

# 400HD Series IP Phones for Microsoft Skype for Business

## Version 3.2.1



**Microsoft Partner**  
Gold Communications





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## Notice

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This document is subject to change without notice.

Date Published: June-21-2022

## WEEE EU Directive

Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

## Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our website at <https://www.audiocodes.com/services-support/maintenance-and-support>.

## Stay in the Loop with AudioCodes



## 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
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
Huddle Room Solution Quick Setup Guide - 457
Huddle Room Solution Quick Setup Guide - 458
<a href="http://www.audiocodes.com/products/huddle-room-solution-hrs">http://www.audiocodes.com/products/huddle-room-solution-hrs</a>
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

## Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our website at <https://online.audiocodes.com/documentation-feedback>.

# 1 Introduction

This document describes the new features and known constraints of AudioCodes' 400HD Series IP Phones for Skype for Business Version 3.2.1.



AudioCodes-certified Skype for Business Online devices are supported by Microsoft Teams.

## 1.1 Overview

AudioCodes' 400HD Series of Skype for Business-compatible IP phones offer enhanced voice quality and clarity for users of Microsoft Unified Communications. The phones' wide range of essential business features, reliability and certified interoperability make them the perfect choice for any Skype for Business deployment, from small businesses up to large multi-site enterprises.

AudioCodes is a leading Microsoft partner with a complete offering of voice-enabling solutions for the Microsoft Skype for Business Unified Communications market. In addition to IP phones, AudioCodes' portfolio for Microsoft Skype for Business includes Media Gateways, Survivable Branch Appliances (SBA), Enterprise Session Border Controllers (E-SBCs), and Call Recording.

## 1.2 Specifications

The table below summarizes the software specifications of AudioCodes' 400HD Series IP Phones for Microsoft Skype for Business.

**Table 1-1: 400HD Series IP Phones for Microsoft Skype for Business Software Specifications**

Feature	Details
<b>VoIP Signaling Protocols</b>	<ul style="list-style-type: none"> <li>■ SIP: RFC 3261, RFC 2327 (SDP)</li> </ul>
<b>Data Protocols</b>	<ul style="list-style-type: none"> <li>■ IPv4, TCP, UDP, ICMP, ARP, DNS and DNS SRV for SIP Signaling</li> <li>■ SIP over TLS (SIPS)</li> <li>■ 802.1x</li> <li>■ 802.1p/Q for Traffic Priority and QoS</li> <li>■ VLAN Discovery Mechanism (CDP, LLDP)</li> <li>■ ToS (Type of Service) field, indicating desired QoS DHCP Client</li> <li>■ NTP Client</li> <li>■ Microsoft Skype for Business (previously Microsoft Lync)</li> <li>■ MS-ICE2</li> <li>■ 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</li> <li>■ OpenSSL 1.0.1m, supporting SHA2 algorithms</li> <li>■ OVR (One Voice Resiliency)</li> <li>■ Wireless connectivity (445HD and C450HD):               <ul style="list-style-type: none"> <li>• Single band 2.4GHz, 802.11b/g/n Wi-Fi support</li> </ul> </li> </ul>
<b>Media Processing</b>	<ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Acoustic Echo Cancellation</li> <li>■ Adaptive Jitter Buffer 300 msec</li> <li>■ Voice Activity Detection</li> <li>■ Comfort Noise Generation</li> <li>■ Packet Lost Concealment</li> <li>■ RTP/RTCP Packetization (RFC 3550, RFC 3551), SRTP (RFC 3711)</li> <li>■ DTMF Relay (RFC 2833)</li> </ul>

Feature	Details
<b>Telephony Features</b>	<ul style="list-style-type: none"> <li>■ BLF presence on buttons; capability for 18 Multiple Points of Presence (MPOPs), including Skype for Business clients.</li> <li>■ Busy on Busy</li> <li>■ Call Park (phone can park up to 5 calls to a parking lot)</li> <li>■ Group Call Pickup</li> <li>■ Call Hold / Un-Hold</li> <li>■ Call Transfer; the hard TRANSFER key's default functionality (Blind Transfer) can be changed to Consultative Transfer.</li> <li>■ Multi-Party Skype for Business Remote Conferencing utilizing CCCP (Centralized Conference Control Protocol)</li> <li>■ Redial</li> <li>■ Caller ID Notification</li> <li>■ Call Waiting Indication, including Caller ID</li> <li>■ Message Waiting Indication (including MWI LED)</li> <li>■ Local and Corporate Directories</li> <li>■ T9 predictive text for Corporate Directory search</li> <li>■ Automatic Answering (Alert-Info header and "talk" event)</li> <li>■ Automatic On-hook Dialing</li> <li>■ Call Logs: Missed/Received Calls and Dialed Numbers</li> <li>■ Speed Dials</li> <li>■ Boss Admin (not supported on HRS)</li> <li>■ URL Dialing</li> <li>■ Call Forward (Do not forward, Forward to voice mail, Forward to a number)</li> <li>■ Dial plan (supports normalization rules downloaded from the Skype for Business server via in-band provisioning)</li> <li>■ Paging w/without Barge-in. Configurability of special keys as paging group dials. (Not supported on HRS).</li> <li>■ Better Together over Ethernet (BToE) compatible with Microsoft Skype for Business. (Not supported on HRS). <ul style="list-style-type: none"> <li>• Automatically pairing the phone with the PC/laptop based Skype for Business client.</li> <li>• Video calls: Voice routed to phone; phone performs as a USB device.</li> <li>• Switching audio devices (when automatic pairing).</li> </ul> </li> <li>■ Voicemail (including capability to secure user access with PIN code)</li> <li>■ Visual Voice Mail</li> <li>■ Integration with Microsoft Exchange Server (Calendar), including meeting reminders.</li> <li>■ Automatic device lock</li> <li>■ Handles up to 8 concurrent calls (450HD)</li> <li>■ Merge option: Two separate calls can be merged into one conference</li> <li>■ Integrated Skype for Business 'Favorites'</li> <li>■ Location service</li> <li>■ Emergency dial (911 service, etc.)</li> <li>■ HotDesk</li> <li>■ Call Log is synchronized</li> <li>■ Power Saving mode (450HD) Backlight Timeout (all other phones when online)</li> <li>■ Malicious call tracing</li> <li>■ Voice Quality Check</li> <li>■ Screen themes (450HD)</li> </ul>

Feature	Details
<b>Configuration / Management</b>	<ul style="list-style-type: none"> <li>■ Device update: Skype for Business server updates the phone's firmware version if different</li> <li>■ Quality of Experience (QoE) reports sent to Microsoft's SQL server</li> <li>■ Phone User Interface Language Support (Various Languages)</li> <li>■ Web-based Management (HTTP/HTTPS) with fully integrated login</li> <li>■ One Voice Operations Center (OVOC) module IP Phone Manager Pro v7.4   IP Phone Manager Express v7.4</li> <li>■ Auto-Provisioning (via TFTP, FTP, HTTP, and HTTPS) for firmware and proprietary configuration file upgrade</li> <li>■ In-Band Provisioning</li> <li>■ DHCP options (66, 67, and 160) for auto-provisioning</li> <li>■ DHCP options (120, 60, and 77) for device information</li> <li>■ DHCP option (42 or 4) for the NTP server</li> <li>■ DHCP option (43) for the URL of the Certificate Provisioning service</li> <li>■ DHCP option (2) for the Time Zone Offset</li> <li>■ Skype for Business Contacts</li> <li>■ LDAP (Lightweight Directory Access Protocol)</li> <li>■ Private Labeling Mechanism</li> <li>■ Configuration file encryption (Entire file and individual parameters)</li> <li>■ Access via Telnet or SSH (SSH applies to 445HD, 445HD-R, 450HD, C450HD and HRS)</li> </ul>
<b>Debugging Tools</b>	<ul style="list-style-type: none"> <li>■ System Logging (Syslog)</li> <li>■ Monitoring (Ping and Traceroute)</li> <li>■ DSP Recording</li> <li>■ Crash Dump</li> <li>■ Port Mirroring</li> <li>■ Tracing</li> <li>■ Core Dump</li> <li>■ Log upload to Microsoft server (certification for 3<sup>rd</sup> party Skype for Business clients)</li> </ul>
<b>Supported Languages</b>	<ul style="list-style-type: none"> <li>■ English</li> <li>■ Spanish</li> <li>■ Russian</li> <li>■ German</li> <li>■ Ukrainian</li> <li>■ French</li> <li>■ Italian</li> <li>■ Hebrew</li> <li>■ Polish</li> <li>■ Portuguese (displayed only if included in your Feature Key)</li> <li>■ Korean</li> <li>■ Finnish</li> <li>■ Simplified Chinese</li> <li>■ Traditional Chinese</li> <li>■ Hungarian</li> <li>■ Japanese</li> <li>■ Slovak</li> <li>■ Czech</li> <li>■ Latvian (contact person information)</li> <li>■ Dutch</li> <li>■ Magyar</li> </ul>

