

C450HD IP Phone for Microsoft Skype for Business

Version 3.2.0



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Abbreviations and Conventions

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

Related Documentation

Document Name
405HD IP Phone User's Manual
430HD and 440HD IP Phone User's Manual
445HD IP Phone User's Manual
450HD IP Phone User's Manual
C450HD IP Phone User's Manual
Huddle Room Solution User's Manual
400HD Series IP Phone Administrator's Manual
405HD IP Phone Quick Guide
430HD IP Phone Quick Guide
440HD IP Phone Quick Guide
445HD IP Phone Quick Guide
450HD IP Phone Quick Guide
C450HD IP Phone Quick Guide
Huddle Room Solution Quick Setup Guide - 457
Huddle Room Solution Quick Setup Guide - 458
http://www.audiocodes.com/products/huddle-room-solution-hrs
400HD Series IP Phones for Lync Hosting Partner (LHPv2) Environment Configuration Note
One Voice Operations Center User's Manual
IP Phone Manager Pro Administrator's Manual
IP Phone Manager Express Administrator's Manual

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1 Introduction

This document describes the new features and known constraints of AudioCodes' C450HD IP Phone for Microsoft Skype for Business Version 3.2.0.

1.1 Overview

The AudioCodes C450HD IP phone is a feature-rich, executive, high-end business phone for the Skype for Business market and Teams market.

The C450HD IP phone is equipped with a large 5” color touch screen, optional integrated Wi-Fi and Bluetooth. Bluetooth and Wi-Fi is supported in the USA, Canada, the European Union, Switzerland and Israel, and requires a specific CPN with a ‘BW’ suffix. The list of supported countries is dynamic. Contact your local AudioCodes representative for more information about regional availability and specific country type approvals of Wi-Fi / Bluetooth.

1.2 Features

- Skype for Business
- 8 line, 8 concurrent calls per line
- 5-inch color capacitive 1280 x 720 high-resolution touch (TFT) screen with multi-lingual support
- Touch screen user interface enabling up to 8 Function Keys
- Two Gigabit Ethernet (GbE) interfaces are supported
- Two USB ports for headset support
- Expansion Module support – Skype for Business flavor only
- Wireless connectivity:
 - Single band 2.4GHz, 802.11b/g/n Wi-Fi support
 - Bluetooth 4.2 support

1.3 Specifications

The table below summarizes the software specifications of AudioCodes' C450HD IP Phone for Microsoft Skype for Business.

Table 1-1: C450HD IP Phone for Microsoft Skype for Business Software Specifications

Feature	Details
VoIP Signaling Protocols	<ul style="list-style-type: none"> ▪ SIP: RFC 3261, RFC 2327 (SDP)
Data Protocols	<ul style="list-style-type: none"> ▪ IPv4, TCP, UDP, ICMP, ARP, DNS and DNS SRV for SIP Signaling ▪ SIP over TLS (SIPS) ▪ 802.1x ▪ 802.1p/Q for Traffic Priority and QoS ▪ VLAN Discovery Mechanism (CDP, LLDP) ▪ ToS (Type of Service) field, indicating desired QoS DHCP Client ▪ NTP Client ▪ Microsoft Skype for Business (previously Microsoft Lync) ▪ MS-ICE2 ▪ SHA2 - Open SSL 1.0.1 integrated with TLS 1.2, supporting SHA256, replaced the previous OpenSSL 0.9.8 and TLS 1.0 stacks to comply with Microsoft Skype for Business security requirements

Feature	Details
	<ul style="list-style-type: none"> ▪ OpenSSL 1.0.1m, supporting SHA2 algorithms ▪ OVR (One Voice Resiliency) ▪ Wireless connectivity: <ul style="list-style-type: none"> ✓ Single band 2.4GHz, 802.11b/g/n Wi-Fi support ✓ Bluetooth 4.2
Media Processing	<ul style="list-style-type: none"> ▪ Voice Coders: G.711, G.723.1, G.729A/B, G.722 8000 / G.722 16000), SILK 8000/SILK 16000 (405HD GbE / 430HD GbE /440HD/450HD only), LN. ▪ Acoustic Echo Cancelation: G.168-2004 compliant, 64-msec tail length ▪ Adaptive Jitter Buffer 300 msec ▪ Voice Activity Detection ▪ Comfort Noise Generation ▪ Packet Lost Concealment ▪ RTP/RTCP Packetization (RFC 3550, RFC 3551), SRTP (RFC 3711) ▪ DTMF Relay (RFC 2833)
Telephony Features	<ul style="list-style-type: none"> ▪ BLF presence on buttons; capability for 18 Multiple Points of Presence (MPOPs), including Skype for Business clients. ▪ Busy on Busy ▪ Call Park (phone can park up to 5 calls to a parking lot) ▪ Group Call Pickup ▪ Call Hold / Un-Hold ▪ Call Transfer; the hard TRANSFER key's default functionality (Blind Transfer) can be changed to Consultative Transfer. ▪ Multi-Party Skype for Business Remote Conferencing utilizing CCCP (Centralized Conference Control Protocol) ▪ Redial ▪ Caller ID Notification ▪ Call Waiting Indication, including Caller ID ▪ Message Waiting Indication (including MWI LED) ▪ Local and Corporate Directories ▪ T9 predictive text for Corporate Directory search ▪ Automatic Answering (Alert-Info header and "talk" event) ▪ Automatic On-hook Dialing ▪ Call Logs: Missed/Received Calls and Dialed Numbers ▪ Speed Dials ▪ Boss Admin (not supported on HRS) ▪ URL Dialing ▪ Call Forward (Do not forward, Forward to voice mail, Forward to a number) ▪ Dial plan (supports normalization rules downloaded from the Skype for Business server via in-band provisioning) ▪ Paging w/without Barge-in. Configurability of special keys as paging group dials. (Not supported on HRS). ▪ Better Together over Ethernet (BToE) compatible with Microsoft Skype for Business. (Not supported on HRS). <ul style="list-style-type: none"> ✓ Automatically pairing the phone with the PC/laptop based Skype for Business client. ✓ Video calls: Voice routed to phone; phone performs as a USB device. ✓ Switching audio devices (when automatic pairing).

