from whom you purchased the phone for assistance.

2.2   Device Description

Use the graphics below to identify and familiarize yourself with the device's hardware functions.

2.2.1   Front View

The front view of the phone is shown in Figure 2-1 and described in Table 2-1.

Figure 2-1: Front View
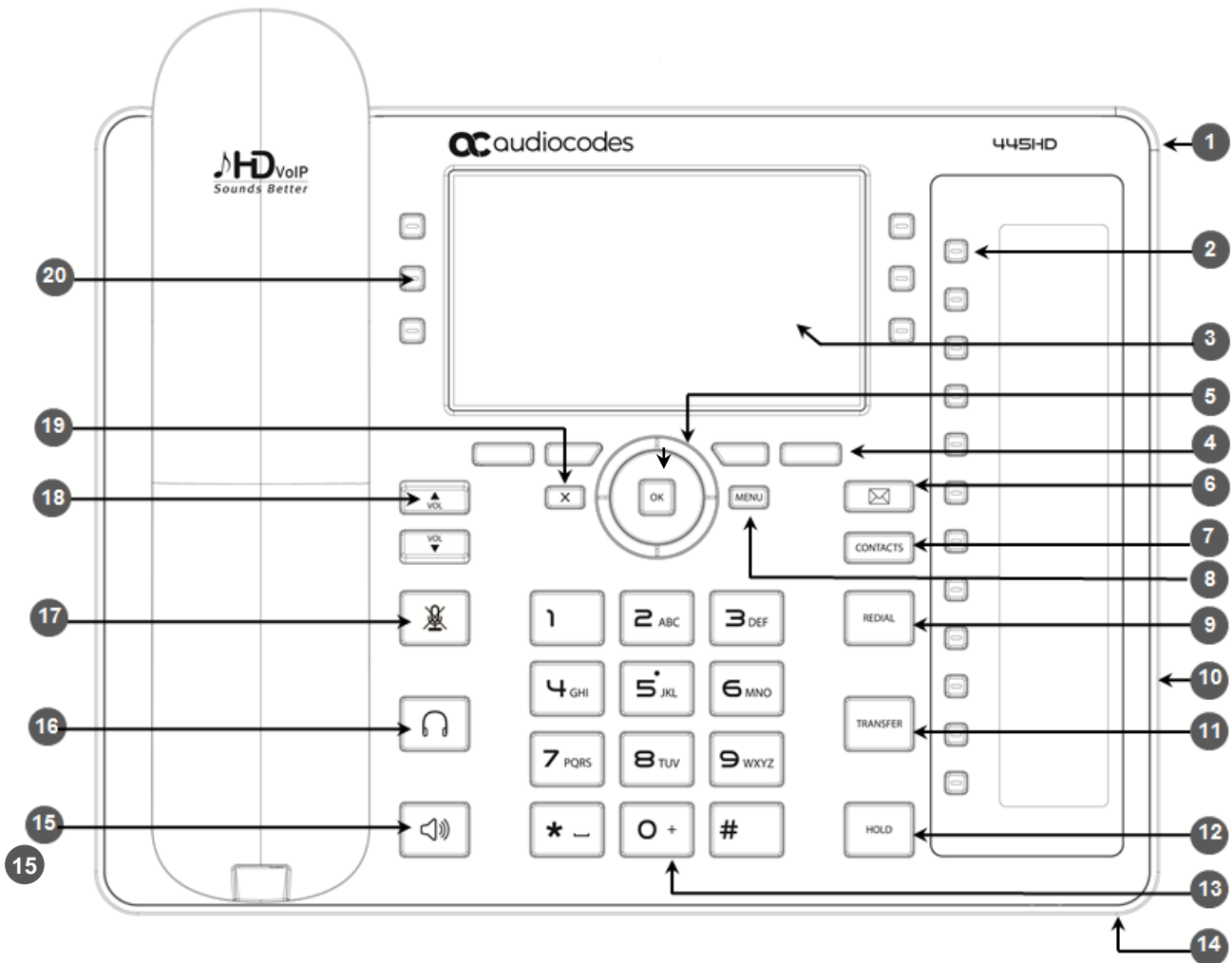
Table 2-1: Font View Description

Item #	Label/Name	Description
1	Ring LED	Flashing blue light visually indicates an incoming call.
2	Speed Dial & BLF	Twelve speed dial buttons to quickly call the contact whose name is displayed adjacent to it. You can configure these speed dial buttons with Busy Lamp Field (BLF) functionality. On the 440HD phone, a dedicated electronic screen displays contacts' names. On the 430HD phone, you can attach to a paper strip handwritten contacts' names.
3	Screen	Interactive screen displaying calling information and letting you configure phone features.
4	Softkeys	See Section 3.2 for details on the four softkeys and the available functions they offer.
5	Navigation Control / OK	Press the upper rim to scroll up menus/items in the screen. Press the lower rim to scroll down. Press the left or right rim to move the cursor left or right (when editing a contact number for example). Press the **OK** button to select a menu/item/option.
6	Voicemail	Retrieves voicemail messages.
7	CONTACTS	Press to open the 'Favorites' directory. Other directories can be accessed from the 'Favorites' screen.
8	MENU	Accesses menus: (1) Call Log (2) Calendar (3) Keys Configuration (4) Settings (5) Device Status (6) Administration (7) Favorites (8) Log upload.
9	REDIAL	Accesses a list of recently dialed numbers; one can be selected to redial.

Item #	Label/Name	Description
10	**Kensington lock**	Allows locking the device.
11	**TRANSFER**	Transfers a call.
12	**HOLD**	Places an active call on hold.
13	**Alphanumerical Keypad**	Keys for entering numbers, alphabetical letters and symbols (e.g., colons)
14	**Microphone**	Allows talking and listening. Network administrators can disable it if required.
15	**SPEAKER**	Activates the phone's speaker, allowing a hands-free conversation.
16	**HEADSET**	Activates a call using an external headset.
17	**MUTE**	Mutes a call.
18	**▲ VOL** / **▼ VOL**	Increases or decreases the volume of the handset, headset, speaker, ring tone and call progress tones.
19	**x**	Cancel an action, such as dialing a number, after beginning it.
20	**---**	Programmable keys, located on each side of the screen, to which you can assign functions.

2.2.2   Rear View

The rear view of the phone is shown in the figure below and described in the table below.

Figure 2-2: Rear View
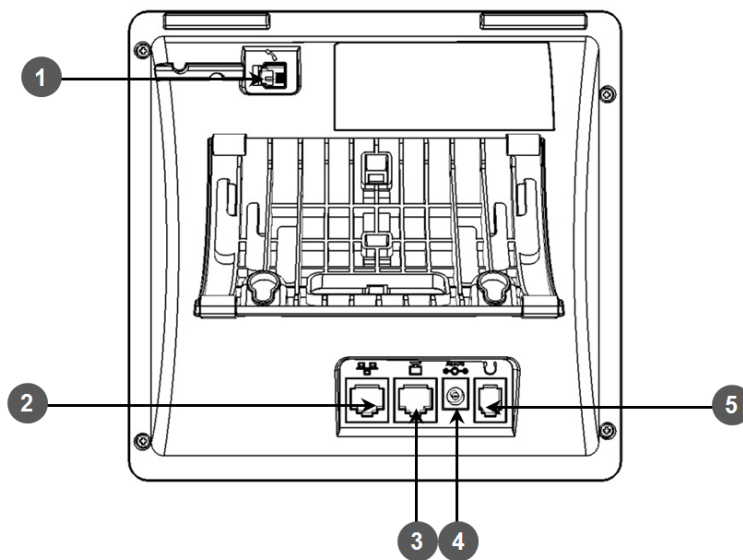
Table 2-2: Rear View Description

#	Label	Description
1	📞	Handset jack, i.e., RJ-9 port, to connect the handset.
2	⛓	RJ-45 port to connect to the Ethernet LAN cable for the LAN connection (uplink - 10/100/1000 Mbps). If you're using Power over Ethernet (PoE), power to the phone is supplied from the Ethernet cable (draws power from either a spare line or signal line).
3	🖥	RJ-45 port to connect the phone to a PC (10/100/1000 Mbps downlink).
4	⊙─⏺─⊕ DC12V	12V DC power jack that connects to the AC power adapter.
5	🎧	Headset jack, i.e., RJ-9 port that connects to an external headset.

2.3   Cabling

Here's how to cable your phone.

Figure 2-3: Cabling
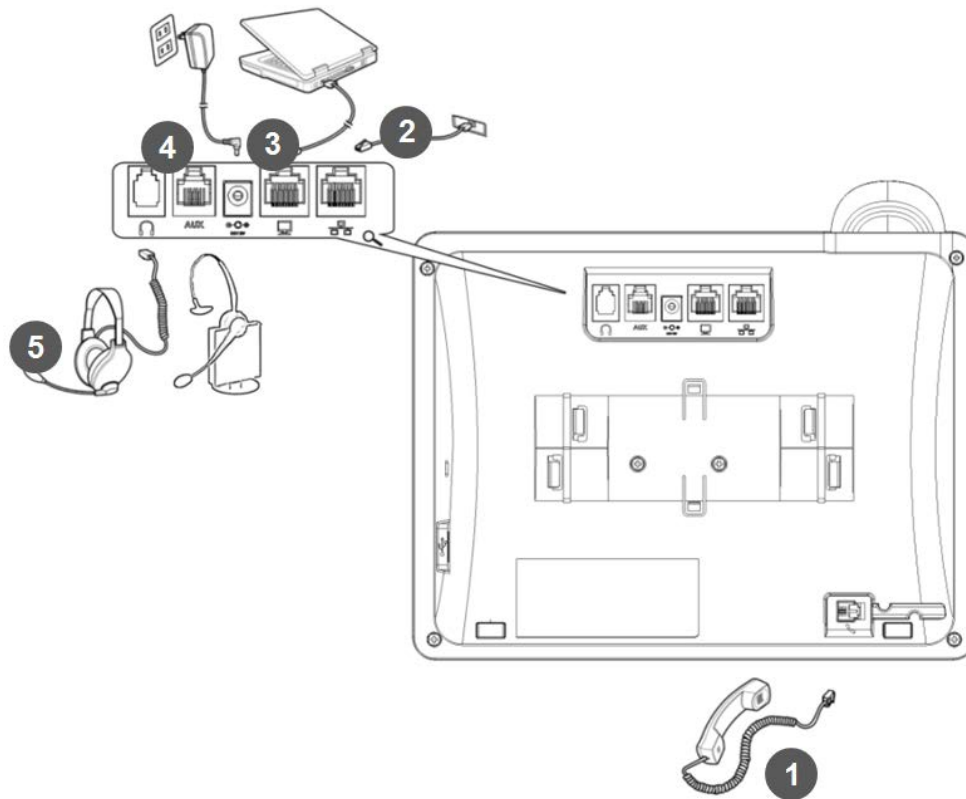
Action	Description
1	Connect the *short, straight end of the cord* to the handset. Connect the *longer, straight end* to the jack (RJ-9 port, for the handset) on the phone.
2	Connect the RJ-45 LAN port to your LAN network (LAN port or LAN switch/router), using a CAT 5 / 5e Ethernet cable
3	Connect the RJ-45 PC port to a computer, using a CAT 5 / 5e straight-through Ethernet cable
4	Connect the connector tip of the AC power adapter to the phone's power socket (labelled DC 12V). Connect the two-prong AC adapter directly to the electrical wall outlet. When the phone powers up, all the LEDs momentarily light up
5	Connect the RJ-9 headset jack to a headset (optional)

Note: If the LAN to which the phone is connected supports Power over Ethernet (PoE), no AC adapter is required; the phone receives power from the Ethernet network.

Prior to connecting power, refer to the Compliancy and Regulatory Information at www.audiocodes.com/library.

2.4 Mounting the Phone

The phone can be mounted on a:

- Desk (see Section 2.4.1 below)
- Wall (see Section 2.4.2)

See also https://www.youtube.com/watch?v=oGe9STB9lFE to assemble the base stand.

2.4.1 Desktop Mounting

Here's how to place the phone on a desk or flat surface.

➢ **To mount the phone on a desk or flat surface:**

1. Off-hook the handset (if on-hook) and place the phone upside down, i.e., base-up, on your desktop.
2. On the phone's base, identify outer rails.
3. On the phone's stand, identify outer notches.
4. Invert the stand and align its outer notches with the base's outer rails.
5. Insert the stand's outer notches into the base's outer rails and slide the notches along the rails until the stand click-locks into the base.
6. Revert the phone and stand it on the desktop.
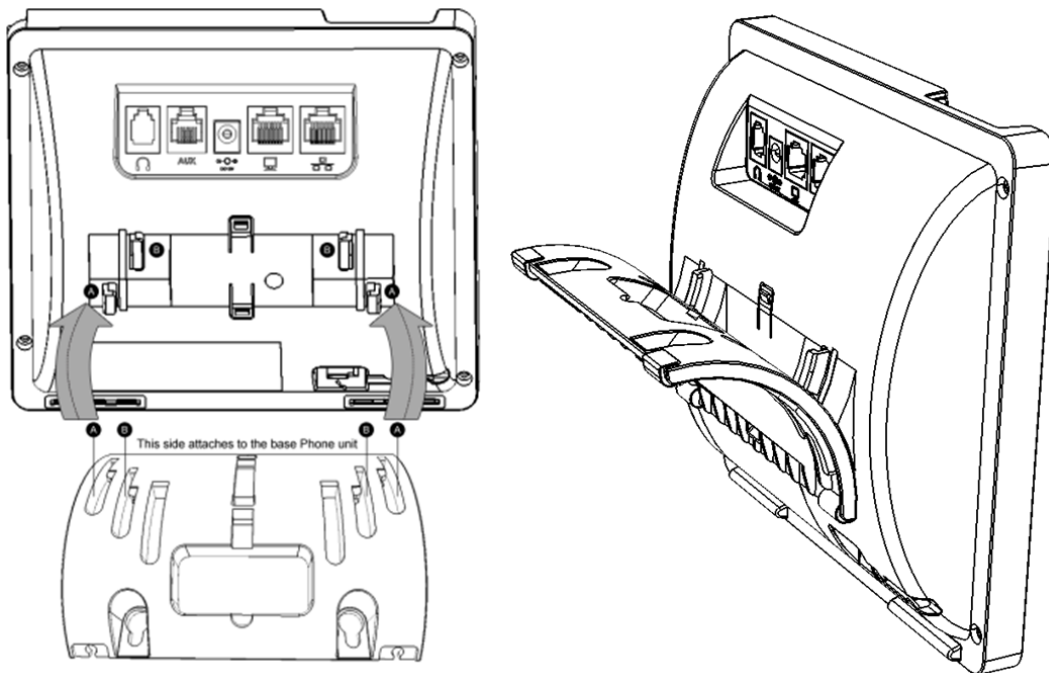
2.4.1.1 Routing the Handset Cable

The phone features a groove for routing the handset cable.

2.4.2 Wall Mounting

Here's how to mount the phone on a wall.

➢ **To mount the phone on a wall:**

1. Attach the stand of the phone for the purpose of a wall mounting:
   a. Detach the base.
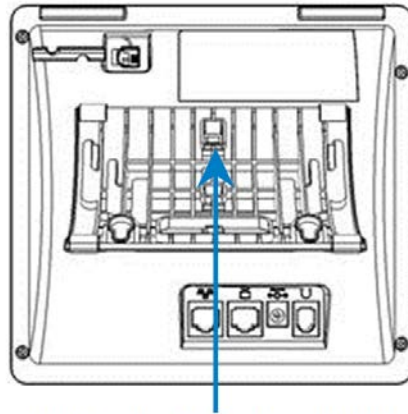
To detach the phone's stand, push this button

b. Attach it again as you did for a desktop mounting (see Section 2.4.1) only now make sure that it's flatly aligned to lie flush against the wall, i.e., slide the *inner rails* of the phone stand onto the phone base's inner notches.
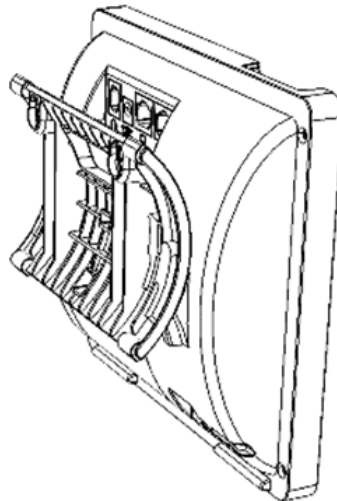
2. Connect the AC power adapter, LAN and PC cords.

3. In the wall, drill two horizontal holes at a distance of 3 15/16 inches (100 mm) from one another, in line with the template.

4. Insert two masonry anchors into the holes if necessary.

5. Thread two screws (not supplied) into the two masonary anchors; ensure that the heads extend sufficiently (about 3/16 inch or 5 mm from the wall) for the phone stand's keyhole slots to hang on.

6. Hang the phone stand's keyhole slots on these screws.

3   Getting Started

Now you can get started with your phone. The phone's screen provides you with an intuitive, menu-driven user interface for configuring the device and viewing call information.

3.1   Getting Acquainted with the Phone Screen

The figure below shows the phone's screen in idle state.

Figure 3-1: Phone Screen in Idle State

Table 3-1: Phone Screen in Idle State

Reference	Description
1	Presence status (Available, Busy, Do not disturb, Be right back, Off Work and Appear Away). See Section 6.19 for details.
	User name and phone number configured by your network administrator using the Web interface.
2	Day, Date and Month, automatically retrieved from the Network Time Protocol (NTP) server, enabled by your network administrator.
	Time, automatically retrieved from the Network Time Protocol (NTP) server, enabled by your network administrator.
3	Softkeys; to activate a softkey, press the hard key on the device, located below the screen, corresponding to the softkey. See Table 3-2 for softkey descriptions.

3.2 Softkeys

Here are descriptions of the softkeys that are displayed in the phone screen.

Table 3-2: Softkeys

Softkey	Description
Meet Now	Initiates a phone conference based on the Skype for Business server.
Missed	Displays missed calls.
Forward	Automatically forwards calls.
Status	Displayed in idle state. Lets you sets your presence status: Available, Busy, Be right back, Off Work, Appear Away.
Sign in /Sign out	Sign in is displayed if you haven't signed in yet. Sign out is displayed if you press the Status softkey after signing in.
Directory	Displayed after lifting the handset (for example). Opens the 'Favorites' defined in the Skype for Business client.
Call Log	Displayed after lifting the handset (for example).
Select	Identical to the hard OK key on the phone. Either can be used. Selects a menu or option.
BToE	Displayed after pressing the MENU hard key unless disabled by the network administrator. Generates a code for manually pairing the phone with Skype for Business client for unified communications.
A/a/1	Enables switching between input modes: abc, ABC, Abc, 123, or T9.
Save	Saves settings.
Cancel	Cancels the currently initiated call or configuration.
Dial	Displayed after a number is keyed, a directory contact is selected, or a logged call is selected.
Clear	Displayed after entering a digit of a phone number (for example). Deletes from right to left.
Call Menu	Displayed after dialing a number and it's answered, and after you answer a call.
Conf	Displayed (1) after a number is dialed and the call is answered on the other side and (2) after you answer a call. Pressing it displays the ADD PARTICIPANT screen.
BXfer	Displayed (1) after a number is dialed and the call is answered on the other side and (2) after a call is answered. Lets you transfer the call in a blind transfer.
URL	Displayed after lifting the handset (for example). Enables calling a URL.
Detail	Displayed after selecting a call log (for example). If selected, the details of a logged call are displayed (Time, Date, etc.).
Favorite	Displayed in the Call Details screen. Allows adding the person to the Favorites directory.
End	Displayed after pressing the Dial softkey (for example). Ends the call.
Back	Displayed after pressing the MENU key (for example). Returns to the previous screen.
Edit	Displayed after you select a contact to be edited (for example).
Delete	Displayed after pressing the MENU key and then selecting Call Log (for example).
Silent	Displayed when the phone rings on an incoming call. Lets you silence the ring.
Reject	Displayed when the phone rings, alerting to an incoming call. Lets you reject the call.
Accept	Displayed when the phone rings, alerting to an incoming call. Lets you accept the call.

3.3   Navigating the Phone Menu

The MENU key on the phone lets you access information and configure settings shown in the figure below. Press it to view call logs, view meetings scheduled in the calendar for that day (integrated with Skype for Business client), configure speed dials, customize phone settings, determine device status, perform administration, access 'Favorites' and other phone directories, and perform log upload to Microsoft server.

Figure 3-2: Phone Menu
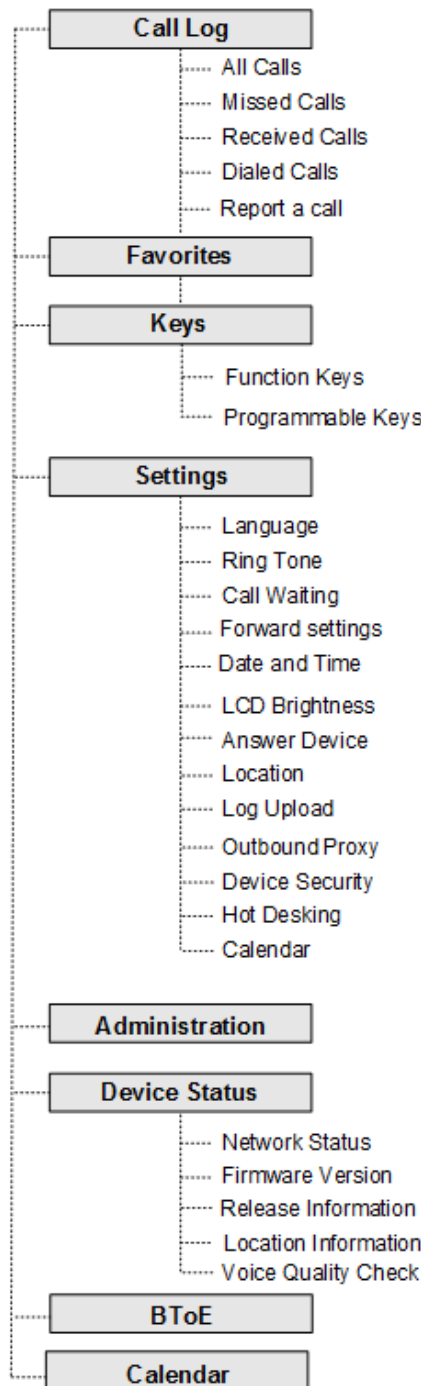
> ⚠ **Note:** The **Administration** option is intended for network administrators only. It is password protected. See the *Administrator's Manual* for details.

➢ **To access the menus:**

■ Press the MENU key located on the device.

➢ **To navigate to menu items:**

■ After opening the menu, press the navigation control button's lower rim -OR- press the menu item's number, e.g., press **3** to navigate to **Keys Configuration**.

➢ **To select a menu or menu item:**

■ Press the **Select** softkey or press the navigation control's **OK** button.

➢ **To cancel and move to a previous menu level:**

■ Press the **Back** softkey.

3.4   Switching between Letters | Numbers

The keypad allows you to enter upper case letters, lower case letters and numbers, and to switch from one mode to another.

➢ **To enter a contact's name (for example):**

1. In the Add Contact screen, press the the **#** key on the keypad.

Figure 3-3: Switching between Letters | Numbers
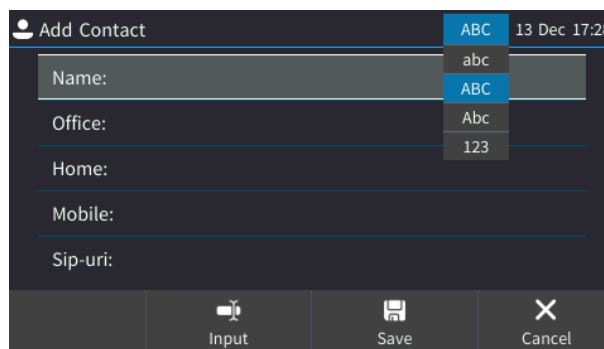
2. Press the **#** key successively to navigate to and select the mode:
    * **abc** = lower case letters
    * **ABC** = upper case letters
    * **Abc** = first letter upper case, the rest lower case
    * **123** = numbers
3. [For example] Select **Abc** mode and then on the keypad, press the **2** key; **A** is entered. Press the **5** key three successive times; **l** is entered (once produces **j**, twice produces **K**). Similarly, enter **a** and **n**.
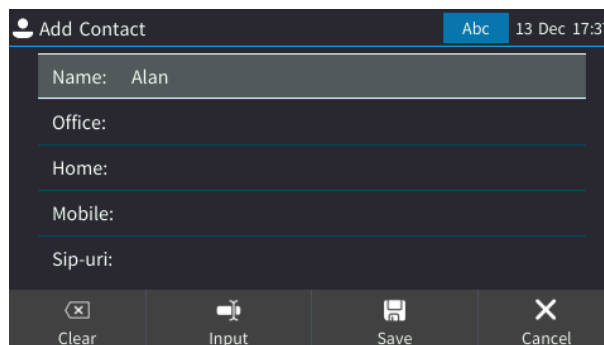
3.5   Switching to Symbols

The keypad allows you to switch to symbols and to revert from symbols mode to letters or numbers mode.

➢ **To enter a symbol (e.g., dot or @ or hyphen):**

1. Press the **#** key successively to navigate to and select **abc** (mandatory).
2. Press the **1** key on the keypad; a period / full stop is entered. *Immediately* press the **1** key again; a backslash is entered. Pressing successively produces the following symbols:

Symbol	Explanation	Symbol	Explanation
.	Dot	*	Star sign
\	Backslash	=	Equal sign
@	At	|	Separator
;	Semi-colon	(	Open parenthesis
:	Colon	)	Close parenthesis
#	Pound	{	Open parenthesis
$	Dollar	}	Close parenthesis
%	Percentage	[	Open square parenthesis
^	Caret	]	Close square parenthesis
&	Ampersand	"	Double quotation marks
!	Exclamation mark	'	Single quotation mark
?	Question mark	>	Greater than
+	Plus	<	Less than
-	Hyphen	,	Comma
_	Underscore	/	Forward slash
~	Approximates		

Note that the asterisk (*) symbol is entered directly using the star key.

Figure 3-4: Entering a Symbol, e.g., a dot
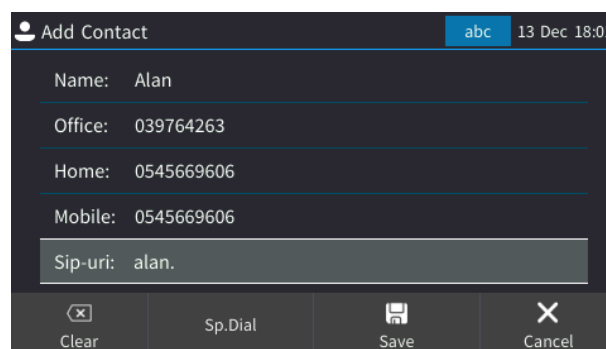
➢ **To revert to letters, e.g., abc:**

■ Make sure you're in **abc** mode and successively press the **7** key three times to produce (for example) **r**:

Figure 3-5: Reverting to Letters, e.g., abc
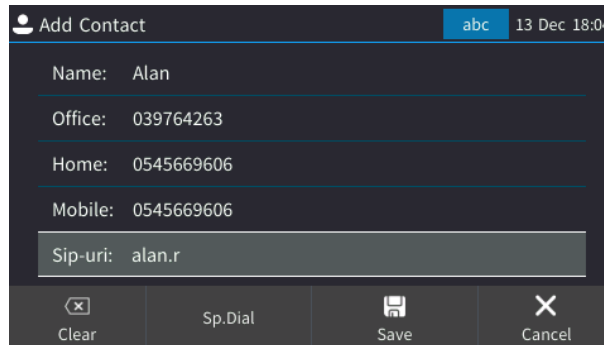
4 Signing In

Before you can use your phone, you need to sign in. Sign in options are:

■ PIN code – go here
■ User name and password – go here
■ Web Cloud (Office 365) - go here
■ Web Login - go here
■ CAP Provisioning – go here

> **Note:**
> • Your network administrator will advise you which option to use and will provide you with the necessary sign-in information.
> • Sign-in can be cancelled during the signing in procedure. You can cancel signing in after starting the sign-in process.

4.1 Signing in with PIN Code

The Postal Index Number (PIN) is a post office numbering code used to secure sign-in. Your network administrator will provide you with your PIN code.

➢ **To sign in using this option:**

1. In the Offline screen press the **Sign in** softkey, and then select the **PIN Code** option.

| Sign-in options	20 Dec 17:13
1 PIN Code	
2 User name and Password	
3 Web Cloud (Office 365)	
4 Web Login	
Select	Cancel

Sign In	123 13 Dec 18:32
Phone number: 039764263	
Pin code: ********	
Clear	Input	Sign In	Cancel
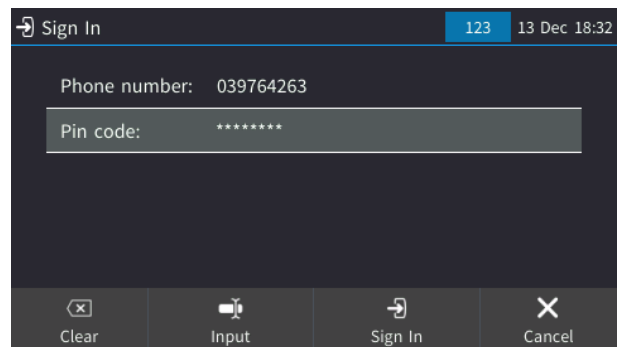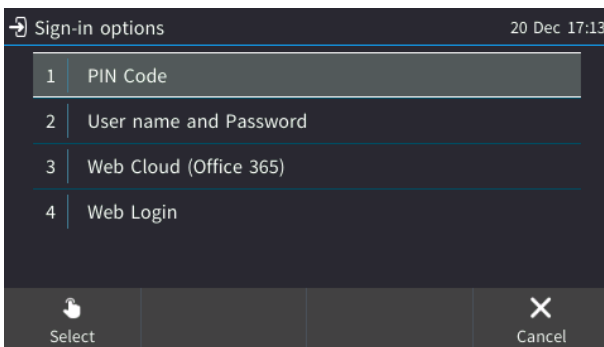
2. Enter your phone number and then navigate down to enter your PIN code. You can get it from your network administrator. To switch between numbers and letters and symbols, see Section 3.4 and 3.5.

3. Press the **Sign in** softkey; the Lock Code screen opens (see Section 5 for more information).

New Device Unlock Code	14 Dec 15:02
New Unlock Code:	
Confirm Unlock Code:	
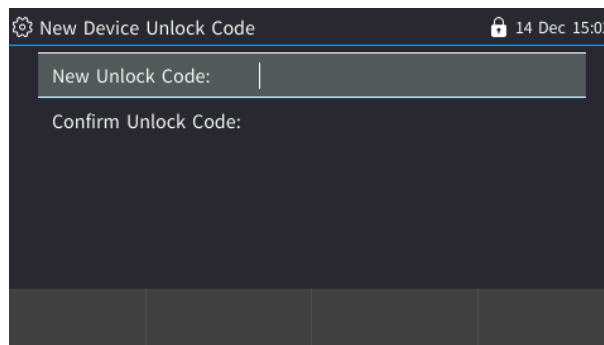
4. Enter a lock code, confirm it, and then press **Save**. The idle screen is displayed.

4.2 Signing in with User Name and Password

This online sign-in option enables connectivity to Microsoft Office 365 and to Microsoft's Cloud PBX, Microsoft's cloud-hosted version of enterprise voice.

➢ **To sign in with user name and password:**

1. In the 'Sign-in options' screen, select **User name and Password**.
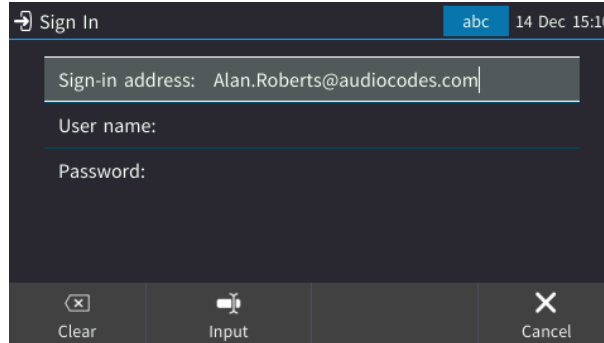
> **Note:** Signing in with a username that is a NetBIOS Domain Name, i.e., **domain\username**, or with the PIN Code, are *disallowed* for Skype for Business online sign-in. They are only allowed for *on-premises* sign-in. Online sign-in must be in the following format:
>
> - Sign-in address, i.e., SIP URI. To switch between letters and symbols such as @, - and period, see Section 3.5.
> - User name, in UPN (User Principal Name) format, i.e., the way the user's name appears in their e-mail address listed in the Active Directory: **username@domain.com**
> - User's network IT password (the same password you use to access your PC)

2. Press the **Sign in** softkey that's displayed; after signing in successfully, the New Device Lock Code screen opens (see under Section 5 for more information).
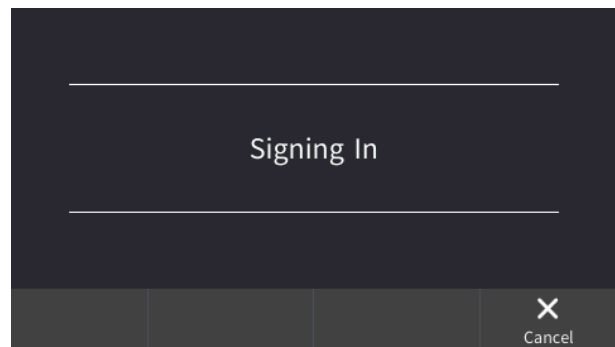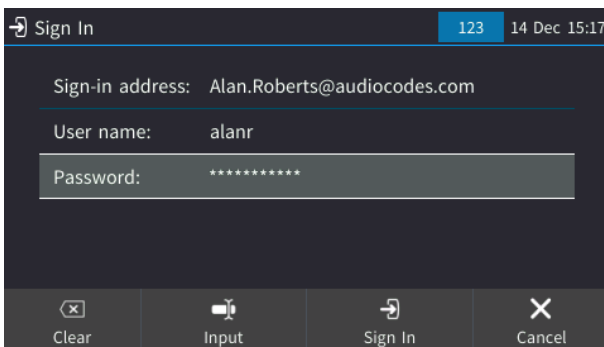
4.3   Signing in with the Web Cloud (Office 365) Option

Signing in with the Web Cloud (Office 365) sign-in option enables connectivity to Microsoft's Cloud PBX, Microsoft's cloud-hosted version of enterprise voice. The sign-in option, a.k.a. Device Pairing, exempts users from having to laboriously key in their user name and password using the phone keypad.

> **Note:** Applies only to Microsoft Cloud PBX users.

➢ **To sign in with this option:**

1. In the 'Sign-in options' screen, select **Web Cloud (Office 365)**.

⏎ Sign-in options	6 Feb 15:06
1 PIN Code	
2 User name and Password	
3 Web Cloud (Office 365)	
4 Web Login	
👆 Select	✕ Cancel

⏎ Web Cloud (Office 365): Timeout 14:53	6 Feb 15:08
WEB URL: http://aka.ms/sphone	
Pairing Code: d2rbgrqjy	
	✕ Cancel
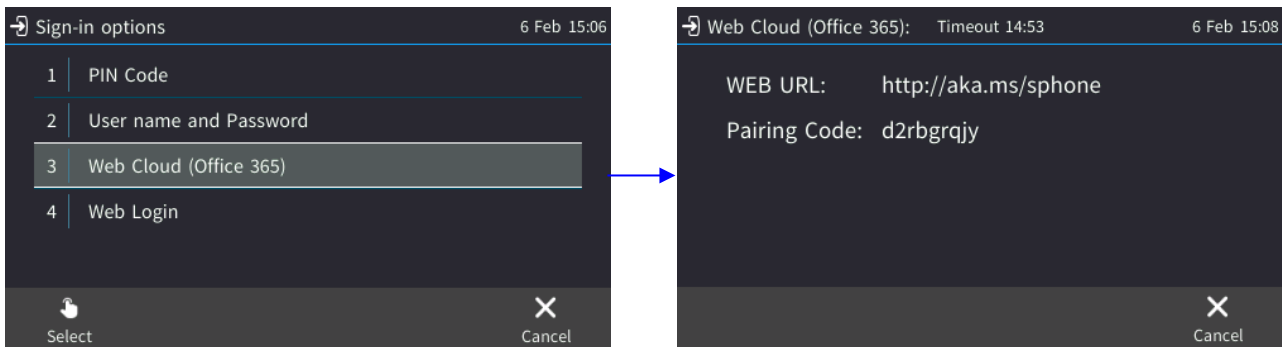
2. Point your browser to the displayed URL and sign in to Office 365.

4.4 Signing in using the Web Login Option

Users can sign-in to their phone *from their browser using their PC keyboard to quickly enter sign-in credentials* rather than use the longer method on the phone's keypad which requires switching input from letters of the alphabet to numbers and vice versa. [Applies to Skype for Business online and on-premises].