Feature	Details
405HD Hardware	<ul style="list-style-type: none"><li>■ <b>LCD screen:</b> Graphic LCD (128 X 48)</li><li>■ <b>Connectors interfaces:</b><ul style="list-style-type: none"><li>• 2 x RJ-45 ports (10/100/1000 BaseT Ethernet) for WAN and LAN</li><li>• RJ-9 port (jack) for headset</li><li>• RJ-9 port (jack) for handset</li></ul></li><li>■ <b>Mounting:</b><ul style="list-style-type: none"><li>• Wall and desktop mounting options</li><li>• One angle for desktop mount, another angle for wall mount</li></ul></li><li>■ <b>Power:</b><ul style="list-style-type: none"><li>• DC jack adapter 12V</li><li>• Power supply AC 100 ~ 240V</li><li>• PoE Class 1: IEEE802.3af (optional)</li></ul></li><li>■ <b>Keys:</b><ul style="list-style-type: none"><li>• 4 x softkeys</li><li>• VOICE MAIL message hotkey</li><li>• 4-way navigation button with OK key</li><li>• MENU</li><li>• REDIAL</li><li>• HOLD</li><li>• MUTE</li><li>• VOLUME control key</li><li>• HEADSET</li></ul></li><li>■ <b>SPEAKER</b></li></ul>

Feature	Details
<b>405HD Headset Compatibility</b>	<ul style="list-style-type: none"> <li>■ For a comprehensive list of supported Jabra headsets, see the Jabra <a href="#">Headset Compatibility Guide</a></li> <li>■ For a comprehensive list of supported Plantronics headsets see <a href="http://www.plantronics.com/us/compatibility-guide/#/search/">http://www.plantronics.com/us/compatibility-guide/#/search/</a></li> <li>■ These include: <ul style="list-style-type: none"> <li>• Jabra UC-150</li> <li>• Jabra Speak 510+</li> <li>• Jabra Speak 410</li> <li>• Jabra MOTION OFFICE</li> <li>• Jabra PRO 9470</li> <li>• Jabra Evolve Series 20, 30, 40, 75, 80</li> <li>• Microsoft LX-3000</li> <li>• Plantronics C-310M</li> <li>• Plantronics C-320M</li> <li>• Plantronics HW720</li> <li>• Plantronics Blackwire Series 300, 325, 510, 520, 710</li> <li>• Jabra Pro 920 EHS wireless headset</li> <li>• Jabra Pro 9450 EHS wireless headset</li> </ul> </li> </ul>
<b>430HD and 440HD Hardware</b>	<ul style="list-style-type: none"> <li>■ <b>LCD screen:</b> Graphic LCD (132x64) monochrome (a 440HD phone hardware revision featuring an LCD resolution of 256x128 is supported from v2.0.13; a 430HD phone hardware revision featuring an LCD resolution of 256x128 is supported from 3.0.1)</li> <li>■ <b>BLF screen:</b> Graphic LCD (60x376) monochrome (applies only to the 440HD model)</li> <li>■ Connectors interfaces: <ul style="list-style-type: none"> <li>• 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN</li> <li>• RJ-9 port (jack) for headset</li> <li>• RJ-9 port (jack) for handset</li> <li>• USB interface for USB headset support</li> <li>• RJ-11 interface for DHSG</li> </ul> </li> <li>■ Mounting: <ul style="list-style-type: none"> <li>• Wall and desktop mounting options</li> <li>• One angle for desktop mount, another angle for wall mount</li> </ul> </li> <li>■ Power: <ul style="list-style-type: none"> <li>• DC jack adapter 12V</li> <li>• Power supply AC 100 ~ 240V</li> <li>• PoE Class 2: IEEE802.3af (optional)</li> </ul> </li> <li>■ Keys: <ul style="list-style-type: none"> <li>• 4 x softkeys</li> <li>• VOICE MAIL message hotkey (including LED)</li> <li>• 4-way navigation button with OK key</li> <li>• MENU</li> <li>• REDIAL</li> <li>• HOLD</li> <li>• MUTE (including LED)</li> <li>• TRANSFER</li> <li>• VOLUME control key</li> <li>• HEADSET (including LED)</li> </ul> </li> <li>■ SPEAKER (including LED)</li> </ul>

Feature	Details
<b>430HD and 440HD Headset Compatibility</b>	<ul style="list-style-type: none"> <li>■ For a comprehensive list of supported Jabra headsets, see the Jabra <a href="#">Headset Compatibility Guide</a></li> <li>■ For a comprehensive list of supported Plantronics headsets see <a href="http://www.plantronics.com/us/compatibility-guide/#/search/">http://www.plantronics.com/us/compatibility-guide/#/search/</a></li> <li>■ For a comprehensive list of supported VXi products, see <a href="http://www.vxicorp.com/compatibility_guide/">http://www.vxicorp.com/compatibility_guide/</a></li> <li>■ Also, the following which aren't documented online yet: <ul style="list-style-type: none"> <li>• Jabra UC-150</li> <li>• Jabra Speak 510+</li> <li>• Jabra Speak 410</li> <li>• Jabra MOTION OFFICE</li> <li>• Jabra PRO 9470</li> <li>• Jabra Evolve Series 20, 30, 40, 75, 80</li> <li>• Microsoft LX-3000</li> <li>• Plantronics C-310M</li> <li>• Plantronics C-320M</li> <li>• Plantronics HW720</li> <li>• Plantronics Blackwire Series 300, 325, 510, 520, 710</li> <li>• Jabra UC-550</li> <li>• Jabra Pro 920 EHS wireless headset</li> <li>• Jabra Pro 9450 EHS wireless headset</li> </ul> </li> </ul>
<b>445HD Hardware</b>	<ul style="list-style-type: none"> <li>■ <b>Color Screen</b> 4.3": Graphic, 480x272 resolution</li> <li>■ <b>Integrated sidcar</b> 376x60 resolution featuring 12 programmable speed dial keys with presence monitoring (BLF)</li> <li>■ Connectors interfaces: <ul style="list-style-type: none"> <li>• 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN (GbE support)</li> <li>• RJ-9 port (jack) for headset</li> <li>• RJ-9 port (jack) for handset</li> <li>• USB interface for USB headset support</li> <li>• RJ-11 interface for DHSG</li> </ul> </li> <li>■ Mounting: <ul style="list-style-type: none"> <li>• Wall and desktop mounting options</li> <li>• One angle for desktop mount, another angle for wall mount</li> </ul> </li> <li>■ Power: <ul style="list-style-type: none"> <li>• DC jack adapter 12V</li> <li>• Power supply AC 100 ~ 240V</li> <li>• PoE Class 2: IEEE802.3af (optional)</li> </ul> </li> <li>■ Keys: <ul style="list-style-type: none"> <li>• 4 softkeys and 6 multifunction hard keys</li> <li>• VOICE MAIL message hotkey (including LED)</li> <li>• 4-way navigation button with OK key</li> <li>• MENU</li> <li>• REDIAL</li> <li>• HOLD</li> <li>• MUTE (including LED)</li> <li>• TRANSFER</li> <li>• VOLUME control key</li> <li>• HEADSET (including LED)</li> <li>• SPEAKER (including LED)</li> </ul> </li> </ul>