Feature	Details
	<ul style="list-style-type: none"> ▪ Voicemail (including capability to secure user access with PIN code) ▪ Visual Voice Mail ▪ Integration with Microsoft Exchange Server (Calendar), including meeting reminders. ▪ Automatic device lock ▪ Handles up to 8 concurrent calls (450HD) ▪ Merge option: Two separate calls can be merged into one conference ▪ Integrated Skype for Business 'Favorites' ▪ Location service ▪ Emergency dial (911 service, etc.) ▪ HotDesk ▪ Call Log is synchronized ▪ Power Saving mode (450HD) Backlight Timeout (all other phones when online) ▪ Malicious call tracing ▪ Voice Quality Check ▪ Screen themes (450HD)
Configuration / Management	<ul style="list-style-type: none"> ▪ Device update: Skype for Business server updates the phone's firmware version if different ▪ Quality of Experience (QoE) reports sent to Microsoft's SQL server ▪ Phone User Interface Language Support (Various Languages) ▪ Web-based Management (HTTP/HTTPS) with fully integrated login ▪ One Voice Operations Center (OVOC) module IP Phone Manager Pro v7.4 IP Phone Manager Express v7.4 ▪ Auto-Provisioning (via TFTP, FTP, HTTP, and HTTPS) for firmware and proprietary configuration file upgrade ▪ In-Band Provisioning ▪ DHCP options (66, 67, and 160) for auto-provisioning ▪ DHCP options (120, 60, and 77) for device information ▪ DHCP option (42 or 4) for the NTP server ▪ DHCP option (43) for the URL of the Certificate Provisioning service ▪ DHCP option (2) for the Time Zone Offset ▪ Skype for Business Contacts ▪ LDAP (Lightweight Directory Access Protocol) ▪ Private Labeling Mechanism ▪ Configuration file encryption (Entire file and individual parameters)
Debugging Tools	<ul style="list-style-type: none"> ▪ System Logging (Syslog) ▪ Monitoring (Ping and Traceroute) ▪ DSP Recording ▪ Crash Dump ▪ Port Mirroring ▪ Tracing ▪ Core Dump ▪ Log upload to Microsoft server (certification for 3rd party Skype for Business clients)
Supported Languages	<ul style="list-style-type: none"> ▪ English ▪ Spanish

Feature	Details
	<ul style="list-style-type: none"> ▪ Russian ▪ German ▪ Ukrainian ▪ French ▪ Italian ▪ Hebrew ▪ Polish ▪ Portuguese (displayed only if included in your Feature Key) ▪ Korean ▪ Finnish ▪ Simplified Chinese ▪ Traditional Chinese ▪ Hungarian ▪ Japanese ▪ Slovak ▪ Czech ▪ Latvian (contact person information) ▪ Dutch ▪ Magyar
C450HD Hardware	<ul style="list-style-type: none"> ▪ Five-inch color capacitive 1280 x 720 high-resolution touch (TFT) screen ▪ Connectors interfaces: <ul style="list-style-type: none"> ✓ 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN ✓ RJ-9 port (jack) for headset ✓ RJ-9 port (jack) for handset ✓ Two USB ports for headset support ✓ RJ-11 interface for DHSG ▪ Mounting: <ul style="list-style-type: none"> ✓ Wall and desktop mounting options ✓ One angle for desktop mount, another angle for wall mount ▪ Power: <ul style="list-style-type: none"> ✓ DC jack adapter 12V ✓ Power supply AC 100 ~ 240V ✓ PoE Class 3: IEEE802.3af (optional) ▪ Keys: <ul style="list-style-type: none"> ✓ 8 x softkeys ✓ VOICE MAIL message hotkey (including LED) ✓ 4-way navigation button with OK key ✓ MENU ✓ REDIAL ✓ HOLD ✓ MUTE (including LED) ✓ TRANSFER ✓ VOLUME control key ✓ HEADSET (including LED) ▪ SPEAKER (including LED)

Feature	Details
C450HD Headset Compatibility	<ul style="list-style-type: none">▪ For a comprehensive list of supported Jabra headsets, see the Jabra Headset Compatibility Guide▪ For a comprehensive list of supported Plantronics headsets see http://www.plantronics.com/us/compatibility-guide/#!/search/▪ For a comprehensive list of supported VXi products, see http://www.vxicorp.com/compatibility_guide/▪ Also the following which aren't documented online yet:<ul style="list-style-type: none">✓ Jabra UC-150✓ Jabra Speak 510+✓ Jabra Speak 410✓ Jabra MOTION OFFICE✓ Jabra PRO 9470✓ Jabra Evolve Series 20, 30, 40, 75, 80✓ Microsoft LX-3000✓ Plantronics C-310M✓ Plantronics C-320M✓ Plantronics HW720✓ Plantronics Blackwire Series 300, 325, 510, 520, 710✓ Jabra UC-550✓ Jabra Pro 920 EHS wireless headset✓ Jabra Pro 9450 EHS wireless headset

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2 Version 3.2.0



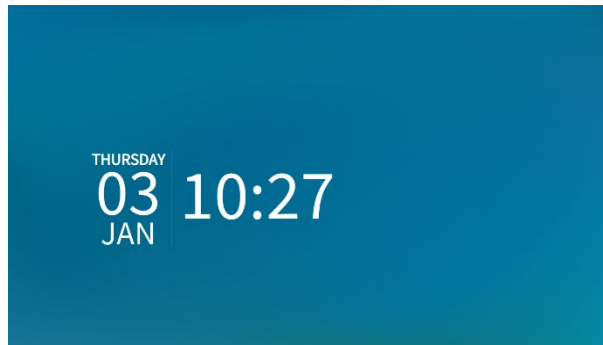
Note:

- Version 3.2.0 includes firmware build **3.2.0.1003.61**.
- The C450HD supports all features from previous Skype for Business phone releases.

2.1 What's New in 3.2.0

The following new feature was added in Version 3.2.0.

- **Screen saver.** A screen saver displaying a digital clock was added to the phone. The feature will allow future customization of the phone. By default, the feature is enabled, but the network administrator can disable it on request with a new configuration file parameter 'personal_settings/ScreenSaverEnabled' that has been added. The timeout is triggered after 300 seconds by default, but it can be configured to 0-600 seconds using the configuration file parameter 'personal_settings/ScreenSaverAwakeTimeout' that has also been added.



2.2 Known Constraints in Version 3.2.0

Here are the constraints known to exist in Version 3.2.0.