➢ **To sign in using the Web Login option:**

1. When the phone is offline, press the **Sign-in** softkey and select **Web Login**.
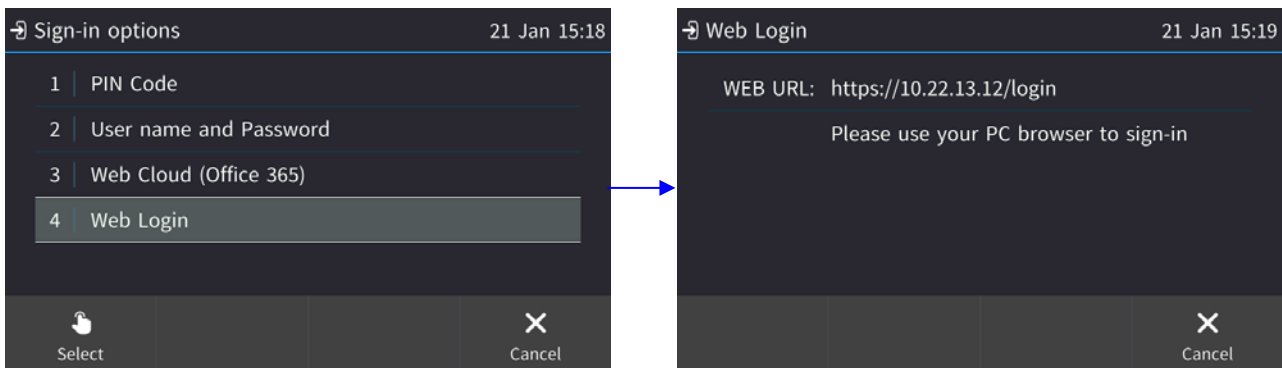
2. Enter the displayed Web URL in your browser's address field **<phone IP address>/login**

3. Enter your username and password (ask the network administrator if necessary) and then click **Sign in**.

4.5   Signing in as a Common Area Phone (CAP) User

Phones can be defined as CAPs. Defined *per physical phone* rather than *per user*, a CAP requires a special sign-in method called 'CAP Provisioning'. Before signing in using the 'CAP Provisioning' option, the network administrator must enable the phone as a CAP.

➢   **To enable the phone as a CAP on the phone:**
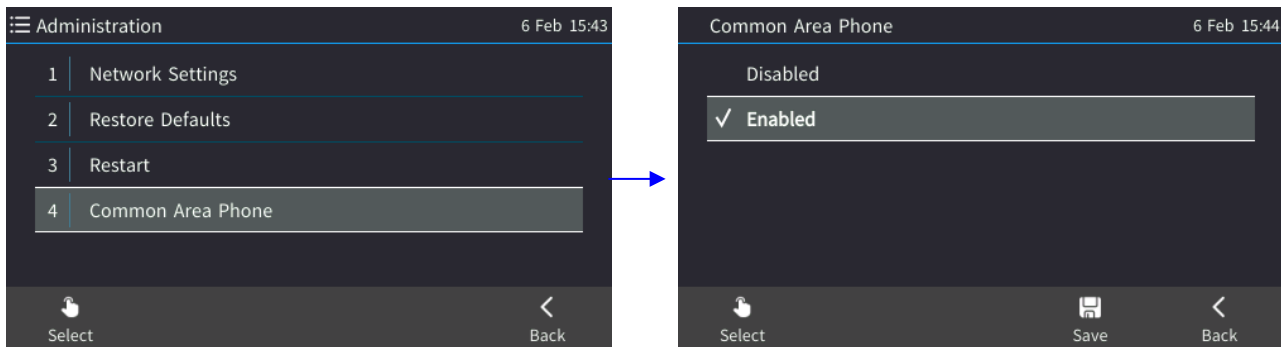
After the phone is enabled as a CAP, it restarts.

➢   **To sign in using the CAP Provisioning option:**

1.   When the phone is offline, press the **Sign-in** softkey and from the 'Sign-in options' screen select **CAP Provisioning**.
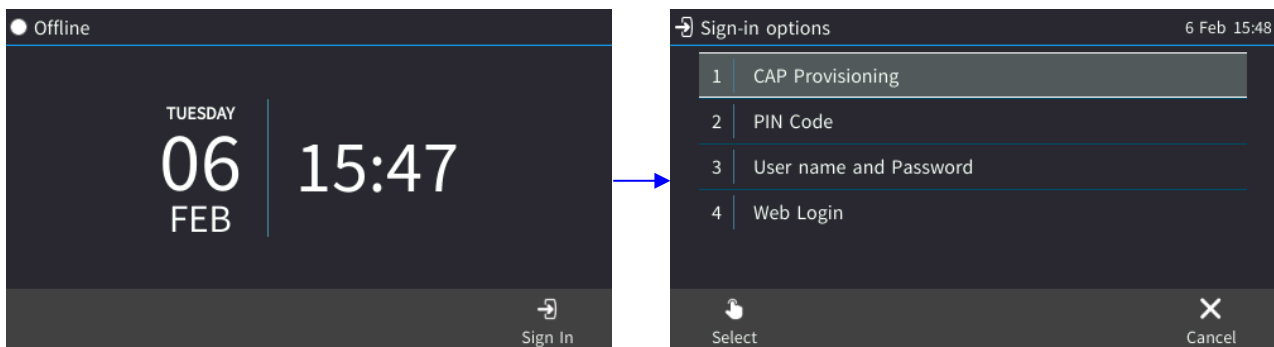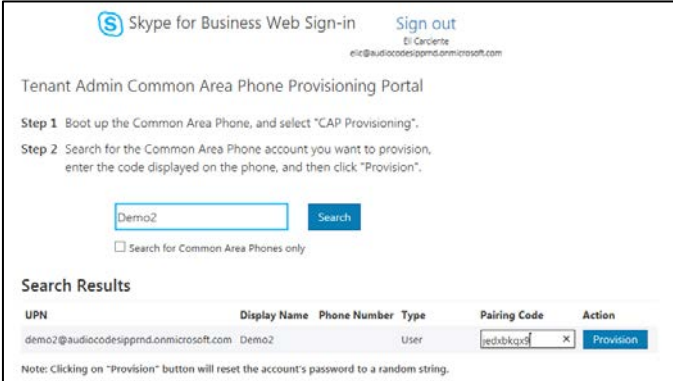
2.   After selecting the 'CAP provisioning' method, view a displayed URL and Pairing Code.
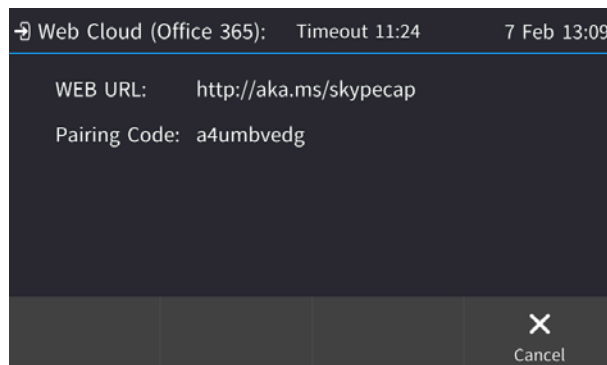
3.   Point your browser to the URL, sign in to Office 365 and locate the phone.
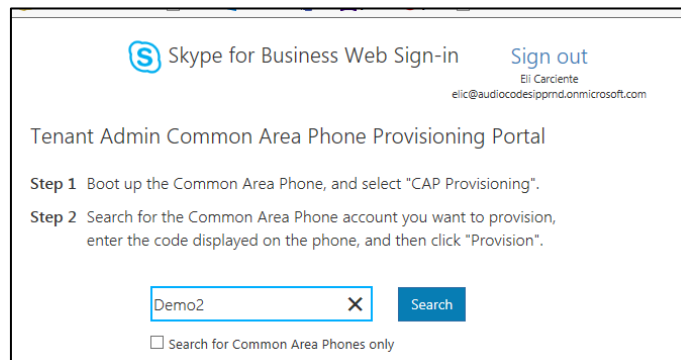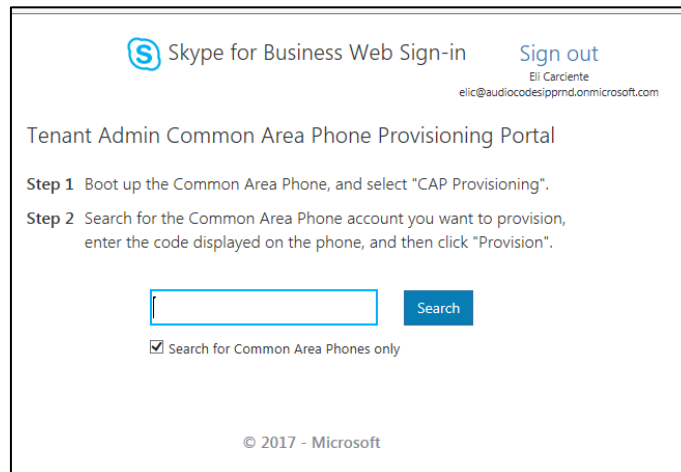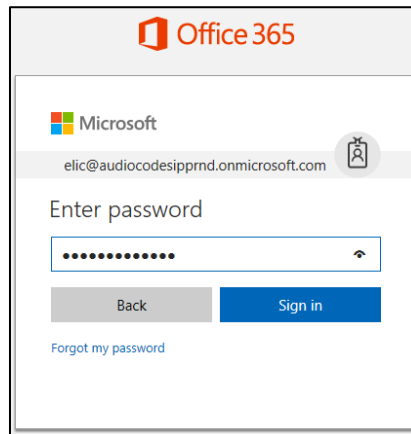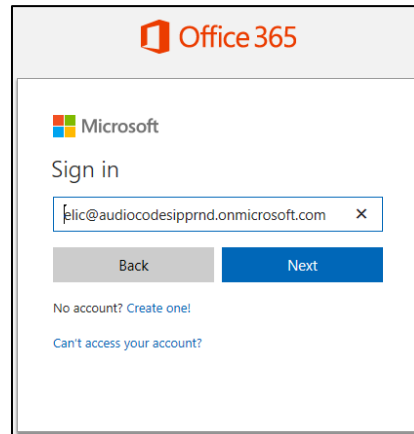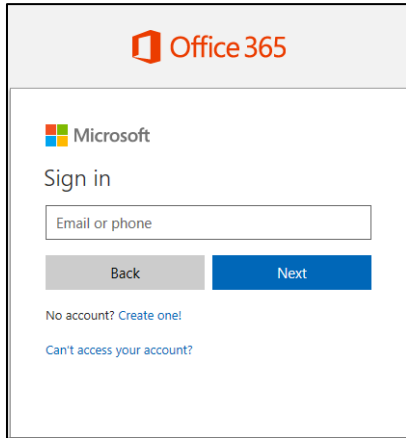
4. Enter the Pairing Code in the Microsoft web page and clicks **Provision**.

Sign-in to Microsoft's Cloud PBX is performed.

Note:

- If CAP is enabled, the sign-in option **CAP Provisioning** replaces the sign-in option **Web Cloud (Office 365)**.
- If the BToE PC application is *automatically* paired with the phone (when the phone's PC port is directly connected to the PC), the sign-in option **BToE** replaces the sign-in option **Web Login**.
- If the BToE PC application is *manually* paired with the phone, the **Web Login** sign-in option is presented rather than the **BToE** option.

4.6 Signing Out

Here's how to sign out of the phone.

➢ **To sign out:**

1. In the idle screen, press the **Status** softkey.
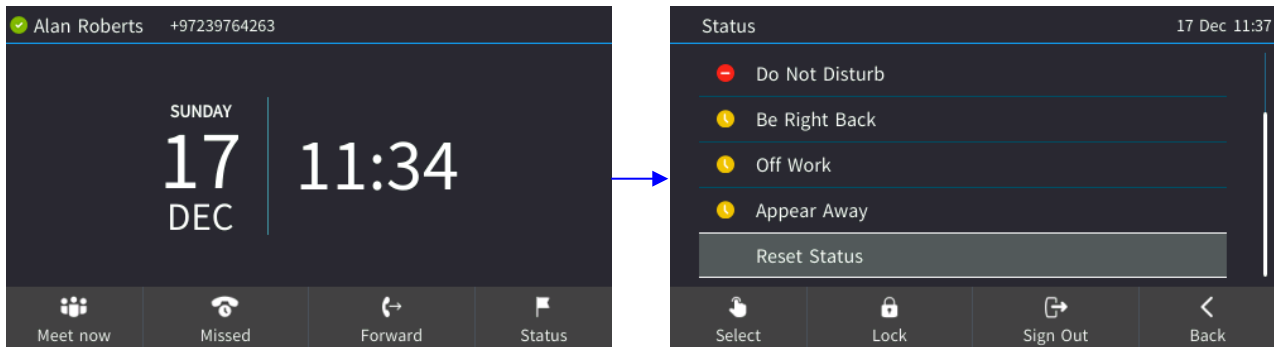
2. In the Status screen, press the **Sign out** softkey. You're signed out and an offline idle screen opens displaying a **Sign in** softkey.
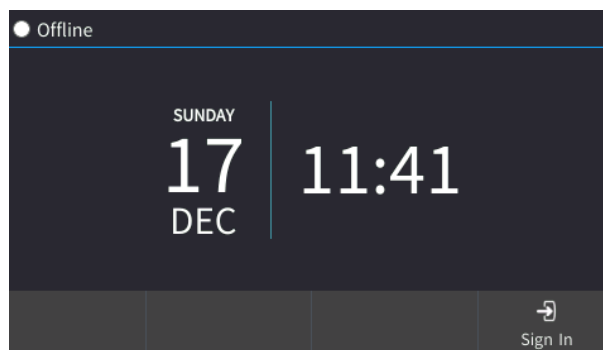
> **Note:**
>
> • After signing out, the next time you sign in the phone will present the sign-in option that was used to sign in before signing out.
>
> • If a user signs out and another signs in, the phone presents empty speed dials and empty Call Logs to the newly signed-in user. The speed dials and Call Logs of the signed-out user are not saved on the phone.

4.6.1 Signing out if the 'Sign out' Softkey is Removed from the Screen

Located in lobbies, cafeterias, employee lounges, meeting rooms, and other gathering places, CAPs typically do not display a **Sign out** softkey in the screen, in line with network management's decision to remove the capability from users. Users can sign out, if necessary, using the Web interface.

➢ **To sign out using the Web interface:**

1. Obtain the CAP's IP address (**MENU** key > **Status** > **Network Status > IP Address**) and point your Web browser to it; the phone's Web interface login page opens.

Figure 4-1: Login
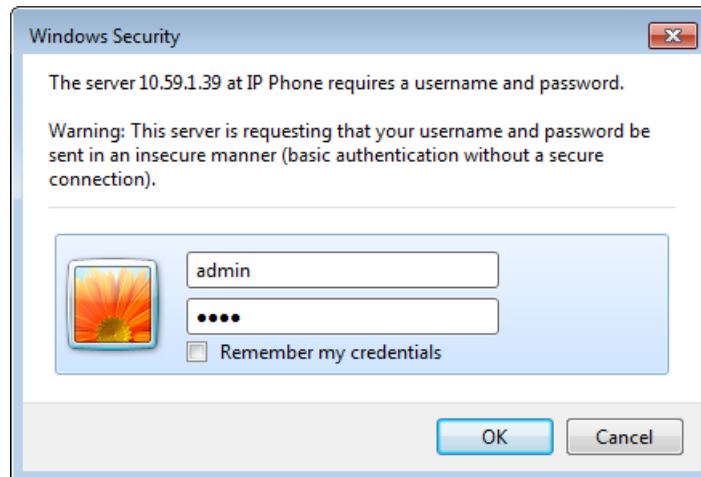
2. Enter the login credentials (default username is **admin** and default password is **1234**); the Home page of the Web interface is displayed.

Figure 4-2: Web Interface – Home Page
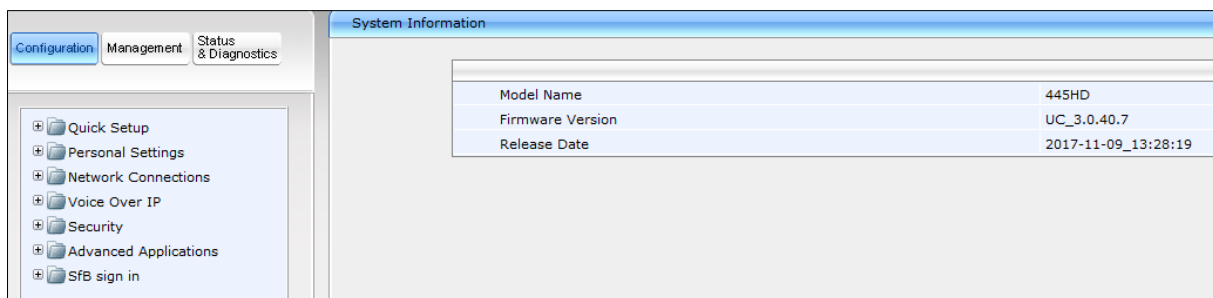
3. In the Web interface, open the Sign-In page (**Configuration** tab > **SfB sign in** > **Sign in**).

Figure 4-3: Sign-in – Content Blocked Page
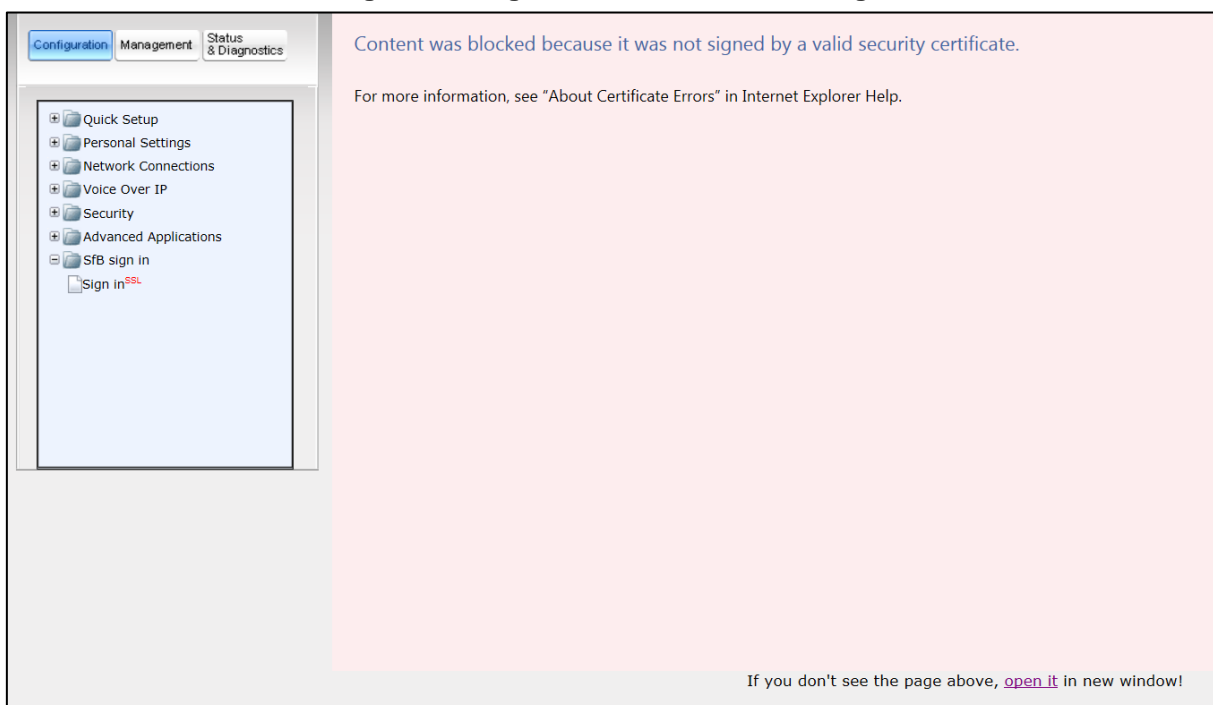
4. Click the **open it** link and then click **Show content**.

Figure 4-4: Sign-in – Windows Security Prompt
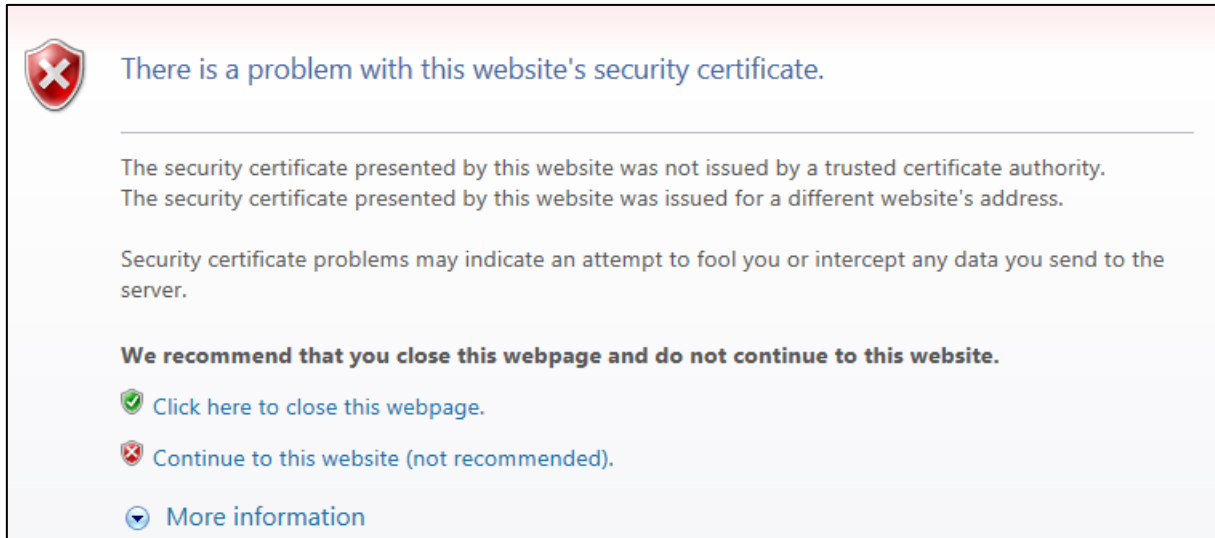
5. Click the **Continue to this website (not recommended)** link.

Figure 4-5: Windows Security Prompt
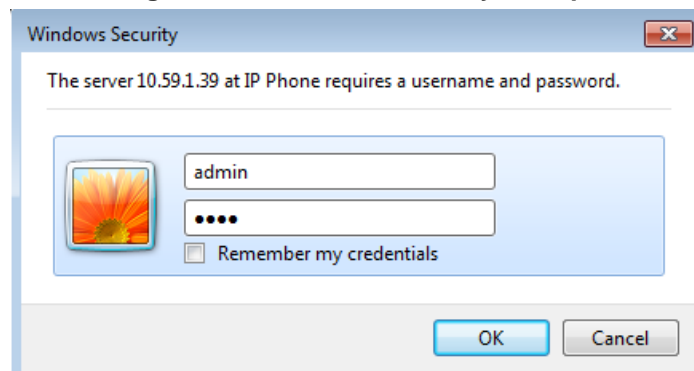
6. In the Windows Security prompt, enter the username and password and then click **OK**.

Figure 4-6: Sign-out
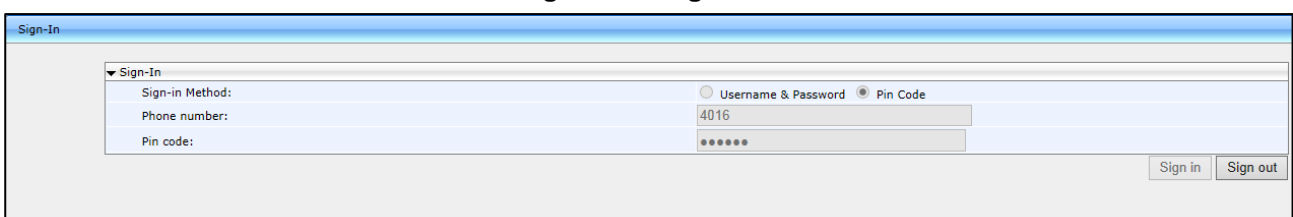
7. Click the **Sign out** button.

4.7   Hot Desking

Employees in enterprises that operate according to a 'touch-down desk' concept can use the phone's HostDesk feature. In these enterprises, employees typically travel frequently to remote branches, or work in shifts. They can sign in to a phone that is already signed in by another (CAP or regular) user without signing out the original user to whom the phone was assigned for primary use.

➢   **To use the HotDesk feature:**

1.   Press the MENU hard key on the phone.
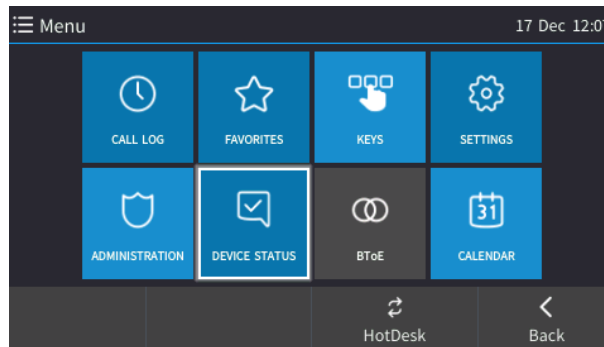
2.   Click the **HotDesk** softkey; the 'HotDesk Sign-in options' screen opens – identical to the regular sign-in options screen.
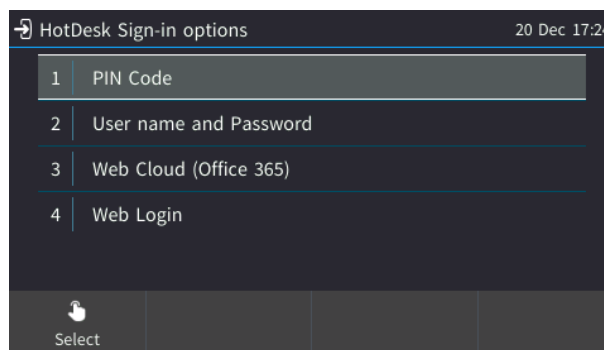
3.   Select **PIN code**, **Username and Password**, **Web Cloud (Office 365)** -or- **Web Login** (see here for more information).

Note:

- If the feature isn't enabled on the server already, the enterprise's network administrator must enable it.

- When the HotDesk user signs out or if the phone stays in idle state longer than the HotDesk timeout defined on the server, the phone automatically returns to its original user and state; its configuration and data are preserved as they were before the phone was leased for HostDesk use. HotDesk users cannot perform all operations that the original (CAP or regular) user could perform, for example, change Language.

4.8   Displayed Messages

Messages indicating processes in progress, displayed in the screen, include:

Table 4-1: Displayed Messages Indicating Processes In Progress

Message	Description
Initializing	Initializing
Discovering LLDP	Discovering VLAN using Link Layer Discovery Protocol (LLDP)
Discovering CDP	Discovering VLAN using Cisco Discovery Protocol (CDP))
Acquiring IP	Acquiring an IP address from a DHCP server
Initializing Network	Initializing the network
Signing in	Signing in to the Skype for Business server
Signing in...Contacting time server	Get the time from the NTP server
Discovering SfB server	Auto discovering the Skype for Business server on the network
Registering	Registering to a Skype for Business server (after booting up the phone)
Downloading Firmware File	Downloading a firmware file
Upgrading Firmware	Upgrading the phone's firmware
Signing out	Signing out of the Skype for Business server

5   Unlocking a Locked Phone

The phone automatically locks after a configured period of time to secure it against unwanted (mis)use. If left untouched for 10 minutes (default), it locks and becomes inaccessible to anyone who doesn't know its lock code. After it locks:

- Incoming calls are allowed, but outgoing calls need the lock code.
- Without the lock code, users cannot access the Call Log, Calendar and Corporate directory, but they can call preconfigured emergency numbers.

Note: For the feature to be available to users, the administrator must first enable it in the Skype for Business server and Web interface. See the *Administrator's Manual* for details*.*

When signing in for the first time, the user is prompted for the lock code. After entering a code, e.g., **123456**, confirming and saving it, the phone goes into idle state and locks after 10 minutes.

➢ **To manually change the lock code:**

1. Press the MENU key, select **Settings** and then scroll down to select **Device Security**.
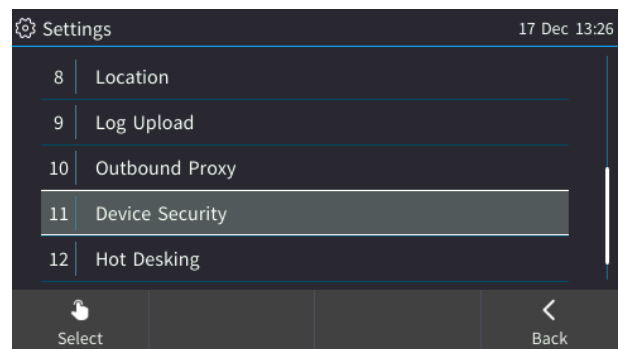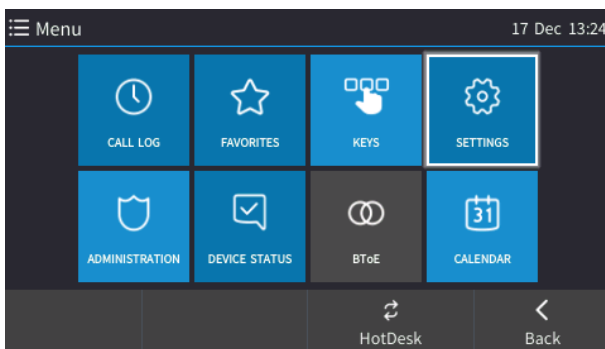
2. In the Device Security screen, select **Change Lock Code**.
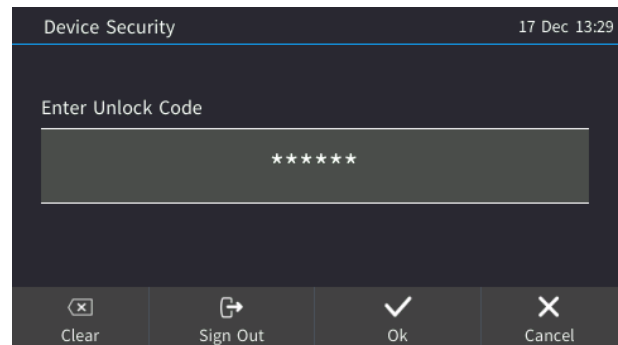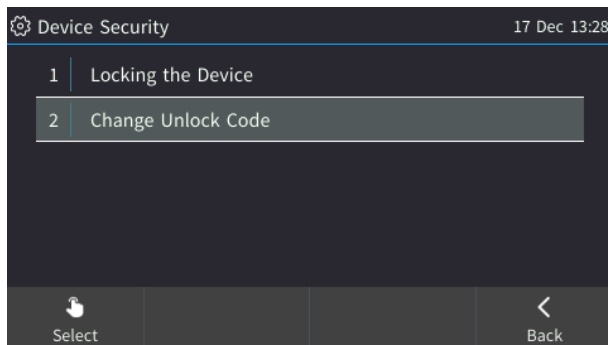
3. Enter the old code, press **OK** and when prompted for the new code, enter it, and confirm.
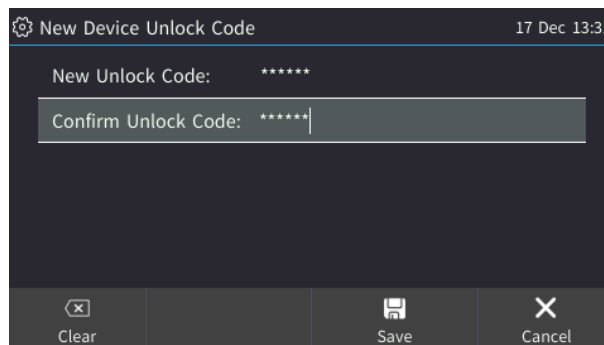
4. Press **Save**.

> ⚠️ **Note:** Emergency numbers (police, ambulance service, firefighting service, etc.) will still be available and dialable in the event the phone locks via a new **Emergency** softkey that is displayed after the lock takes effect.
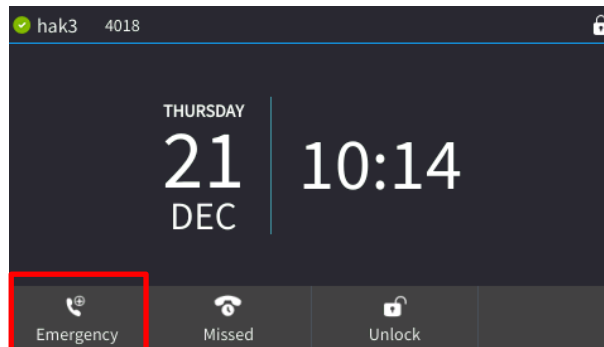
5.1   Manually Locking a Phone

If you leave your desk (for example), you can manually lock the phone to secure it against unwanted (mis)use by others while you're gone. While locked, it will be inaccessible to anyone who doesn't know its lock code.

➢ **To manually lock a phone:**

■ When the phone is idle, press the **Status** softkey and then in the Status screen, press the **Lock** softkey; the phone locks and an **Unlock** softkey is displayed in the idle screen.
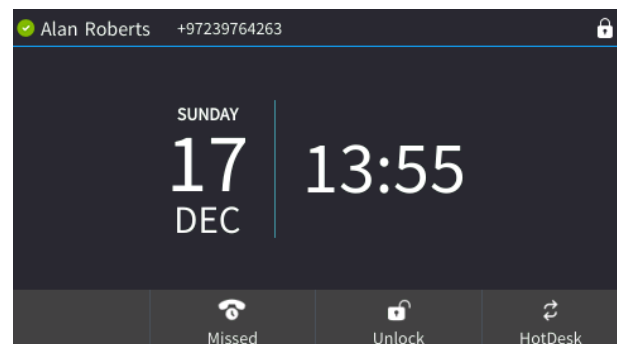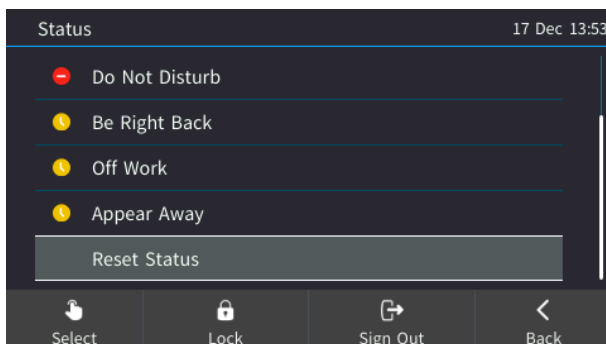
➢ **To unlock a phone that's been locked:**

> ⚠️ **Note:** You can unlock a phone that's been locked only if you know the lock code.

■ In the idle screen, press the **Unlock** softkey, enter the lock code that was entered as described here, and then press the **OK** softkey.

5.2   Dialing Emergency Numbers if the Phone is Locked

If the phone locks, emergency numbers such as for the police, ambulance service, firefighting service, etc., will still be available and dialable via an **Emergency** softkey that is displayed in the phone's idle screen after the lock takes effect.
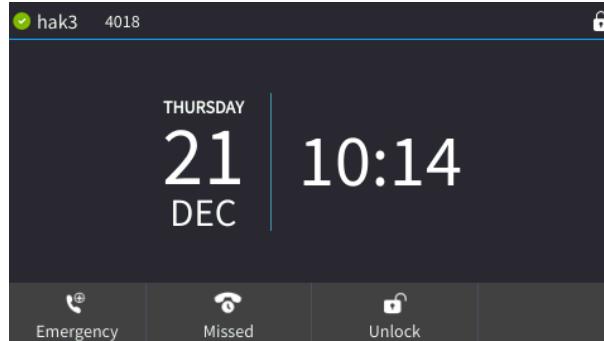
You can select an emergency number from a list of emergency destinations. A dedicated number for the police, ambulance service, fire fighting service, etc., can be selected from a list of options, for example:

Note: The network administrator must define these emergency numbers in the Skype for Business server for the feature to be available.

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6   Customizing the Phone

The phone lets you customize its interface to suit personal requirements for a friendlier user experience.

6.1   Changing the Language

The phone supports multiple languages. English is the default, but you can change it to any other.

➢   **To change the default:**

■   Open the Languages screen (MENU key > **Settings** > **Language**), navigate to and select the language you require and then press the displayed **Save** softkey.
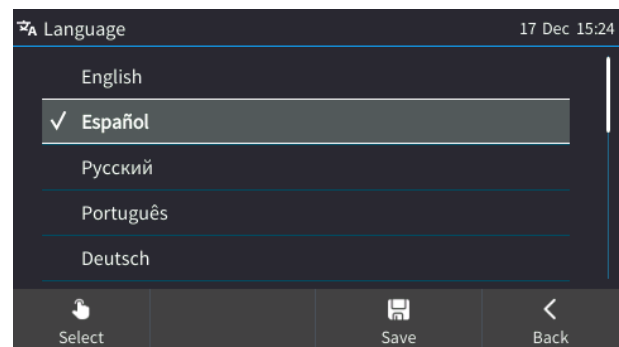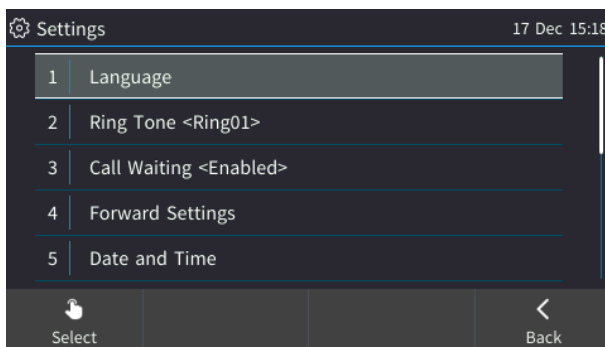
6.2   Selecting Ring Tone

A ring tone can be selected to suit personal preference from a range of ring tones, to alert you to incoming calls.