Feature	Details
<b>450HD Hardware</b>	<ul style="list-style-type: none"> <li>■ Large (800 x 480), graphical, high-resolution, 5-inch color touch (TFT) screen with an intuitive touch-oriented user interface design.</li> <li>■ Connectors interfaces: <ul style="list-style-type: none"> <li>• 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN</li> <li>• RJ-9 port (jack) for headset</li> <li>• RJ-9 port (jack) for handset</li> <li>• USB interface for USB headset support</li> <li>• RJ-11 interface for DHSG</li> </ul> </li> <li>■ Mounting: <ul style="list-style-type: none"> <li>• Wall and desktop mounting options</li> <li>• One angle for desktop mount, another angle for wall mount</li> </ul> </li> <li>■ Power: <ul style="list-style-type: none"> <li>• DC jack adapter 12V</li> <li>• Power supply AC 100 ~ 240V</li> <li>• PoE Class 3: IEEE802.3af (optional)</li> </ul> </li> <li>■ Keys: <ul style="list-style-type: none"> <li>• 8 x softkeys</li> <li>• VOICE MAIL message hotkey (including LED)</li> <li>• 4-way navigation button with OK key</li> <li>• MENU</li> <li>• REDIAL</li> <li>• HOLD</li> <li>• MUTE (including LED)</li> <li>• TRANSFER</li> <li>• VOLUME control key</li> <li>• HEADSET (including LED)</li> </ul> </li> <li>■ SPEAKER (including LED)</li> </ul>
<b>450HD Headset Compatibility</b>	<ul style="list-style-type: none"> <li>■ For a comprehensive list of supported Jabra headsets, see the Jabra <a href="#">Headset Compatibility Guide</a></li> <li>■ For a comprehensive list of supported Plantronics headsets see <a href="http://www.plantronics.com/us/compatibility-guide/#/search/">http://www.plantronics.com/us/compatibility-guide/#/search/</a></li> <li>■ For a comprehensive list of supported VXi products, see <a href="http://www.vxicorp.com/compatibility_guide/">http://www.vxicorp.com/compatibility_guide/</a></li> <li>■ Also, the following which aren't documented online yet: <ul style="list-style-type: none"> <li>• Jabra UC-150</li> <li>• Jabra Speak 510+</li> <li>• Jabra Speak 410</li> <li>• Jabra MOTION OFFICE</li> <li>• Jabra PRO 9470</li> <li>• Jabra Evolve Series 20, 30, 40, 75, 80</li> <li>• Microsoft LX-3000</li> <li>• Plantronics C-310M</li> <li>• Plantronics C-320M</li> <li>• Plantronics HW720</li> <li>• Plantronics Blackwire Series 300, 325, 510, 520, 710</li> <li>• Jabra UC-550</li> <li>• Jabra Pro 920 EHS wireless headset</li> <li>• Jabra Pro 9450 EHS wireless headset</li> </ul> </li> </ul>

Feature	Details
<b>C450HD Hardware</b>	<ul style="list-style-type: none"> <li>■ Five-inch color capacitive 1280 x 720 high-resolution touch (TFT) screen</li> <li>■ Connectors interfaces: <ul style="list-style-type: none"> <li>• 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN</li> <li>• RJ-9 port (jack) for headset</li> <li>• RJ-9 port (jack) for handset</li> <li>• Two USB ports for headset support</li> <li>• RJ-11 interface for DHSG</li> </ul> </li> <li>■ Mounting: <ul style="list-style-type: none"> <li>• Wall and desktop mounting options</li> <li>• One angle for desktop mount, another angle for wall mount</li> </ul> </li> <li>■ Power: <ul style="list-style-type: none"> <li>• DC jack adapter 12V</li> <li>• Power supply AC 100 ~ 240V</li> <li>• PoE Class 3: IEEE802.3af (optional)</li> </ul> </li> <li>■ Keys: <ul style="list-style-type: none"> <li>• 8 x softkeys</li> <li>• VOICE MAIL message hotkey (including LED)</li> <li>• 4-way navigation button with OK key</li> <li>• MENU</li> <li>• REDIAL</li> <li>• HOLD</li> <li>• MUTE (including LED)</li> <li>• TRANSFER</li> <li>• VOLUME control key</li> <li>• HEADSET (including LED)</li> </ul> </li> <li>■ SPEAKER (including LED)</li> </ul>
<b>C450HD Headset Compatibility</b>	<ul style="list-style-type: none"> <li>■ For a comprehensive list of supported Jabra headsets, see the Jabra <a href="#">Headset Compatibility Guide</a></li> <li>■ For a comprehensive list of supported Plantronics headsets see <a href="http://www.plantronics.com/us/compatibility-guide/#/search/">http://www.plantronics.com/us/compatibility-guide/#/search/</a></li> <li>■ For a comprehensive list of supported VXi products, see <a href="http://www.vxicorp.com/compatibility_guide/">http://www.vxicorp.com/compatibility_guide/</a></li> <li>■ Also, the following which aren't documented online yet: <ul style="list-style-type: none"> <li>• Jabra UC-150</li> <li>• Jabra Speak 510+</li> <li>• Jabra Speak 410</li> <li>• Jabra MOTION OFFICE</li> <li>• Jabra PRO 9470</li> <li>• Jabra Evolve Series 20, 30, 40, 75, 80</li> <li>• Microsoft LX-3000</li> <li>• Plantronics C-310M</li> <li>• Plantronics C-320M</li> <li>• Plantronics HW720</li> <li>• Plantronics Blackwire Series 300, 325, 510, 520, 710</li> <li>• Jabra UC-550</li> <li>• Jabra Pro 920 EHS wireless headset</li> <li>• Jabra Pro 9450 EHS wireless headset</li> </ul> </li> </ul>

Feature	Details
<b>HRS Hardware</b>	<ul style="list-style-type: none"> <li>■ Large (800 x 480), graphical, high-resolution, 5-inch color touch (TFT) screen with an intuitive touch-oriented user interface design.</li> <li>■ Connectors interfaces: <ul style="list-style-type: none"> <li>• 2 x RJ-45 ports (10/100/1000BaseT Ethernet) for WAN and LAN</li> <li>• RJ-9 port (jack) for speaker</li> <li>• RJ-9 port (jack) for handset</li> <li>• USB interface for USB speaker support</li> <li>• RJ-11 interface for DHSG</li> </ul> </li> <li>■ Mounting: <ul style="list-style-type: none"> <li>• Wall and desktop mounting options</li> <li>• One angle for desktop mount, another angle for wall mount</li> </ul> </li> <li>■ Power: <ul style="list-style-type: none"> <li>• DC jack adapter 12V</li> <li>• Power supply AC 100 ~ 240V</li> <li>• PoE Class 2: IEEE802.3af (optional)</li> </ul> </li> <li>■ Keys: <ul style="list-style-type: none"> <li>• 8 x softkeys</li> <li>• VOICE MAIL message hotkey (including LED)</li> <li>• 4-way navigation button with OK key</li> <li>• MENU</li> <li>• REDIAL</li> <li>• HOLD</li> <li>• MUTE (including LED)</li> <li>• TRANSFER</li> <li>• VOLUME control key</li> <li>• HEADSET (including LED)</li> </ul> </li> <li>■ SPEAKER (including LED)</li> <li>■ HRS speaker / speakers, per the selected configuration: UC-HRS-457 or UC-HRS-458</li> </ul>

## 1.3 Supported Models

The table below shows the supported AudioCodes 400HD Series IP phone models.