Table 2-1: Known Constraints in Version 3.2.0

Incident	Description
106161	[Boss-Admin] A Skype for Business user whose name starts with a small letter and who is configured as Admin, is displayed on the Boss' phone as a URI address rather than with the display name.
105852	[BToE] In the scenarios listed below, the phone performs as a PC playback device and not as a standalone phone. Some call management capabilities consequently go missing, e.g., hold, transfer, conference roster screen. In these scenarios, a regular call may start similarly to a video call, i.e., the phone is used as the PC playback device. Example scenarios: <ul style="list-style-type: none"> ▪ RGS/Delegate call made 'on behalf' from the PC client ▪ Call from IM (Instance Message) that was opened before the phone was paired. This is aligned with Microsoft's BToE implementation.
106432	[BToE with Delegation] When a video call comes in to the Boss, a paired Admin phone will not ring but can accept the call. This is aligned with Microsoft's BToE implementation of video calls.
104326	[Skype for Business 'Favorites'] The phone does not retrieve Outlook contacts from on-premises Microsoft Exchange servers.

Incident	Description
103639	[Multi-Party Skype for Business Remote Conferencing] When a conference is locked, the phone cannot add a user (Skype for Business client or other certified phone) if not admitted within 15 seconds.
103927	Sometimes, the user is unable to join a Skype for Business meeting whose configured 'End time' has passed.
-	[BToE] BToE does not function if PC users are switched without logging off first.
-	[BToE - PC application] Windows 10 users who have the BToE PC application already installed on their PCs must uninstall it before installing the new version of the application.
104040	[BToE] When a paired user answers an incoming team-call, the phone does not present the call as a team-call.
104039	[BToE] When a paired user answers a delegated call, the phone does not show that it's a delegated call.
103961	[BToE video] A paired user cannot answer a second incoming call via the Skype for Business client when having an active video call.
103827	[BToE - video] On a PC with low CPU resources, interference in the voice of a video call might be experienced.
104904	[BToE] Call Transfer from the Skype for Business client to another user can be performed from the phone but not from the client.
97206	[Boss Admin] When Boss performs a handoff to Admin, Admin cannot transfer the call back to Boss with a single-step Handoff softkey. Call Transfer is possible using the Transfer options.
100827	[Boss Admin] Response Group: A call initiated by Admin on Boss' behalf to Response Group cannot be picked up by Boss.
103573	[Boss-Admin in a conference scenario] The Rosters screen does not indicate if a participant is 'On behalf'.
103572	[Boss-Admin in a conference scenario] Admin can't set up a meeting on behalf of Boss.
103651	Provisioning by the Redirect Server doesn't function if the phone receives any provisioning of configuration URL via DHCP options.
93495	The Web interface displays some screens that are inapplicable to Skype for Business.
-	Call Log information is saved to the phone file system once every six hours. Consequently, Call Log information such as missed, received and outgoing calls may not be saved after restarting. [Only relevant if Microsoft Exchange isn't used, i.e., if a user performs a PIN sign-in or if a user is without Microsoft Exchange].
-	Voicemail is supported for Microsoft Exchange Server 2010 and later. A version supporting Voicemail for Microsoft Exchange Server 2007 will be provided if specifically requested.
96709	DHCP Option 160 does not read correctly if there is no forward slash (/) at the end of the sent path.
101269	The Chrome browser cannot be used to manually update the phone's firmware through the Web interface over HTTPS. Internet Explorer can be used instead.
105213	[Voicemail] If the user calls their voicemail and then gets an incoming call, the call with the voicemail is ended rather than put on hold.
107516	[USB headset] [Plantronics C320] Using the 'Mute' key from the USB headset is not recommended since the headset may lose synchronization with the phone. It's preferable to use the phone's mute key instead.

Incident	Description
107485	[USB headset] [Jabra HSC016] Using the volume keys on this headset is not recommended as they send an unexpected unmute command. It's advisable to use the phone's mute key and volume up/down keys instead.
-	[USB headset] [Jabra Evolve 65] The headset hook key cannot be used to accept an incoming call. Instead, the incoming call can be answered from the phone.
IPPSFB-4682	[USB headset] [Plantronics Savi W440-M] The call cannot be disconnected via the headset hook control.
108485	[USB headset] Trying to disconnect/reconnect the USB headset several times may result in the phone becoming 'stuck' and may require a reboot.
109220	If a muted call is put on hold, the mute stops functioning. This behavior is not incorrect but it's different compared to the phone's behavior in version 3.0.1, hence indicated here.
IPPSFB-3731	An online user without PSTN can be added as a Delegate.
-	HTTP Proxy limitations: <ul style="list-style-type: none"> ▪ The feature is only applicable to users who have the AudioCodes One Voice Resiliency (OVR) VoIP application running on AudioCodes' Mediant 800B or 1000B devices in their enterprise. ▪ Only IP phones behind the OVR can access the HTTP proxy ▪ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online
IPPSFB-6321	[USB Headset] Jabra Speak 510 cannot function due to a compatibility issue between it and the new Linux Kernel.

* This issue is planned to be fixed in the next version release.

2.3 Resolved Constraints in Version 3.2.0

Here are the resolved constraints in Version 3.2.0.

Table 2-2: Resolved Constraints in Version 3.2.0

Incident	Description
-	Hot Desking is not supported in this release. It will be supported in future releases.
IPPSFB-6046	[USB Headset] When using a USB headset, the phone occasionally runs into a problem and requires a reboot. Consequently, AudioCodes does not recommend using USB headsets in a deployment yet. A fix for the issue will be provided in the coming weeks.
IPPSFB-6569	[USB Headset] The USB headset controls (mainly Mute/Un-Mute) do not function flawlessly as they should.
IPPSFB-6510	The phone sometimes cannot close the Calling screen when trying to join a Skype for Business meeting and the meeting request is rejected by the server (for example, when the meeting ID does not exist).
IPPSFB-6323	The handset's self-hearing function is too loud.
IPPSFB-4345	Improvements to the German translation
IPPSFB-6106	[Response Group and BToE] Holding a call from the Skype for Business client does not take effect.
IPPSFB-5830	[Calendar] The phone doesn't show the meeting's subject when the subject is long.