➢   **To select a ring tone:**

■   Open the Ring Tone screen (MENU key > **Settings** > **Ring Tone**) and then navigate to and select the ring tone of your choice and then **Save**.
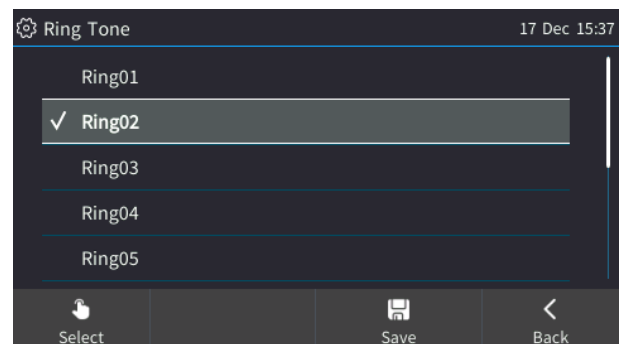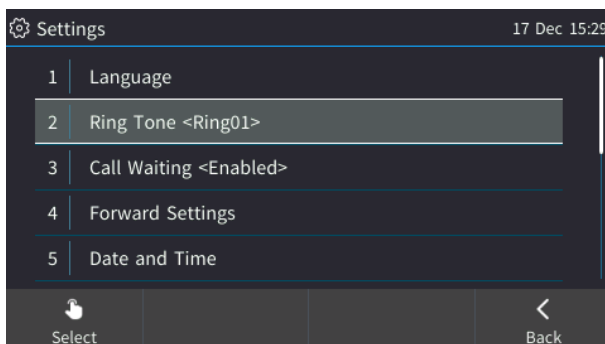
As you navigate down the list a sample of each ring tone is played.

6.3 Enabling Call Waiting

The phone lets you suspend a call that's in progress in order to accept another call coming in on the line.

> ➤ **To enable or disable call waiting:**

1. Open the Call Waiting screen (MENU key > **Settings** > **Call Waiting**), navigate to and select **Disable**, **Enable** or **Busy on Busy** (see Section 6.4.1) and then **Save**.

⚙ Settings	17 Dec 16:09
1 Language	
2 Ring Tone <Ring01>	
3 Call Waiting <Enabled>	
4 Forward Settings	
5 Date and Time	
👆 Select	‹ Back

⚙ Call Waiting	17 Dec 16:10
Disabled	
✓ Enabled	
Busy on busy	
👆 Select	‹ Back
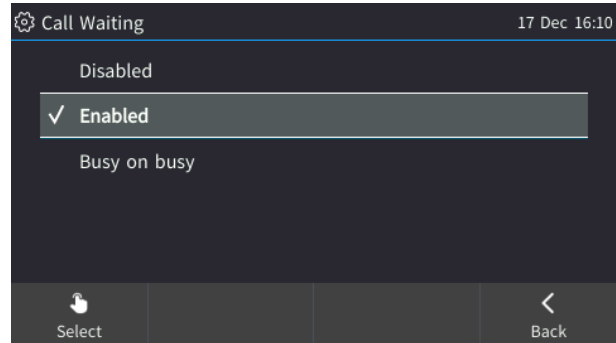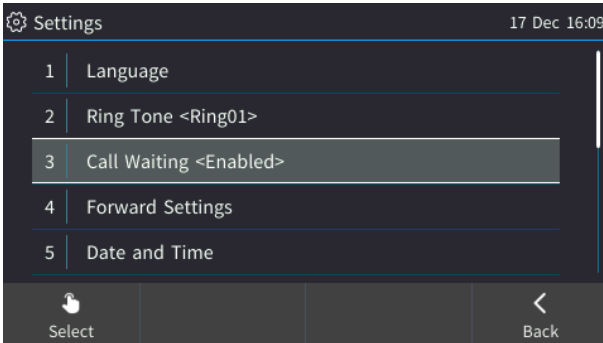
6.4 Handling Simultaneous Incoming Calls

If you're in a call and another party calls, or if two calls come in on your phone simultaneously, the phone's screen displays both calls in a way which facilitates easy and efficient handling.

■ Simultaneous incoming calls: Both calling parties flash.

✅ Alan Roberts	17 Dec 16:22
📞 Hilary	
📞 Donald	Incoming Call
	📞 **Hilary**
	+97239764697
📞 Accept	📞 New call	🔇 Silent	📧 To Voice mail
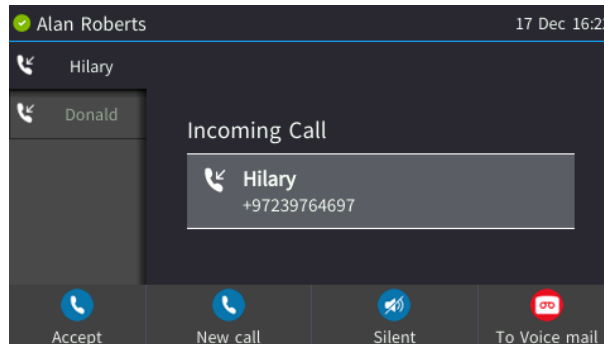
■ When one of the incoming calls is answered:

✅ Alan Roberts	17 Dec 16:22
📞 Hilary	
📞 Donald	Incoming Call
	📞 **Hilary**
	+97239764697
📞 Accept	📞 New call	🔇 Silent	📧 To Voice mail
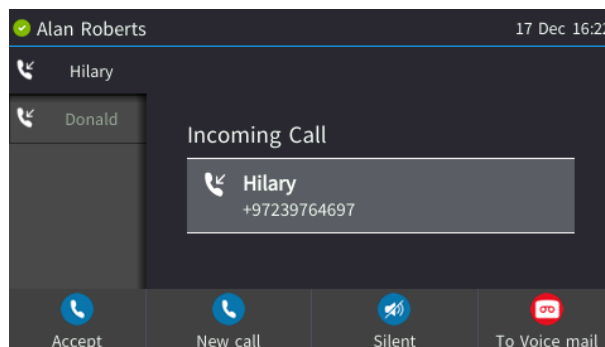
■   When a phone is in a call and another comes in:
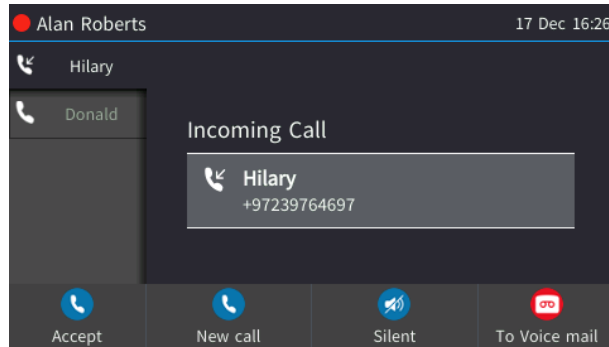
Visual indications on the phone are:
■   The LED of the programmable key that is configured as an extension flashes red when a call comes in on that extension
■   The LED of the programmable key that is configured as an extension is illuminated green after a call that comes in on that extension is answered
■   The Ring LED in the upper right corner of the device flashes blue when a call comes in

6.4.1   Configuring Busy on Busy

If you're already in a call and another call comes in on the phone or on the Skype for Business client, the Busy on Busy feature rejects the incoming call and plays a busy signal to the caller.

➢   **To configure Busy on Busy:**

■   Open the Call Waiting screen (MENU key > **Settings** > **Call Waiting**), select the **Busy on Busy** option and then **Save**.
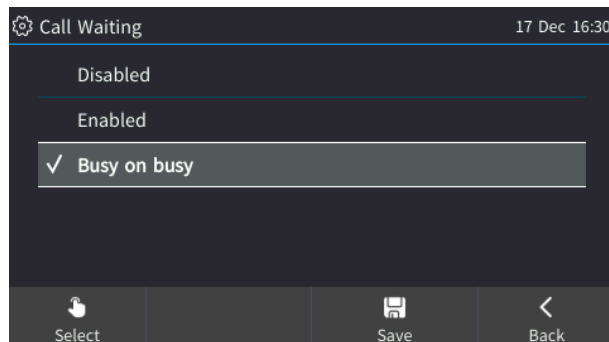
6.5   Activating Call Forwarding

Incoming calls can be automatically redirected to another phone number if (for example) the line is busy. By default, call forward is deactivated.

➢ **To activate call forwarding:**

1. Open the Automatic Forward screen (MENU key > **Settings** > **Forward settings** or press the **Forward** softkey when the screen is in idle state).
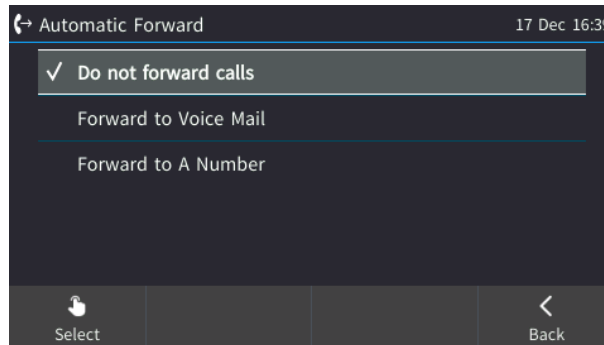
2. To forward to voicemail: Navigate to and select **Forward to Voice Mail** and then **Save**; calls will be redirected to voicemail.

3. To forward to a number: Navigate to and select **Forward to a Number**, enter the number and then **Save**; calls will be redirected to that number.
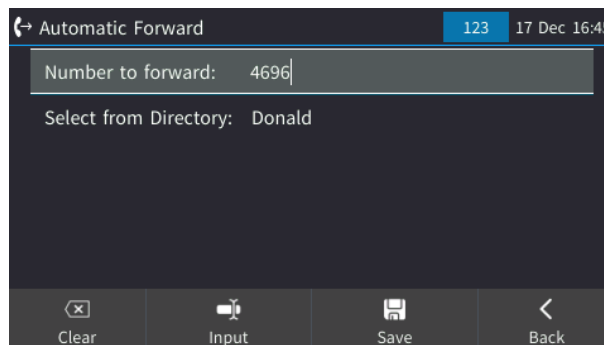
6.6   Making Sure the NTP Server is Enabled

Date and time are automatically retrieved from the deployed Network Time Protocol (NTP) server.

Note: If the phone's 'NTP server' setting is set to 'Disabled', inform the network administrator. Only the network administrator can change it. It must be set to 'Enabled' for date and time to be automatically retrieved from the NTP server.

➢ **To make sure the NTP server is enabled:**

1. Open the Date and Time screen (MENU key > **Settings** > **Date and Time**).
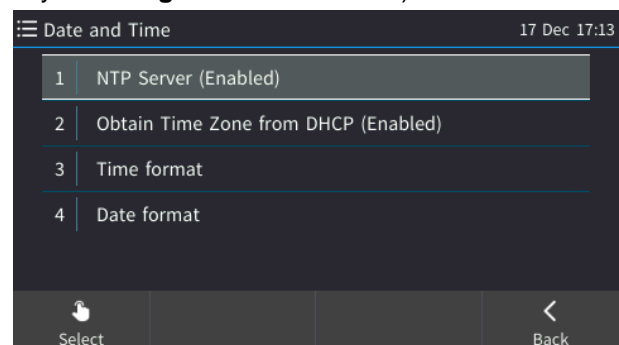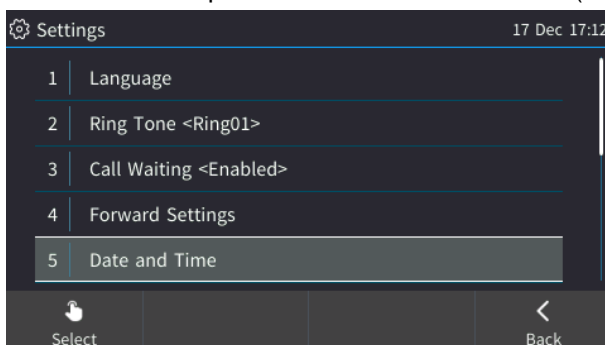
2. If not already 'Enabled', notify your network administrator.

➢ **To enable/disable obtaining time zone from the DHCP server:**

> ⚠ **Note:** If 'Obtain Time Zone from DHCP' is set to 'Disabled', inform the network administrator. Only the network administrator can change the setting on the phone because it is password secured.

➢ **To configure the time format:**

■ Navigate to and select the **Time format** option and then select the format of your choice.

⚙ Time format	17 Dec 17:42
12h	
✓ 24h	
👆 Select	‹ Back
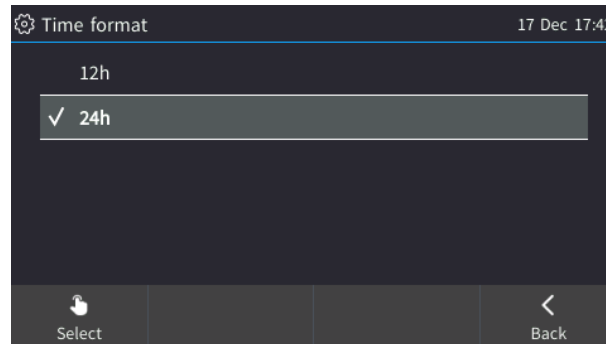
➢ **To configure the date format:**

■ Navigate to and select the **Date Format** option and select the format of your choice.

⚙ Date format	17 Dec 17:46
✓ European	
American	
👆 Select	‹ Back
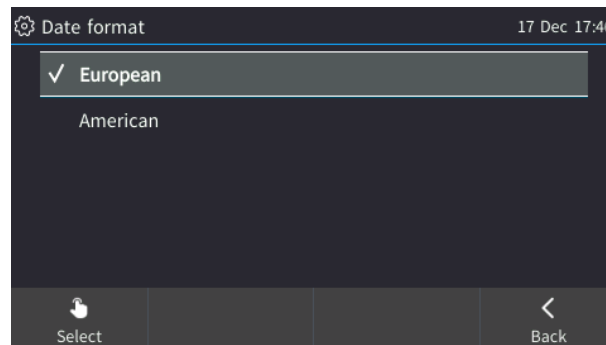
6.7 Configuring Screen Brightness

The screen can be configured to a level of brightness to suit personal preference, for a pleasant user experience.

➢ **To select a brightness level:**

1. Open the LCD Brightness screen (MENU hard key > **Settings** > **LCD Brightness**).

⚙ Settings	6 Feb 15:25
2	Ring Tone <Ring01>
3	Call Waiting <Enabled>
4	Forward Settings
5	Date and Time
6	LCD Brightness
👆 Select	‹ Back

☀ LCD Brightness	6 Feb 15:27
Active mode brightness:	◀ High ▶
Switch to dimmer mode after:	15 min
Dimmer mode brightness:	Medium
Switch to night mode after:	60 min
Night mode brightness:	Low
	‹ Cancel
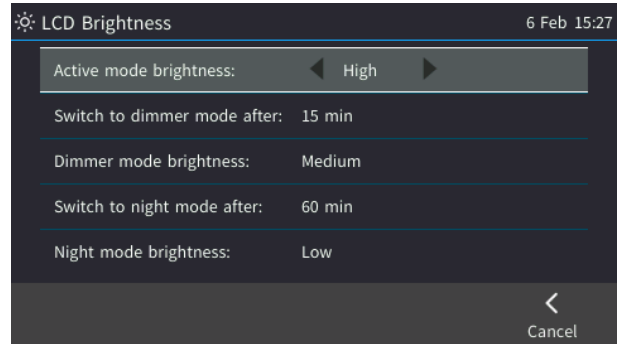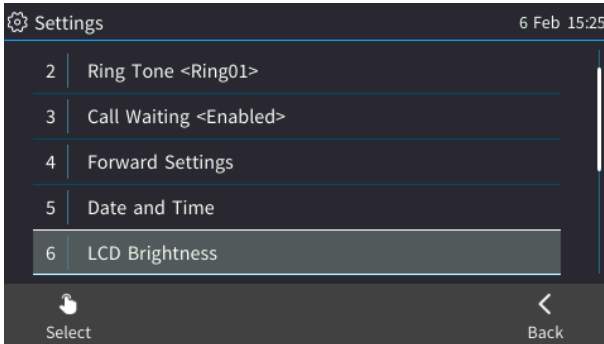
2. Navigate down to an option and then navigate to the level that suits you best. Use the table below as reference.

Table 6-1: Screen Brightness Options

LCD Brightness Option	Description
Active mode brightness	Defines the brightness of the screen when it's in 'active mode', which is for example after a calendar reminder pops up in your screen or when a call comes in or after you press a key on the dialpad. • Low • Medium • High (default)
Switch to dimmer mode after	Defines the timeout of 'active mode', in minutes. If it expires, the screen changes to 'dimmer mode' (see the next description). Configure either 15 (default), 30, 45 or 60 minutes. If your network administrator enabled Microsoft Skype for Business' online Power Save Mode feature, three Microsoft parameters apply: • EnablePowerSaveMode • PowerSaveDuringOfficeHoursTimeoutMS • PowerSavePostOfficeHoursTimeoutMS The second determines 'active mode' timeout if in working hours. The third determines 'active mode' timeout if in non-working hours. Consult your network administrator for more information.
Dimmer mode brightness	Defines the brightness of the screen when it's in 'dimmer mode'. The screen changes to 'dimmer' mode after the timout configured for 'active mode' expires (see above). You can configure either: • Low • Medium (default) • High

LCD Brightness Option	Description
Switch to night mode after	Defines the timeout of 'dimmer mode', in minutes. If it expires, the screen changes to 'night mode'. Configure either 30, 60 (default), 90 or 120 minutes.
	If your network administrator enabled Microsoft Skype for Business' online Power Save Mode feature, three Microsoft parameters apply: (1) Enable/Disable (2) Timeout during work hours and (3) Timeout when out of the office. The third determines how much time in 'dimmer mode' must pass before the screen switches to 'night mode' The screen never switches to 'night mode' when you are in the office. In the morning, when working hours start, the screen automatically switches from 'night mode' to 'dimmer mode'. The phone gets your work hours from Microsoft Exchange server, configured by your network administrator. Consult your network administrator for more information.
Night mode brightness	Defines the brightness of the screen when it's in 'night mode'. The screen changes to 'night mode' after the timeout configured for 'dimmer mode' expires (see above). You can configure either: • Low (default) • Medium • High

3. Save the setting.

6.8   Selecting an Answering Device

You can select the speaker or the headset to be activated when you answer calls. The default is the speaker. This means that when you press the **Accept** softkey to answer a call, or when you dial another party by pressing the number keys on the keypad and then pressing the **Dial** softkey, the default device will be the speaker.

➢   **To change the default:**

■   Open the Answer Device screen (MENU key > **Settings** > **Answer Device**), navigate to and select **Headset** and then **Save**.
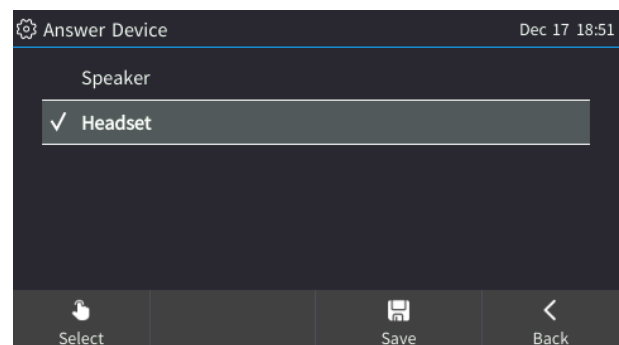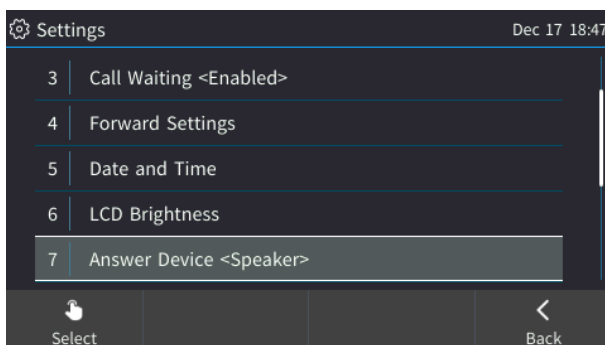
6.9 Configuring Location

This feature allows a called party to identify the geographical location of the calling party. For example, if a caller in the U.S. makes an emergency call to E911, the feature extracts the caller's information for the police department to immediately identify the caller's location.

The network administrator configures geographical location for each subnet (see the *Administrator's Manual*). After you sign in, your geographical location is downloaded via inband provisioning.

> **Note:** If geographical location is not provisioned by the server, you're notified as shown in the figure below.
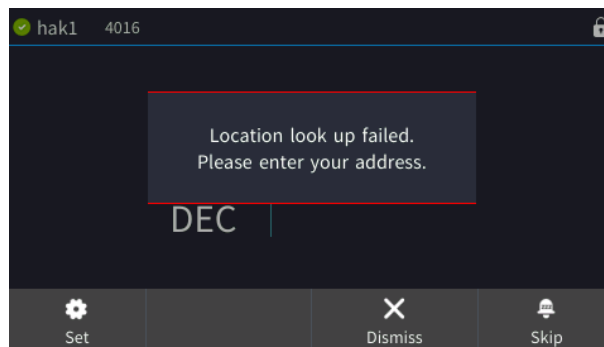
■ Either **Set** the location manually, **Skip** (the popup closes but pops up every few hours), or **Dismiss** ('kills' the notification).

➢ **To manually configure location:**

■ Open the Location screen (MENU key > **Settings** > **Location**).
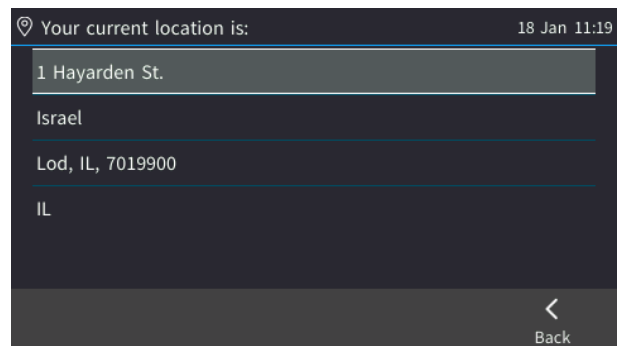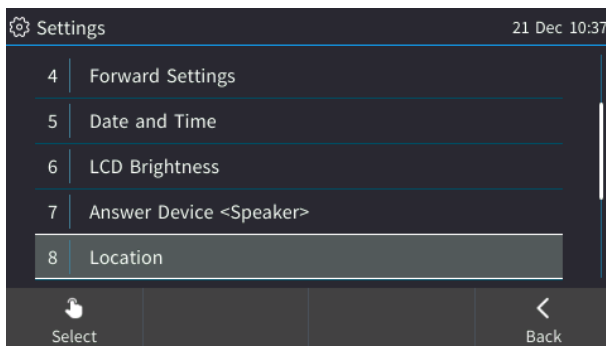
6.10 Uploading Logs to MS Server for Support

An integrated log upload feature lets you upload logs from the phone to the Microsoft server for troubleshooting and support, in compliance with Microsoft's certification requirements for 3rd party Skype for Business clients. If a user experiences an irregularity such as poor voice quality, they'll contact an AudioCodes Field Application Engineer (FAE) who will instruct them to upload and send logs for analysis. The FAE will then download the logs to their PC, perform the analysis, and provide a fix.

➢ **To upload logs:**

■ Select MENU key > **Settings** > **Log Upload**
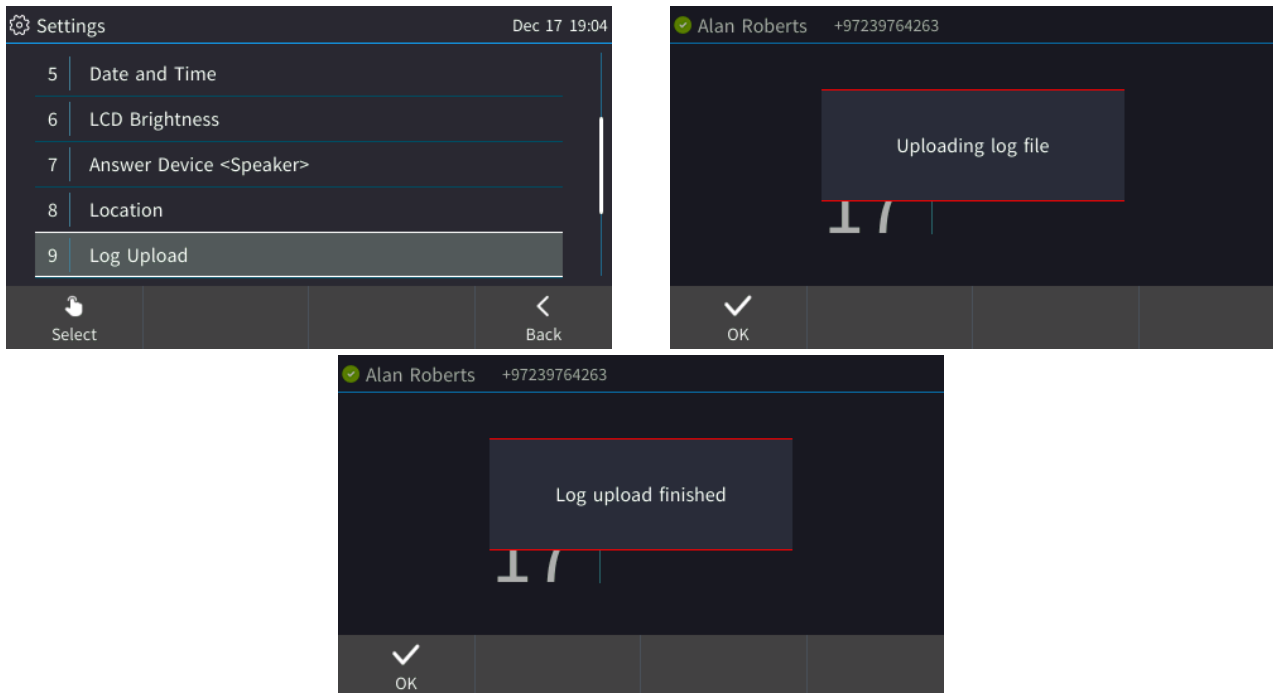
6.11 Configuring an Outbound Proxy

Skype for Business Server Multitenant Hosting Pack is a Microsoft® Unified Communications (UC) hosting solution for telecommunications and hosting providers. The solution enables Microsoft hosting partners to deploy a single instance of the Skype for Business Server software to securely and economically host multiple tenants with a rich, fully integrated UC solution.

To connect AudioCodes' Skype for Business-compatible phone to a hosted Lync environment (LHP), a dedicated 'Out0062ound Proxy' parameter is available which is used to configure the hosted service provider's domain name (FQDN).

> **Note:** In hosted environments, it's common practice for this hosted domain name to be different to the enterprise's domain name. See also the *400HD Series IP Phones for Skype for Business Hosting Partner (LHPv2) Environment Configuration Note*.

To configure a phone for an LHP environment, the Outbound Proxy address must be configured as the hosted Service Provider's domain name (FQDN).

➢ **To configure the address of the Outbound Proxy:**

1. Open the Outbound Proxy screen (MENU key > **Settings** > **Outbound Proxy**).
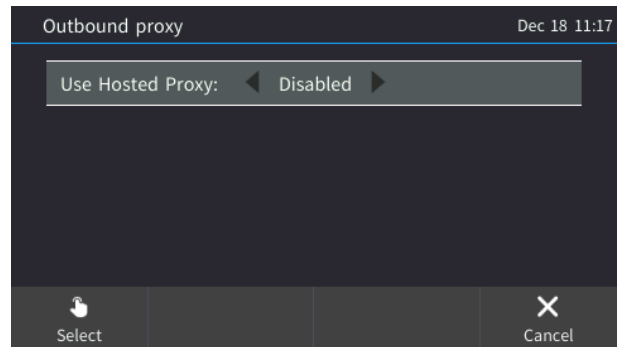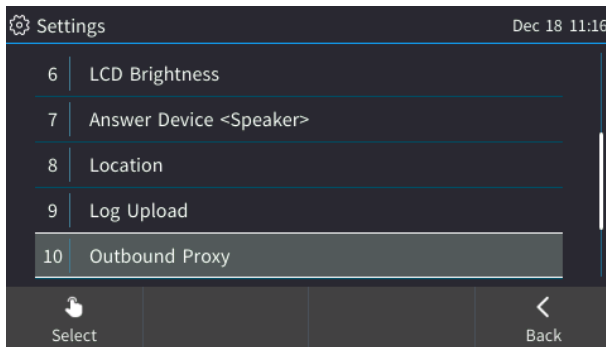
2. Navigate to and select **Enabled** in the 'Use Hosted Proxy' field**.**
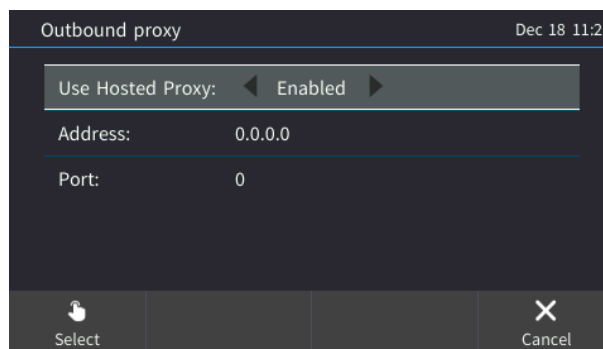
3. In the 'Address' field enter the hosted Service Provider's domain name (FQDN).
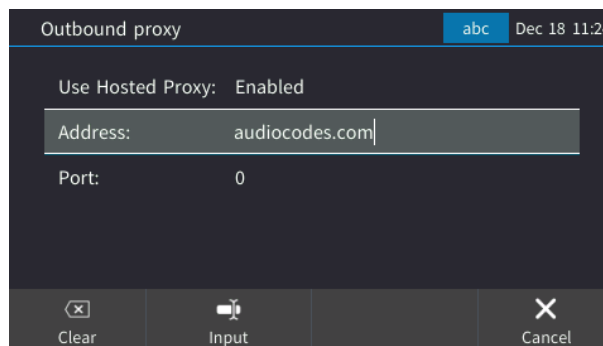
4. Navigate down to the 'Port' field, configure it (Default: **0**), and then **Save**.
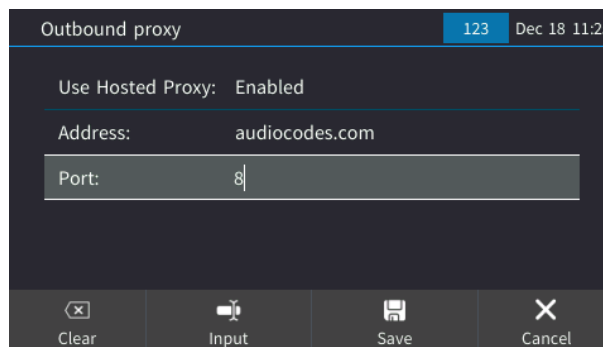
6.12   Adjusting Volume

The phone allows you to adjust

- Ring volume
- Tone volume (e.g., dial tone)
- Handset volume
- Speaker volume
- Headset volume

6.12.1   Adjusting Ring Volume

The volume of the phone's ring alerting you to an incoming call can be adjusted to suit personal preference.

➢ **To adjust ring volume:**

1. When the phone is in idle state, press the VOL ▲ or VOL ▼ key on the phone; the Ringer Volume bar is displayed on the screen:
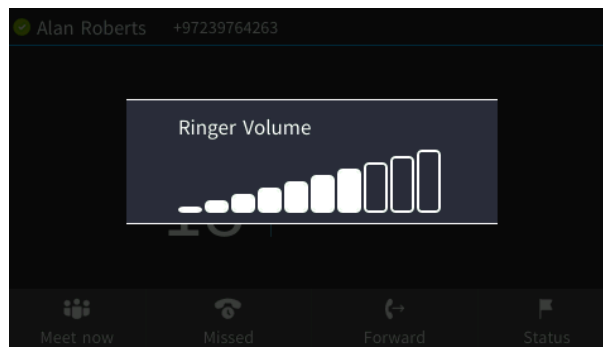
2. After the adjustment, the Ringer Volume level disappears from the screen.

6.12.2   Adjusting Tone Volume

The phone's tones, including dial tone, ring-back tone and all other call progress tones, can be adjusted to suit personal preference.

➢ **To adjust tones volume:**

1. Off-hook the phone (using handset, speaker or headset).
2. Press the VOL ▲ or VOL ▼ key; the Tones Volume bar displays on the screen:
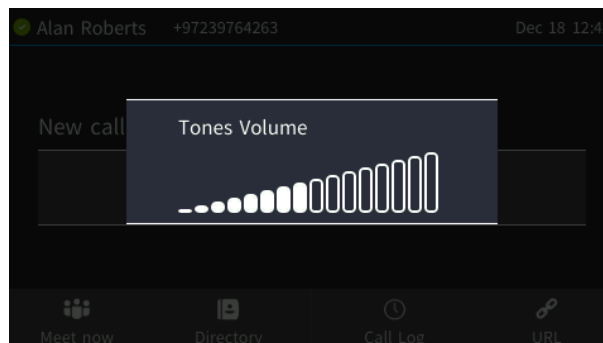
3. After the adjustment, the Tones Volume bar disappears from the screen.

6.12.3   Adjusting Handset Volume

The volume of the handset can be adjusted to suit personal preference. The adjustment is performed during a call or when making a call. The newly adjusted level applies to all subsequent handset use.

➢ **To adjust handset volume:**

1.   During a call or when making a call, make sure the handset is off-hook.

2.   Press the VOL ▲ or VOL ▼ key; the Handset Volume bar is displayed on the screen.
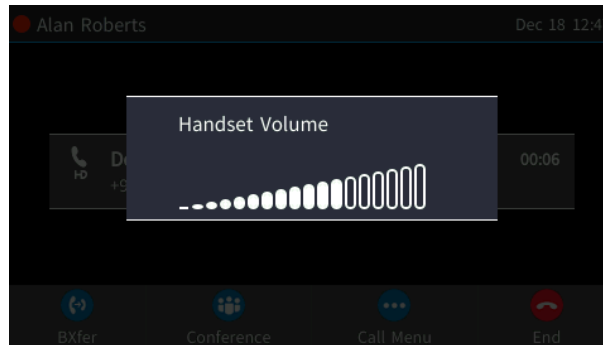
3.   After the adjustment, the Handset Volume bar disappears from the screen.

6.12.4   Adjusting Speaker Volume

The volume of the speaker can be adjusted to suit personal preference. It can only be adjusted *during a call*.

➢ **To adjust the speaker volume:**

1.   During a call, press the SPEAKER key on the phone.

2.   Press the VOL ▲ or VOL ▼ key; the Speaker Volume bar is displayed on the screen.
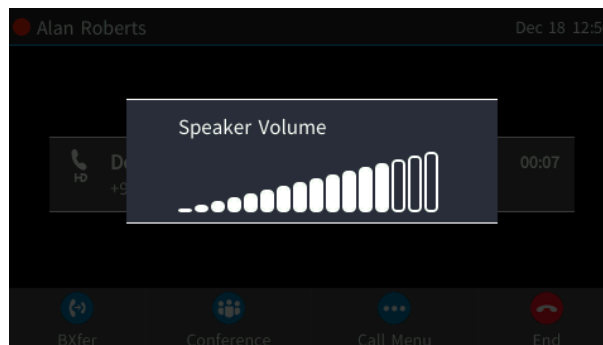
3.   After the adjustment, the Speaker Volume bar disappears from the screen.

6.12.5 Adjusting Headset Volume

The volume of the headset can be adjusted to suit personal preference. It can only be adjusted *during a call*.

➢ **To adjust the headset volume:**

1. During a call, press the HEADSET key on the phone.

2. Press the VOL ▲ or VOL ▼ key on the phone; the Headset Volume bar is displayed on the screen.
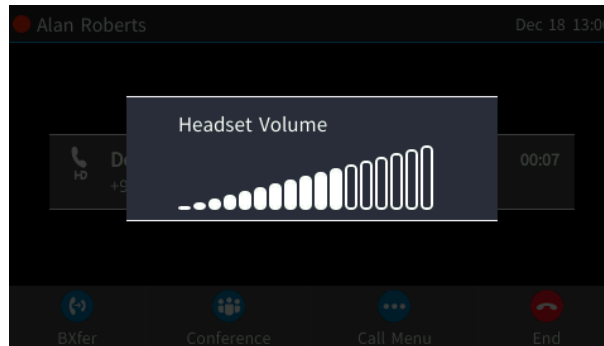
3. After the adjustment, the Headset Volume bar disappears from the screen.

6.13 Managing Phone Directories

The phone supports a number of directories:

■ Favorites (integrated with Skype for Business client)
■ Corporate directory
■ Personal directory
■ Outlook Contacts
■ Others

> **Note:**
>
> • You can add, edit and delete contacts in the Personal directory. You *cannot* in the Corporate directory.
>
> • You can add a maximum of 1,000 contacts to your Personal directory. After adding a contact, you can call the contact directly from the directory. If you receive an incoming call from a contact listed in the directory, the screen displays the name listed.
>
> • The Personal directory and Corporate directory display the presence status of contacts if your network administrator set them up in the Microsoft Skype for Business server (see the *Administrator's Manual* for more information*).*
>
> • If you assign a speed dial key to a contact, you can press it to call them.

6.13.1 Accessing Directories

All directories can be accessed from the CONTACTS key on the phone.

➢ **To access the Skype for Business client Favorites directory:**

■ Press the CONTACTS key on the phone.
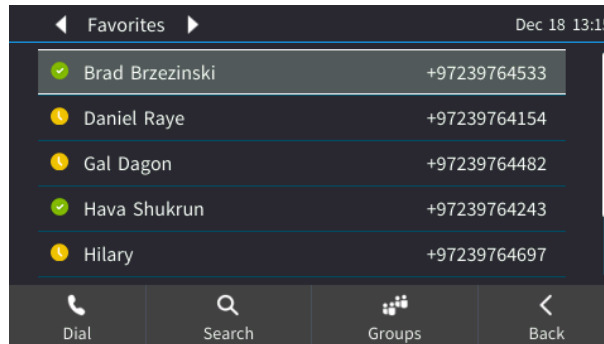
➢ **To access other directories:**

■ In the Favorites screen shown above, press the **Groups** softkey and select the directory of your choice.
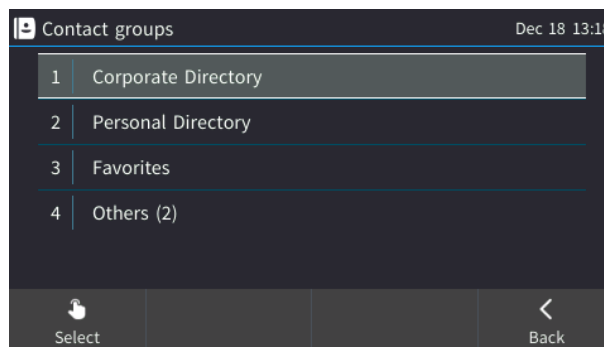
6.13.2 Adding a Contact to the Personal Directory

The home number, office number, mobile number and/or SIP URI of a contact can be added to the Personal Directory. You can also configure a speed dial to place calls quickly to the contact (see Section 6.14). After adding the contact, you can search for them in the group, dial them, edit their contact information or delete them.