AudioCodes-certified Skype for Business Online devices are supported by Microsoft Teams.

**Table 1-2: Supported 400HD Series IP Phone Models**

Part Number	Product Description
UC405HDEG	Skype for Business 405HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 4 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC405HDEPSG	Skype for Business 405HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 4 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC430HDE	Skype for Business 430HD IP Phone PoE Black 2 Ethernet 10/100 ports, 18 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC430HDEG	Skype for Business 430HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC430HDEW	Skype for Business 430HD IP Phone PoE White 2 Ethernet 10/100 ports, 18 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC430HDEPS	Skype for Business 430HD IP Phone PoE and external power supply Black 2 Ethernet 10/100 ports, 18 Programmable keys, 132x64 Graphic LCD and Power over Ethernet (PoE)
UC430HDEPSW	Skype for Business 430HD IP Phone PoE and external power supply White 2 Ethernet 10/100 ports, 18 Programmable keys, 256x128 Graphic LCD and Power over Ethernet (PoE)
UC430HDEPSG	Skype for Business 430HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 256x128 Graphic LCD and Power over Ethernet (PoE)
UC440HDEG	Skype for Business 440HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 256x128 Graphic LCD, 376x60 BLF LCD and Power over Ethernet (PoE)
UC440HDEWG	Skype for Business 440HD IP Phone PoE GbE White 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 256x128 Graphic LCD, 376x60 BLF LCD and Power over Ethernet (PoE)
UC445HDEG	Skype for Business 445HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, 376x60 BLF LCD featuring 12 programmable speed dial keys with presence monitoring, and Power over Ethernet (PoE)
UC445HDG-R	Skype for Business 445HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, and Power over Ethernet (PoE)
UC445HDEPSG	Skype for Business 445HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, 376x60 BLF LCD, and Power over Ethernet (PoE)

Part Number	Product Description
UC445HDEPSG-R	Skype for Business 445HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, and Power over Ethernet (PoE)
UC445HDEG-BW	Skype for Business 445HD IP Phone PoE GbE Black Wi-Fi and Bluetooth* connectivity, 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, 376x60 BLF LCD, and Power over Ethernet (PoE). * Supported in the USA, Canada, the EU, Switzerland and Israel, Wi-Fi and Bluetooth require a specific CPN with a 'BW' suffix.
UC445HDEPSG-BW	Skype for Business 445HD IP Phone PoE GbE Black Wi-Fi and Bluetooth* connectivity, with or without an external Power Supply, 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 480x272 Graphic Color LCD, 376x60 BLF LCD, and Power over Ethernet (PoE). * Supported in the USA, Canada, the EU, Switzerland and Israel, Wi-Fi and Bluetooth require a specific CPN with a 'BW' suffix.
UC450HDEG	Skype for Business 450HD IP Phone PoE GbE Black 2 Ethernet 10/100/1000 ports, 800x480 5" Color Touch LCD and Power over Ethernet (PoE)
UC440HDEPSG	Skype for Business 440HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 256x128 Graphic LCD, 376x60 BLF LCD and Power over Ethernet (PoE)
UC440HDEPSWG	Skype for Business 440HD IP Phone PoE GbE and external power supply White 2 Ethernet 10/100/1000 ports, 18 Programmable keys, 256x128 Graphic LCD, 376x60 BLF LCD and Power over Ethernet (PoE)
UC450HDEPSG	Skype for Business 450HD IP Phone PoE GbE and external power supply Black 2 Ethernet 10/100/1000 ports, 800x480 5" Color Touch LCD and Power over Ethernet (PoE)
UC-HRS-457	Skype for Business 457 Huddle Room Solution (HRS) IP Phone including one external mid-size speaker and external power supply
UC-HRS-458	Skype for Business 458 Huddle Room Solution (HRS) IP Phone including one external large-size speaker and external power supply

## 2 Version 3.2.1.623



Version 3.2.1 includes firmware build **3.2.1.623** for the 405HD, 430HD and 440HD phone models.

### 2.1 What's New in Version 3.2.1.623

The following new feature is released with Version **3.2.1.623**:

- Following the MSFT notice [Office TLS certificate changes - Microsoft Purview \(compliance\) | Microsoft Docs](#) we have integrated the following Root CAs:
  - Microsoft RSA Root Certificate Authority 2017
  - Microsoft ECC Root Certificate Authority 2017
  - DigiCert Global Root G2 Root CA

#### 2.1.1 Resolved Constraints in Version 3.2.1.623

**Table 2-1: Resolved Constraints in Version 3.2.1.623**

Incident	Description
IPPSFB-10355	Incompatible CDP packet when the phone is connected to DELL switches.
IPPSFB-10416	The phone keeps ringing when Teams client calls and hangs up first.
IPPSFB-10408	On some occasions when SFB server response is delayed, there might be sign-in issues.

## 2.1.2 Known Constraints in Version 3.2.1.623

None.

**Table 2-2: Known Constraints from Previous Releases**

Incident	Description
-	[Teams Compatible - Conference] Cannot establish a new conference meeting by pressing Meet Now. It is recommended to remove the Meet Now softkey via configuration: <ul style="list-style-type: none"> <li>■ personal_settings/soft_keys/initiate_call/0/key_function= NONE</li> <li>■ personal_settings/soft_key/0/key_function= NONE</li> </ul>
-	[Teams Compatible - Conference] Cannot escalate a peer-to-peer call to a conference call.
-	[Teams Compatible - Conference] Cannot merge an active call with a call on hold into a conference call.
-	[Teams Compatible - Conference] Enabling Call Forward via the phone menu (can be enabled from the Teams client)
-	[Teams Compatible - Conference] Changing the phone presence is not synchronized with the Teams presence status.
-	[Teams Compatible - Conference] Transfer scenarios in a domain that has a mix of Teams and Skype for Business users is not supported by Microsoft.
-	[Teams Compatible - Conference] In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	[Teams Compatible - Conference] The 'Unmute All' feature does not function in a Teams meeting.
-	[Teams Compatible - Conference] When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPSFB-9739	[Teams Compatible - Conference] E911 calls are missing location information if the location service isn't available.
106517	[Teams Compatible - Conference] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
-	The 420HD phone model isn't supported in this version.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
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"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> This is aligned with Microsoft's BToE implementation.

Incident	Description
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.
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.



Incident	Description
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.

Incident	Description
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.
IPPSFB-10151	Video calls are not supported in manual pairing.
IPPSFB-9816	Special characters öß\$üä are not supported.

## 3 Previous Releases

### 3.1 Version 3.2.1.618



Version 3.2.1 includes firmware build **3.2.1.618** for the 405HD, 430HD and 440HD phone models.

#### 3.1.1 What's New in Version 3.2.1.618

Bug fixes in version 3.2.1.618.

##### 3.1.1.1 Resolved Constraints in Version 3.2.1.618

**Table 3-1: Resolved Constraints in Version 3.2.1.618**

Incident	Description
IPPSFB-10335	Call log shows the oldest call to newest call instead of newest call to oldest call.
IPPSFB-10250	in some environments, the user can hear only one ring-back tone when making a call

### 3.2 Version 3.2.1.616



Version 3.2.1 includes firmware build **3.2.1.616** for the 405HD, 430HD and 440HD phone models.

#### 3.2.1 What's New in Version 3.2.1.616

Following are the new features in version 3.2.1.616.