Incident	Description
IPPAN-597	A bootloader mismatch between Microsoft Teams firmware and Skype for Business firmware may cause the phone to enter a loop of reboots.
IPPSFB-7232	[Boss-Admin; O365] A call with another user within the same enterprise 'On behalf of Boss' comes through to the Boss but the Boss cannot pick up the call.
IPPSFB-7233	[Boss-Admin; O365] When Admin answers a call and immediately puts it on hold, the call can't be picked up by the Boss.
IPPSFB-6913	[Boss-Admin; O365] The icon in the Admin's phone screen representing the last configured Boss when more than three Bosses are configured, occasionally doesn't display a call count in the corner of the icon.
IPPSFB-6801	[Boss-Admin; O365] One-way voice occasionally occurs after merging Boss into a scheduled Skype for Business meeting.
IPPSFB-7611	[Boss-Admin; O365] Occasionally, calls made 'On behalf of' cannot be picked up by the Boss.
IPPSFB-6303	The phone of an on-premises user cannot fetch the Calendar from Microsoft's Online Exchange.
IPPSFB-7231	[Boss-Admin; O365] A call made to a user within the enterprise 'On behalf of Boss' comes through to the caller with the Admin's (Delegate's) name.
IPPSFB-7238	[450HD, C450HD; O365] The phone reboots without warning after enabling the Calendar feature from the phone's screen.
IPPSFB-6835	Advanced call functions such as Call Transfer and Hold are not executed within the first five seconds of the call; they should be executed within the first five seconds.

3 Previous Releases

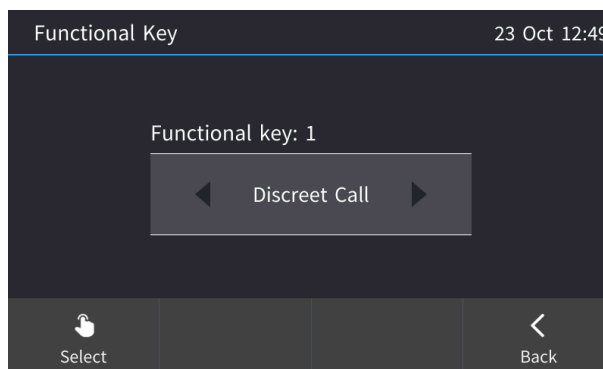
3.1 Version 3.1.3



Note: Version 3.1.3 includes firmware build **3.1.3.130** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

3.1.1 What's New in 3.1.3

- **A call can be made in discreet mode.** The feature answers a requirement for more security measures such as a silent mode call for public institutions. If a call is made in discreet mode, it's a one-way call to a remote phone. The caller's phone does not indicate audially that a call is in progress; the screen remains in idle mode and the backlight is not activated. The only indication that a call is in progress is the presence status of the caller changes to red (busy). The caller cannot end the call. The call is activated by a new, user-configurable function key:



It's recommended that the called party's phone be a dedicated phone to avoid the scenario of being on another call when needed for the discreet call; the phone automatically answers the discreet call; there is no need to pick up the handset. The called party then 'listens' to what's happening at the caller's end. When the called party ends the call, the call ends on both sides.



Note:

- Both caller and called party phones must be AudioCodes phones.
- The feature is not supported on the 405HD phone.
- Device Lock must be disabled on the called party's phone
- The call runs via the Skype for Business server as a regular call when the phone tunes the behavior to match the required functionality.

- **BToE support for Citrix XenDesktop virtual desktop infrastructure (VDI).** BToE can connect a phone in a XenDesktop environment. To connect the phone to XenDesktop, the network administrator must set the configuration file parameter `/lync/BToE/pairing_mode` to the newly available value **VDI**. BToE version 2.1.8 must be installed.

BToE runs in the following XenDesktop modes:

- **Persistent Sessions.** In this mode, a dedicated VM is used per user; it's always active.
- **Non-Persistent Session.** In this mode, the user is connected to an available VM in the pool. After the user logs off, the machine can be used by another user. When the user is connected, their settings and data are restored.

After the user is connected to the XenDesktop environment and signs-in to Skype for Business, all BToE functions are available. BToE runs on Xen Desktop, paired manually to the phone. The user's pc running the XenDesktop client can be connected directly to the phone. The BToE application runs on XenDesktop and is paired via manual IP pairing. During a video call, audio is routed from the XenDesktop client to the phone.



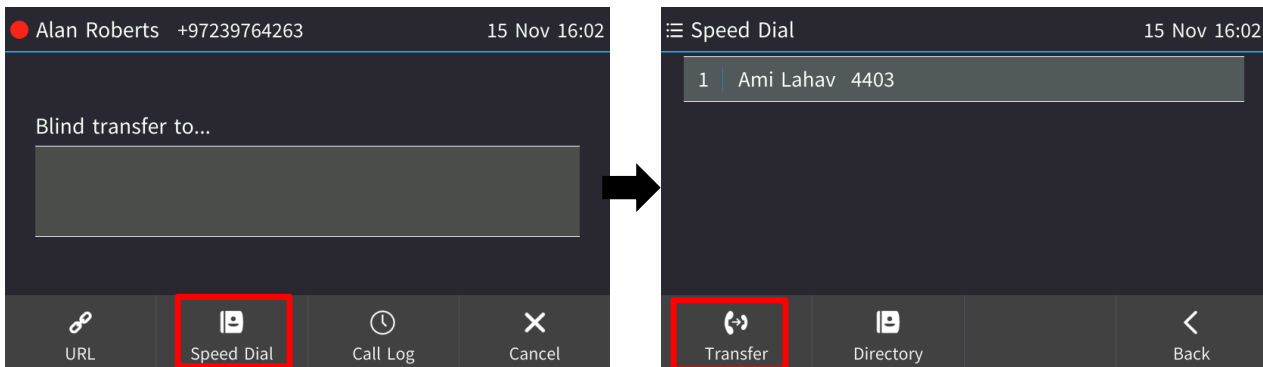
Note:

- HDI optimization must be disabled for BToE to function correctly with Citrix XenDesktop.
- Citrix XenDesktop Core Application should run on Windows server 2012 R2 while the XenDesktop application (for the remote users) runs on Windows 10.
- Thin client is not supported.