➢ **To add a contact to the Personal directory:**

1. Open the Personal directory (CONTACTS key > **Personal Directory**).
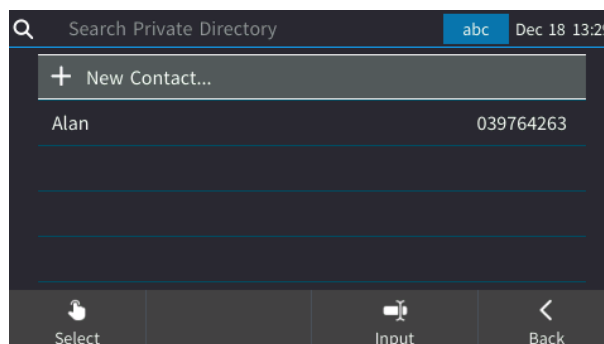
2. Select **+ New Contact**.
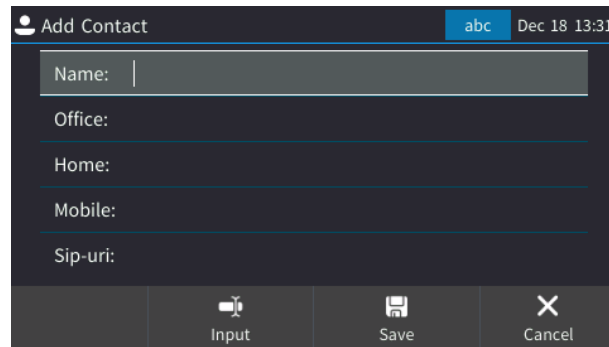
3. In the 'Add Contact' screen, key in the 'Name' of the new contact.

4. Navigate down and key in the new contact's office phone number.

5. [Optionally] Navigate down and key in the new contact's home and mobile numbers as well.

6. [Optionally] Navigate down and enter their SIP URI, e.g., mike.dubb@audiocodes.com. This option can be useful to you if you don't know their phone number.

7. Press the **Sp. Dial** softkey to assign a speed dial key if required.
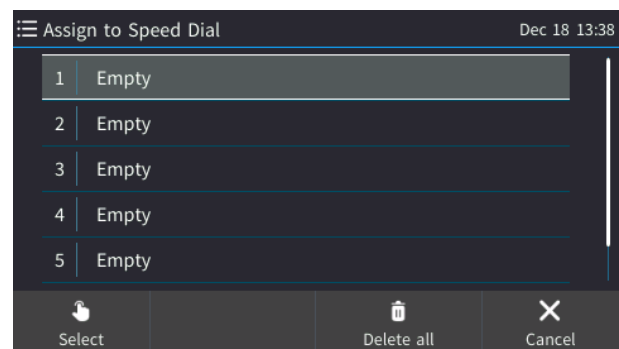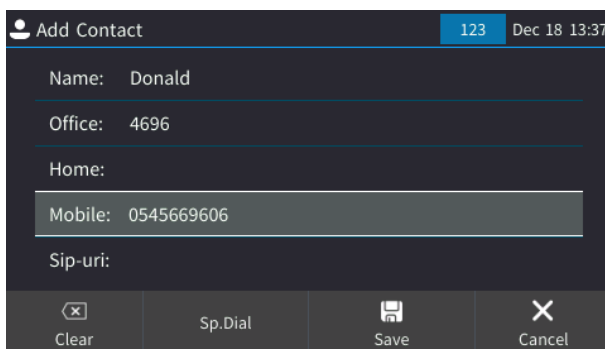
8. Navigate to and select the first 'Empty' speed dial, and then save it; the speed dial key is displayed in the phone's sidecar.

6.13.3 Editing Contact Information

Information about a contact in the Personal directory can be edited. This is important if a contact changes their phone number, for example.

➢ **To edit contact information:**

1. Open the Personal directory and navigate to the name of the contact whose information you want to edit.
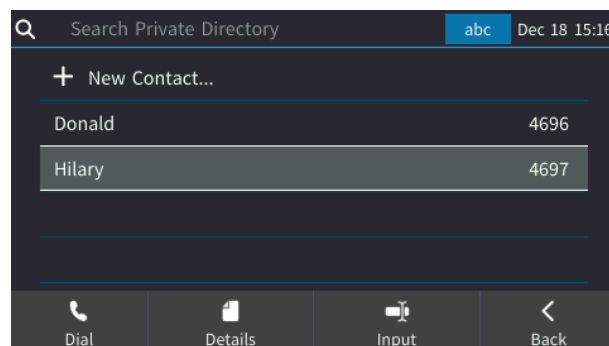
2. Press the **Details** softkey.
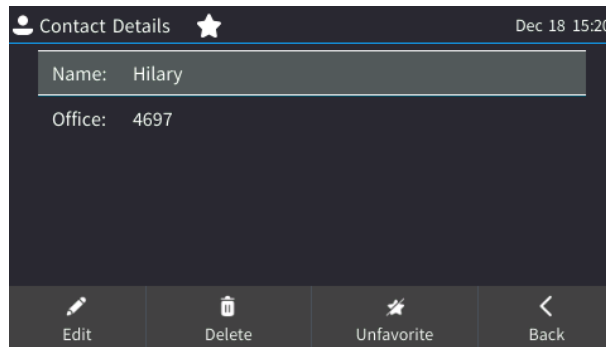
3. Press the **Edit** softkey.
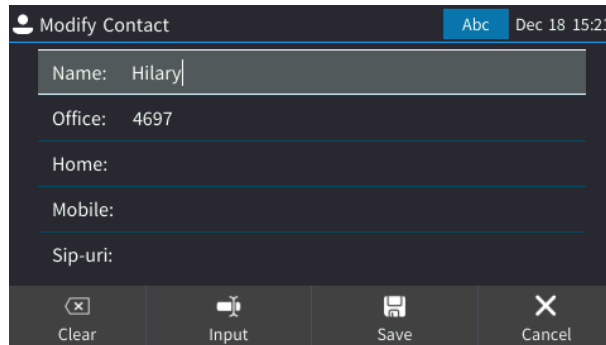
4. Edit the contact's details and **Save**.

> **Note:** The Corporate directory cannot be modified.

6.13.4 Deleting a Contact from the Personal Directory

Contacts can be deleted from the Personal directory. This can be necessary if they leave the company, for example.

➢ **To delete a contact:**

1. Open the Personal directory and navigate to the contact to delete.
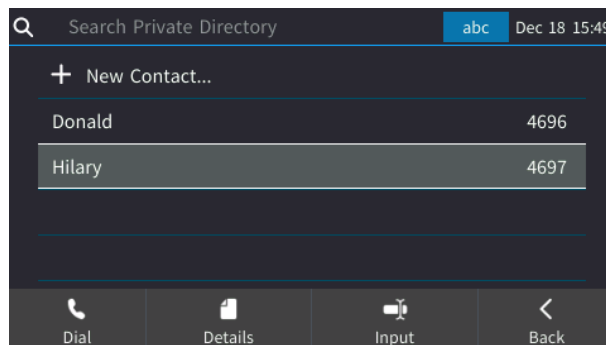
2. Press the **Details** softkey.
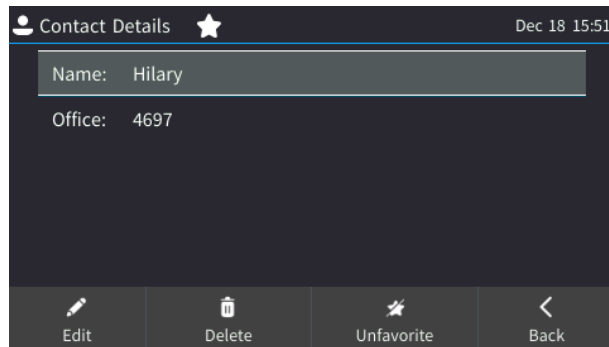
3. Press the **Delete** softkey; a 'Delete current contact?' warning message appears:
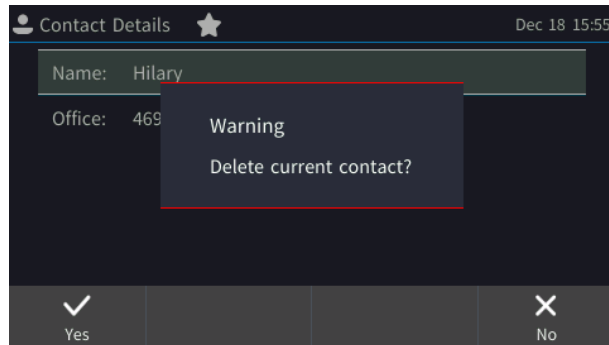
4. Press the **Yes** softkey to remove the contact from the phone directory or **No** if you want to keep the contact in the directory.

> **Note:** Corporate directory contacts cannot be deleted.

6.13.5 Adding a Person to Favorites from the Call Log

A person can be added to the Favorites directory after a call with them is logged in the phone's Call Log.

Note: A maximum of 1,000 people can be added to the Favorites directory.

➢ **To add a person to the Favorites directory from the Call Log:**

1. Open the Call Log (MENU key > **Call Log**).
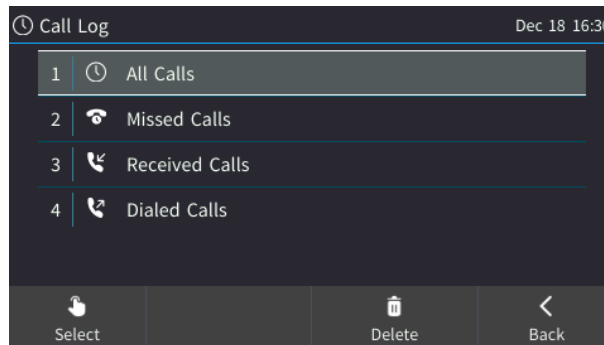
2. Select the log and in it, select the logged person.
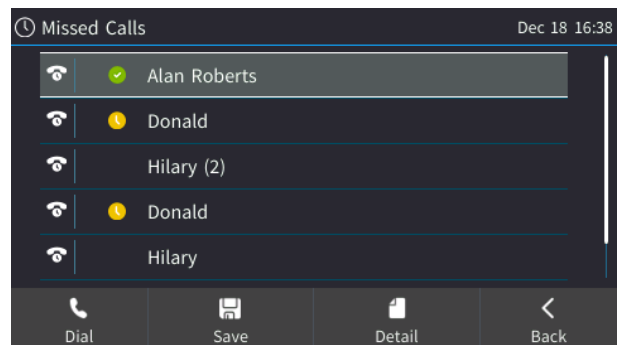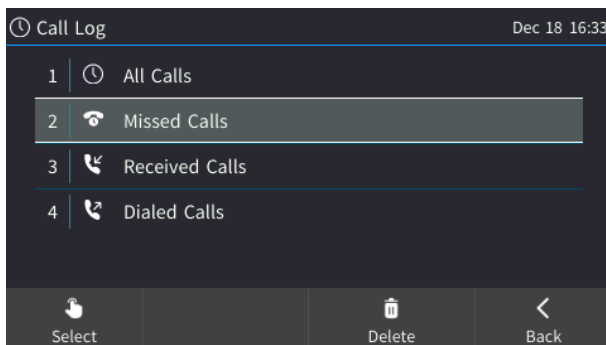
3. Press the **Detail** softkey.
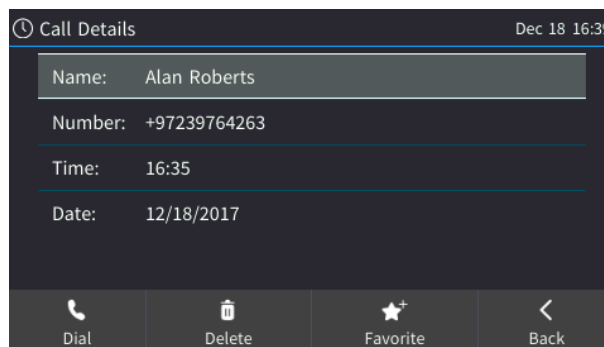
4. Press the **Favorite** softkey.
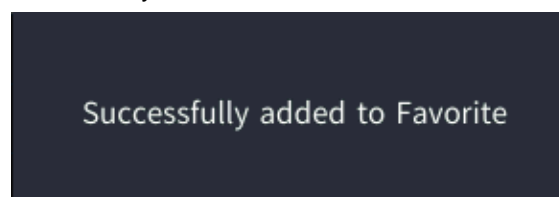
> **Note:** You can also add a person to the Favorites directory from the Corporate Directory, Outlook Contacts, Personal Directory and (User) Groups, through the 'Contact Details' screen's **Favorite** softkey, shown in the example below.
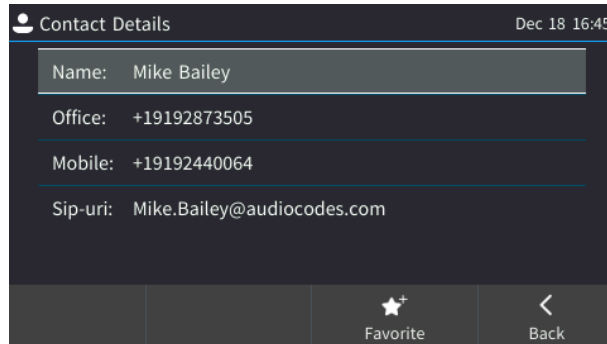
6.13.6   Removing a Person from Favorites

A person can be removed from the Favorites directory. This can be necessary if they move departments in the company and you no longer interface with them, for example.

➢ **To remove a person from the Favorites directory:**

1. Open the Favorites directory (MENU key > **Favorites**).
2. Navigate to the person to remove and then press the **OK** navigation control button on the phone.
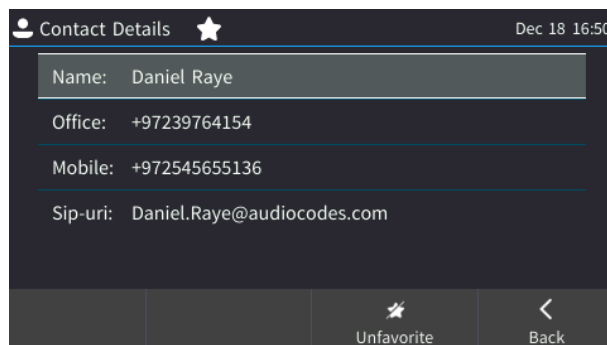
3. In the Contact Details screen, press the **Unfavorite** softkey.

6.13.7   Searching for a Contact in the Personal Directory

The search feature enables you to quickly and easily locate a contact in a directory. The feature increases user productivity, especially if you have a long list of contacts.

> **Tip:** Use the **T9** feature when searching in the Corporate Directory. See here for details.

➢ **To search for a contact in the Personal Directory:**

■ Open the Personal Directory and then

    a. Navigate down to the contact in the list
       or (if the directory is large)

    b. Key the first letter of the contact's name, for example, **J**, to search for **Jonathan**.
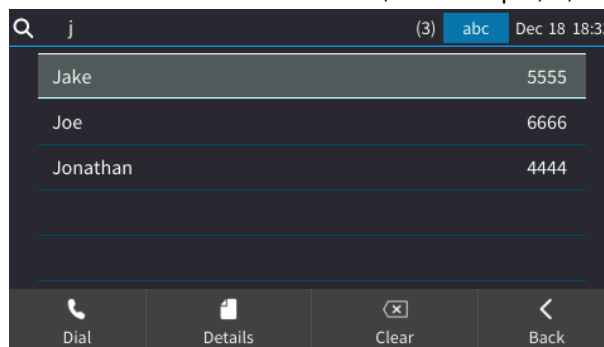
    c. Key the next letter, **o**.
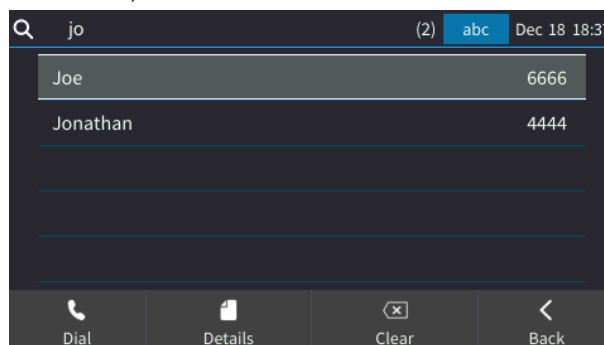
    d. Key the next letter (if necessary), **n**.
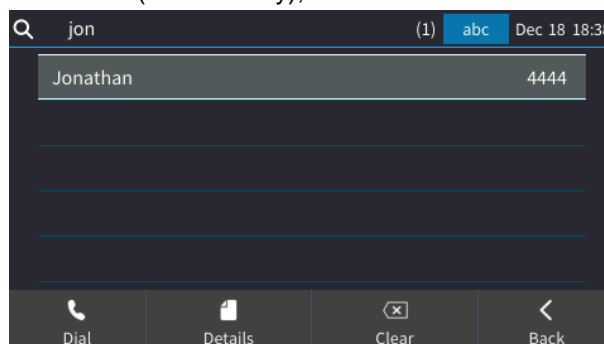
6.13.8   Searching for a Contact in the Corporate Directory using T9

The T9 (Text on 9 keys) feature lets you press the **2** key, for example, to input the letter **C**. You only need to press it once. So to input **Charles** you'd press **2427537**. T9 supports predictive search, so as letters are entered, possibilities are displayed. If the name **Alex**, for example, appears multiple times in the directory, users can enter **alex** space * and then the first letter of the family name.

> **Note:** The feature only applies to searching for a contact in the Corporate Directory.

➢   **To access a contact in the Corporate Directory using T9:**

1.   Open the Corporate Directory (CONTACTS key > **Groups** > **Corporate Directory**).
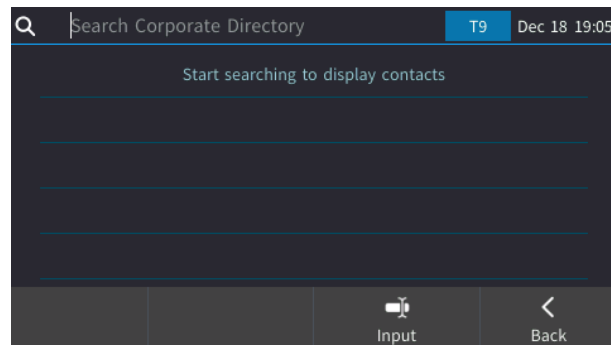
2.   **T9** input is selected by default so just press the key containing the first letter in the contact's name, for example, press the **2** key containing **A**, for **Alan**. Then press the **5** key containing the second letter, **L**. *You only need to press it once.* Then press the **2** key containing the third letter, **A**. If necessary, press the **6** key containing the fourth letter, **N**. *You only need to press it once.*
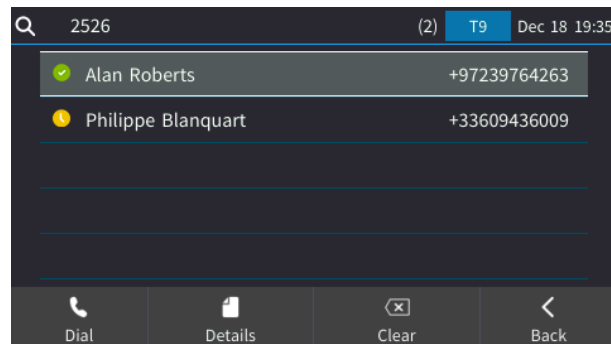
3.   [If necessary] Press the * key to enter a space and then enter the first letter of the family name.

6.13.8.1 Changing from T9 Input to A/a/1 Input

You can search for a contact in the Corporate Directory using A/a/1 input instead of T9 (default) input.

➢ **To change from the default T9 input to A/a/1 input:**

1. Open the Corporate Directory (CONTACTS key > **Groups** > **Corporate Directory**) and then
   - press the **Input** softkey
     or
   - press the **#** key on the phone
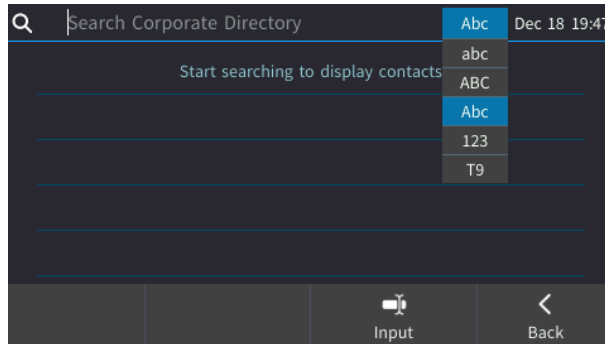
2. Successively press the **Input** softkey or the **#** key on the phone to navigate to the alphanumerical option you require.

6.14   Configuring a Function Key for Speed Dialing

Each of the 12 Function Keys on the phone's sidecar can be configured as a speed dial. Each lets you place a call to a contact at the press of a sidecar button.

> **Note:**
> - Speed dials can also be configured when adding a contact – see here for details.
> - Five programmable keys can also be configured as speed dials – see here for details.

Speed dials are private. They're for each user's own personal use. They're preserved even if you sign out, sign in as another user, sign out as that user, and then sign in again as your own user.

➢ **To configure a Function Key as a speed dial:**

1. Open the Function Keys screen (MENU key > **Keys** > **Function Keys** or long-press one of the 1-12 sidecar buttons).
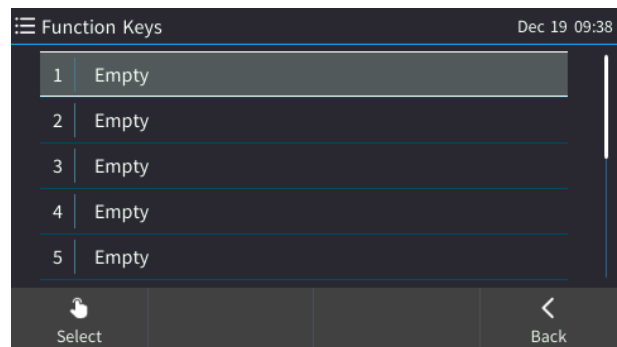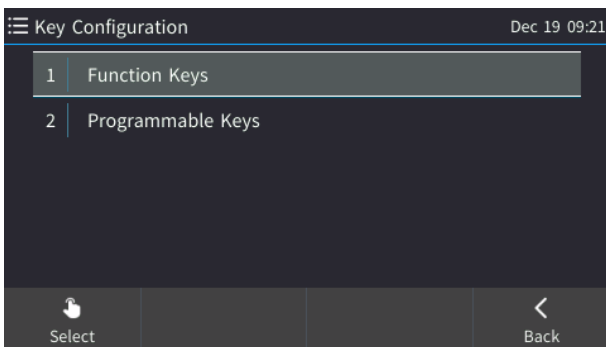
2. Navigate to and select an empty (unconfigured) Function Key.
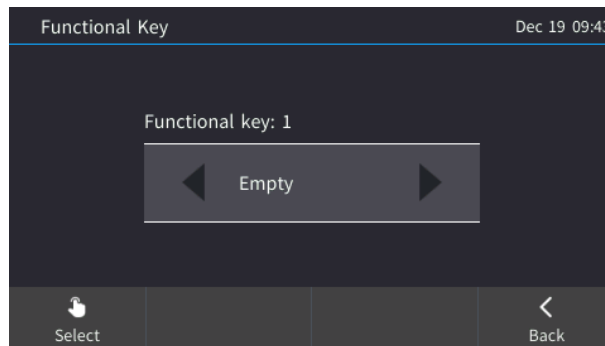
> **Note: Function Key 1** is uppermost on the sidecar, **Function Key 12** is lowermost.

3. Navigate to and select **Speed Dial** or **Speed Dial + BLF**.
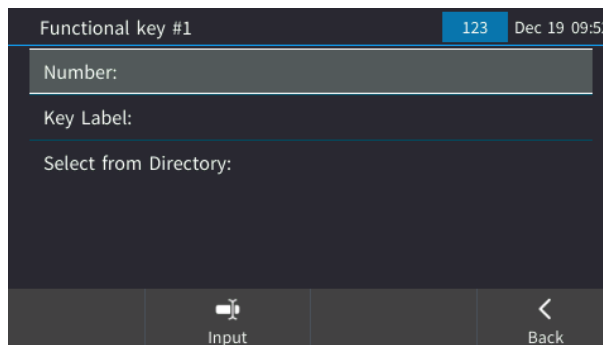
4. Enter the number of the contact or select the contact from a directory.

5. Enter a Key Label – the name of the contact to be displayed on the sidecar.

6. Press the displayed **Save** softkey.

6.14.1 Configuring Pause Dialing for a Speed Dial to an Ext. behind an IVR

The 'Pause Dialing' feature creates a time break typically requried for a speed dial to a destination extension number that is behind an Interactive Voice Response (IVR) system.

> **Note:** Your network administrator will configure 'Pause Dialing' if you need to configure a speed dial to a number behind an IVR system. See the *Administrator's Manual* for more information.

6.14.2 Editing a Speed Dial

Editing a speed dial will usually be necessary if a contact's phone number changes.

> **To edit a speed dial:**

1. Long-press the sidecar button next to the contact's speed dial and then **Select**.
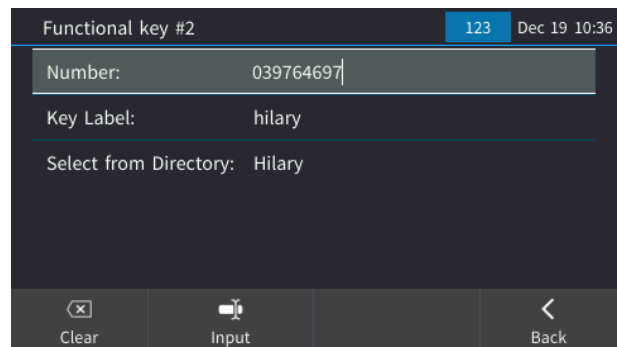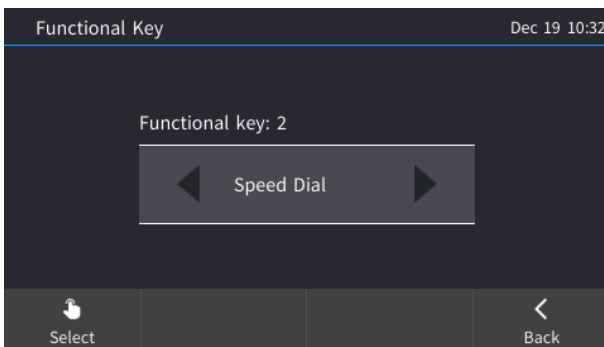
2. In the 'Number' field of the Function Key screen, press the **Clear** softkey to delete digits.

3. Navigate to the 'Key Label' field and edit by pressing the **Clear** softkey to delete letters.

4. Save the edit.

6.14.3 Deleting a Speed Dial

Deleting a speed dial will typically be necessary if a contact leaves the company.

> **To delete a speed dial:**

■ Long-press the sidecar button next to the speed dial to delete, navigate to 'Empty' and then press the **Select** softkey.
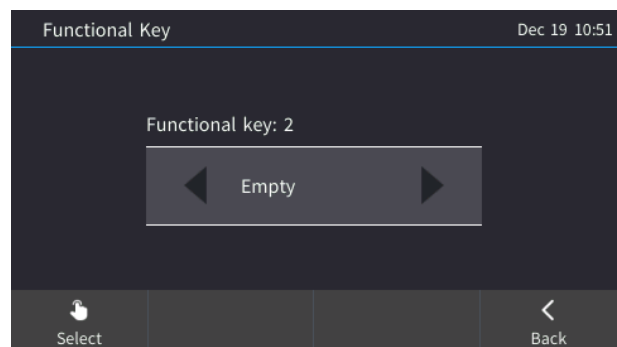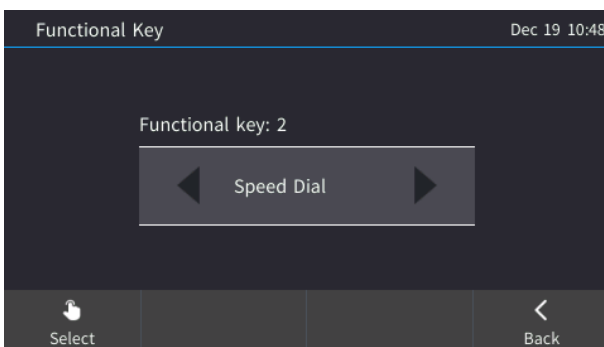
6.15   Configuring a Function Key for Paging

Each of the 12 Function Keys on the sidecar can be configured to page a group. The feature allows live announcements to be made (paged) from a phone to a group of phones, to notify a team (for example) that a meeting is about to commence. The paged announcement is multicast via a designated group IP address, in real time, on all idle phones in the group, without requiring listeners to pick up their receivers. Listeners view the name of the group displayed on their sidecar when the paging call comes in.

> **Note:** By default disabled, the feature must first be enabled by the network administrator. Consult the network administrator if you need it. See the *Administrator's Manual* for more information.

➢   **To configure a Function Key as a paging dial:**

1.   Long-press a button on the phone's sidecar and then navigate to and select **Paging**.

Functional Key	Dec 19 12:02
Functional key: 1	
◄ Empty ►	
Select	Back

Functional Key	Dec 19 11:57
Functional key: 1	
◄ Paging ►	
Select	Back

Functional key #1	abc Dec 19 12:07
Group Name:	
Key Label:	
Multicast Address:	224.0.1.0
Multicast Port:	8888
Input	Save	Back
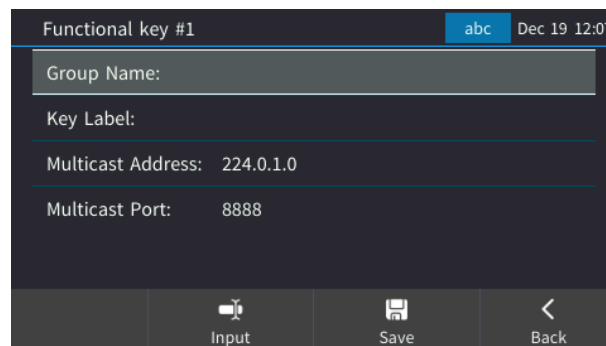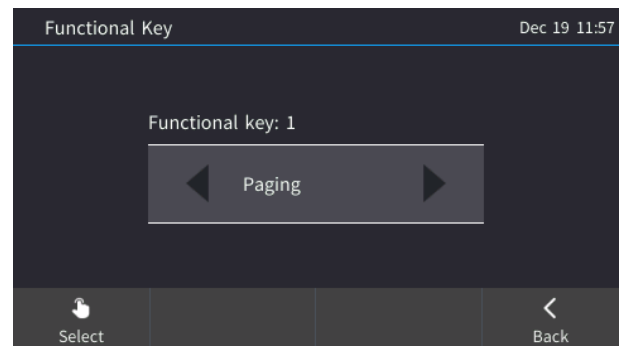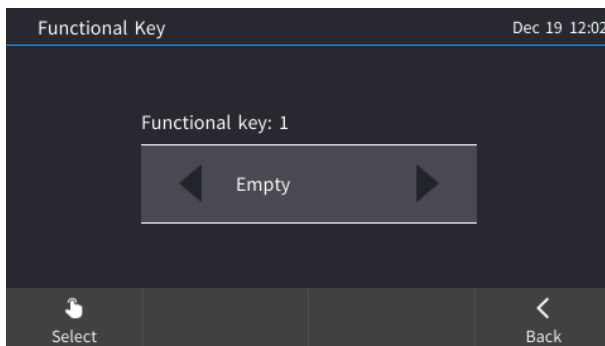
> **Note:** The screen can alternatively be accessed via the MENU key > **Keys** > **Function Keys** > select **'Empty'** > navigate to and select **Paging**.

2.   In the 'Group Name' field, enter the name of the group, to be displayed in the phone's screen when there's an incoming / outgoing paging call.

3.   In the 'Key Label' field, configure the paging group name to be displayed in the phone's sidecar.

4.   In the 'Multicast Address' field, enter the paging group's multicast IP address. Default: 224.0.1.0. For phones to be in a group, all must be configured with the identical multicast address.

5.   In the 'Multicast Port' field, enter the group's port. Default: 8888. For phones to be in a group, all must be configured with the same port.

6.   Save the configuration.

6.16   Configuring a Programmable Key for Speed Dialing

Six programmable keys are located on either side of the phone screen, three on each side. Each can be configured as a speed dial, exactly the same as the 12 Function Keys. A total of 18 speed dials can therefore be configured on the phone: Twelve Function Keys + six programmable keys.

➤ **To configure a programmable key for speed dialing:**

1. Long-press one of the 1-6 programmable keys and then navigate to and select **Speed Dial** or **Speed Dial+BLF**.

Programmable Key Dec 20 12:13	Programmable Key Dec 20 12:21
Programmable key: 1	Programmable key: 1
◀ Empty ▶	◀ Speed Dial + BLF ▶
Select Back	Select Back

Programmable key #1   123   Dec 20 12:30
Number:
Key Label:
Select from Directory:
Input   Back

> ⚠ **Note:** The screen can alternatively be accessed via MENU key > **Keys** > **Programmable Keys** > select **'Empty'**.

2. Configure the 'Number' and 'Key Label' field or navigate down to **Select from Directory**, and then **Save**.

🟢 Alan Roberts   +97239764263
🟡 hilary
WEDNESDAY DEC 20 12:41
Meet now   Missed   Forward   Status
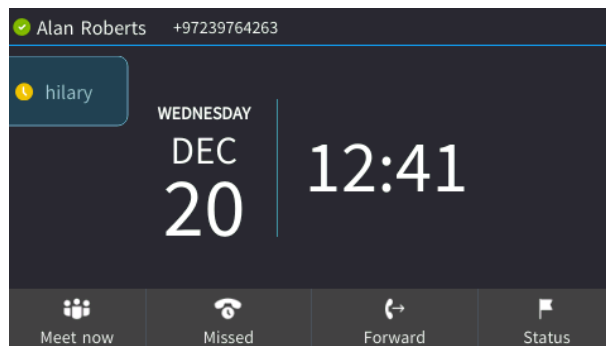
3. The adjacent key on the phone illuminates red. Test the speed dial by pressing the key.

6.16.1   Deleting a Speed Dial

Deleting a speed dial will typically be required if a contact leaves the company.

➢ **To delete a speed dial:**

1. Long-press the key on the phone configured as a speed dial.
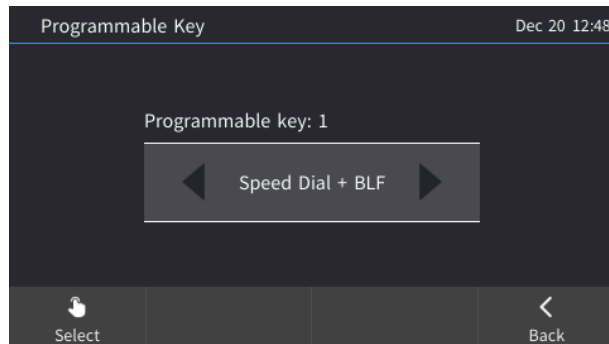
2. Navigate to and select **Empty**. The speed dial indication disappears from the idle screen.

6.17 Configuring a Programmable Key for Paging

Six programmable keys are located on either side of the phone screen. Three are on each side. Each can be configured for paging a group, exactly like the 12 function keys. So a total of 18 keys can be configured on the phone for paging: Twelve function keys + six programmable keys.

The paging feature allows a live announcement to be made (paged) from a phone to a group of phones, to notify a team (for example) that a meeting is about to commence. The paged announcement is multicast via a designated group IP address, in real time, on all idle phones in the group, without requiring listeners to pick up their receivers. The name of the group is displayed on phone screens when the paging call comes in.

➢ **To configured a programmable key for paging:**

Note: Make sure paging is enabled on the network. Consult your network administrator if it isn't.