- Support has been added for the Latvian language
- E911 calls display the caller's number on the calling phone

##### 3.2.1.1 Resolved Constraints in Version 3.2.1.616

**Table 3-2: Resolved Constraints in Version 3.2.1.616**

Incident	Description
IPPUC-6822, IPPSFB-10321	The phone keeps rebooting for some users.
IPPUC-6897	In some environments, the phone reports a LAN Link Failure.
IPPSFB-10241	[BToE] The connection gets stuck at 'Login/Boot Cycle' when manually pairing.
IPPSFB-10143	In some environments, a P2P call is established with one-way audio.

### 3.2.1.2 Known Constraints in Version 3.2.1.616

None.

**Table 3-3: Known Constraints from Previous Releases**

Incident	Description
-	[Teams Compatible - Conference] Cannot establish a new conference meeting by pressing Meet Now. It is recommended to remove the Meet Now softkey via configuration: <ul style="list-style-type: none"> <li>personal_settings/soft_keys/initiate_call/0/key_function= NONE</li> <li>personal_settings/soft_key/0/key_function= NONE</li> </ul>
-	[Teams Compatible - Conference] Cannot escalate a peer-to-peer call to a conference call.
-	[Teams Compatible - Conference] Cannot merge an active call with a call on hold into a conference call.
-	[Teams Compatible - Conference] Enabling Call Forward via the phone menu (can be enabled from the Teams client)
-	[Teams Compatible - Conference] Changing the phone presence is not synchronized with the Teams presence status.
-	[Teams Compatible - Conference] Transfer scenarios in a domain that has a mix of Teams and Skype for Business users is not supported by Microsoft.
-	[Teams Compatible - Conference] In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	[Teams Compatible - Conference] The 'Unmute All' feature does not function in a Teams meeting.
-	[Teams Compatible - Conference] When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPSFB-9739	[Teams Compatible - Conference] E911 calls are missing location information if the location service isn't available.
106517	[Teams Compatible - Conference] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
-	The 420HD phone model isn't supported in this version.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
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"> <li>RGS/Delegate call made 'on behalf' from the PC client</li> <li>Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> This is aligned with Microsoft's BToE implementation.

Incident	Description
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.
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.

Incident	Description
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.

Incident	Description
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.
IPPSFB-10151	Video calls are not supported in manual pairing.
IPPSFB-9816	Special characters öß\$üä are not supported.

## 3.3 Version 3.2.1.597



Version 3.2.1 includes firmware build **3.2.1.597** for the 405HD, 430HD and 440HD phone models.

### 3.3.1 What's New in Version 3.2.1.597

There are no new features in version 3.2.1.597.

#### 3.3.1.1 Resolved Constraints in Version 3.2.1.597

**Table 3-4: Resolved Constraints in Version 3.2.1.597**

Incident	Description
IPPSFB-10096	[Teams Call Queue] A call from a PSTN user fails to be established.
IPPSFB-9568	Calls transferred from Teams call queues do not connect to the phone user.
IPPSFB-9885	In some environments, call quality issues are experienced when calling from Microsoft Teams client.
IPPSFB-10055	Incoming Response Group Service (RGS) calls are not showing in the phone's call log.
IPPSFB-10200	The phone doesn't switch the authentication method from TLS-DSK to NTLM if a failure in the login process occurs.
IPPSFB-10152	The phone screen displays the same two delegates after the option <b>Simultaneously ring to 'My delegates'</b> is selected.

#### 3.3.1.2 Known Constraints in Version 3.2.1.597

Here are the constraints known to exist in Version 3.2.1.597

**Table 3-5: Known Constraints in Version 3.2.1.597**

Incident	Description
-	The 420HD phone model isn't supported in this version.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>



Incident	Description
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.
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.

Incident	Description
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.

Incident	Description
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.
IPPSFB-10151	Video calls are not supported in manual pairing.
IPPSFB-9816	Special characters öß\$üä are not supported.

## 3.4 Version 3.2.1.595



Version 3.2.1 includes firmware build **3.2.1.595** for the 405HD, 430HD and 440HD phone models.

### 3.4.1 What's New in Version 3.2.1.595

There are no new features in version 3.2.1.595.

#### 3.4.1.1 Resolved Constraints in Version 3.2.1.595

**Table 3-6: Resolved Constraints in Version 3.2.1.595**

Incident	Description
IPPSFB-10096	[Teams Call Queue] A call from a PSTN user fails to be established.
IPPSFB-9568	Calls transferred from Teams call queues do not connect to the phone user.
IPPSFB-9885	In some environments, call quality issues are experienced when calling from Microsoft Teams client.
IPPSFB-10055	Incoming Response Group Service (RGS) calls are not showing in the phone's call log.

#### 3.4.1.2 Known Constraints in Version 3.2.1.595

Here are the constraints known to exist in Version 3.2.1.595

**Table 3-7: Known Constraints in Version 3.2.1.595**

Incident	Description
-	The 420HD phone model isn't supported in this version.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.

Incident	Description
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.

Incident	Description
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.
IPPSFB-10151	Video calls are not supported in manual pairing.

## 3.5 Version 3.2.1.591



Version 3.2.1 includes firmware build **3.2.1.591** for the 405HD, 430HD and 440HD phone models.

### 3.5.1 What's New in Version 3.2.1.591

There are no new features in version 3.2.1.591.

#### 3.5.1.1 Resolved Constraints in Version 3.2.1.591

**Table 3-8: Resolved Constraints in Version 3.2.1.591**

Incident	Description
IPPSFB-10055	[440HD] Response Group calls are missing in the call log list.
IPPSFB-10022	[440HD] Speed Dial keys are reverting to Paging keys.
IPPSFB-9709	[405HD] The '!' sign is displayed on the phone screen when a CAP user signs in.
IPPSFB-10032	In some environments, the phone re-signs in during an incoming call.
IPPSFB-10003	The phone is unable to register after Skype for Business certificates are upgraded.
IPPSFB-9991	[440HD] In some environments in which the FonComfort application is used, Consultative Transfer doesn't function.

#### 3.5.1.2 Known Constraints in Version 3.2.1.591

Here are the constraints known to exist in Version 3.2.1.591

**Table 3-9: Known Constraints in Version 3.2.1.591**

Incident	Description
-	The 420HD phone model isn't supported in this version.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>



Incident	Description
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.
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.

Incident	Description
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.

Incident	Description
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.

## 3.6 Version 3.2.1.580



Version 3.2.1 includes firmware build **3.2.1.580** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

### 3.6.1 What's New in Version 3.2.1.580

- **Users can directly call Cloud Voice Mail** after using the voicemail softkey (thereby bypassing VM).

When the user is indicated by the blue light in the device's top right corner (envelope icon displayed) that there is voicemail, instead of navigating through the voice mail screen (i.e., *the read/unread display*), they can now navigate immediately to Cloud Voice Mail (CloudVM).

After pressing the voicemail hard key on the phone (or after using the voicemail softkey or the MENU), the phone *directly* dials the CVM server.

To allow automatically dialing and 'bypassing' the statistics screen, the network administrator must set the new configuration file parameter 'personal\_settings/voice\_mail/visual\_voice\_mail/enabled' to **0** (Default: **1**).

### 3.6.2 Resolved Constraints in Version 3.2.1.580

**Table 3-10: Resolved Constraints in Version 3.2.1.580**

Incident	Description
IPPSFB-9989	The phone's outbound proxy port parameter needs to be adjusted to support a port range of 0-65535.
IPPSFB-9942	The RingTone setting is not saved after the power supply or the PoE to the phone is discontinued and then resumed.
IPPSFB-9889	[445HD] The Skype Contact photo displays the wrong user.
IPPSFB-9918	[Boss Admin] There's no Resume softkey when Boss holds the call in a Call List.
IPPSFB-9963	In some environments, the phone resets SRTP when handling Re-key.
IPPSFB-9793	The phone doesn't support "430 Flow Failed" with "registration-route-set-update".
IPPSFB-9568	Unable to answer transferred calls from Teams call queue.
IPPUC-3559	The Russian translation needs improvement.
IPPSFB-9704	[445HD] The phone doesn't change the brightness level to dimmer and night mode after a timeout.
IPPSFB-9664	The phone does not display the <b>Join</b> softkey for a Microsoft Teams meeting if it was scheduled from Macbook.