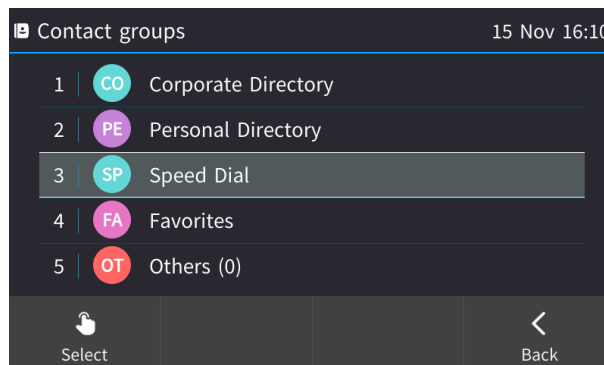
- **The BToE application is more flexible in terms of the user name format.** The BToE application can now receive the username in NetBIOS format (**domain\user**, for example, **companyname\johnb**) in addition to the existing User Principal Name (UPN) format (**user@domain**, for example, johnb@companyname.com) to sign in via the Skype for Business client. BToE version 2.1.8 must be installed.

A new configuration file parameter 'lync/BToE/use_UPN_str' has been added to support this feature. The network administrator must configure it to 1 (Default: 0).

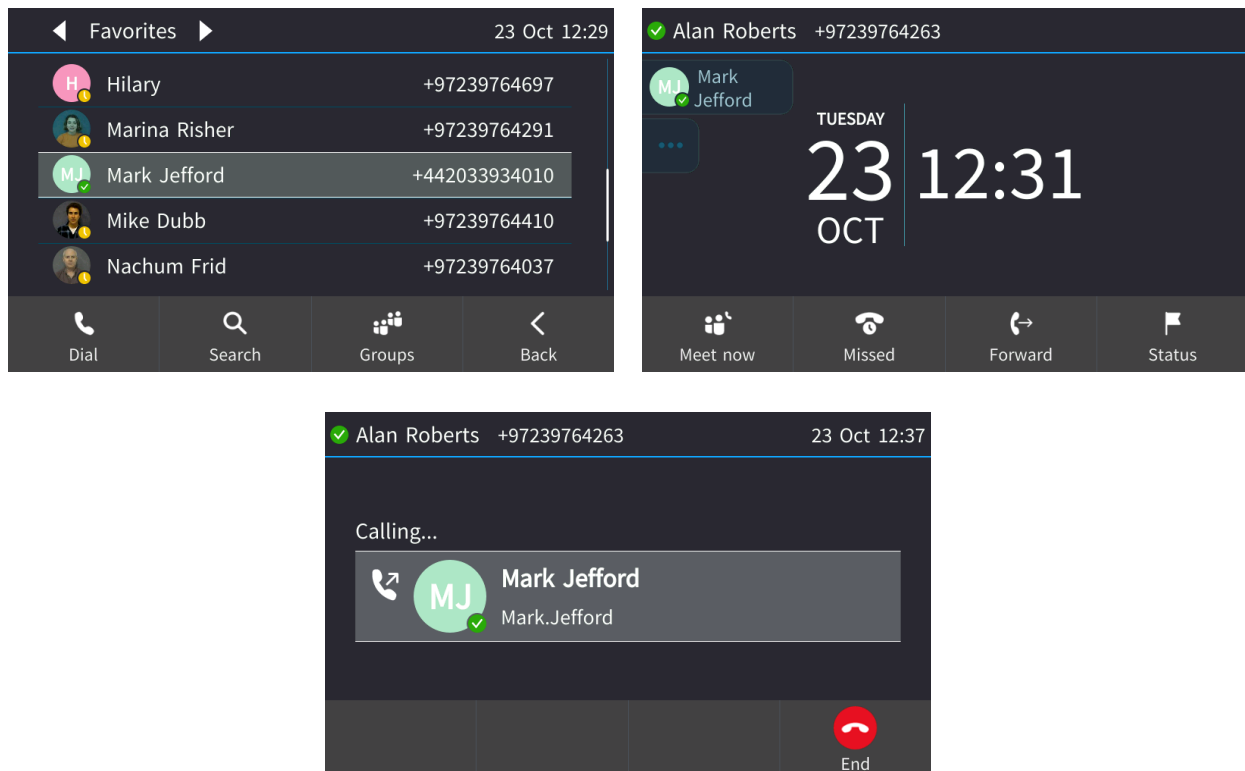
- **450HD phone users and HRS users can access speed dials when an established call is in progress.** A new softkey has been added to the 450HD phone and to the HRS to allow users to access configured speed dials during an active call. The access allows users to transfer the call, add an attendee to a conference, etc.



Users of the 450HD phone and HRS can also access the speed dials when the phone is idle, by pressing the CONTACTS hard key and then selecting Groups.



- **A contact's initials [in color] are displayed instead of the contact's picture if the phone does not find the contact's picture.**



The figures show the Favorites screen [upper left] including a contact's initials instead of their picture, the idle screen [upper right] with a speed dial to a contact, and the Calling screen [lowermost].

Contacts' initials are also briefly displayed when opening (for example) the Calls Log before the phone finds and loads the contacts' pictures.

- **Configuration of Programmable Keys in the HRS phone's screen is now allowed.** Users were previously restricted from configuring programmable keys in the HRS.
- **Network administrators can allow / disallow management via the phone's Web interface without requiring a phone reboot.** A new configuration file parameter 'system/web/enabled' has been added to support the feature.
 - **0** disallows management via the phone's Web interface
 - **1** (default) allows management via the phone's Web interface

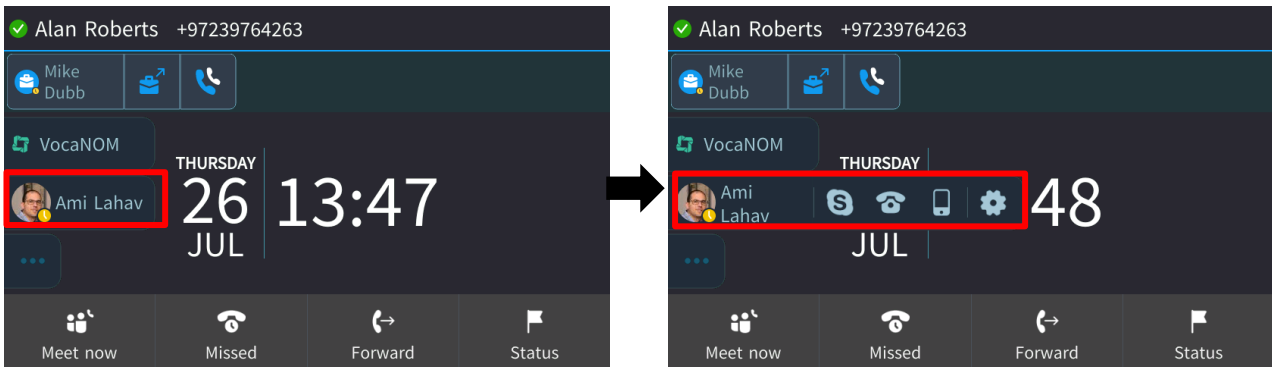
3.2 Version 3.1.2



Note: Version 3.1.1 includes firmware build **3.1.2.89** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

3.2.1 What's New in 3.1.2

- **Enhanced speed dialing [450HD phone].** The user can now long-press a speed dial displayed in the 450HD phone's screen or in the 450HD phone Expansion Module, for a popup menu to pop up. The new long-press option replaces the previous option which was to configure a Function Key.