1. Open the Programmable Keys screen (MENU key > **Keys** > **Programmable Keys**):

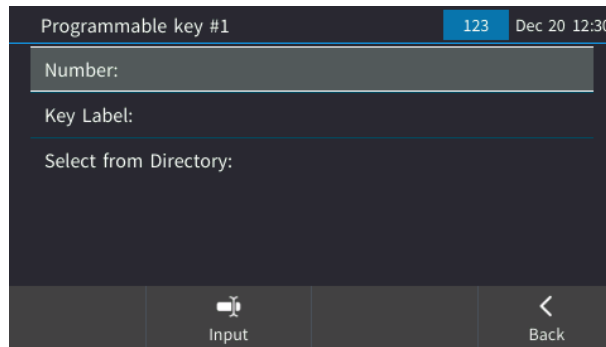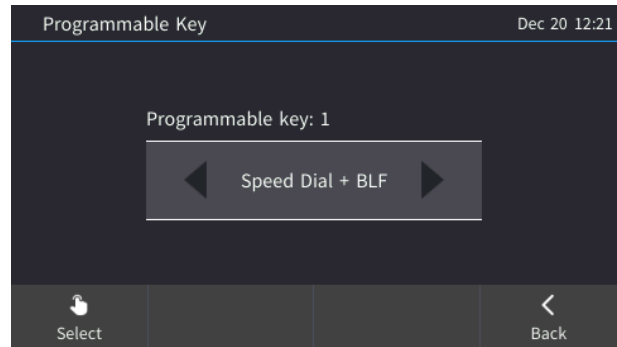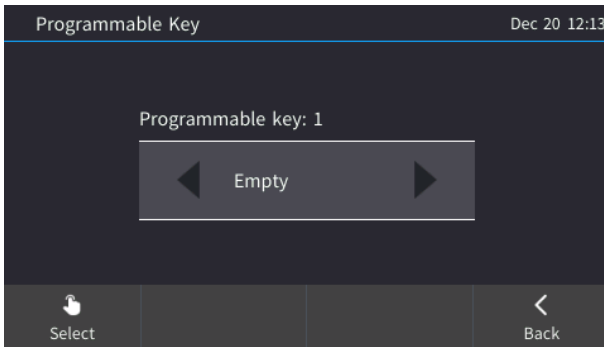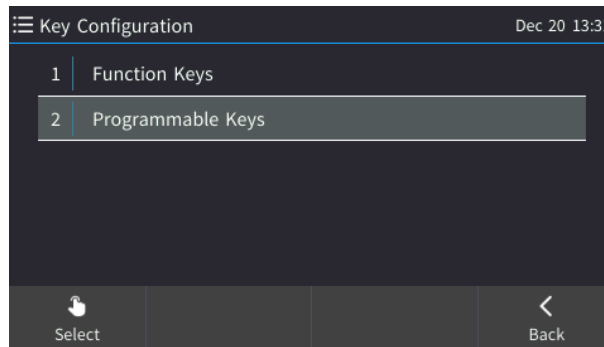2. Select an 'Empty' (unconfigured) programmable key and then select **Paging**.
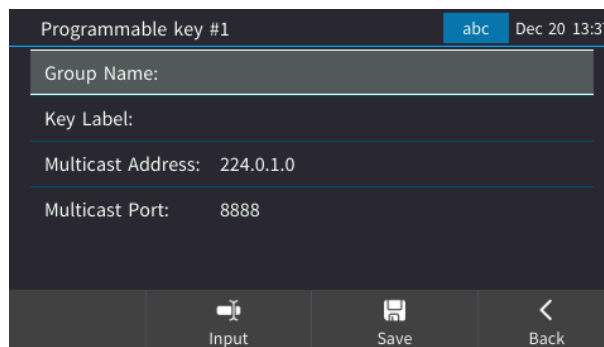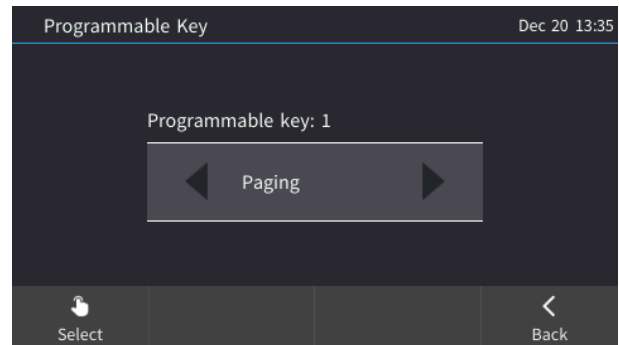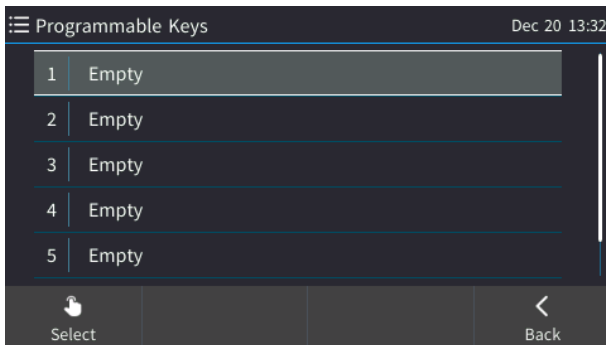
3. In the 'Group Name' field, enter the name of the group to be displayed in the phone's screen

when there's an incoming / outgoing paging call.

4. In the 'Key Label' field, enter a name for the programmable key-paging dial to be displayed in the phone's screen.

5. In the 'Multicast Address' field, enter the paging group's multicast IP address. Default: 224.0.1.0. For phones to be in a group, all must be configured with the identical multicast address.

6. In the 'Multicast Port' field, enter the group's port. Default: 8888. For phones to be in a group, all must be configured with the identical port.

7. Save the configuration.

6.18   Configuring a Programmable Key as a Key Event

Any of the six programmable keys located on either side of the phone screen can be configured as a Key Event. A Key Event can be Dialed Calls, Missed Calls, Received Calls, Directory, DnD, All and Forward The figure below, for example, shows a programmable key configured as a 'Dialed' Key Event. Pressing the key directly opens the Dialed Calls screen.
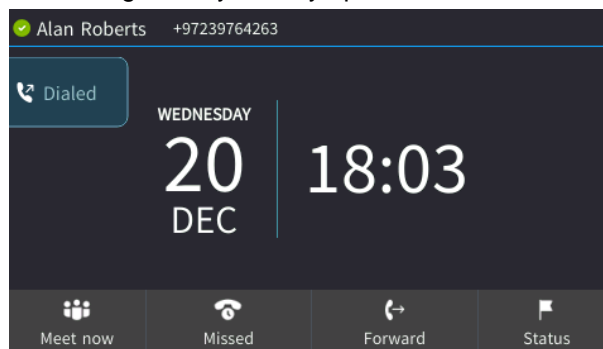
➤ **To configure a programmable key as a Key Event:**

1. Long-press any of the six programmable keys located on either side of the phone screen or press the MENU key > **Keys**.
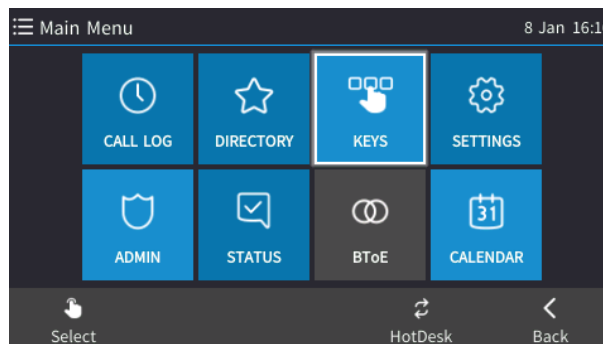
2. Select **Programmable Keys** and then select an 'Empty' Programmable Key.
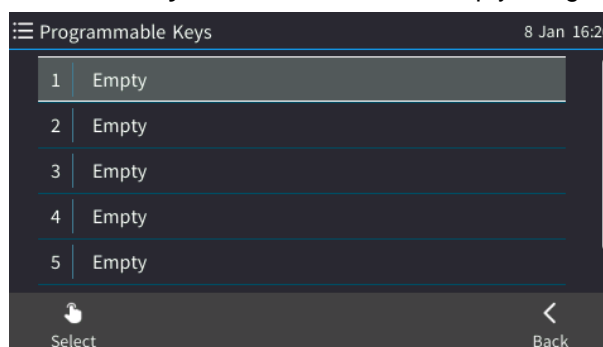
3. Navigate to and select **Key Event**:
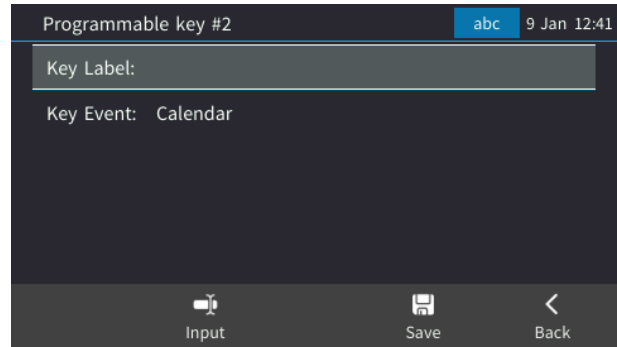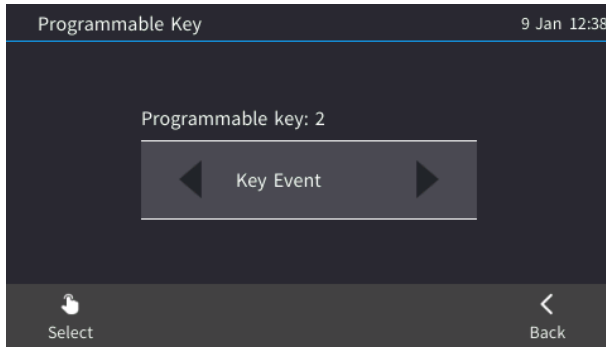
4. In the 'Key Label' field, configure an identifier that you'll easily identify in the phone screen, e.g., 'Dialed'.

5. In the 'Key Event' field, select the Key Event you want to configure, for example, 'Dialed Calls'.
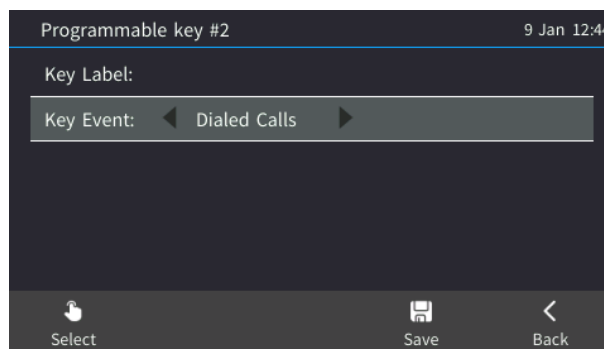
6. Save the configuration and view in the phone's idle screen the Key Event you configured.

6.18.1 Configuring a Programmable Key as a VocaNOM Speed Dial

Any of the 1-6 programmable keys located on either side of the screen can be configured for voice dialing ability, as a VocaNOM speed dial.

➢ **To configure a programmable key as a VocaNOM dial:**

1. Long-press any of the 1-6 programmable keys located on either side of the screen and then select **Vocanom**.
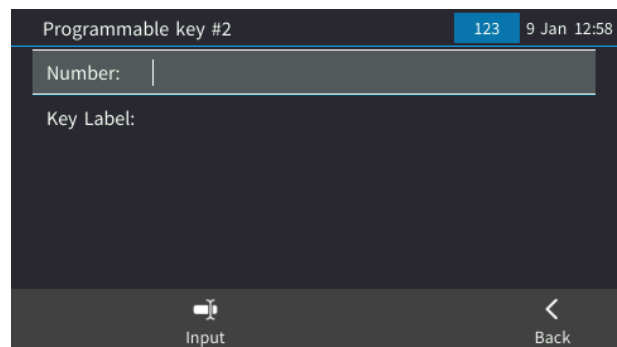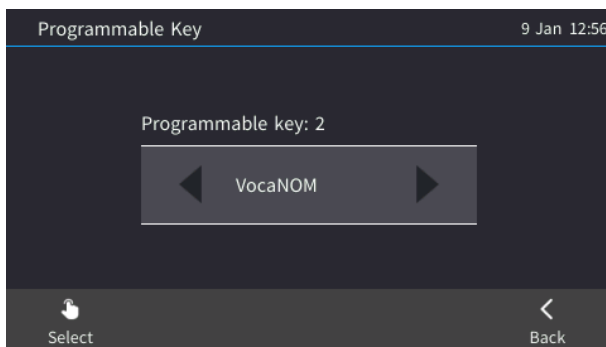
2. Enter the VocaNOM number and an identifier that you'll easily identify in the phone screen, and then **Save**. View the key in the idle screen.
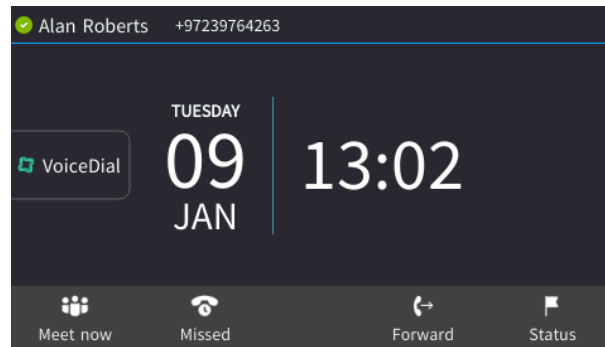
6.18.2 Deleting a Key Event

If necessary, configured programmable keys can be deleted.

➢ **To delete a configured programmable key:**

■ Long-press the programmable key and then in the key's screen, select **Empty**.

6.19 Changing your Presence Status

Presence status can be configured to indicate to would-be callers if you're available or not. By default, your presence status is based on your Skype for Business client.

> **Note:**
> - Presence status can be changed by your Skype for Business client running on your computer. Presence status is reflected in the phone's screen.
> - After *n* minutes (configured in the Skype for Business server by your administrator), presence status automatically changes to 'Inactive'.
> - *n* minutes after this (also configured in the Skype for Business server by your administrator), presence status automatically changes to 'Away'; all calls are then automatically forwarded to the RGS (Response Group Service) if it is configured.

➢ **To configure/change presence status:**

1. In the idle screen, press the **Status** softkey.
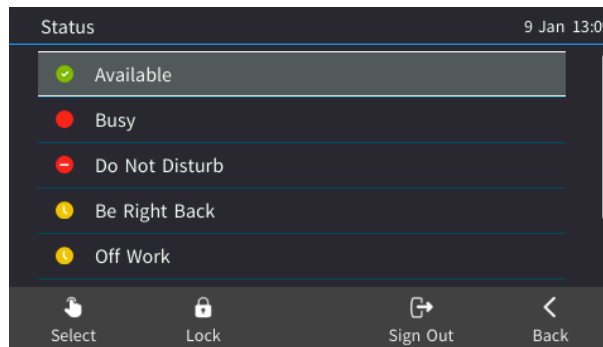
2. Select a presence status. The status you select is displayed in the idle screen. Use the table below as reference.

Table 6-2: Presence Statuses

Presence Status	Description
Available	You're online and available for other contacts to call.
Busy	You're busy and don't want to be interrupted.
Do not disturb	You don't want to be disturbed. Stops the phone from ringing when others call you. If DnD is activated, callers hear a tone indicating that your phone is busy; the call is blocked and your idle screen indicates 'Missed Calls'.
Be right back	You' are away briefly and will return shortly.
Off Work	You're going on vacation (for example).
Appear Away	You want to hide your status and appear to others you're currently away.

3. To reset your presence status, select **Reset**; your status is received from the Skype for Business server and automatically updated.

> **Note:** If a contact configured in your phone's sidecar is in a call, the BLF next to their name flashes on and off in red, indicating their status is Busy.

6.20 Viewing Microsoft Exchange Calendar in the Phone Screen

Microsoft Exchange Calendar items are displayed in the phone's screen, giving you a unified communications experience with phone and PC.

> **Note:** For this feature to function:
> - It must be enabled by your network administrator if it isn't enabled already (the default is enabled). For more information, see the *Administrator's Manual.*
> - You need to sign in with your username and password. If you signed in with your PIN code, you'll receive the message **Calendar is not available for PIN code login**. Features activated from Microsoft's Exchange Server, such as this one, are only available after signing in with username and password.

➢ **To view the calendar:**

1. Press the MENU key on the phone and then select **Calendar**.
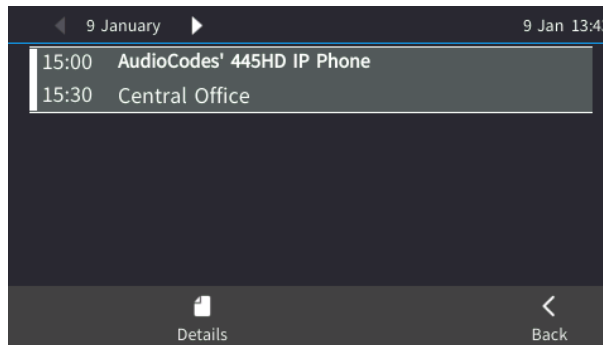
1. If other meetings are scheduled for that day, scroll to them, and select **Details**.
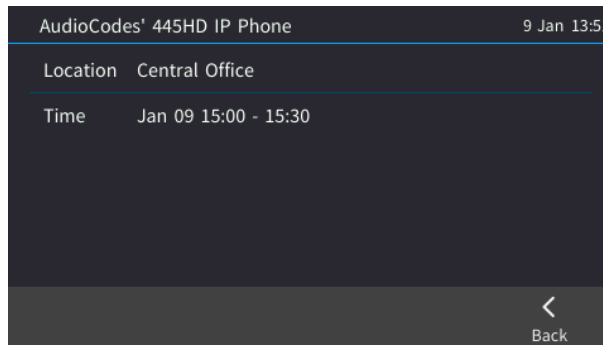
2. If a meeting is an online Skype for Business meeting, select it and press **Join**, or press **Details** and then **Join**. You can optionally then add other attendees.
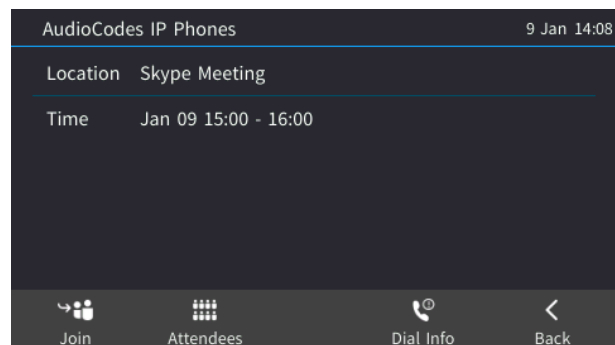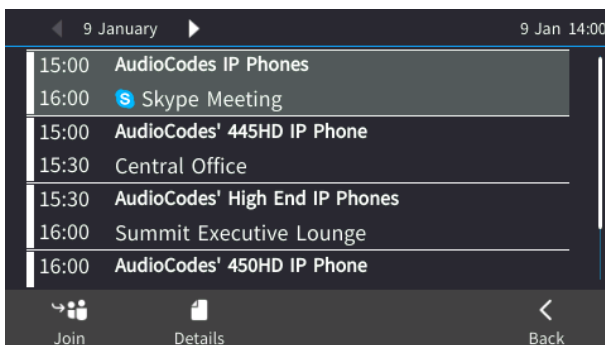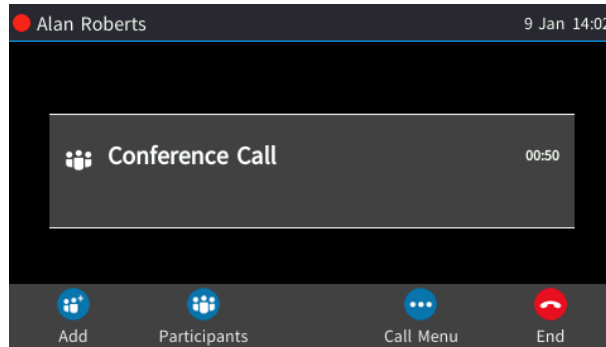
3. If the meeting scheduled is an offline non Skype for Business meeting, you can press **Details** and then optionally add other attendees.
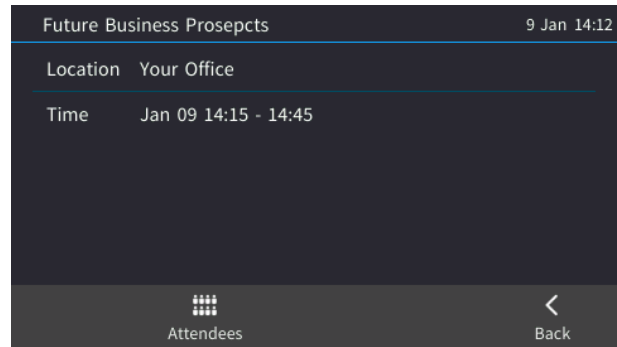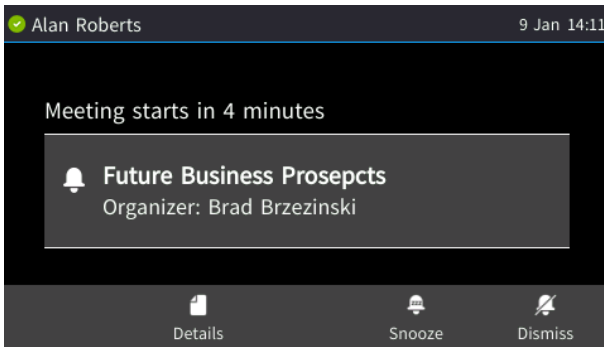
6.21   Receiving Meeting Reminders

The phone automatically pops up meeting reminders for meetings defined as Skype for Business meetings. Meeting reminders pop up in the phone's idle screen at the time defined for them in the meeting invitation.

> **Note:** If the feature is disabled, you can ask your network administrator to enable it. For more information, see the *Administrator's Manual.*
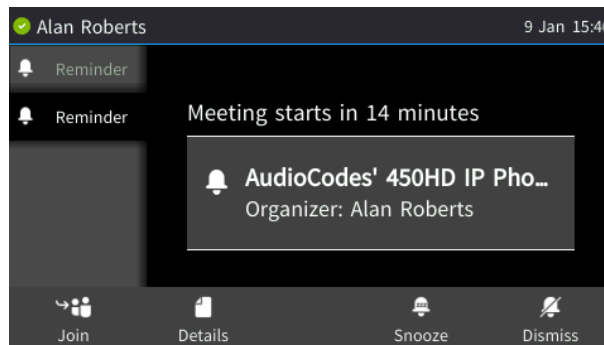
You can Snooze a Reminder, or Dismiss it. If you select Dismiss, the Reminder does not pop up again; you'll still be able to access Calendar items and view the meeting.

If you select Snooze, the Reminder pops up 10 minutes before the start of the meeting, five minutes before the start of the meeting, and when the meeting begins.

So the feature allows you to receive advance notifications about meetings and directly join them.

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7   Performing Basic Operations

This section shows basic phone operations.

7.1   Using Audio Devices

Any of these phone audio devices can be used for speaking and listening:

■   **Handset**: To make a call or answer a call, lift it.

■   **Speaker** (hands-free mode). To activate it, press the speaker key during a call or when making a call. To deactivate it, press the speaker key again.

■   **Headset** (hands-free mode). When talking on the phone, you can relay audio to a connected headset. To enable it, press the headset key. To disable it, press it again.

The audio device can be switched during a call.

➢   **To switch from speaker/headset to handset:**

■   Activate speaker/headset and pick up the handset.

➢   **To change from handset to speaker/headset:**

■   Off-hook the handset and press the speaker/headset key to activate the speaker/headset. Return the handset to the cradle; the speaker/headset remains activated.

7.2   Checking Voice Quality

Voice quality on the phone can be checked to make sure it is high-definition.

➢   **To check voice quality:**

1.   Press the MENU key, select the **Status** option and then select **Voice Quality Check**.
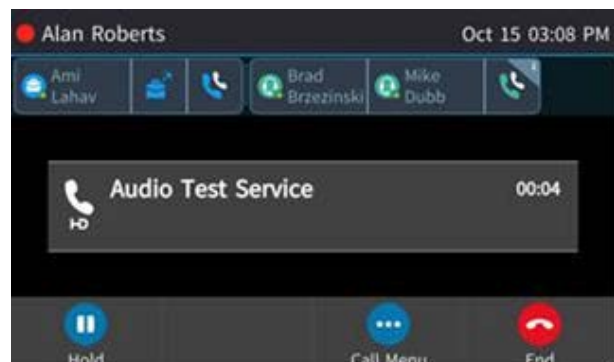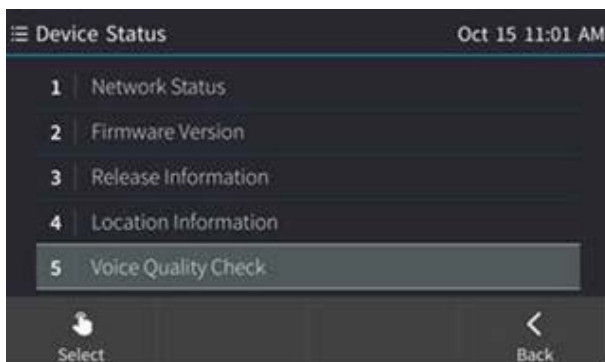
You're invited to "Record a short message after the tone then wait to hear how you sound".

> **Note:** The feature must be enabled on the Skype for Business server by the network administrator for it to be available. See the *Administrator's Manual* for more information.

7.3   Making Calls

The screen that is displayed after dialing provides caller-friendly orientation information.
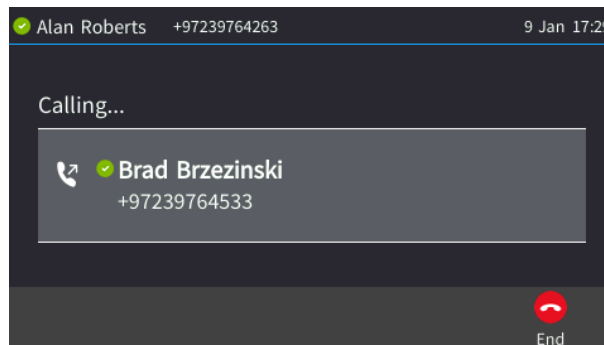
- ■   the name of the calling party
- ■   the number of the calling party
- ■   ⬀ outgoing call
- ■   ✅ presence status of the called party
- ■   the name of the called party if listed in the phone directory
- ■   the number of the called party

The phone plays a ring-back tone indicating to the caller that the called party's phone is ringing.

➢   **To end dialing a call before it's answered:**

- ■   Press the **End** softkey or the speaker key.

Note: For advanced dialing using the phone directory, see Section 6.13. To configure a key for speed dialing, see Section 6.14.

7.3.1   Dialing

Here are the available dialing options:

- ■   Key in the digits of the phone number on the keypad
- ■   Press the speaker key and enter the digits of the phone number in the 'New Call' field
- ■   Lift the handset and enter the phone number in the 'New Call' field

➢   **To dial:**

1.   On the keypad, key in the first digit of the number; the screen displays the digit in the 'New Call' field.
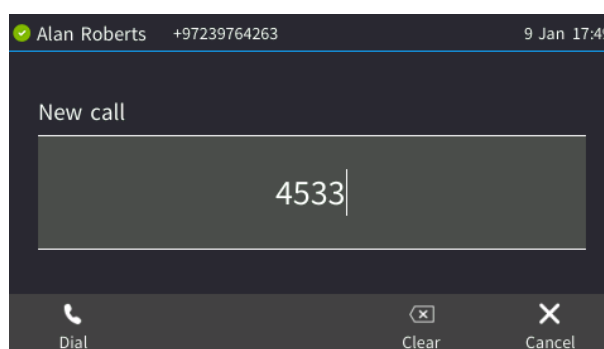
- Key in the remaining digits. To delete (from right to left) entered digits, press the **Clear** softkey. To cancel the call, press the **Cancel** softkey.

2. Do any of the following:

- Don't do anything; dialling is automatically performed after a few seconds.
- Press the **Dial** softkey; dialing is performed.
- Pick up the receiver; dialing is performed.
- Press the **Speaker** button; dialing is performed.
- Press **#** if you switched on speaker/handset/headset before keying in the digits of the phone number; dialing is performed.

➢ **To dial a URL:**

1. Press the speaker key or lift the handset.
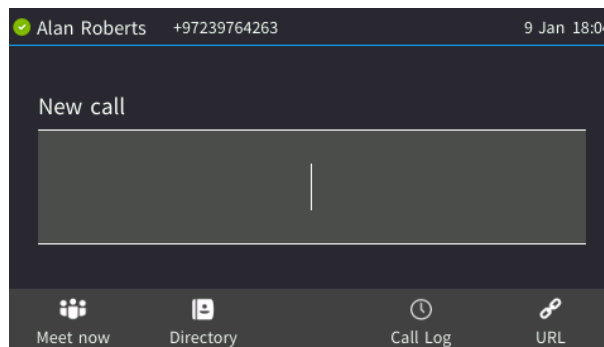
2. Press the **URL** softkey and enter a URL address.
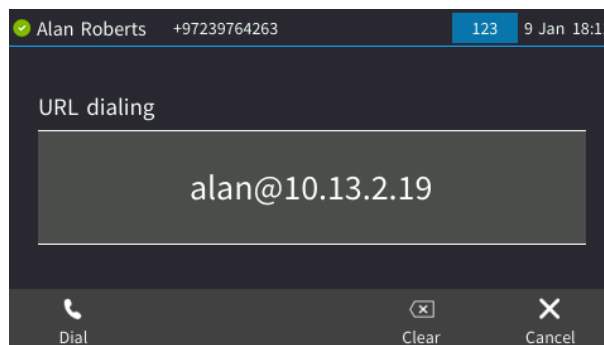
3. Press the **Clear** softkey to delete (from right to left) entered letters/numerals/symbols. Press the **Cancel** softkey to cancel the call.

4. Press the **Dial** softkey.

7.3.2   Redialing

Any phone number previously dialed can be redialed. The phone logs all dialed number.

➢ **To redial:**

1. Press the REDIAL key on the phone; the Dialed Calls screen is displayed, listing in chronological order, recently dialed numbers.

2. Select the number to redial and then press the **Dial** softkey or press the **OK** key.

7.3.3 Dialing a Missed Call

The phone logs missed calls. The number of missed calls is displayed in the idle screen.

➢ **To dial a missed call:**

1. Press the **Missed** softkey displayed in the idle screen.
2. Select the missed call to dial if more than one is listed.
3. Press the **Dial** softkey or press the **OK** key.

7.4 Answering a Call

The screen displayed when a call comes in provides friendly orientation information.
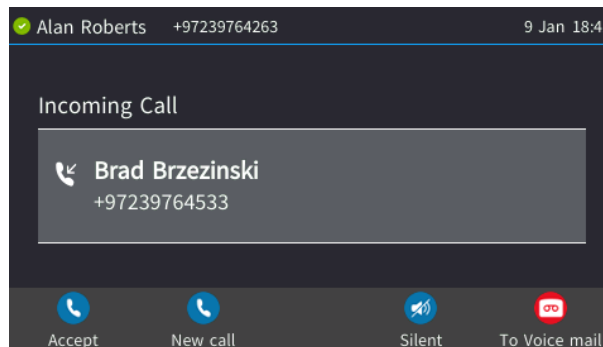
- ■ ✅ presence status of the called party
- ■ the name of the called party
- ■ the number of the called party
- ■ 📞 incoming call
- ■ the name of the calling party if listed in the phone directory
- ■ the number of the calling party

The called party's phone rings.

➢ **To answer:**

- ■ Pick up the handset -OR- press the headset key (make sure the headset is connected to the phone) -OR- press the speaker key -OR- press the **Accept** softkey (the speaker is automatically activated)

   After you answer, the screen displays the 📞 icon and the caller's details and call duration.
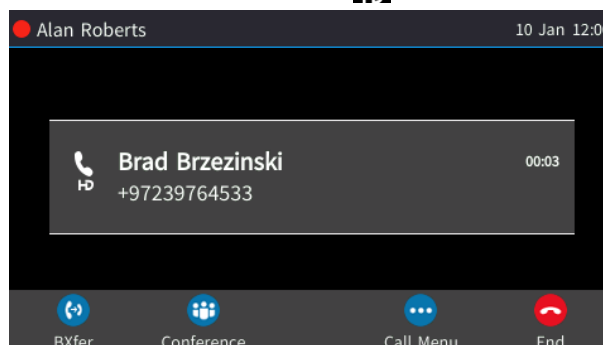
> **Note:**
>
> - **HD** in the screen indicates a high-definition call (using a wideband voice coder).
> - If a contact is in a call and they're listed in your phone's BLF list, the red BLF LED flashes on and off to indicate that the contact is in a call. If that contact is in a call with another contact listed in your phone's BLF list, the red BLF LEDs of both the calling contact and the called contact flash on and off on your phone.
> - When two calls come in simultaneously, the names of the calling parties appear on the screen and the adjacent ⬐ icons flash. If a user is in a call and a third party calls, the name of the calling party appears on the screen and the adjacent ⬐ icon flashes.

7.5   Rejecting an Incoming Call

An incoming call can be rejected if for example you're busy or unavailable to take the call. The caller on the other side will hear a busy tone from your phone.

➢ **To reject an incoming call:**

■ Press the **Reject** softkey.

> **Note:**
>
> - A **To Voice Mail** softkey will be displayed if voicemail has been activated on your phone.
> - A **Reject** softkey will only be displayed if voicemail is not activated on your phone.

➢ **To send an incoming call to voicemail:**

■ When the phone rings to alert to an incoming call, press the **To Voice Mail** softkey.
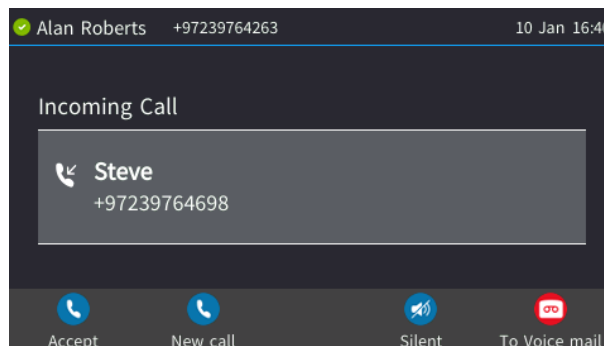
➢ **To view voicemail content:**

1. Press the voicemail key on the phone - illuminated red if you have voicemail.
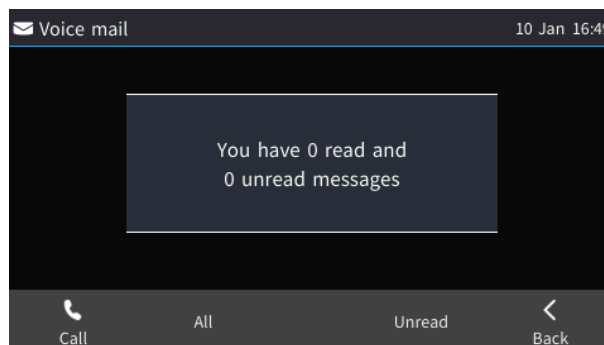
2. Press the **Call** softkey and listen to your messages played back to you, and then optionally press the **End** softkey.

7.6   Silencing an Incoming Call

An incoming call's ringing can be silenced if for example a colleague is consulting you in your office and you don't want the disruption. The caller on the other side will hear regular ringing but no answer.

➢ **To silence the ringing of an incoming call:**

■   Press the **Silent** softkey.

Answer a silenced call by pressing the **Accept** softkey or picking up the handset.

7.7   Making a New Call Even Though a Call is Coming in

A new call can be made even though a call is coming in, typically needed when it's more important and pressing to make a new call than to accept an incoming.

➢ **To make a new call when a call is coming in:**

1.   In the Incoming Call screen, press the **New Call** softkey.

2.   In the New Call screen, enter the destination number to call and then press the **Dial** softkey.

3.   When the destination number answers, you can toggle to the *calling* party and reject or accept them.

7.8   Ending an Established Call

You can end an established call.

➢ **To end an established call:**

■   Return the handset to the phone cradle if it was used to take the call -or- press the headset key -or- press the speaker key -or- press the **End** softkey.

7.9   Viewing Missed, Received and Dialed Calls

The phone logs calls missed, received and dialed calls.

> **Note:**
> - The phone's Call Logs are synchronized with Microsoft's Exchange server. All lists in each device's Call Log are synchronized except the Missed Calls list. All devices that a user signs into are synchronized with the server. Each device reports every call from | to that user to the server. Each device then pulls the last 20 reported calls and performs synchronization.
> - If the feature has been disabled, the network administrator must re-enable for synchronization to function. See the *Administrator's Manual* for more information.

In idle state, the screen displays the number of missed calls (if any). In the example below, 3 missed calls are indicated.
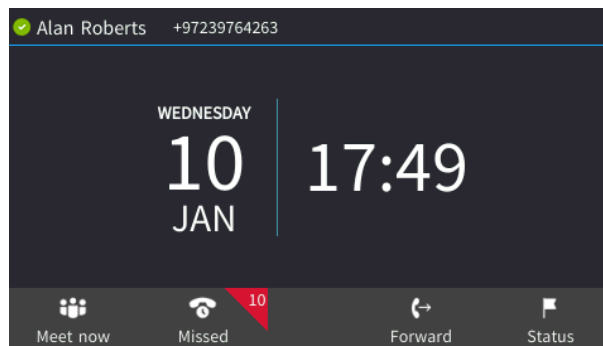
> **To view missed calls:**

■ Press the **Missed** softkey.

> **Note:** After viewing, the indication disappears from the screen. The next time a call is missed, the indication will reappear.