### 3.6.3 Known Constraints in Version 3.2.1.580

Here are the constraints known to exist in Version 3.2.1.580

**Table 3-11: Known Constraints in Version 3.2.1.580**

Incident	Description
-	The 420HD phone model isn't supported in this version.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
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'.

Incident	Description
103572	[Boss-Admin in a conference scenario] Admin can't set up a meeting on behalf of Boss.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.

Incident	Description
-	[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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-1395	[C450HD and 445HD] [Wi-Fi] The Wi-Fi MAC field is not recognized as an AudioCodes known MAC. As a result, the Device Manager counts such phones as 'non AudioCodes devices' thus causing a licensing issue with the Device Manager and some Device Manager features do not function (the logo, for example, is missing).

Incident	Description
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.



## 3.7 Version 3.2.1.561



Version 3.2.1 includes firmware build **3.2.1.561** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

### 3.7.1 What's New in Version 3.2.1.561

- **AudioCodes' Syslog Viewer is now supported** through the addition of a SESSION-ID header. Network administrators can download AudioCodes' Syslog Viewer from <https://www.audiocodes.com/library/firmware>
- **802.1x EAP-TLS Identity header is now supported.** Network administrators have the ability to configure an "identity" header when using 802.1x with the EAP-TLS method, using a new configuration parameter 'network/lan/\_802\_1x/eap\_identity' that has been added.
- **Location Policy NotificationURI.** One or more SIP Uniform Resource Identifiers (URIs) to be notified when an emergency call is made. For example, the company's security office could be notified through an instant message whenever an emergency call is made. If the caller's location is available, that location will be included in the notification.

Multiple SIP URIs can be included as a comma-separated list. For example, -NotificationUri sip:security@litwareinc.com,sip:kmyer@litwareinc.com.

To enable users for E9-1-1:

<http://technet.microsoft.com/en-us/library/gg425892.aspx>

To define Location Policy in Microsoft's Skype for Business server, see:

<http://technet.microsoft.com/en-us/library/gg398962.aspx>

### 3.7.2 Resolved Constraints in Version 3.2.1.561

**Table 3-12: Resolved Constraints in Version 3.2.1.561**

Incident	Description
IPPSFB-9721	Security vulnerability: When restarting, the phone sends a 'LDAPbindrequest' to the Active Directory with username / password in clear text.
IPPSFB-9805	In some environments, Call Transfer does not work.
IPPSFB-9842	In some environments, one-way voice sometimes occurs with outbound calls from external users.
IPPSFB-9862	[CAP user] The phone does not reregister with Skype for Business after a WAN outage in a mixed Lync / Skype for Business 2015/2019 environment.
IPPSFB-9813	The phone gets 'stuck' when a second incoming calls arrives (and the first incoming call is not answered) and parameter 'voip/services/electronic_hook_switch/enabled' is configured to 1.
IPPSFB-9845	An EAP-TLS connection is not established when using chained certificates.
IPPSFB-9533	In some environments, when using different domains, the Calendar doesn't function correctly.
IPPSFB-9823	[Mitel PBX] Call Transfer doesn't complete.
IPPSFB-9786	[Anywhere365] Incorrect parsing of P-Asserted Identity (PAI) with the special character ':'
IPPSFB-9303	In some environments (in which there's low network bandwidth), the phone fails to get VLANID from Cisco Discovery Protocol (CDP).

Incident	Description
IPPSFB-9821	[HRS] Joining a Skype for Business conference bridge doesn't work.
IPPSFB-9814	The format of the Port ID type, length and value (TLV) is incorrect.
IPPSFB-9808	[445HD] The icon denoting an Admin on the Boss' phone is incorrect.
IPPSFB-9809	The German language in Boss-Admin scenarios needs improvement.
IPPSFB-9609	A SESSION-ID header needs to be added to support AudioCodes' syslog viewer.
IPPSFB-9758	[405HD, 440HD] AudioCodes' icon is missing from the phone's Web interface.
IPPSFB-9627	The option to perform a transfer to voicemail is unavailable when searching for a user from the Corporate Directory.
IPPSFB-9801	802.1x EAP-TLS IDENTITY header is not supported.
IPPSFB-9722	Security vulnerability: The encrypted Skype for Business user's password in syslog can be decrypted.

### 3.7.3 Known Constraints in Version 3.2.1.561

Here are the constraints known to exist in Version 3.2.1.561

**Table 3-13: Known Constraints in Version 3.2.1.561**

Incident	Description
-	The 420HD phone model isn't supported in this version.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.

Incident	Description
-	[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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.

Incident	Description
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.

Incident	Description
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.
IPPUC-1395	[C450HD and 445HD] [Wi-Fi] The Wi-Fi MAC field is not recognized as an AudioCodes known MAC. As a result, the Device Manager counts such phones as 'non AudioCodes devices' thus causing a licensing issue with the Device Manager and some Device Manager features do not function (the logo, for example, is missing).
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.

## 3.8 Version 3.2.1.513



Version 3.2.1 includes firmware build **3.2.1.513** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

### 3.8.1 What's New in Version 3.2.1.513

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### 3.8.2 Resolved Constraints in Version 3.2.1.513

**Table 3-14: Resolved Constraints in Version 3.2.1.513**

Incident	Description
IPPSFB-9748	[Teams Compatible] The phone fails to escalate a call to a conference involving a PSTN party.
IPPSFB-9767	[802.1x] The default EAP-TLS identity header format <ModelType>_<MAC Address> is not supported.
IPPSFB-9598	[450HD] In some environments, the phone only displays a calling number.
IPPSFB-9754 IPPSFB-9716	[450HD] Location information about the phone (chassis-id) is not displayed on the phone.
IPPSFB-9500	Location information about the phone is not displayed in the Device Manager.
IPPSFB-9739	E911 calls are missing location information if the location service isn't available.
IPPSFB-9729	[440HD] The phone is unable to save a number selected from a search in the Corporate Directory, as a speed dial Function Key (BLF).
IPPSFB-9626	Unanswered Response Group Service (RGS) calls are displayed in the Missed Calls list; they shouldn't be.
IPPSFB-9650	[C450HD] Music on Hold (MoH) is not played after putting a second call on hold and then answering another call.
IPPSFB-9586	[Web Sign-in] On rare occasions, the phone loses its registration due to network loss and cannot recover from this mode. As a result, the user is signed out.
IPPSFB-9653	[440HD, 405HD] The phone fails to cancel a Web-sign-in from the screen if the user began performing the sign-in and then abandoned the sign-in.

### 3.8.3 Known Constraints in Version 3.2.1.513

Here are the constraints known to exist in Version 3.2.1.513

**Table 3-15: Known Constraints in Version 3.2.1.513**

Incident	Description
-	The 420HD phone model isn't supported in this version.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
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'.

Incident	Description
103572	[Boss-Admin in a conference scenario] Admin can't set up a meeting on behalf of Boss.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.



Incident	Description
-	[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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.
IPPUC-3361	On rare occasions, the wrong contact picture is displayed during a call and in the Call Log.