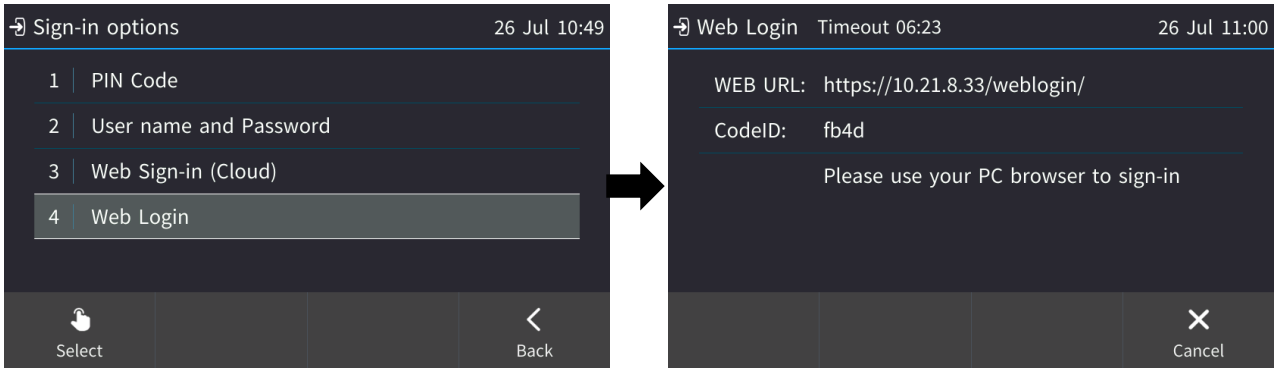
The user can then touch an item in the popup menu to directly activate its functionality.

Popup Menu Item	Functionality
	Directly calls the Skype for Business phone of the contact to whom the speed dial is configured.
	Directly calls the office phone of the contact to whom the speed dial is configured.
	Directly calls the mobile phone of the contact to whom the speed dial is configured.
	Opens the Function Key settings for quick access to the configuration of the speed dial to the contact.

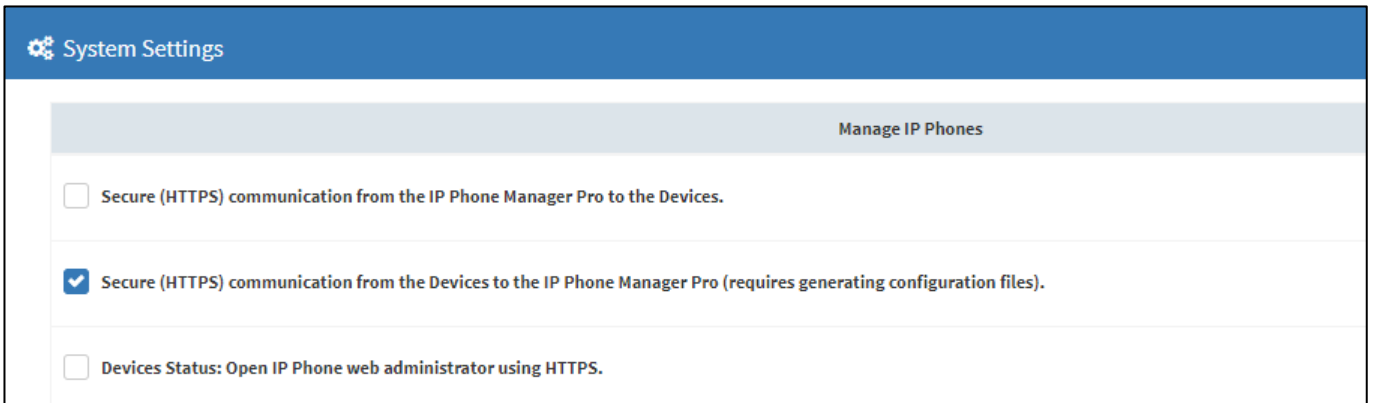


Note: *Touching a speed dial still dials the default option, namely, a Skype for Business call.*

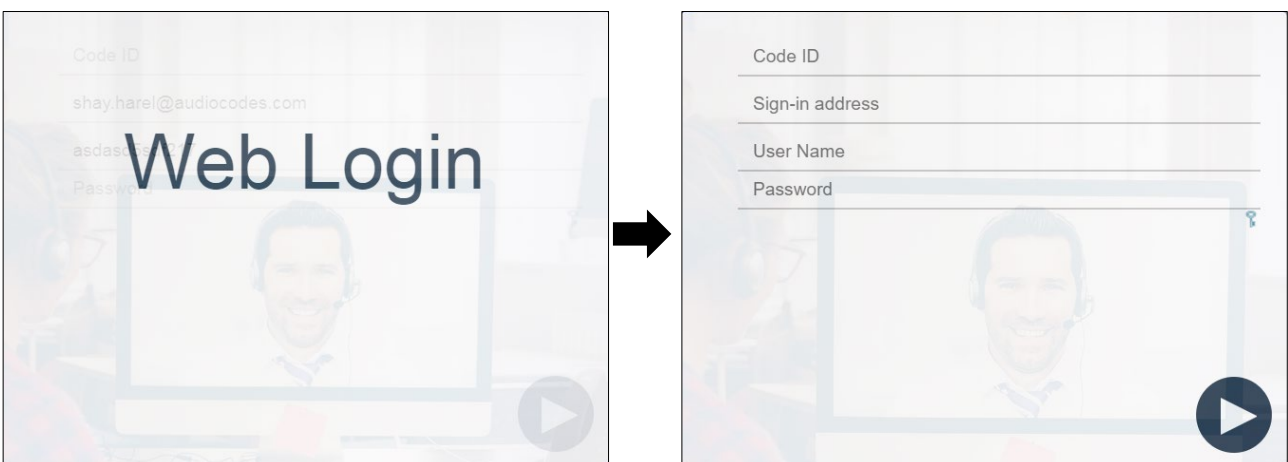
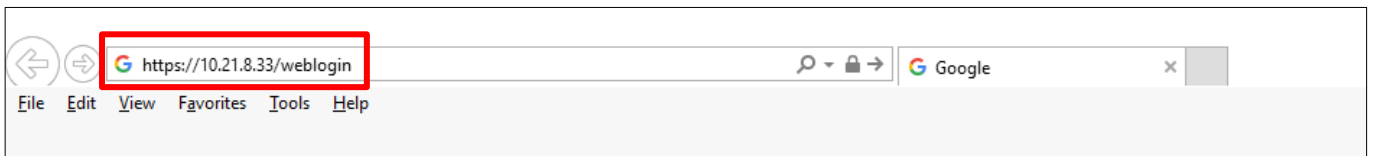
- The **Web login method** for signing in to the phone has been improved security-wise, whereby the IP Phone Manager now acts as a secure proxy between the user's browser and the phone. The aim of this enhancement is to allow the use of HTTPS with signed certificates between the user's PC browser and the IP Phone Manager. The IP Phone Manager Pro/Express server *intermediates* between the user's internet browser and the phone. This feature is supported by IP Phone Manager Pro/Express from Version 7.4.3093 and later. For earlier versions, the phone falls back to the previous Web login method and allows the user to sign-in by browsing directly to the phone.