> **To view call history:**

1. Open the Call Log screen (MENU key > **Call Log**).
2. In the Call Log screen, navigate to and select the call log you require.
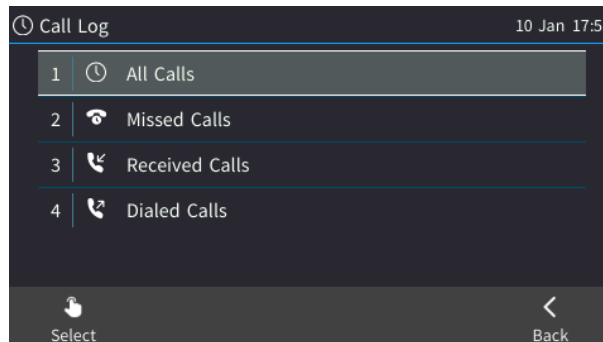
- **All Calls** = calls that were missed, received and dialed
- **Missed Calls** = calls that were not answered
- **Received Calls** = the most recently answered numbers

- **Dialed Calls** = the most recently dialed numbers
3. Select the option you want, for example, Missed Calls.
4. Press a softkey:
   - **Dial** [dials the number of the selected logged entry]
   - **Save** [saves the related information about the call entry in the personal directory]
   - **Detail** [accesses the Call Details screen, which displays details of the log entry]

Call Details	11 Jan 12:43
Name:	Steve
Number:	+97239764698
Time:	12:43
Date:	11/01/2018

| Dial | Delete | Favorite | Back |
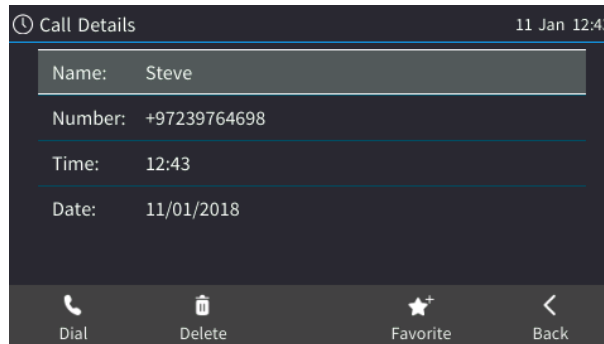
The screen displays:
- **Number** [phone number logged]
- **Time** [the time the call was logged]
- **Date** [the date on which the call was logged]
- **Duration** [the duration of the call]

Note:

- Log entries are stored from newest to oldest entries. The maximum number of entries for each log type is 200. When the 200th entry is reached, it's deleted and replaced with the new entry.
- Log entries are saved on a daily basis. If a power failure occurs, information may be lost.
- After viewing Missed Calls (by pressing the **Missed** softkey), the indication in the idle screen disappears. It'll reappear the next missed call.

7.10   Reporting a Malicious Call

If you receive a call and you want to report it as malicious, the phone allows you to send a report to the Skype for Business server.

Note: The feature must be enabled by the network administrator on the Skype for Business server for malicious call reporting to be allowed by the phone. See the *Administrator's Manual* for more information.

➢ **To report a malicious call:**

1. After receiving a call you think is malicious, press the MENU key on the phone and then press the **Call Log** item.
2. Select the **Report a call** option displayed in the Call Log when the phone receives an incoming call, for the phone to report the malicious call.

7.11   Paging a Group

After configuring a paging group and a paging dial on the phone (see Sections 6.15 and 6.17), you can page others in your group, and they can page you, to announce a change of venue, for example. You can use the speaker, handset or headset as the audio device to page your group.

➢ **To page others in your group:**

1. Press the function key or programmable key that you configured for paging the group.

> ○ Alan Roberts   11 Jan 13:24
>
> Paging to
>
>   📢 Finances   00:05
>
>   📞
>   End
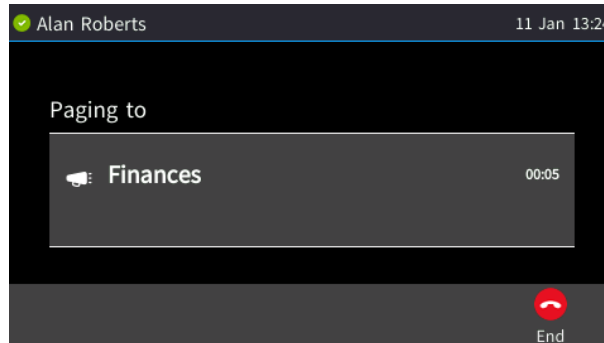
2. Pick up the receiver and make the announcement, or talk directly into the speaker.

7.11.1   Receiving an Incoming Paging Call

Any other user configured in your group can page you.

➢ **To receive a paging call from another user configured in your group:**

■ View in your phone's screen which group the paging call is coming from and listen to the incoming paging call.

> ○ Alan Roberts   11 Jan 13:22
>
> Paging from
>
>   📢 Finances   00:19
>
>   📞
>   End
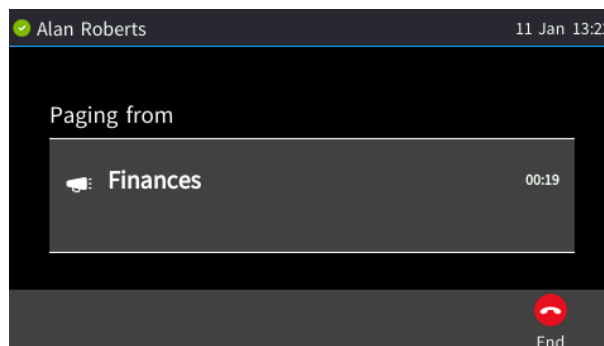
7.11.1.1 If Paged when in a Regular Call and Barge-in is Disabled

If you're in a call when paged and the 'Barge-in' feature was disabled by your network administrator, you're prompted to accept/reject the paged call.

> ● Alan Roberts   11 Jan 14:51
> 📢 Finances
> 📞 Hilary   Incoming Paging
>   📢 Finances
>
>   📞   📞
>   Accept   Reject
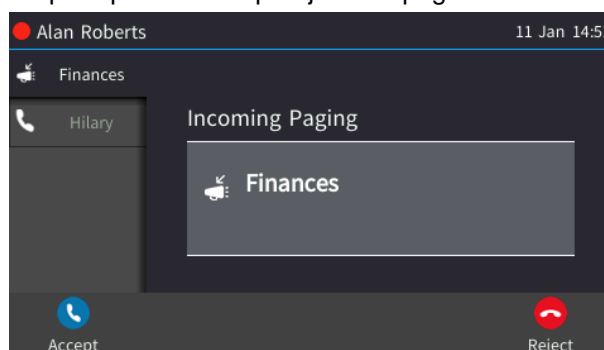
■ If you press the **Accept** softkey; the regular call is put on hold and the paged call is heard.
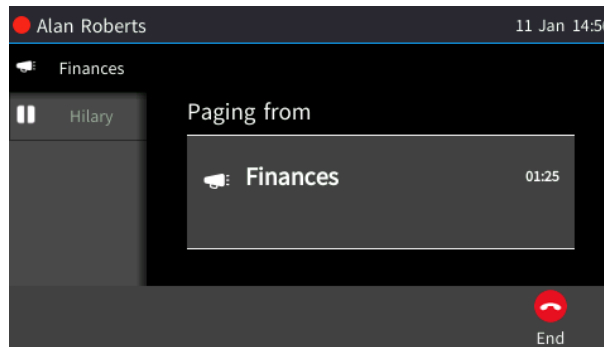
Note: If you'd have pressed **Reject**, the paging wouldn't have barged in on the regular call.

■ When you've heard the paging call, press the **End** softkey and then the **Resume** softkey to resume the regular call that was put on hold.

7.11.1.2 If Paged when in a Regular Call and Barge-in is Enabled

If you're in a call when paged and the 'Barge-in' feature was enabled by your network administrator, the paging call barges into the regular call which is put on hold.
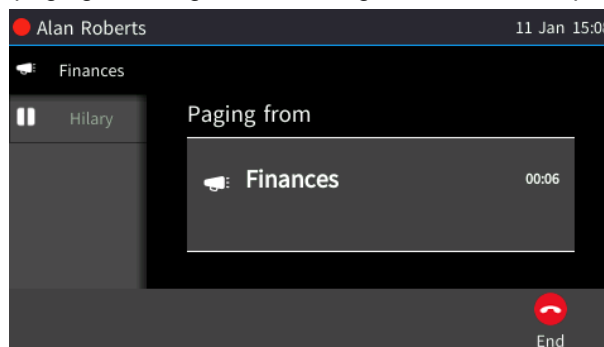
■ Press the **End** softkey and then the **Resume** softkey to resume the regular call.
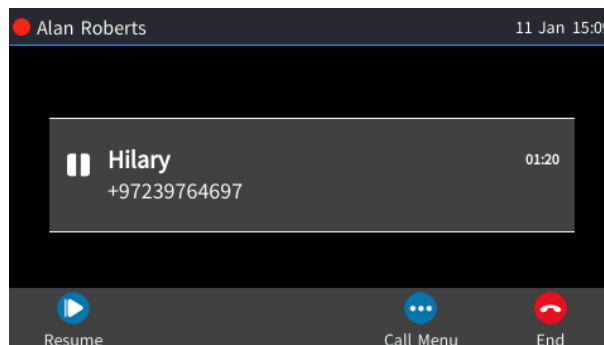
8 Performing Advanced Operations

This section shows how to perform advanced operations such as answering waiting calls, placing calls on hold, etc.

8.1 Answering Waiting Calls

You can accept a call on an extension on which there already is an active call.

➢ **To answer a waiting call:**

a. **A call with Steve is in progress**
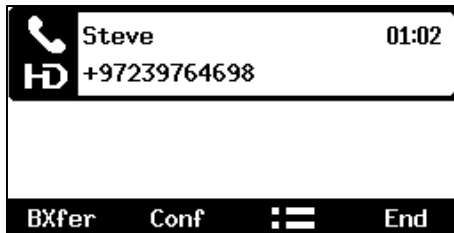
b. **A call comes in from Hilary**

= call waiting

➢ **To answer Hilary:**

1. Press the **Accept** softkey; the waiting call from Hilary is answered; the previous call from Steve is put on hold:

2. Press the navigation control's upper or lower rim to toggle between calls.

> **Note:** To enable / disable the call waiting feature, see Section 6.3.

8.2   Placing Calls On Hold

You can place a call on hold in order to answer an incoming call (see Section 8.1) or to make another call. The party put on hold will hear music played (Music on Hold (MOH)).

➢ **To place a call on hold:**

■ Accept an incoming call and then press the HOLD key on the keyboard or press the **Hold** softkey; the call is put on hold:
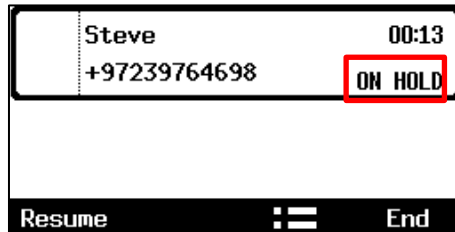
➢ **To retrieve a call on hold:**

■ Press the **HOLD** key again -OR- press the **Resume** softkey.

> **Note:** When using the handset in a call, if the handset is on-hooked after putting the call on hold, the call is *not* disconnected and the *audio is switched to the speaker*. For the call to be *disconnected*, as it was in earlier versions, refer to your network administrator.

8.3   Handling Multiple Incoming Calls

The phone is capable of handling up to eight concurrent calls per line. Multiple calls can be put on hold and you can switch between them. This feature is important for front desk personnel.

➢ **To manage multiple incoming calls:**

■ If a call comes in from Hilary and then after it, a call comes in from Steve, when you answer Steve, Hilary is put on hold.

■ If a third call comes in, this one from Alan, and you answer it, Steve is also put on hold, so now both Hilary (caller 1) and Steve (caller 2) will be on hold.
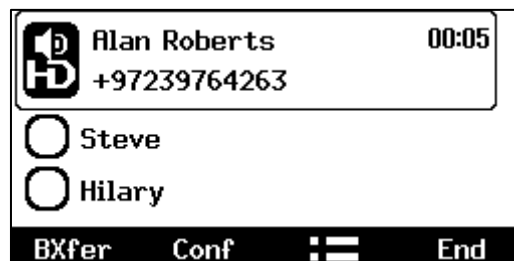
➢ **To toggle between callers:**

■ Press the upper or lower rim of the navigation control button.

8.4   Calling a Contact from 'Favorites'

You can directly call from the phone any contact that is listed in your Skype for Business client's 'Favorites'.

➢ **To call a contact listed in 'Favorites':**

1. Press the CONTACTS key.

2. Navigate to a contact to call and then press the **Dial** softkey or the **OK** hard key.

8.5   Using a Speed Dial to Call

To quickly place a call you can press the function key or programmable key that you configured for speed dialing.

To configure a function key for speed dialing, see Section 6.14.

To configure a programmable key for speed dialing, see Section 6.15.

➢ **To speed dial:**

■ Press a function key that you configured for speed dialing

-OR-

■ Press a programmable key that you configured for speed dialing.

> **Note:**
> • Long-pressing a function key that is not configured for speed dialing allows you to configure one. See Section 6.14.
> • Long-pressing a programmable key that is not configured for speed dialing allows you to configure one. See Section 6.15.

8.6   Transferring Calls

A second party can be transferred to a third party using the blind transfer method (default) or consultation transfer method, whichever is convenient at the moment.

Method	Description
Blind	Connects a second party to a third party *before* the third party answers.
Consultation	Connects a second party to a third party *after* the third party answers and agrees to take the call from the second party.

> **Note:**
> - The TRANSFER key on the phone *by default* performs *blind transfer*.
> - Your network administrator can change the key's default to *consultation transfer*. See the *Administrator's Manual* for more information.

8.6.1   Performing a Blind Transfer

A second party can be transferred to a third party before the third party answers, without consulting with them.

➢ **To perform a blind transfer:**

1. Steven asks you – Alan - to transfer him to Hilary. Press the TRANSFER key on the phone or press the **Call Menu** softkey > **Blind transfer**. Steven is put on hold.
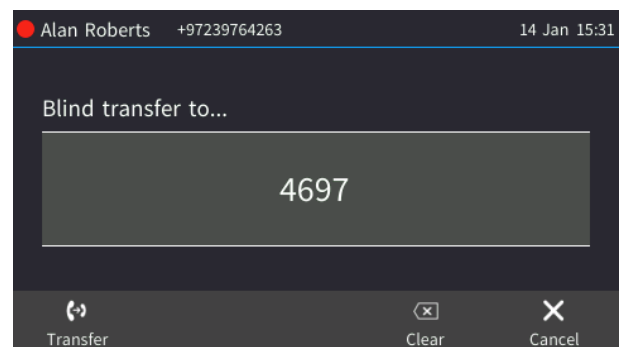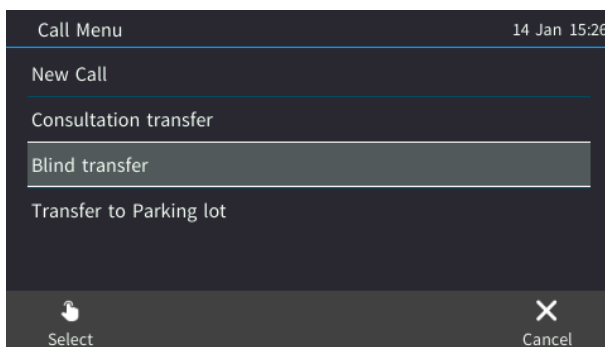
2. Enter Hilary's number and then select **Transfer**.
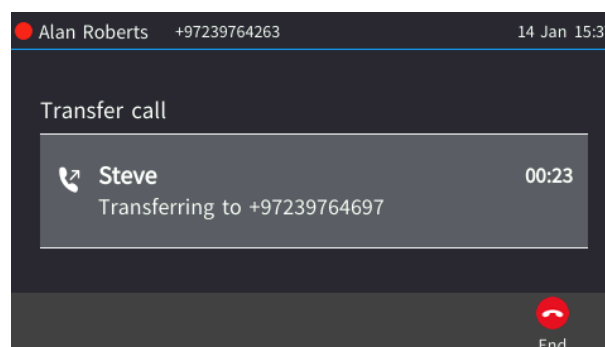
3. On the other side, Hilary's phone (4697) rings. When she picks up, your phone is disconnected from Steve who is transferred to Hilary.

8.6.2   Performing a Consultation Transfer

You can consult with a third party before transferring a second party to the third party.

➢ **To perform a consultation transfer:**

1. In a call with Steve, he asks you - Alan - to transfer him to Hilary. Press the **Call Menu** softkey and then select **Consultation transfer**.
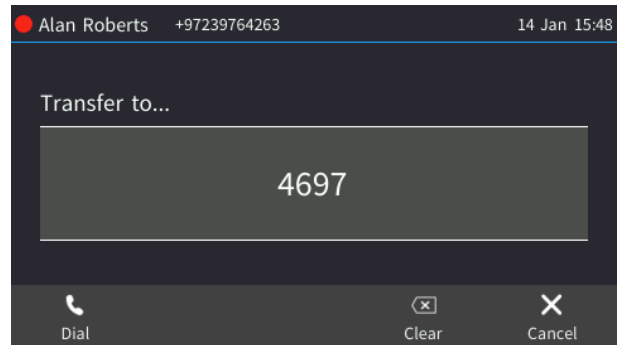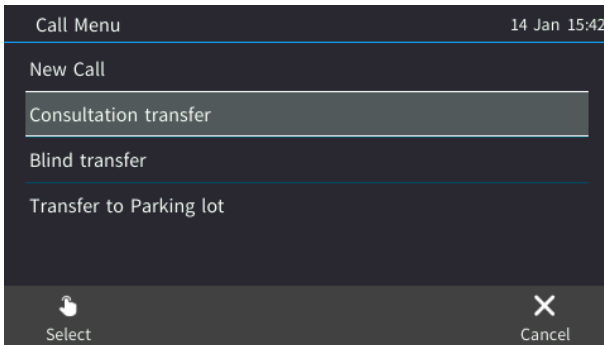
2. Enter Hilary's number and then select **Dial**.
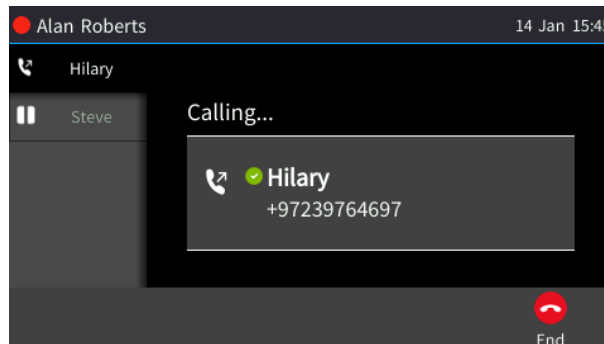
3. Hilary's phone (4697) rings and Hilary answers.
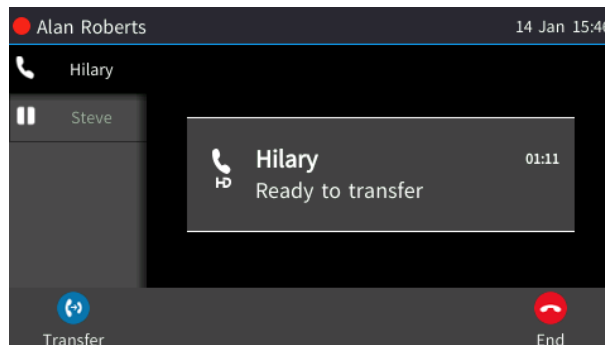
4. Consult with Hilary and then press the **Transfer** softkey - or press the TRANSFER key on the phone.

Hilary is connected to Steve and you (Alan) are disconnected.

8.6.3   Performing a Semi-Consultative Transfer

Instead of consulting extensively with the destination party after they answer, you can transfer the call when they say hello. Semi-consultative transfer allows you to identify the voice of the destination party before transferring the call to them, without asking them whether they agree to take the call or not.

> **Note:** The feature is by default disabled. For the feature to be available, your enterprise network administrator must enable it on the phone. See the *Administrator's Manual* for details.

➢ **To perform a semi-consultative transfer:**

1. Steve asks you – Alan - to transfer him to Hilary. Press the **Call Menu** softkey and select **Consultation transfer**.
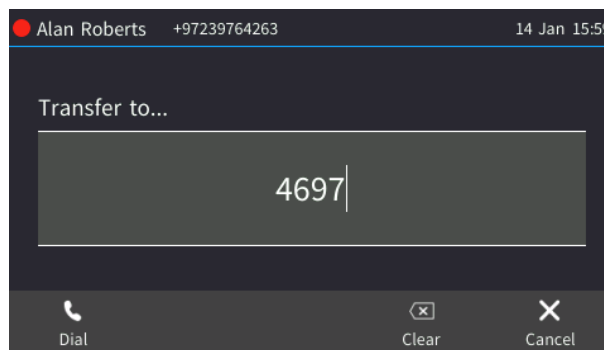
2. Enter Hilary's number and press **Dial**. Steve is put on hold. MoH is played to him. Hilary is rung.
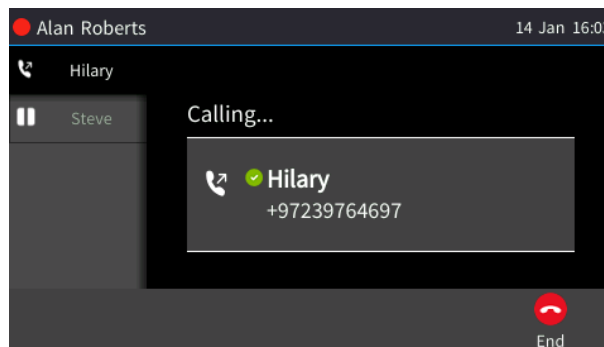
3. When Hilary answers, press the **Transfer** softkey or press the TRANSFER key on the phone; Hilary is connected to Steve and you (Alan) are disconnected.

> **Note:** If your network administrator has not enabled the feature, the **Transfer** softkey will not be displayed.

.

8.6.4 Merging Calls into a Conference Call

When in a call, you can add another participant and then merge all into a conference call. Merging is therefore similar to adding a participant to a conference. It can be performed on the phone softkey or through the Skype for Business client if the user is paired.

➢ **To merge calls on the phone:**

1. When in a call with Steve, you (Alan) decide to add Hilary to the call. Press the **Call Menu** softkey; Steve is put on hold and the Call Menu screen is displayed.
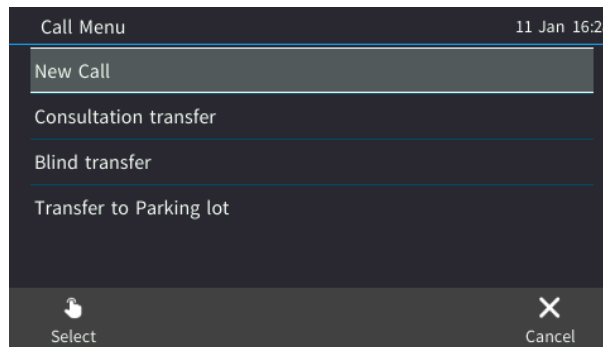
2. Select **New Call** and in the 'New Call' field, enter Hilary's number and then press the **Dial** softkey. Hilary answers.
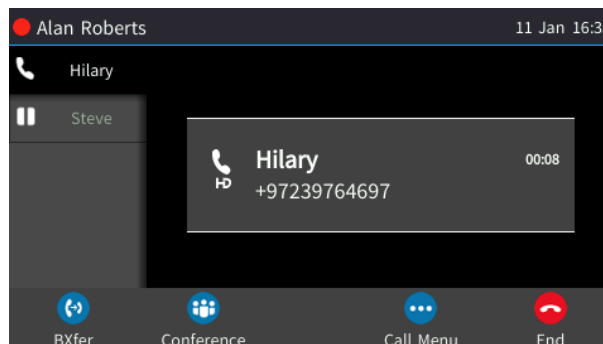
3. Press the **Call Menu** softkey and then select **Merge Calls**; a conference call is established between you (Alan), Hilary and Steve.
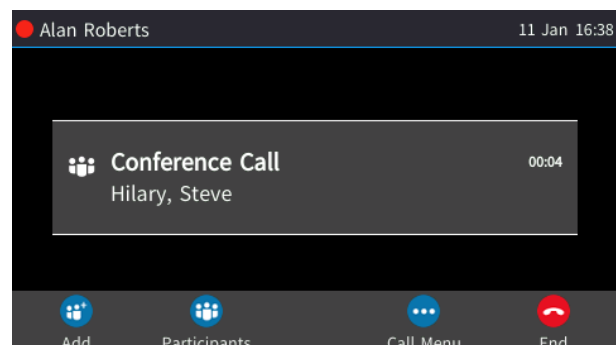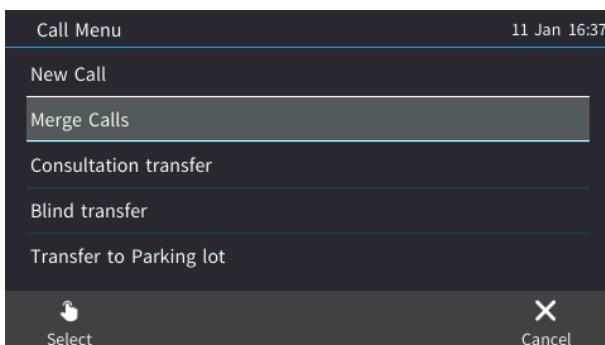
8.7   Parking a Call

A call can be transferred to a "parking lot" where it can be picked up on any other phone in the enterprise by a party who must dial a retrieval number to retrieve it. The retrieval number is configured in the Skype for Business server's parking lot parameter by your network administrator who can change it if necessary.

> **Tip:** Don't park a call unless you know precisely who you want to answer it. If you park a call, it can be answered by anyone in the enterprise listed in the Skype for Business server's parking lot parameter.

➢ **To park a call:**

1. When you're in a call, press the **Call Menu** softkey and then select **Transfer to Parking Lot**:
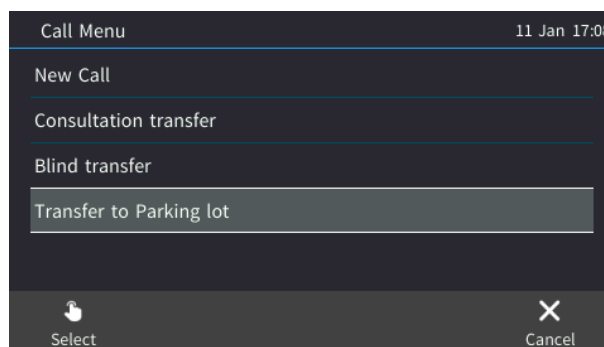
The screen notifies you of the retrieval number to dial to retrieve the call on another phone.
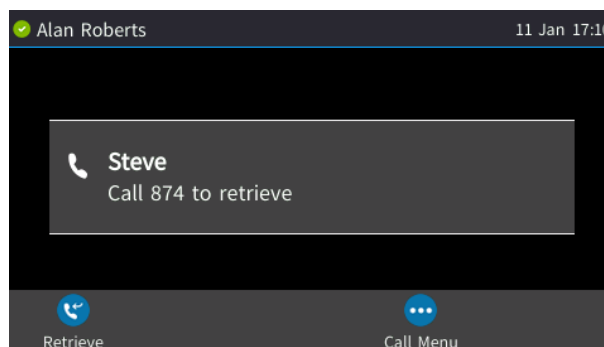
2. On another phone, dial the retrieval number; the call is pulled to that phone.
3. [Optionally] Pull the call back to the phone it was originally on by pressing **Retrieve**.

8.8   Configuring Group Call Pickup (GCP)

GCP capability lets an employee take a call coming in on a colleague's phone, on their phone. If an employee in an open space hears a colleague's phone ringing and knows that that colleague is unavailable, instead of having the call go unanswered and routed to voicemail, the call can be redirected and answered by the available employee. Only employees configured in the Skype for Business server's GCP parameter can pick up the call. Consult your network administrator if you want the feature to be available.

8.9 Managing a Multi-Party Skype for Business Remote Conference

A multi-party call conference based on the Skype for Business server (remote conference) can be managed from the phone.

Note: Conferencing when BToE is *not* installed is described here. See Section 8.2.4 for information about conferencing when BToE *is* installed.

In versions preceding 3.0, supported conference capability was *locally based* (*phone* based). As of version 3.0, the phone of the conference initiator uses CCCP (Centralized Conference Control Protocol) to establish the conference. The feature is integrated with Microsoft Exchange so in an email invitation to join a Skype for Business meeting, you can click a **Join** link.

➢ **To start a conference:**

1. In the phone's idle screen, press the **Meet Now** softkey and then the **Add** softkey.
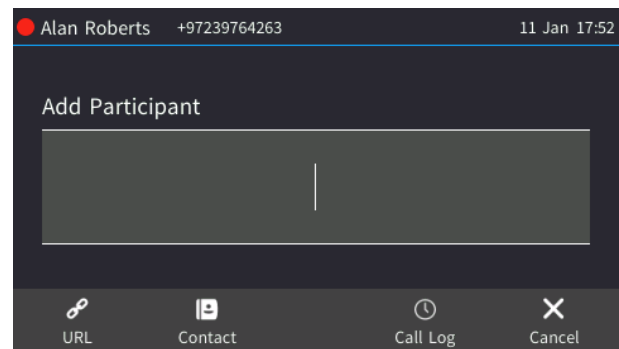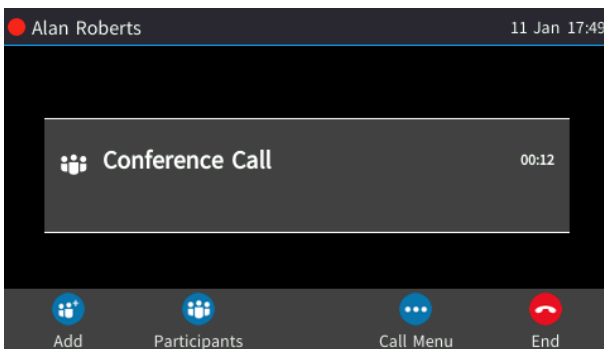
- Enter the participant's phone number, or press the **URL** softkey and enter their URL

  -OR-

- [Optionally] Press the **Call Log** softkey and select the participant from any of the call logs

  -OR-

- [Optionally] Press the the **Contact** softkey and select the participant from the Skype for Business client's 'Favorites' displayed on the phone, or, if the contact you are searching for is not in your 'Favorites', press the **Groups** softkey and navigate in the Corporate Directory, Personal Directory, Outlook Contacts or Others to find them.

2. Press the **Dial** softkey.
3. After adding a participant to a conference, you can add other participants in the same way.

➢ **To view conference participants:**

■ In the phone's idle screen, press the **Participants** softkey.
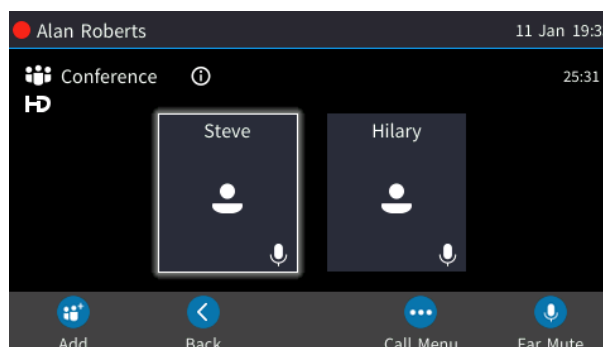
> ➢ **To disconnect a conference participant:**

1. In the Conference screen, navigate to the user to disconnect, and then press the **Call Menu** softkey.

Call Menu	11 Jan 19:37
New Call	
Hold conference	
Add participant	
Disconnect Hilary	
Mute Hilary	

Select | Cancel
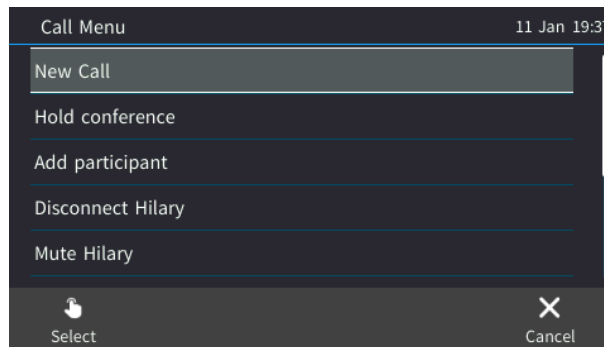
2. Select **Disconnect Hilary** (in the example above).

> ➢ **To change a participant's privileges:**

> **Note:**
>
> - The icon 👤 next to to each participant in the Conference screen indicates that they've got 'Presenter' privileges (relevant only to Skype for Business users rather than to PSTN/mobile calls, for example).
> - Participants with 'Presenter' privileges can perform every action: far mute, mute all, etc.
> - Participants with 'Attendee' privileges can only add participants, no more.

1. In the Conference screen, navigate to the participant whose privileges to change from 'Presenter' to 'Attendee', and then press the **Call Menu** softkey.

Call Menu	11 Jan 19:49
Hold conference	
Add participant	
Disconnect Hilary	
Mute Hilary	
Make Hilary attendee	

Select | Cancel
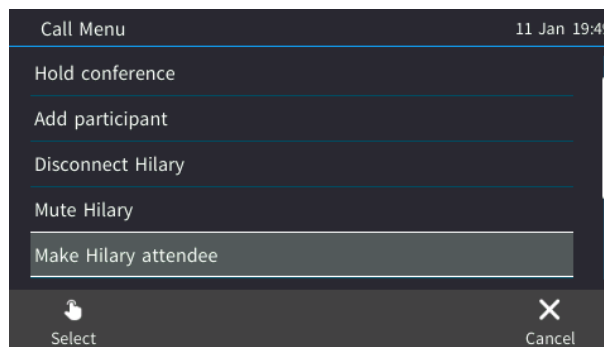
2. Select **Make Hilary attendee** (in the example above).

> ➢ **To mute a participant:**

■ In the Conference screen, navigate to the participant and then press the **Far Mute** softkey.

● Alan Roberts	11 Jan 20:12
👥 Conference ⓘ	05:30
HD	

Steve   Hilary

Add   Back   Call Menu   Far Unmute
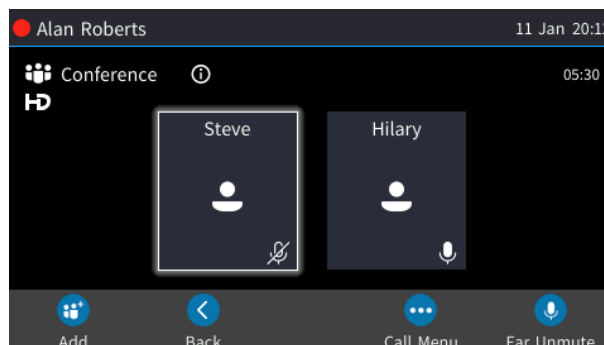
On the muted participant's phone screen, the mute key shines red, the **Far Mute** softkey changes to **Far Unmute** and the following is briefly displayed: **A presenter has muted you**

➢ **To unmute a remote participant:**

■ In the Conference screen, navigate to the participant and then press the **Far Unmute** softkey; on the muted participant's screen, the following is displayed: **A presenter wants you to unmute yourself**. The muted participant presses the illuminated mute button on their phone to unmute.

➢ **To mute all participants:**

■ In the Conference screen, press the Call Menu softkey and then select **Mute All**.

Call Menu	14 Jan 12:02
New Call	
Hold conference	
Add participant	
Mute All	
Lock Conference	
Select	Cancel
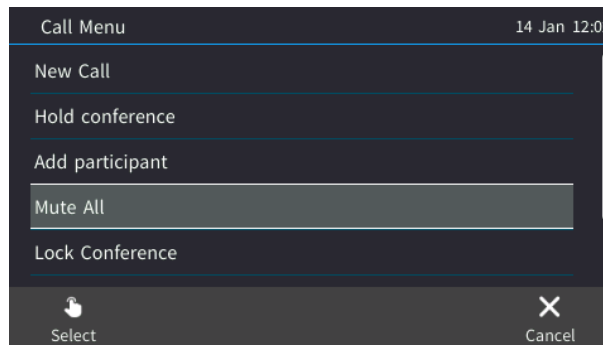
➢ **To lock a conference:**

■ In the Conference screen, press the Call Menu softkey and then select **Lock Conference**.

Call Menu	14 Jan 12:03
New Call	
Hold conference	
Add participant	
Mute All	
Lock Conference	
Select	Cancel
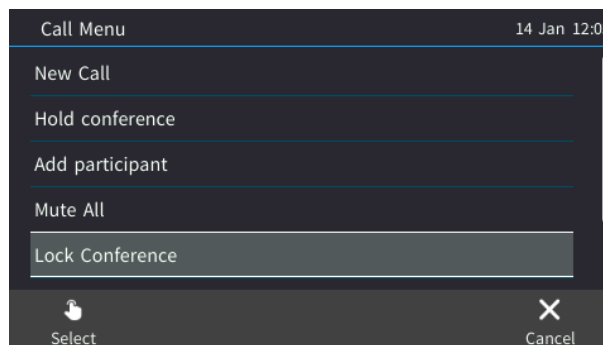
➢ **To view conference information:**

■ In the Conference screen, press the Call Menu softkey and then select **Conference Info**.

Call Menu	14 Jan 12:05
Add participant	
Mute All	
Lock Conference	
Enable Announcement	
Conference Info	
Select	Cancel
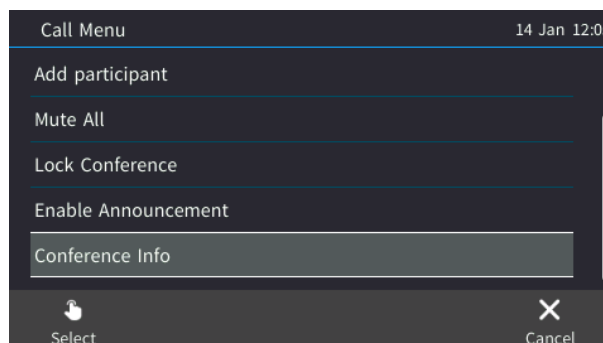
8.10   Muting Your Speaker, Handset or Headset

During a call, you can mute the microphone of the handset, headset or speaker so that the other side cannot hear you. While the call is muted, you can still hear the other party. Muting the microphone of the handset, headset or speaker can also be performed during conference calls.

➢   **To mute/unmute:**

1.   During a call, press the mute key on the phone.
2.   To unmute, press the mute key again.

8.1 Setting up Better Together over Ethernet

BToE enables operations to be mirrored on both AudioCodes' phone and the Skype for Business client on the PC, so that these operations can be controlled from either the phone or the PC, whichever is convenient to the user at the time, for enhanced unified communications and optimized enterprise efficiency.

After your phone is paired with your Skype for Business client, you can control (from phone or PC) operations such as answering incoming calls, making outgoing calls (click-to-dial), putting calls on hold and resuming them, and making conference calls.