Incident	Description
IPPUC-1395	[C450HD and 445HD] [Wi-Fi] The Wi-Fi MAC field is not recognized as an AudioCodes known MAC. As a result, the Device Manager counts such phones as 'non AudioCodes devices' thus causing a licensing issue with the Device Manager and some Device Manager features do not function (the logo, for example, is missing).
IPPUC-3185	A Federated Teams user (compatible) fails to join a Teams meeting when an Admit is needed but successfully joins on the second attempt.
IPPUC-3030	[PIN code sign-in] The 'Sign-in failed' screen does not disappear after a PIN code sign-in fails.
IPPUC-2840	The 445HD and USB headset gets non-stop kernel panics as well as resets and VoIP crashes during calls.

## 3.9 Version 3.2.1.488



Version 3.2.1 includes firmware build **3.2.1.488** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

- Support is now provided for configuring the 802.1x/EAP-TLS identity header in the phone's configuration file.

### 3.9.1 Resolved Constraints in Version 3.2.1.488

**Table 3-16: Resolved Constraints in Version 3.2.1.488**

Incident	Description
IPPSFB-9576	[450HD, 445HD] Incoming calls are missing the caller number as provided in the PAID header.
IPPSFB-9502	In some environments, according to security policy, the AD account is blocked due to an incorrect password used in the phone credentials.
IPPSFB-9637	The German translation for Call Forwarding scenarios has been enhanced.
IPPSFB-9464	In some environments, when performing a call transfer for the first call when the second call is answered, audio is missing after the first transfer has been completed.
IPPSFB-9605	[Device Manager] The phone fails to parse DHCP option 160 when it is sent with a tenant URL from the Device Manager.
IPPSFB-9172	The phone remains in "Away" presence state if the call is initiated without first unlocking it.
IPPSFB-9566	[C450HD] In some environments, the Call Transfer scenario doesn't function properly.
IPPSFB-9590	[445HD, 450HD] Call Transfer fails when a call is initiated from a TEAMS-compatible user to a 3PIP user who transferred the call to a second TEAMS-compatible user.

### 3.9.2 Known Constraints in Version 3.2.1.488

Here are the constraints known to exist in Version 3.2.1.488

**Table 3-17: Known Constraints in Version 3.2.1.488**

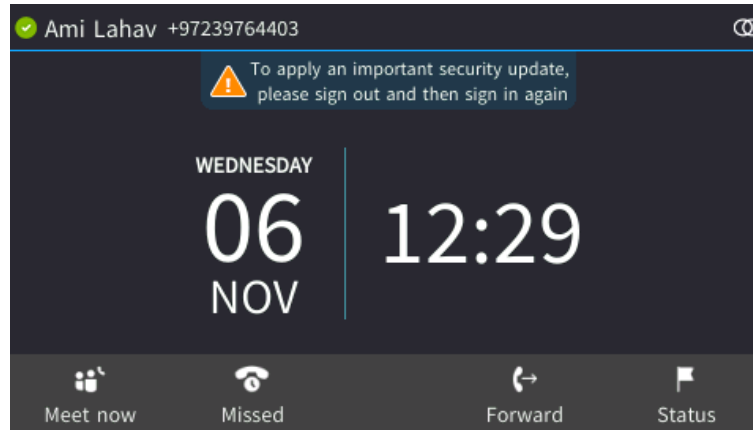
Incident	Description
-	The 420HD phone model isn't supported in this version.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
106161	[Boss-Admin] A Skype for Business user whose name starts with a small letter and who is configured as Admin, is displayed on the Boss' phone as a URI address rather than with the display name.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
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'.

Incident	Description
103572	[Boss-Admin in a conference scenario] Admin can't set up a meeting on behalf of Boss.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.

Incident	Description
-	[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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.

### 3.10 Version 3.21.474

When using Web (Office 365) Sign In, a new notification shown in the figure below was added to notify users to sign in to the phone again for the new client ID to be used for OAuth 2.0 modern authentication instead of the old one. The notification will be presented only if the phone is not using the new Client ID already. For more information about OAuth 2.0 modern authentication, see the first feature described under Section 3.13.



#### 3.10.1 Resolved Constraints in Version 3.2.1.474

Here are the constraints that are resolved in version 3.2.1.474

**Table 3-18: Resolved Constraints in Version 3.2.1.474**

Incident	Description
IPPSFB-9559	Service authentication request is missing the 'User-Agent' header which causes an authentication failure in Microsoft's Internet Information Services (IIS) server.
IPPSFB-9518	E911 calls fail for external users.
IPPSFB-9572	The Call Forward feature is sometimes automatically enabled when calling to E911.
IPPSFB-9514	In some environments in which Skype for Business client, mobile client and the IP phone are registered to same account, the caller doesn't hear the ring-back tone and audio is missing.
IPPSFB-9550	It's possible to execute commands from the Web interface's 'Traceroute' page.
IPPSFB-9427	The phone doesn't normalize Outlook contacts' phone numbers if saved with space/brackets.
IPPSFB-9425	The CAP icon remains in the phone's screen even after the CAP user signs out and a regular user signs-in.
IPPSFB-9454	In some environments, the dial pad is missing in the Skype for Business client when BToE is paired.
IPPSFB-6901	[445HD/450HD] The phone doesn't transition to displaying the idle mode screen after unplugging and then plugging in the LAN cable.
IPPSFB-9529	[440HD/430HD/405HD] When a user plays a message displayed in the Visual Voice Mail (VVM) screen, the phone reverts to display the idle screen instead of remaining in the VVM screen.
IPPSFB-9537	In the Device Manager, the phone is displayed with the status of 'Started' in the case of incorrect credentials.
IPPSFB-9508	When a Meeting Reminder is displayed in the phone screen and the user long-presses the speed dial function key, the user cannot modify any speed dial from the sidecar.

Incident	Description
IPPSFB-9466	[440HD/405HD] In rare cases, the Calling screen displays incorrectly after pressing the <b>Conf</b> button.

### 3.10.2 Known Constraints in Version 3.2.1.474

Here are the constraints known to exist in Version 3.2.1.474

**Table 3-19: Known Constraints in Version 3.2.1.474**

Incident	Description
-	The 420HD phone model isn't supported in this version.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.



Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.


Incident	Description
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.

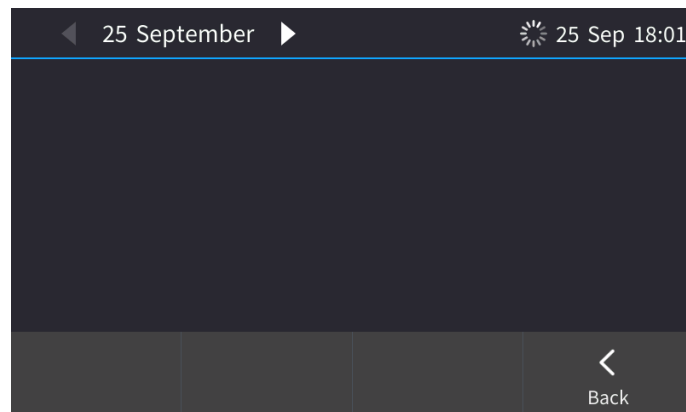
Incident	Description
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.

## 3.11 Version 3.2.1.438



Version 3.2.1 includes firmware build **3.2.1.438** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

- The phone supports the option to perform a **Switch to Native Teams action** using the AudioCodes Device Manager Pro / Express (implemented by the REST API). OVOC version 7.6.2000 fix will be required to allow this new action from the Device Manager.
- When the calendar is updated, a **new icon**  displayed in the figure below has replaced the 'Update Meetings...' pop-up message.