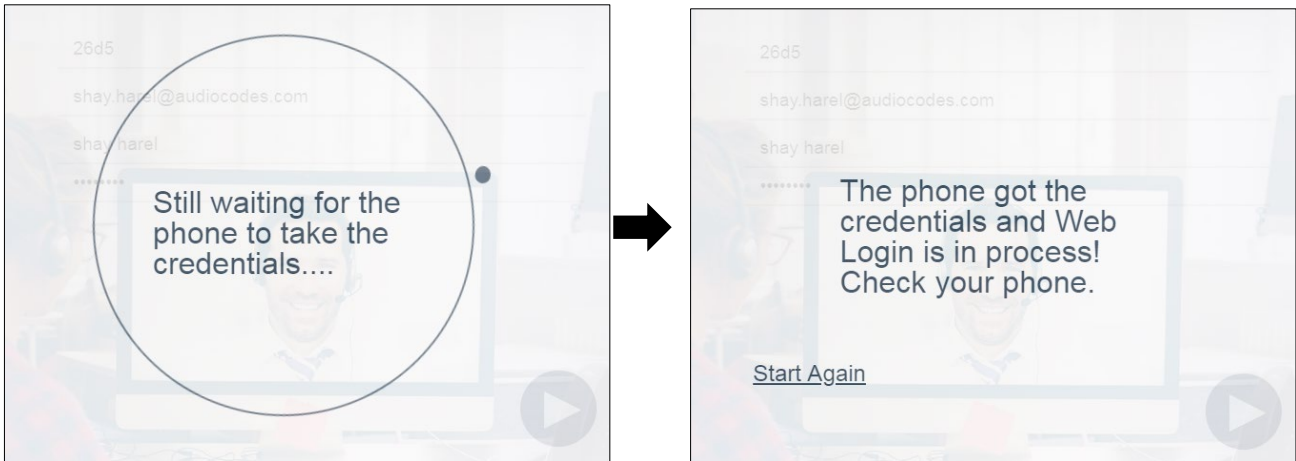
- The parameter 'Secure (HTTPS) communication' in AudioCodes' IP Phone Manager Pro/Express management interface must be enabled for the Web Login feature to function.



- In the internet browser, the user browses over HTTPS to the URL that is displayed on the phone's LCD. This URL resides on the IP Phone Manager Pro/Express server.

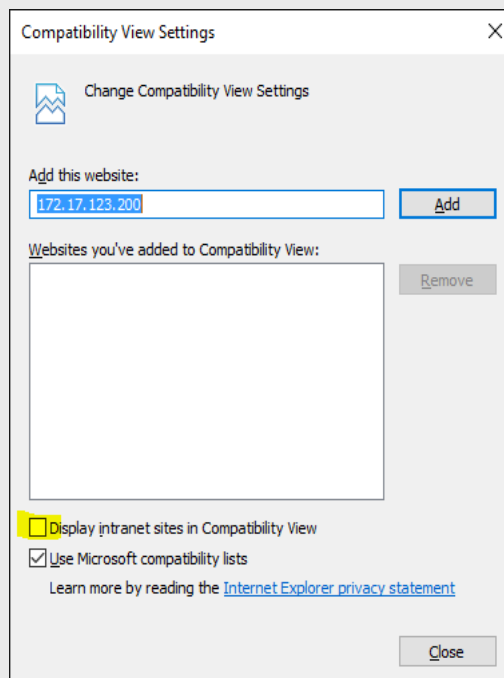


The Code ID is a random 4-character string generated by the IP Phone Manager Pro/Express server. The user gets it from the phone screen prompt. It's valid for 10 minutes. The user uses the PC keyboard to enter the Code ID and the user credentials.