Here's how to set up the Microsoft Skype for Business feature 'Better Together over Ethernet' on AudioCodes' 400HD Series of IP Phones.
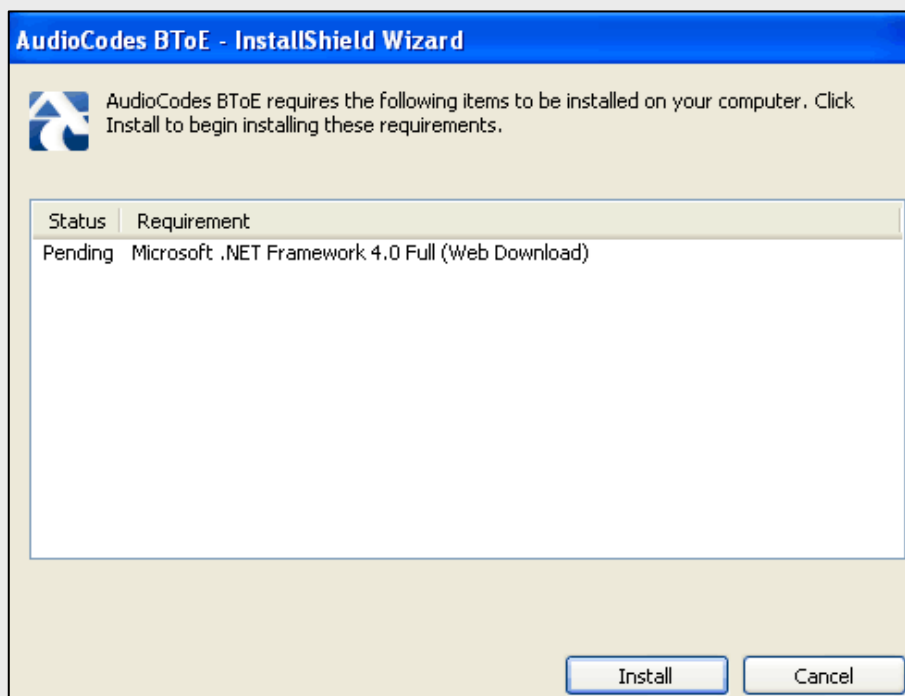
8.1.1 Installing the BToE PC Application

Here's how to install AudioCodes' BToE PC application.

➢ **To install the BToE PC application:**

1. After obtaining the installation file whose name will be either *AudioCodes BToE.exe* or *AudioCodes BToE.msi*, save it to your PC and then double-click it.

Note:

- The *msi* file is for the purpose of network administrator distribution. Users are not allowed to install BToE using the *msi* file, only using the *exe* file.

- After installing with the *exe*, then when upgrading the *exe* must be used. Upgrading with the *msi* cannot be done if the first installation was with the *exe*, and vice versa.

- Some PCs require the installation of .Net 4.0 prior to the installation of the BToE PC application. If you use the installation file *AudioCodes BToE.exe*, the Installation Wizard will detect that .Net 4.0 is missing and will prompt you to install it:

When installing the BToE PC application using the installation file *AudioCodes BToE.msi*, you won't be prompted to install .Net 4.0 and the network administrator should make the necessary preparations prior to installation of the BToE PC application.

The Prepare to Install screen opens showing preparation progress until the Welcome to the InstallShield Wizard screen opens:

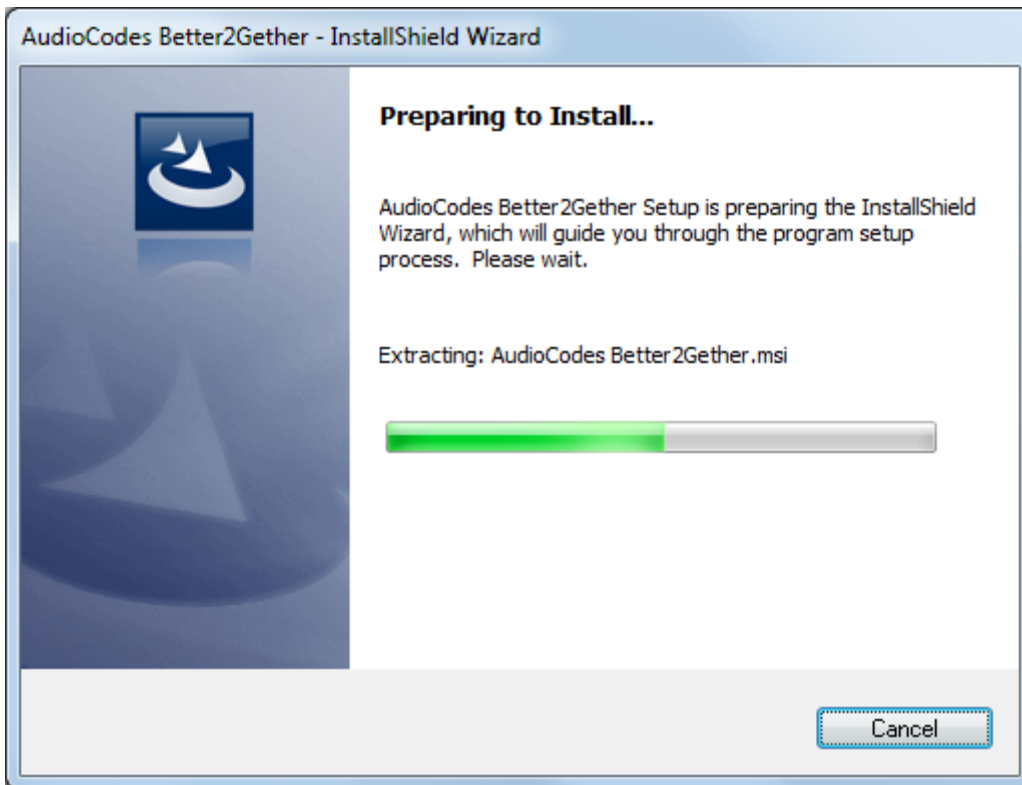**Figure 8-1: InstallShield Wizard – Preparing to Install**

Figure 8-2: Welcome to the InstallShield Wizard
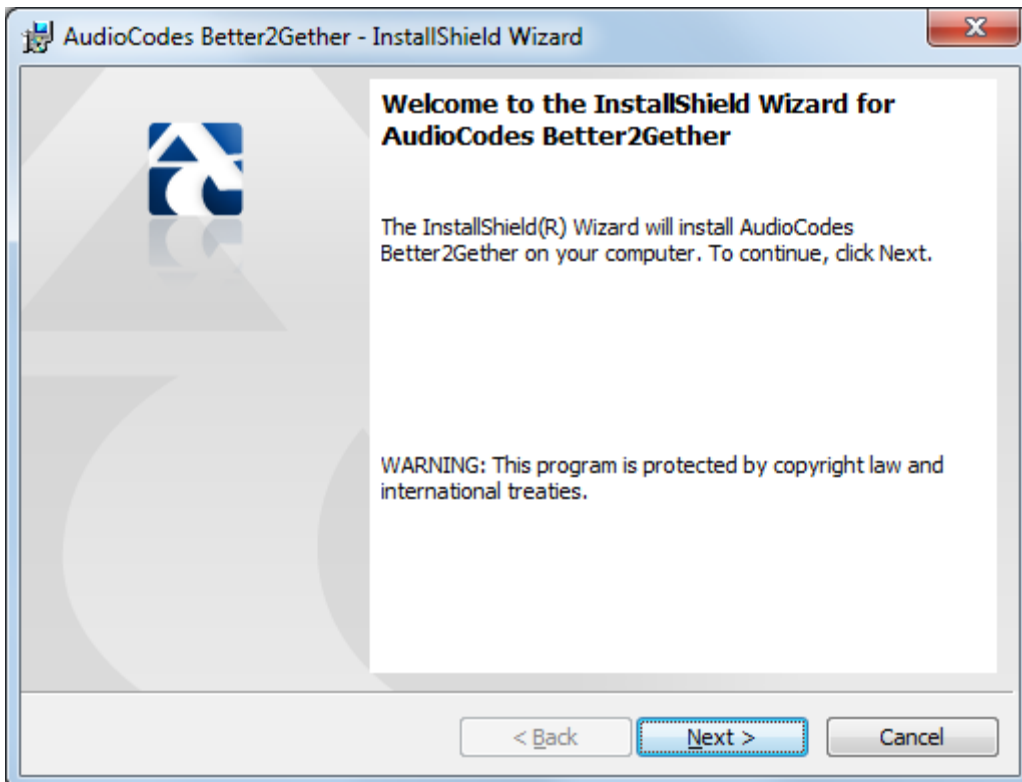
2. Click the **Next** button; the License Agreement screen opens.

Figure 8-3: License Agreement
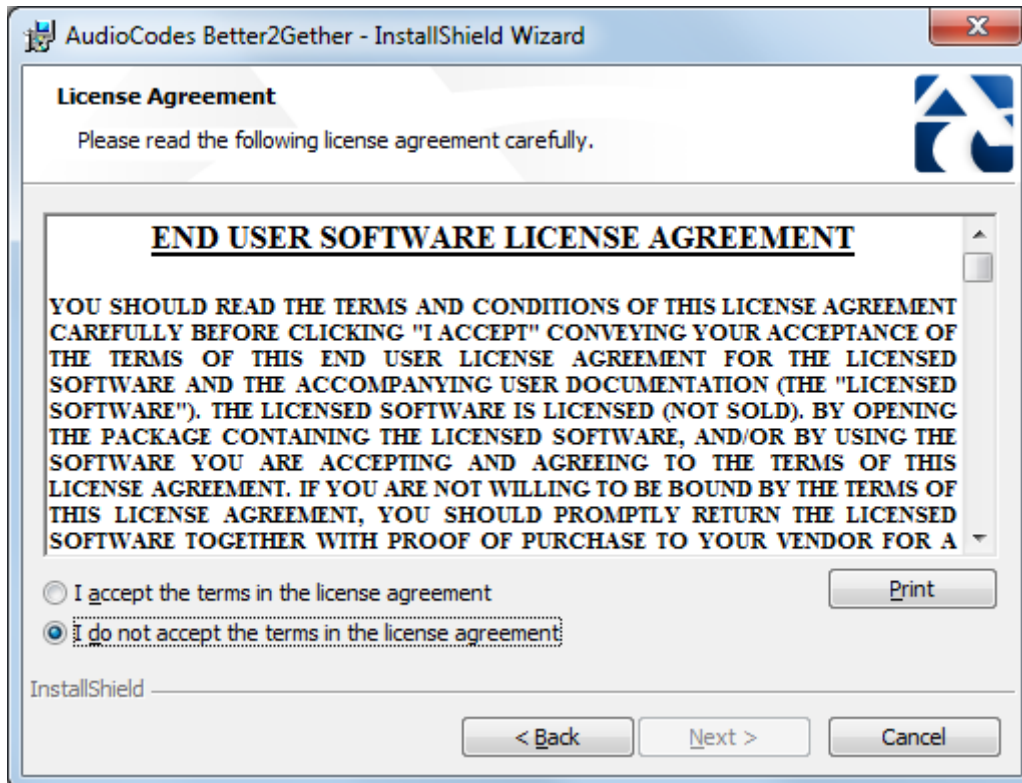
3. Select the **I accept…** option and click **Next**.

Figure 8-4: License Agreement
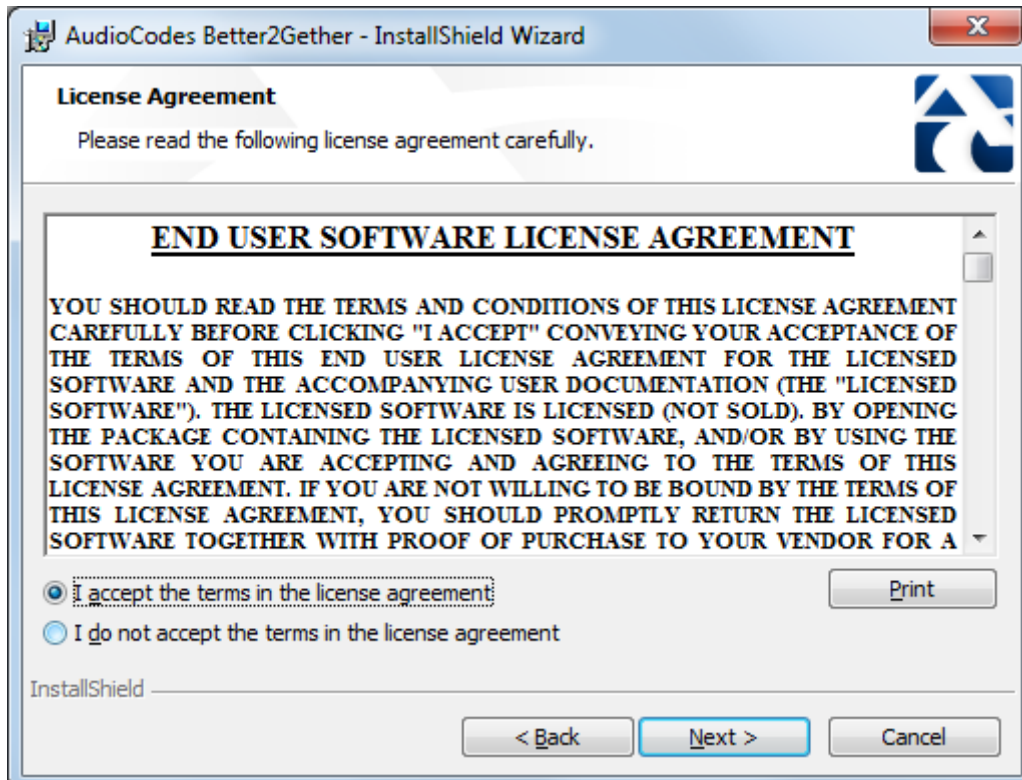
4. Click **Next**; the Destination Folder screen opens.

Figure 8-5: Destination Folder
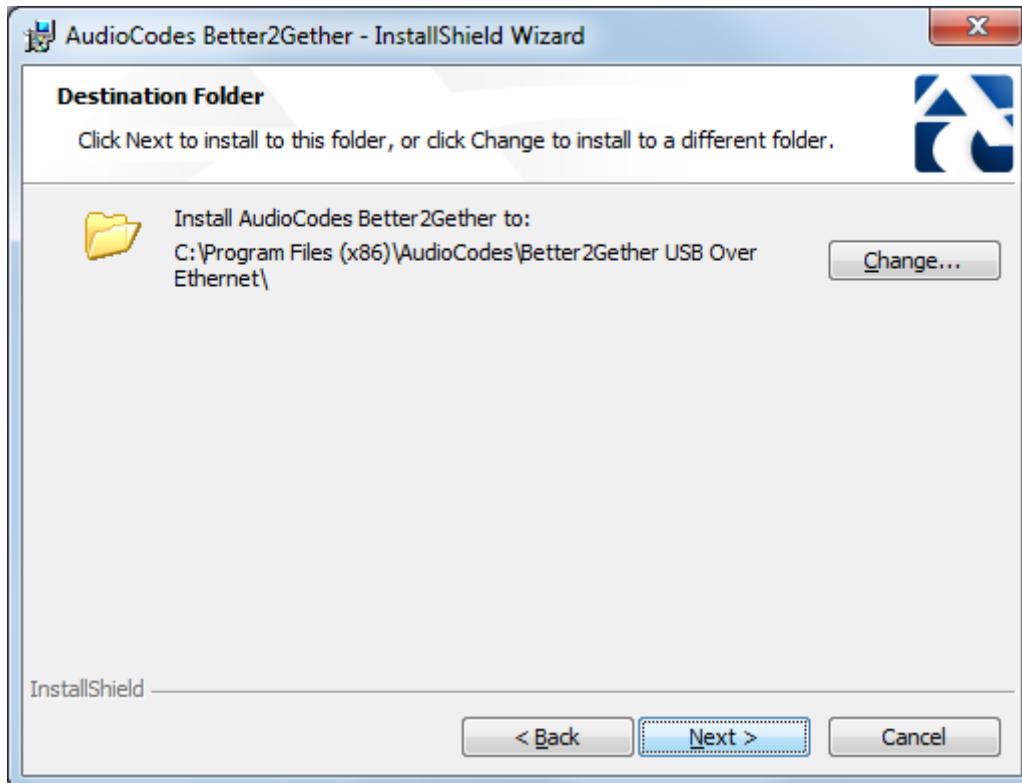
5. To change the default Destination Folder, click **Change** and proceed to step 6. To leave the Destination Folder at its default, click **Next** and proceed to step 7.

Figure 8-6: Change Current Destination Folder
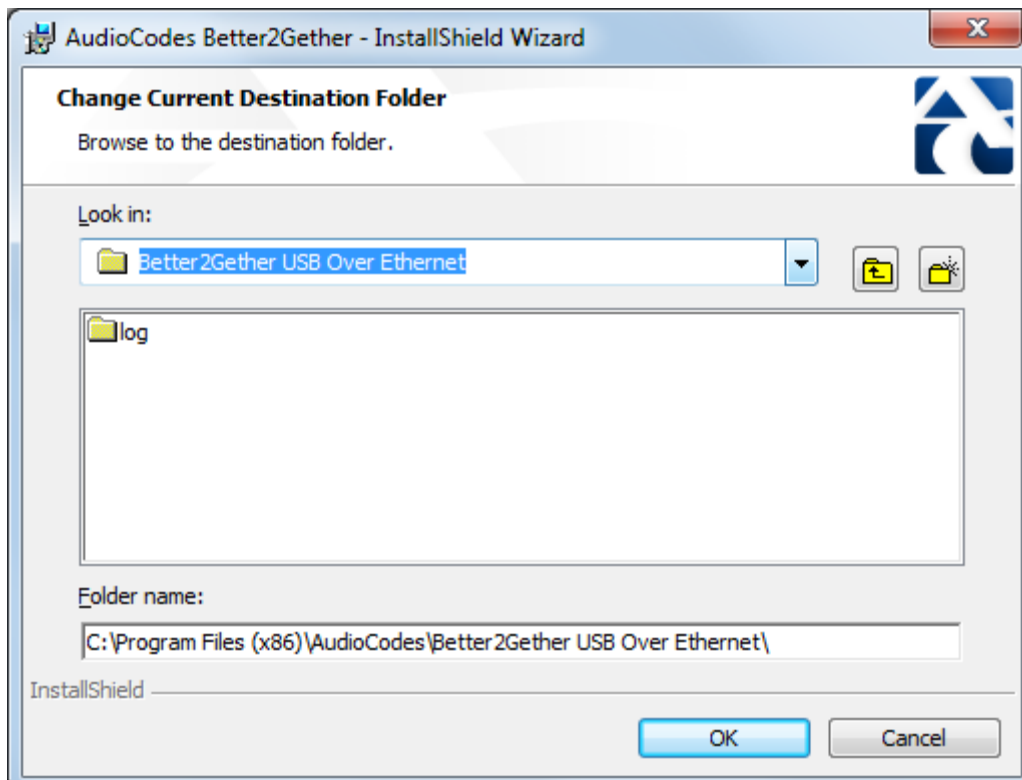
6. Click **OK**; you're returned to the Destination Folder screen.

7. Click **Next**; the Ready to Install screen opens.

Figure 8-7: Ready to Install
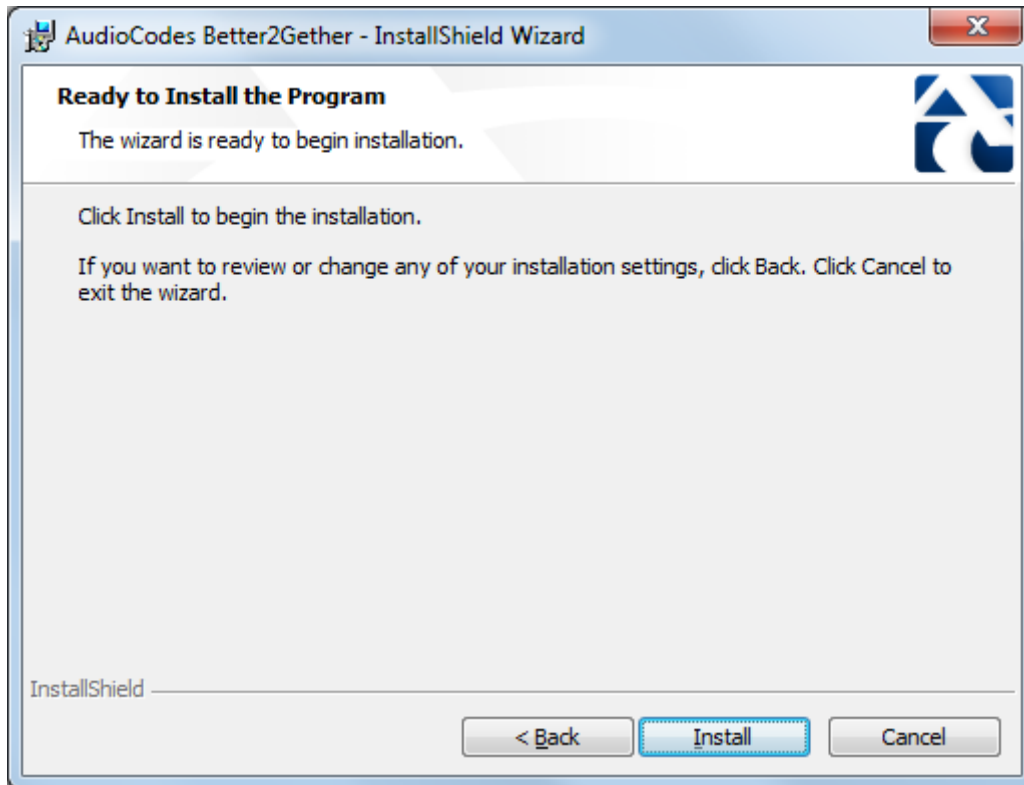
8. Click the **Install** button; the Installing AudioCodes Better2Gether screen opens indicating installation progress status.

Figure 8-8: Installing AudioCodes Better2Gether
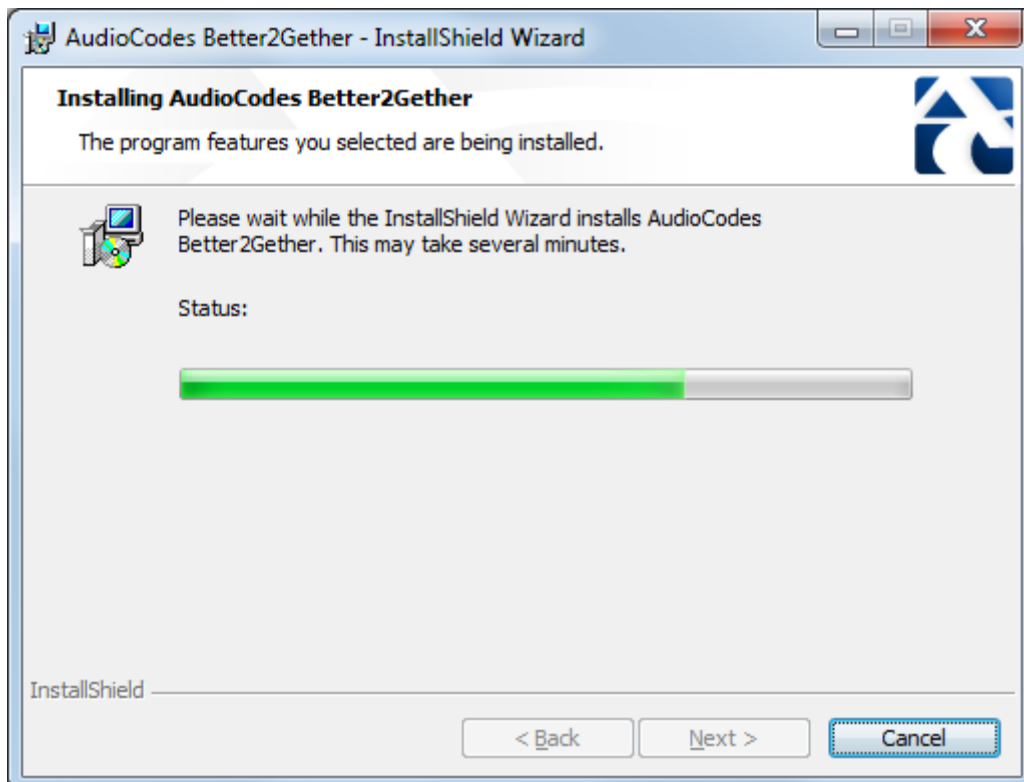
9. Wait until the following screen is displayed:

Figure 8-9: InstallShield Wizard Completed
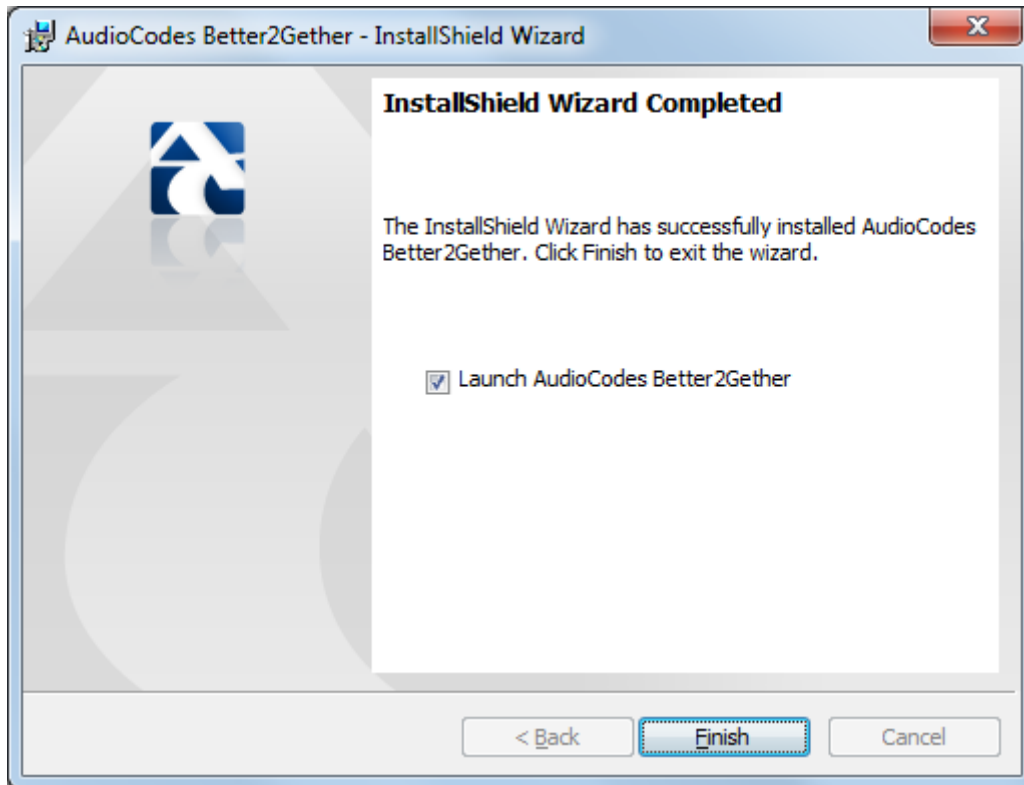
10. Click the **Finish** button and then check your Windows taskbar and locate the newly displayed AudioCodes icon (AC) as shown below:

Figure 8-10: AudioCodes Icon in Taskbar
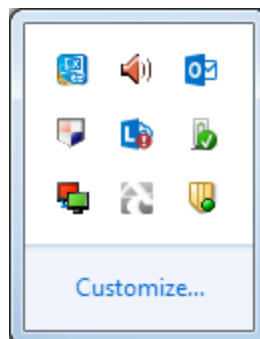
11. Wait until the "Installing device driver software" process completes:

12. Check your programs in the Control Panel > Programs. You should see:

Figure 8-11: Control Panel>Programs>AudioCodes Better2Gether
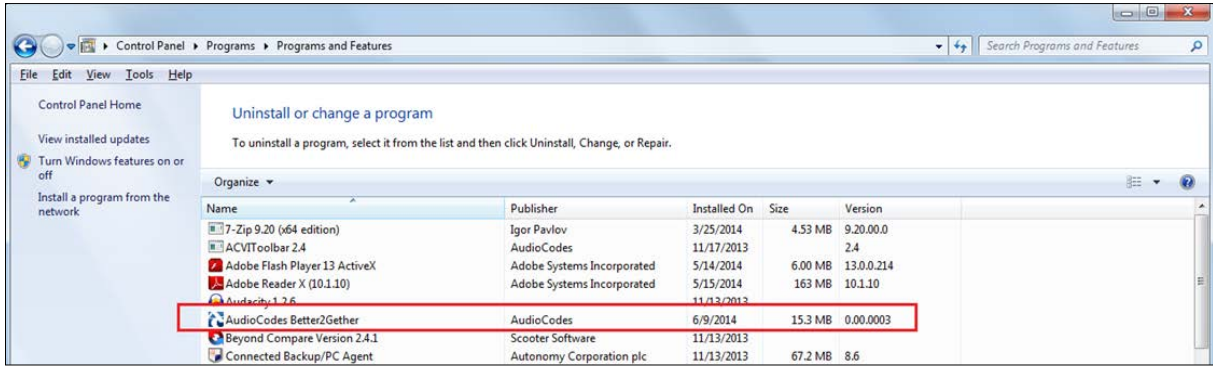
> **Note:** You can use this entry in the Control Panel > Programs to uninstall.

13. Access Computer Management > Services and Applications and locate BToE:

Figure 8-12: Computer Management > Services and Applications
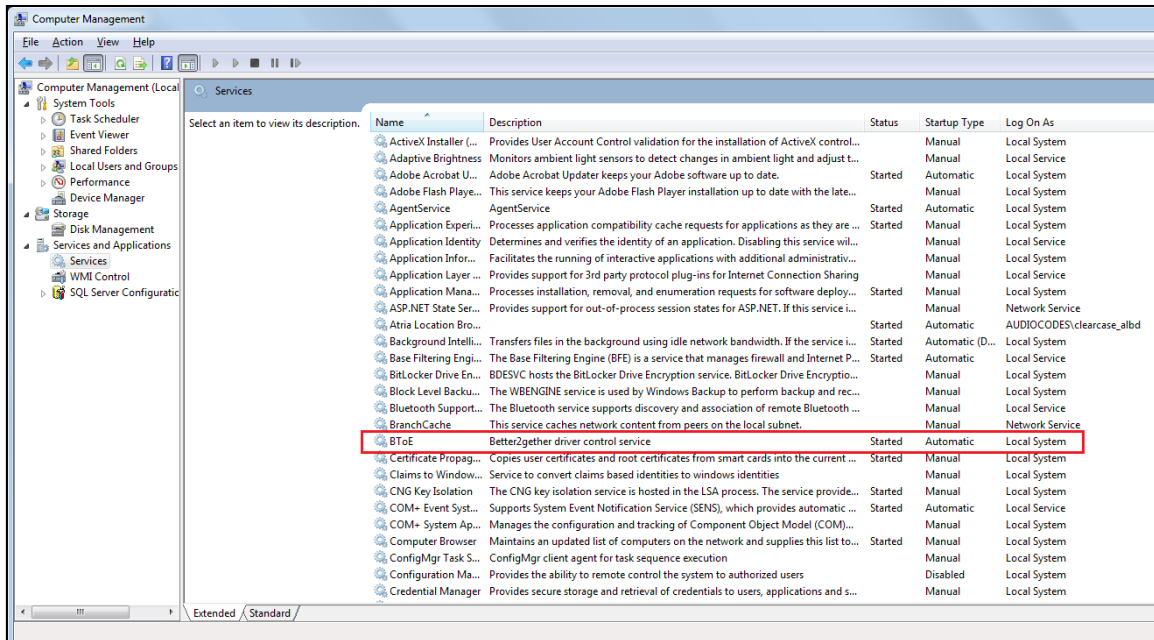
14. Open the Device Manager and locate 'AudioCodes B2GoE USB driver'.

Figure 8-13: Device Manager > AudioCodes B2GoE USB Driver
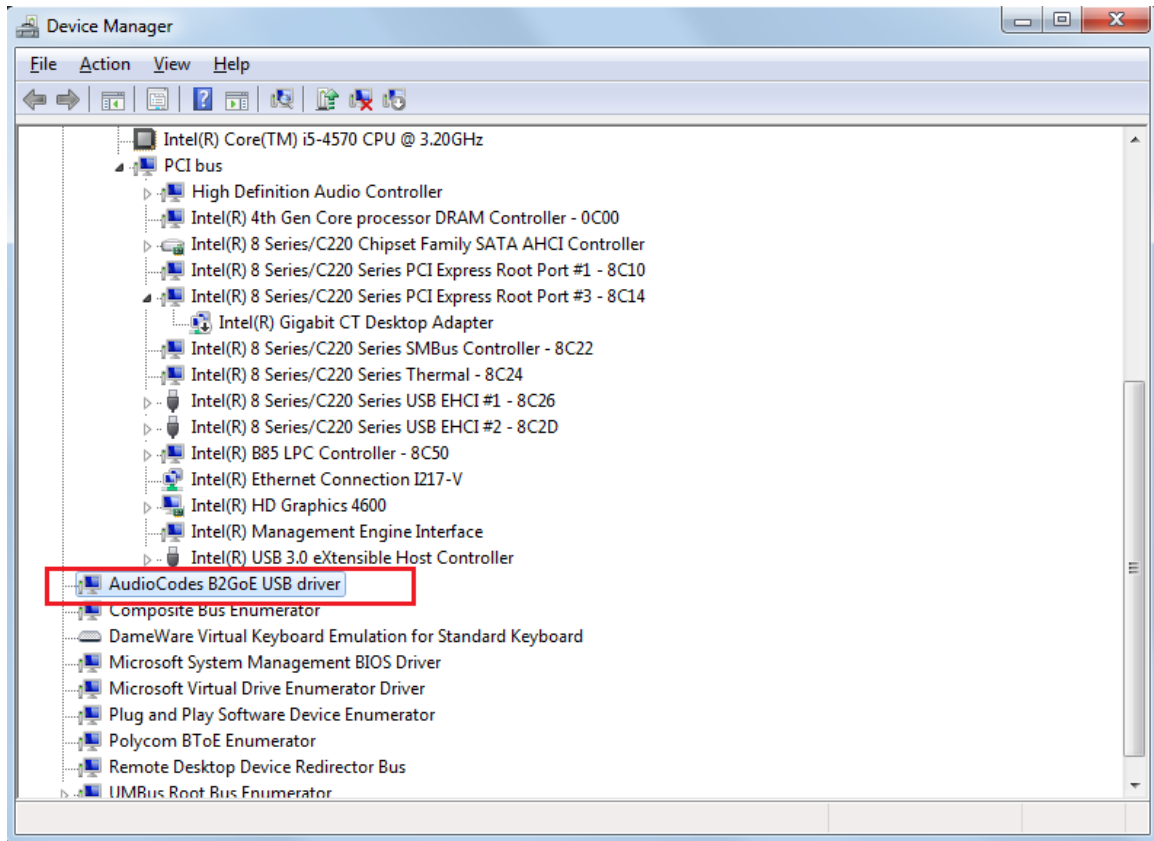
You've successfully installed the program.

445HD IP Phone

8.1.2 Making Sure BToE is Correctly Installed

Here's how to make sure Better Together over Ethernet is correctly installed.

➢ **To make sure BToE is correctly installed:**

1. Click the **AC** (AudioCodes) taskbar icon; the following menu pops up:

Figure 8-14: Popup Menu
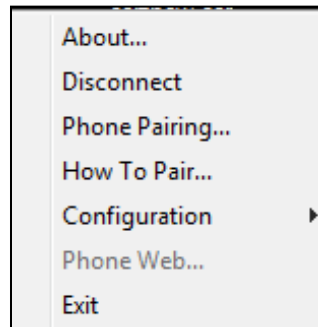
2. Select the **About…** menu option to verify the DLL and BToE version:

Figure 8-15: About AC BToE
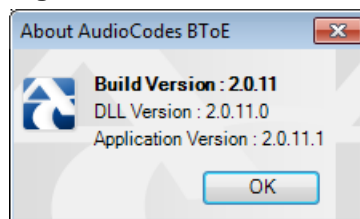
8.1.3 Configuring the BToE TCP Port

You can opt to configure a different BToE TCP port to the default 9999, depending on the requirements of your enterprise. For example, you may decide to change the BToE TCP port to 5000 because your enterprise is using the default port of 9999, and 5000 is available. This feature therefore provides enterprise administrators with more freedom in network administration.

> **Note:** If you decide to change the default BToE TCP port, you must update *both* the PC *and* the phone with the new BToE TCP port number.

➢ **To change the BToE TCP port on the PC side:**

1. Click the **AC** (AudioCodes) taskbar icon; the menu shown in Figure 8-14 pops up.

2. Select **Disconnect** in the popup menu and then select **Configuration** > **TCP Port**.

Figure 8-16: TCP Port

User's Manual   108   Document #: LTRT-14840
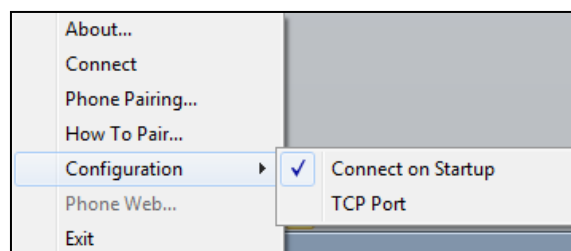
3. From the AC BTOE TCP Port dialog that opens, configure the TCP Port:

Figure 8-17: AC BToE TCP Port

The valid range is 1 to 65535.

➢ **To change the BToE TCP port on the phone side:**

■ See the *Administrator's Manual.*

8.1.4   Enabling BToE for Online Users

> **Note:** To enable BToE for online users, the Skype for Business server must be configured to enable BToE.

8.1.5   Automatically Pairing the BToE PC Application with the Phone

Pairing is automatically performed when the phone's PC port is connected to the PC 'behind' the phone. See the *Administrator's Manual* for more information.