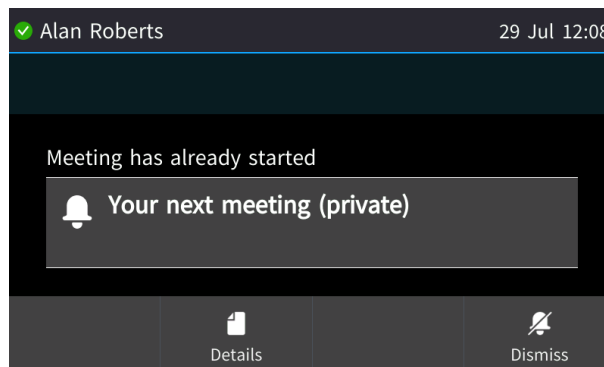
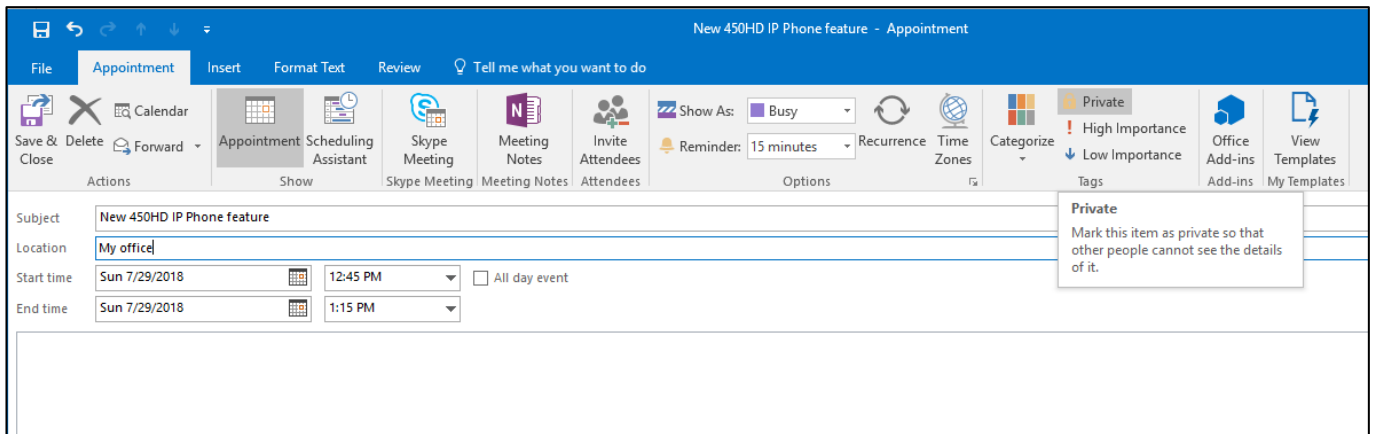


The server then sends the credentials over HTTPS to the phone. If the phone screen indicates that the Web Login is unsuccessful, the user can 'Start Again' and enter their credentials.

Note: For old IE browsers, you may need to clear the **Display intranet sites in Compatibility View** check box (Tools > Compatibility View Settings).



- The phone displays Calendar meetings configured as 'Private' in Microsoft Exchange, without identifying details such as subject.



3.3 Version 3.1.1

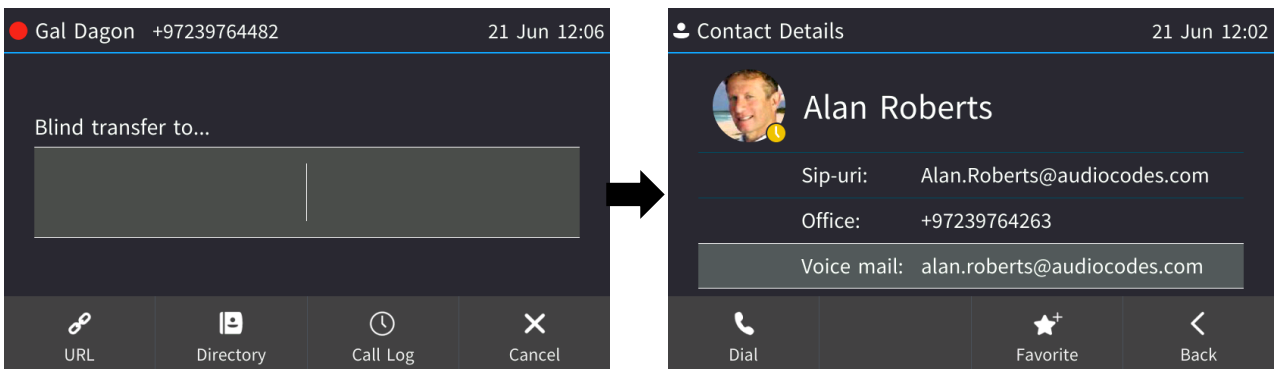


Note: Version 3.1.1 includes firmware build **3.1.1.43.1** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

3.3.1 What's New

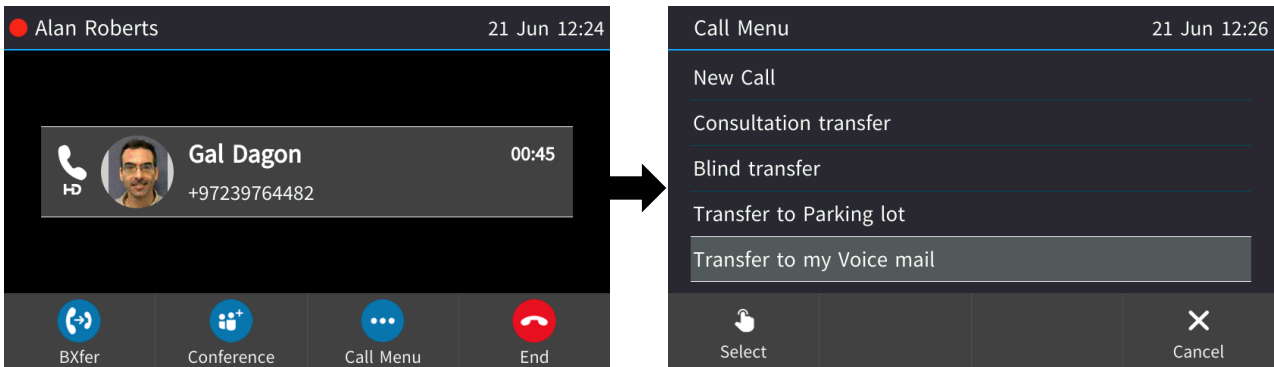
- **New options to transfer to voicemail:**
 - Users can *directly call a contact's voicemail* and leave their voice message in it
 - Users can transfer an existing call to *My Voicemail*, that is, to their own voicemail
 - Users can transfer an existing call with contact X *to the voicemail of contact Y*

Transferring X to Y's voicemail:



The Contact Details screen shown above is also used to directly call a contact's voicemail but the screen is accessed from the Directory.

Transferring an established call to My Voicemail:



- **Distinctive Ringing has been enhanced to allow control over the volume of Boss's ringtone.** Boss-Admin distinctive ringing was added in the previous version release to allow the Admin to configure a distinctive ring for each configured Boss. In this version release, the Admin can set a different volume for each Boss's ringtone.
- **The 'Speed Dial' option includes 'Speed Dial + BLF'.** From this version on, the 'Speed Dial + BLF' (Busy Lamp Field used to indicate user presence) option is *included* in the 'Speed Dial'. 'Speed Dial' detects and presents user presence as well as allowing quick dialing.

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