> **Note:** Automatic pairing requires BToE PC application Version 2.x.

If the laptop after *automatic* pairing is disconnected and moved to another location, its speaker/headset becomes the audio device associated with the Skype for Business client.

If the laptop is *manually* paired and then relocated, Skype for Business audio will remain through the phone. It's therefore advisable to pair *automatically*.

> **Note:** If the BToE PC application has already been *manually* paired with the phone, as shown in the section below, and you want to *automatically* pair, you must delete the old pair code from the BToE PC application in order to allow BToE *automatic* pairing:
>
>
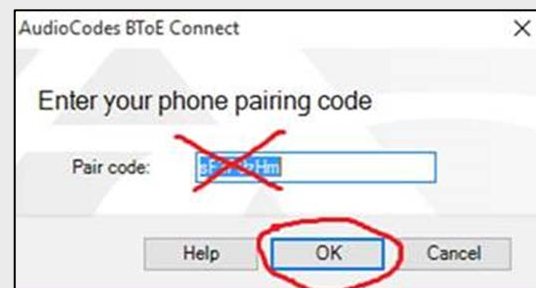
8.1.6 Manually Pairing the BToE PC Application with the Phone

AudioCodes' BToE PC application can be *manually paired* with the phone using a pair code. By default, the phone is *automatically paired* with the PC. Even though the default *automatic pairing* gives users greater freedom, *manual pairing* is still an option, giving users added security, laptop mobility, WiFi mobility and hot desking. Manually pair like this:

1. Generate a pair code (see Section 8.1.6.1)
2. Connect the phone and BToE PC application using the pair code (see Section 8.1.6.2)

> **Note:** If the phone's IP address changes, you'll need to generate a pair code again. If you know the last pair code, you can use it without needing to generate a new one. If you don't know it, continue as described below.

8.1.6.1 Manually Generating a Pair Code

You can manually generate a pair code. Even though the phone's default *automatic pairing* setting gives users greater freedom, *manual pairing* is still an option.

> **Note:** The phone is by default *automatically paired* with the PC. If you want to *manually pair*, your network administrator first needs to change the phone's BToE pairing mode setting. See the *Administrator's Manual* for more information.

➢ **To manually generate a pair code:**

1. After your network administrator changes the phone's default BToE pairing mode setting, press the MENU key on the phone.
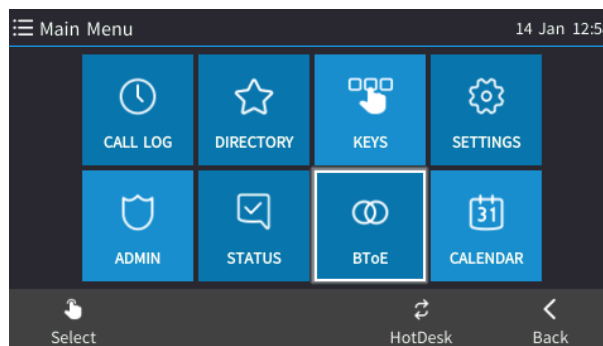
2. Select the **BToE** softkey.
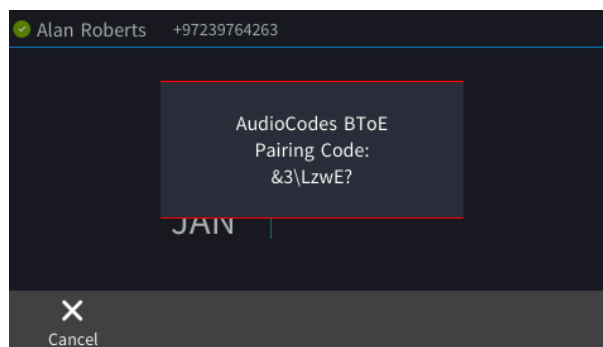
This is the pair code that will be used by the BToE PC application. Make a note of it for reference when connecting the phone with the BToE PC application.

8.1.6.2   Manually Connecting the Phone with the BToE PC Application

Here's how to manually connect the phone with the BToE PC application.

➢ **To connect the two:**

1. Open the AudioCodes BToE Connect screen: Click the BToE client icon placed on your taskbar after installation.

Figure 8-18: Popup Menu
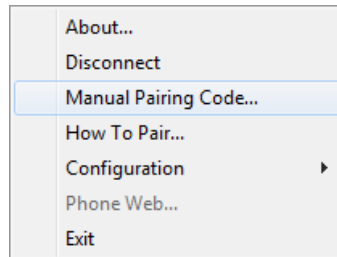
2. Select the **Phone Pairing** option

Figure 8-19: Phone Pairing
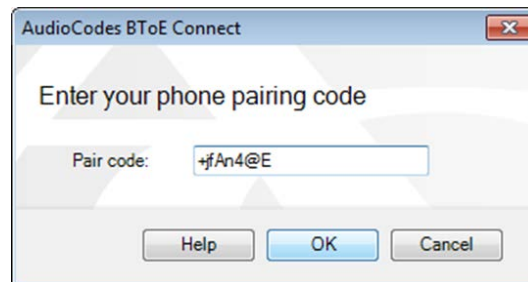
3. In the 'Type the pair code' screen, enter the pair code that you generated as shown in Section 8.1.6.1; the **OK** button is activated after 8 characters are entered.

3. Click the **OK** button; BToE is activated.

4. If a communication error occurs or the wrong pair code was entered, the following icon indication appears:

Figure 8-20: AC BToE Failed Indication
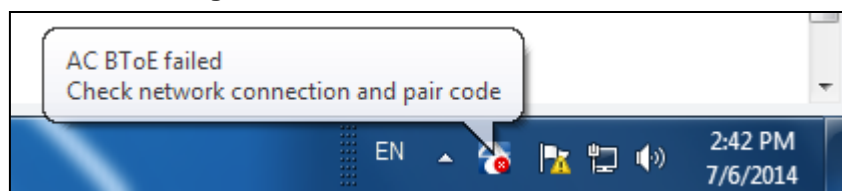
5. When BToE is successfully connected, view the following icon indication:

Figure 8-21: AC BToE is Connected Indication
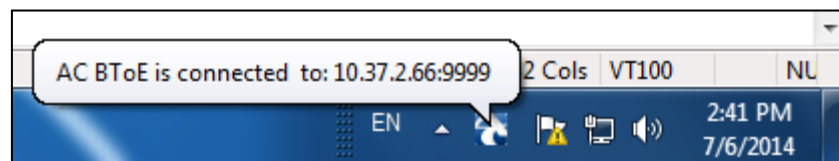
6. When BToE is in 'Connected' state, the popup menu shows the **Disconnect** menu item and the **Phone Pairing** menu item is deactivated:

Figure 8-22: Popup Menu: 'Disconnect' Enabled, 'Phone Pairing' Disabled
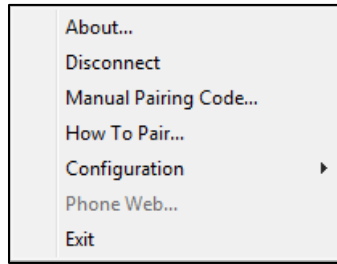
7. After selecting the **Disconnect** menu option, the 'AC BToE Disconnected' indication is displayed:

Figure 8-23: BToE Disconnected
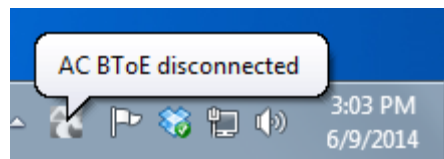
8. From the popup menu as well you can see if BToE is disconnected:

Figure 8-24: Popup Menu: BToE Disconnected
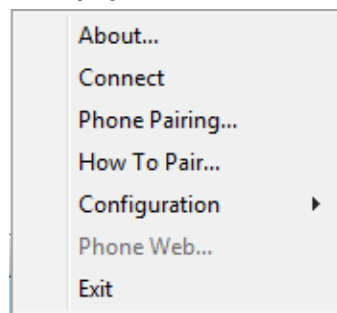
 Note: When BToE is connected, you can select the **Phone Web** menu option to open the phone's the Web interface.

9. Use the table below as reference when determining BToE's connection state from the taskbar icon.

Taskbar Icon	BToE's connection state
	BToE is connected
	BToE is disconnected
	BToE is connected but a failure is preventing a correct connection. The failure can be a network problem or the wrong pair code was defined.

10. From the click popup menu, you can select the **Exit** option; the BToE PC application stops. You can activate the application again from the Start menu as shown in Figure 8-25.

Figure 8-25: Start > Programs > AudioCodes > BToE Controller
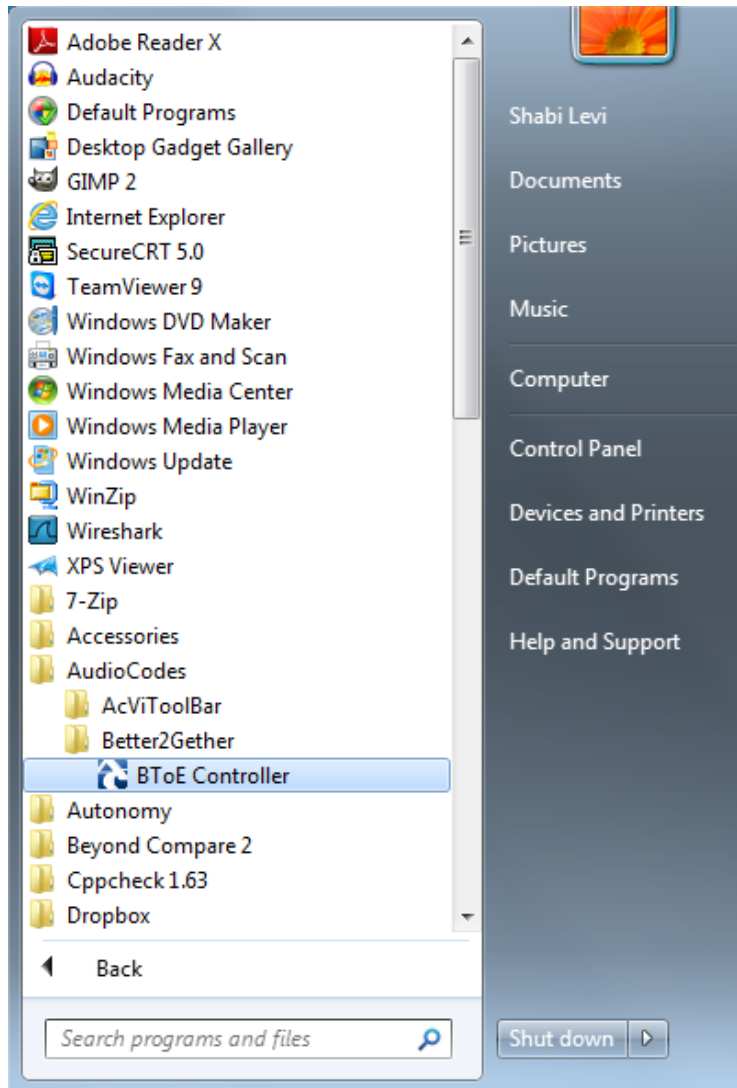
8.1.6.3 Connecting the Skype for Business Client with the Phone

Here's how to connect the Microsoft Skype for Business client with the phone using the Skype for Business login screen.

➢ **To connect the two:**

■ Enter your credentials in the Skype for Business Sign-in request prompt, and click **OK**.

Figure 8-26: Skype for Business Sign-in Request Prompt
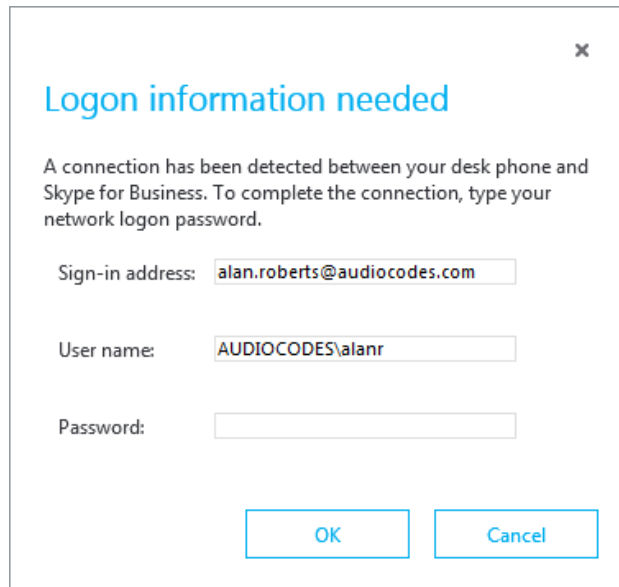
> **Note:** Primary Device cannot be changed in Skype for Business Client PC client during a call. When the phone is in idle mode (not in a call), the PC application must be disconnected in order to change Primary Device. See the *Release Notes*.

8.1.7 Making Sure the Skype for Business Client is Paired with the Phone

Here's how you can make sure you successfully paired the Skype for Business client with your phone.

➢ **To make sure:**

1. In the Skype for Business client application, in the lowermost left corner of the screen, click the Select Primary Device icon ☎ ▾; this popup opens:
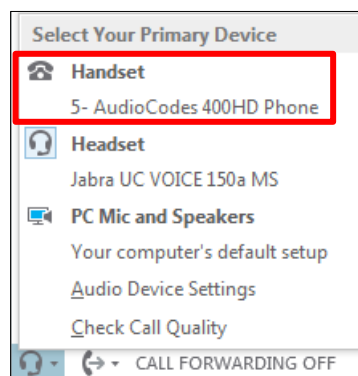
2. Make sure **Handset** is **AudioCodes 400HD Phone**.

8.1.7.1   Making Sure the Phone is Paired with the Skype for Business Client

Two interlocked rings in the upper right corner of the idle screen indicate the phone is paired with the Skype for Business client.
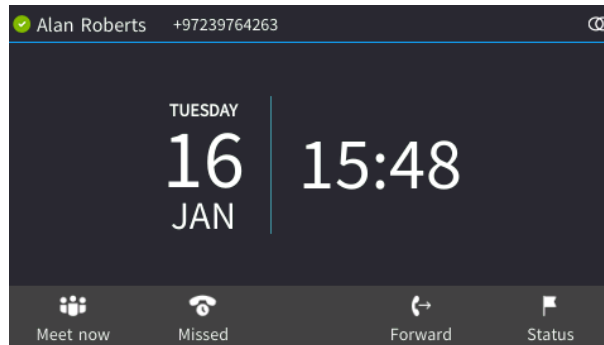
If the idle screen does not display two interlocked rings, the phone is not paired.

After connecting, a 'BToE Activated' notification pops up and then disappears. The two interlocked rings remain.

8.2 Using BToE Functions

Your phone can be used *as an extension of* your Skype for Business client, and *your client* can be used as an extension of your phone, for enhanced unified communications and optimized business efficiency.

Before using BToE functions, you need to install BToE. See the *Administrator's Manual* for detailed information on installing BToE. Before using BToE functions, make sure in the Skype for Business client that the 'Primary Device' selected is **Handset AudioCodes BToE**.

8.2.1 Signing in to the Phone from the Skype for Business Client

You can sign in to the phone from the Skype for Business client.

➢ **To sign in to the phone from the Skype for Business client:**

1. Sign out from the phone; you're notified **BToE is deactivated** and then the Sign-in screen is displayed.

2. On the PC, the Skype for Business client prompts you for Logon information.

3. Enter the same password you use to access your PC and then click **OK**.

4. Unlock the phone after the registration process is complete and the 'BToE Activated' notification is displayed.

   The phone is signed in and the two interlocked rings are displayed indicating that the phone is paired with the PC BToE application.

Note: The phone's IP address may change during the registration process.

8.2.2   Making a Call (Click-to-Dial)

Calls can be made from the PC Skype for Business client or from the phone, whichever is more convenient at the time. Either way, one operation mirrors the other, providing a unified communications experience for optimized enterprise efficiency.

➢ **To make a call:**

1. Call another party from the PC Skype for Business client or from the phone (or from Outlook):

    • Your phone displays the Calling… screen

    • The PC Skype for Business client simultaneously displays the conversation screen

2. When the called party answers, you can only use the phone to talk. The PC Skype for Business client is used to control the call. You can use the phone's speaker, handset or headphones.

8.2.3   Answering a Call

Incoming calls can be answered on the Skype for Business client or phone, whichever is more convenient at the time. Either way, one operation mirrors the other, providing a unified communications experience for optimized enterprise efficiency.

➢ **To answer a call on the phone:**

1. When the phone's Incoming Call screen is displayed, press the **Accept** softkey; the call is answered.

2. End the call by pressing the **End** softkey.

Note: When answering an incoming *video call* with a paired phone, the call is established. The default device is the PC speaker/microphone rather than the phone. Subsequent audio calls will be unaffected; the paired phone will still be the default device.

8.2.4 Establishing a Unified Communications Call Conference

The phone supports multi-party Skype for Business remote conferencing. BToE is not mandatory for conferencing - see Section 8.9 for more information about conferencing. BToE *is* mandatory for *unified communications conferencing*. When BToE is installed, the phone's screen mirrors the PC Skype for Business client; conferencing in the phone's screen then reflects conferencing in the PC Skype for Business client.

The example below shows how BToE integrates phones with PC Skype for Business clients for unified communications call conferencing.
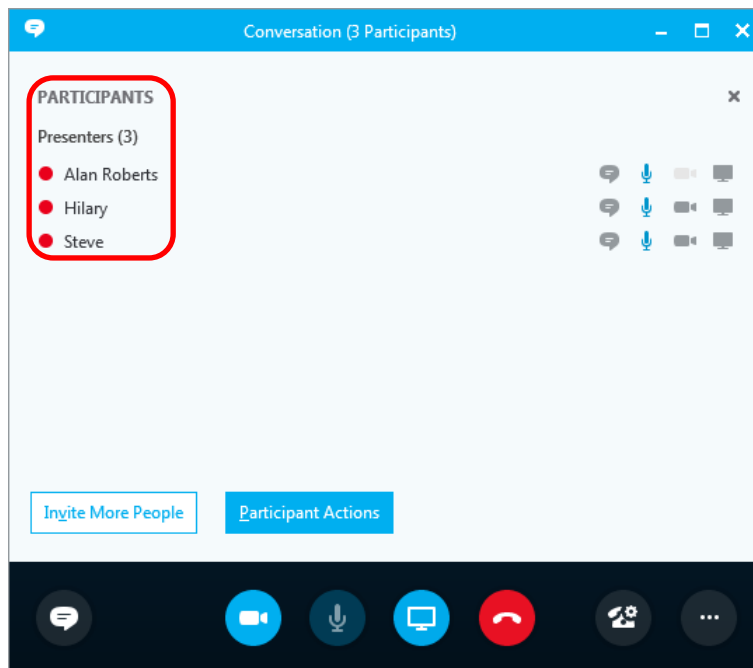
■ In the PC Skype for Business client, Alan calls Steve.
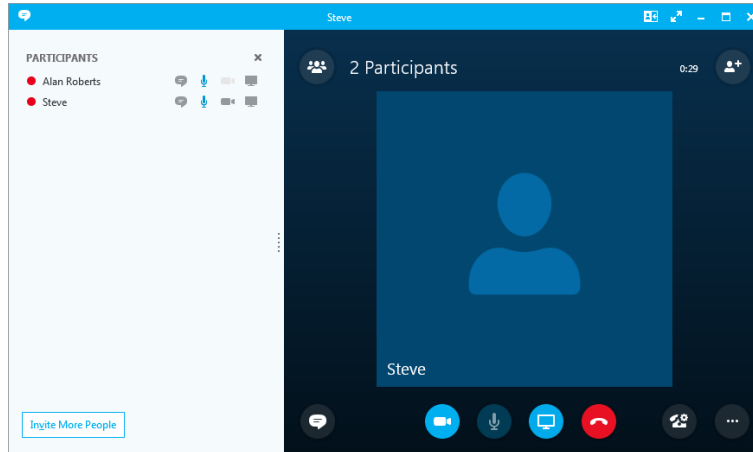
■ Steve answers his phone.

[The screen of another phone model is shown here for illustrative purposes]

■ In his client, Alan clicks **Invite More People** and dials Hilary, who answers.

■   Hilary sees the call is a conference call initiated by Alan and that Steve has been invited:

```
CONFERENCE              10:24
Alan Roberts
Steve

Add   Back   ≔   Far Mute
```

[The screen of another phone model is shown here for illustrative purposes].

> **Note:**
>
> • After making a call in the client, you can invite an unlimited number of other participants.
> • You can use the phone's speaker, handset or headphones to continue the meeting.
> • When a user whose phone is connected to BToE joins a meeting, their phone is muted and the red **MUTE** button is lit. The user can unmute using the phone's **MUTE** button.
> • You can press the phone's **End** softkey to end a meeting.

See Section 8.9 for more information about conferencing.

8.2.5 Transferring a Call

You can transfer a call to another party either from your PC Skype for Business client or phone, whichever is more convenient for you at the time, for an enhanced unified communications experience.

➢ **To transfer a call:**

1. From your PC Skype for Business client or phone, whichever is more convenient, make a call; calling is indicated on both the PC Skype for Business client and the phone.

2. When the called party answers, you can perform a blind transfer or a consultative transfer, using your phone or your PC Skype for Business client, whichever you prefer.

   • For detailed information on performing call transfer with the phone, see Section 8.6.

   • For details on performing call transfer with the PC Skype for Business client, see Microsoft documentation. A guideline is shown below. The operation is mirrored in your phone. Note that a paired Skype for Business client can't perform consultation transfer.
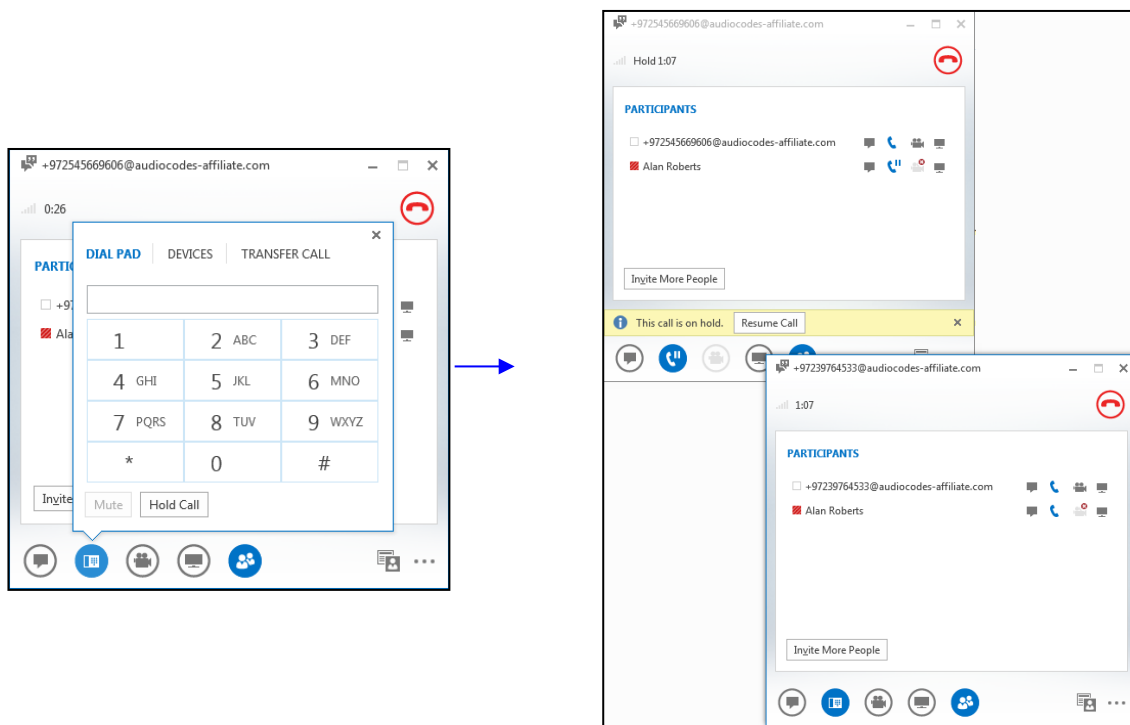
8.2.6 Switching the Primary Audio Device

BToE lets you switch primary audio device, so you can switch from listening to a Skype for Business conversation through the phone handset, for example, to listening on a headset, or from listening on a headset to listening through the phone speaker.

➢ **To determine which audio device is currently primary:**

■ Locate in the lowermost left corner of the Skype for Business client screen the icon indicating 'Primary Device'.

Figure 8-27: Primary Device: IP Phone
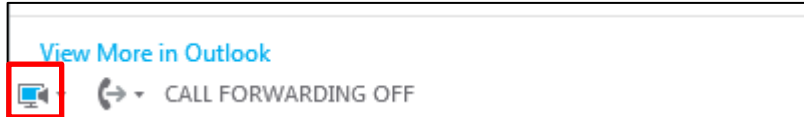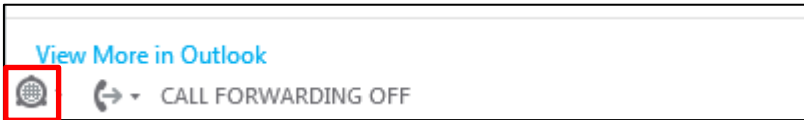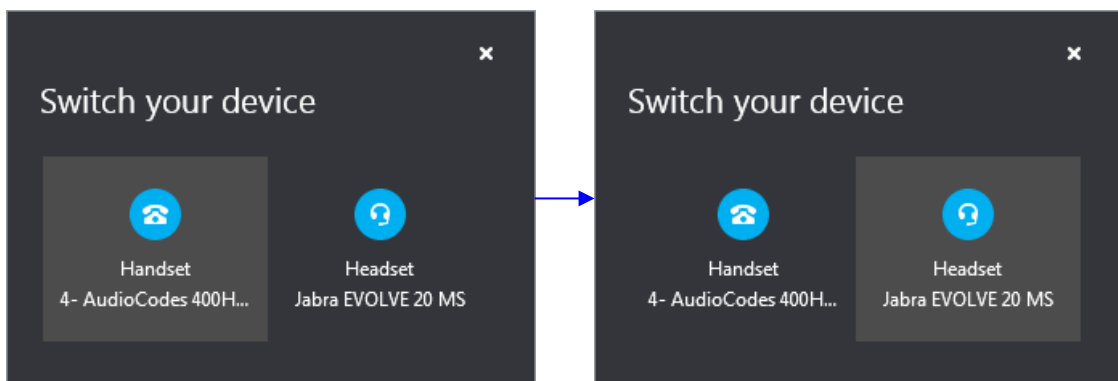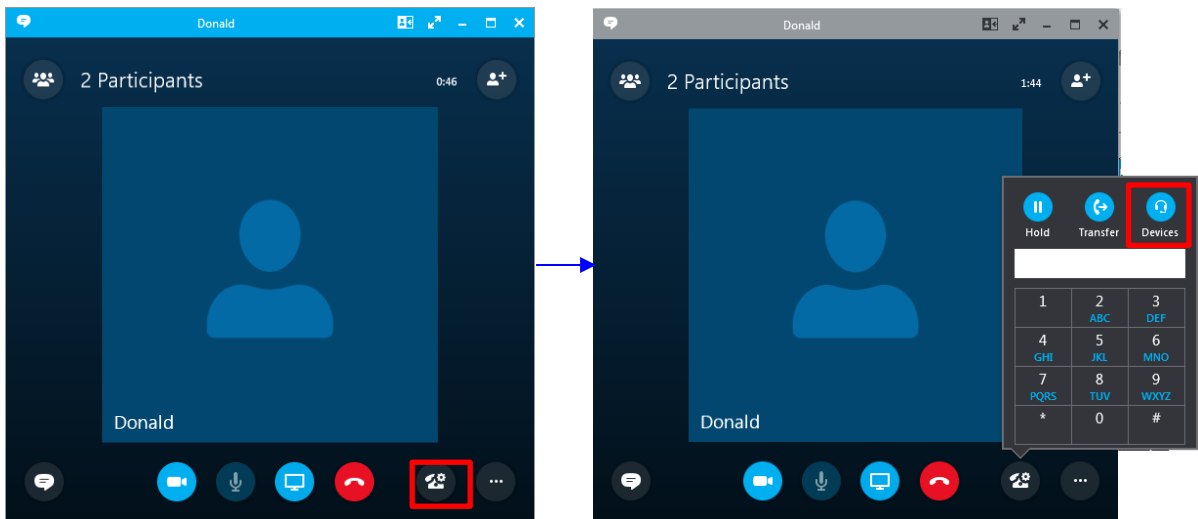
Figure 8-28: Primary Device: Headset

Figure 8-29: Primary Device: Speaker


➢ **To switch primary device:**

■ In a Skype for Business call, click the **Call Control** icon and select **Devices**.

8.2.7 Routing Voice from a Video Call to the Phone

When a video call comes in, video is displayed in the PC Skype for Business client. The user can route the voice from the video call to the phone. In this scenario, the phone performs similarly to a USB device.

The example below illustrates how Ami Lahav, who's in a video call with Yaron Moshkovitz, routes voice to the phone.
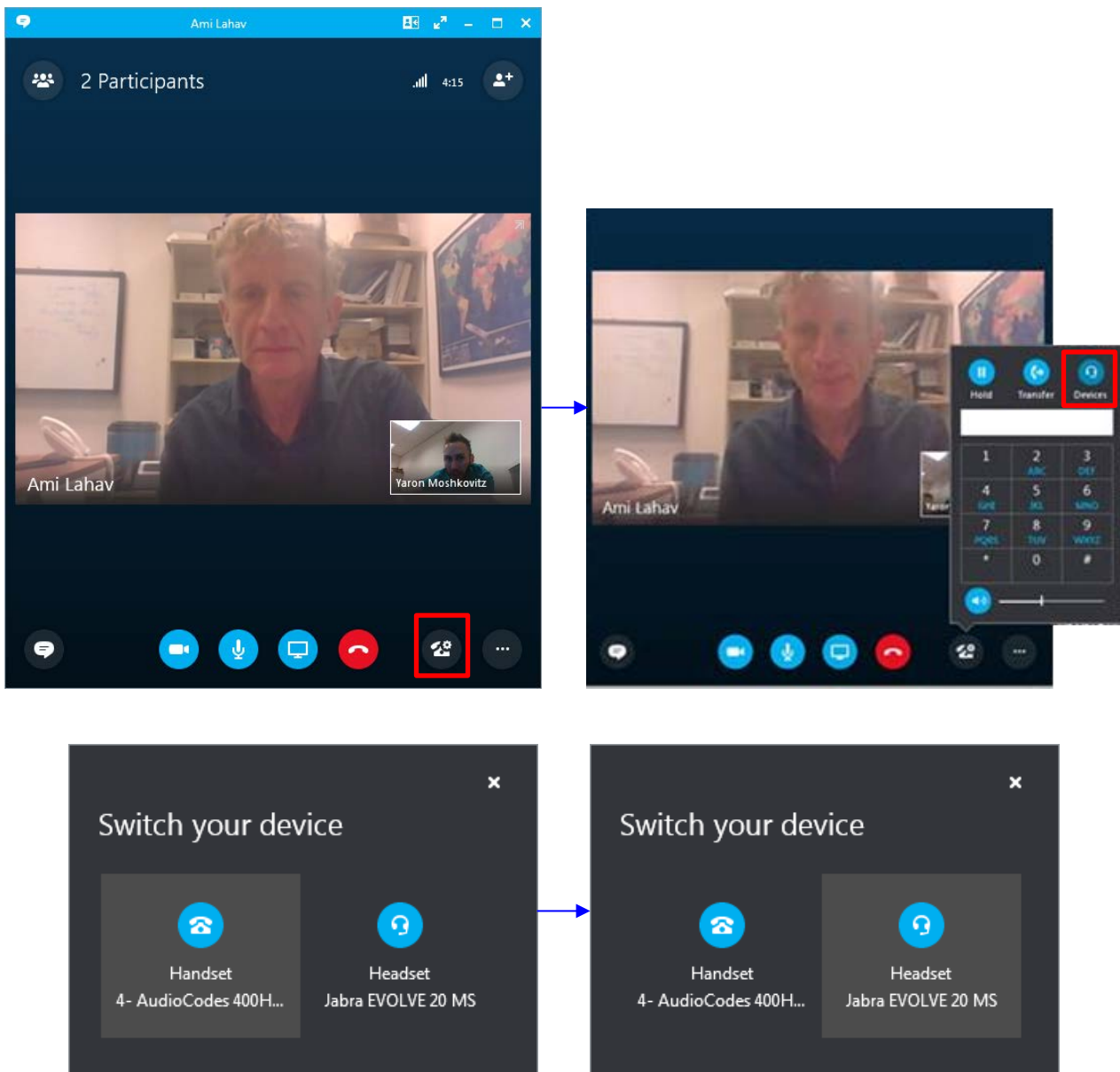
8.3   Viewing and Playing Voicemail Messages

New messages will be in your voicemail box if:

■   The Ring LED on the front of the phone is permanently lit blue (see Figure 2-1, label 1).

■   An envelope icon is displayed in the phone's screen.

■   A stutter dial tone is heard when you pick up the handset.

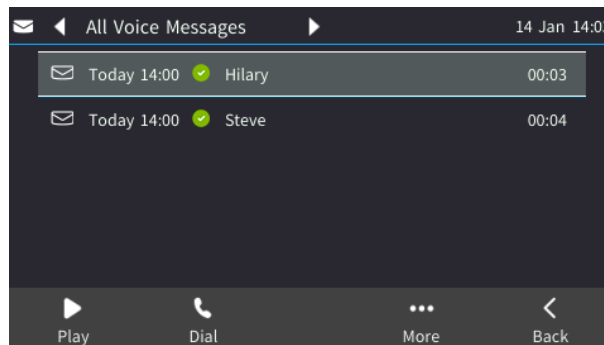■   The voicemail key on the phone is illuminated red

When you have at least **one new messag**e in your voicemail box, you can listen to it.

➢   **To view a list of your voicemail messages:**

1.   Press the voicemail key on the phone. If there is voicemail, the key will be illuminated red.
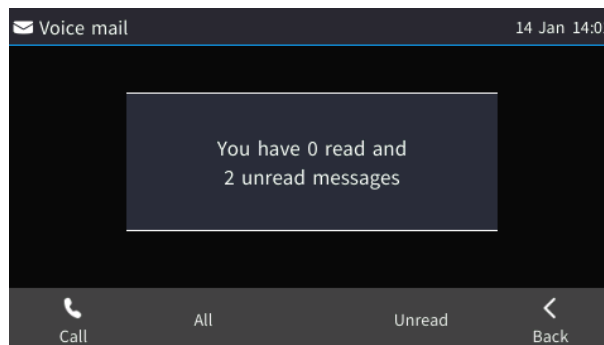
2.   Press the **All** softkey and wait for the list to update.

3.   Scroll to select from the list which message to **Play**, **Dial**, **Mark as read** or **Delete**.

Note:

For this feature to function:

•   Your network administrator must enable private voicemail for you.

You must sign in to the phone with your username and password. If you signed in with your PIN code, voicemail will be unavailable and you'll see the message **Your account is not configured for Exchange Unified Messaging**.

•   Features like this, activated from Microsoft's Exchange Server, are only available after signing in to the phone with username and password.

•   By default, the phone skips PIN code authentication and allows users direct access to voicemail. The network administrators can secure user access to voicemail with PIN code authentication so that when the user presses the voicemail key, they're prompted to enter their PIN code. See the *Administrator's Manual* for details.
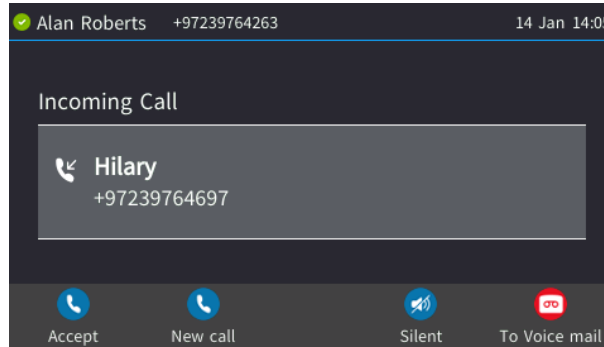

When you have at least **one new messag**e in your voicemail box, you can listen to it.

8.3.1   Sending an Incoming Call Directly to Voicemail

If a time constraints prevent you from answering an incoming call, for example, you can send it directly to voicemail.

➢ **To send an incoming call directly to voicemail:**

■   Press the **To Voice Mail** softkey displayed when the phone rings.

9 Troubleshooting

If a problem with a phone occurs, refer to the table below. Contact your administrator if necessary.

Table 9-1: Troubleshooting

Symptom	Problem	Corrective Procedure
Phone is off (no screen displays and LEDs)	Phone is not receiving power	▪ Verify that the AC/DC power adapter is attached firmly to the DC input on the rear of the phone. ▪ Verify that the AC/DC power adapter is plugged into the electrical outlet. ▪ Verify that the electrical outlet is functional. ▪ If using Power over Ethernet (PoE), contact your network administrator to check that the switch is powering the phone.
'LAN Link Failure' message displayed on screen	No LAN connection	▪ Verify that the LAN cable is connected securely to the LAN port on the rear of the phone. ▪ Verify that the other end of the LAN cable is connected to the network (switch). If it's not, inform your network administrator.
Phone is not ringing	Ring volume is set too low	▪ Increase the volume (see Section 6.12.1)
Screen display is poor	Screen settings	▪ Adjust the phone's screen contrast level (see Section 6.7) ▪ Adjust the screen's backlight timeout (see Section 6.7)
Headset has no audio	Headset not connected properly	▪ Verify that your headset is securely plugged into the headset port located on the side of the phone. ▪ Verify that the headset volume level is adjusted adequately (see Section 6.12.5).

9.1 Uploading Logs to MS Server for Support Purposes

See here.

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