- **Improved IP phone security.** Network administrators are given **more control over phone access**. Access to the phone's Web Server (Web interface and Device Manager), Telnet Server and SSH Server is allowed by default from any IP address. The default setting (**0**) of new 'whitelist' configuration file parameters that have been added to this version, allow this access:  

```
security/whitelist/web_server/enabled=0
```

```
security/whitelist/telnet_server/enabled=0
```

```
security/whitelist/ssh_server/enabled=0
```

The configuration below allows access *only from the Device Manager* to the phone's Web Server (Web interface and Device Manager), Telnet Server and SSH Server:

```
security/whitelist/web_server/enabled=1
```

```
security/whitelist/telnet_server/enabled=1
```

```
security/whitelist/ssh_server/enabled=1
```

Another new 'whitelist' configuration file parameter 'security/whitelist/ip' has been added to the version. It allows network administrators to define an IP address. Defining an IP address allows access to the phone's Web Server (Web interface and Device Manager), Telnet Server and SSH Server *from this IP address in addition to the Device Manager's IP address*.  
 [Applies to all phones except 405HD / 430HD / 440HD].

### 3.11.1 Resolved Constraints in Version 3.2.1.438

Here are the constraints that are resolved in version 3.2.1.

**Table 3-20: Resolved Constraints in Version 3.2.1.438**

Incident	Description
IPPSFB-9340	The location isn't displayed on the phones after upgrading to firmware version 3.2.1.391 as well as firmware version 3.2.1.236.59.
IPPSFB-9205	The CslisPort (Location Information Server port) configuration is problematic.
IPPSFB-8809	[440HD] The phone disconnects paging but continues to display new call after hanging up.
IPPSFB-9366	[440HD] If a Skype for Business Group gets an Instant Message, the phone rings.
IPPSFB-8822	The phone displays the Delegation feature even though it is disabled.
IPPSFB-8986	The Auto Discovery feature is malfunctioning.
IPPSFB-9150	The phone cannot send a CDP immediately after plugging in / unplugging the PC cable.
IPPSFB-9182	The phone doesn't set VLAN priority according to the 'L2 Priority' header.
IPPSFB-9045	[445HD] Signing in with a user extension number and PIN is unsuccessful.
IPPSFB-8598	[405HD] The Presence status changes when the call is routed to voicemail.
IPPSFB-7769	The error reason for server validation is missing.
IPPSFB-8609	[440HD/405HD] When signing out a CAP user, the phone stays in the Menu screen and does not revert back to the offline screen.
IPPSFB-9446	[440HD/405HD] Blind Transfer cannot be established from a Corporate Directory contact.
IPPSFB-9123	[440HD/405HD] A delegate cannot be added from the Favorites contacts.
IPPSFB-9121	The German translation requires improvements.
IPPSFB-9154	[Wi-Fi] The phone can't connect to a network which isn't broadcast.

### 3.11.2 Known Constraints in Version 3.2.1.438

Here are the constraints known to exist in Version 3.2.1.438

**Table 3-21: Known Constraints in Version 3.2.1.438**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for the future.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.

Incident	Description
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.

Incident	Description
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.

Incident	Description
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.



## 3.12 Version 3.2.1.391



Version 3.2.1 includes firmware build **3.2.1.391** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

### ■ Improved support for Microsoft Teams compatible (a.k.a. 3PIP devices) mode.

Full support for some basic features that were functioning imperfectly in previous releases:

- Consultative Transfer
- Escalate P2P call to Teams Conference
- Direct Routing environment on audio issues
- Call queue

The following features were tested as fully functioning on Teams compatible devices:

- Contacts and Speed Dials
- Exchange functionality (VVM and Calendar)
- Audio pairing with the Teams client (Voice only; no control from the phone; controls will be added in the future)
- Multicast Paging
- Discreet Call
- Hot Desking
- Common Area Phone
- Voice dialing (limited languages supported)

Currently unsupported in Teams compatible mode:

- Boss-Admin
- Enabling Call Forward via the phone menu (can be enabled from the Teams client)
- Changing the phone presence is not synchronized with the Teams presence status
- Call Park

Note that transfer scenarios in a domain that has a mix of Teams and Skype for Business users is not supported by Microsoft.

**Table 3-22: Known Teams-Compatible (a.k.a. 3PIP) Device Limitations in Teams Environments**

Incident	Description
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.

- Support for the **Elliptic Curve Diffie Hellman (ECDH)** encryption key as part of the phone's ciphers list.
- AudioCodes' new corporate logo is also displayed in the 405HD phone screen when booting up.

### 3.12.1 Resolved Constraints in Version 3.2.1.391

Here are the constraints that are resolved in version 3.2.1.391

**Table 3-23: Resolved Constraints in Version 3.2.1.391**

Incident	Description
IPPSFB-9021	Port-based Network Access Control 802.1x/EAP-Md5 does not work.
IPPSFB-8920	[440HD/445HD] The Index identification icon does not appear when configuring the phone's sidecar for Shared Line or Multiple Boss-Admin.
IPPSFB-8893	An incoming call to a phone that is part of a Response Group Service (RGS) may lead to the VoIP application reloading when the body of the incoming SIP message is long.
IPPSFB-7547	[445HD/C450HD] The phone may encounter a LAN Link Failure issue due to a race condition with the Wi-Fi module.
IPPSFB-7465	[445HD] Programmable Keys can be configured as Speed Dials only via the phone screen, not via the Web interface.
IPPSFB-8479	[405/440] When adding a contact from the Call Log using <b>+Fav</b> , <b>-Fav</b> is not displayed immediately after the contact is added.
IPPSFB-8262	[C450HD][USB Headset] The phone does not support the Jabra 510 USB speaker.
IPPSFB-8523	When the phone is part of a Call Queue, the phone's screen displays partial information on an incoming call.
IPPSFB-6428	[Hot Desking] A paired (BToE) phone using a Hot Desking account does not return to the host user when the Hot Desk user disconnects the pairing.
IPPSFB-8350	The phone gets 'stuck' when a SIP username contains an apostrophe.
IPPSFB-8246	Untagged VOICE VLAN is not supported.
IPPSFB-7827	In some environments, the phone unsuccessfully completes registration if the server is configured to explicitly support TLS-DSK1.2.
IPPSFB-8704	[450HD] Improvements were made to the Japanese language interface.
IPPSFB-8427	[450HD] When using Internet Explorer as browser, the Web interface is missing AudioCodes' logo and the 'Log-Off' button.
IPPSFB-8839	[C450HD] Removing the <b>Meet Now</b> softkey from phone's idle screen is not supported.
IPPSFB-8599	One-way voice occurs when a redial is performed from a Skype for Business client and the user is using a handset.
IPPSFB-8590	[C450HD Boss-Admin] When the phone is locked and the user cancels 'Enter unlock code', the phone unlocks and allows calls to be made.
IPPSFB-8367	[RGS] If a third call is answered with the handset (off-hook) while the first two calls are answered with the speaker, the first call is put on hold.
IPPSFB-8061	[Skype for Business Online + BToE] Consultation Transfer from a Skype for Business client is unsuccessful when using the 'Work' number.
IPPSFB-6728	[Skype for Business Online] After adding a contact to Microsoft Outlook, the user needs to manually edit the contact's name (Key Label) even though it's already been configured in Outlook
IPPSFB-8579	[Skype for Business Online Boss-Admin] An incorrect display occurs when a call is made 'On-Behalf' of Boss1 to Boss2, and Admin2 answers the call.

Incident	Description
IPPSFB-7987	[Skype for Business Online Boss-Admin] If the phone is configured with five Bosses and a call is made 'On-Behalf', the counter for the fifth Boss is incorrect.
IPPSFB-8057	[Skype for Business Online Boss-Admin] An incorrect active line indicator is displayed when Boss picks up a held call from Admin.
IPPSFB-8010	[Boss-Admin] When the Boss's username is longer than 32 characters, the Call List popup window shows only partial information.
IPPSFB-8833	[Boss-Admin] On some occasions, when a Boss transfers a PSTN call to their Admin, the Admin incorrectly displays the incoming call as a 'Call for the Boss'.
IPPSFB-7837	[Boss-Admin] In a scenario where Boss1 calls Boss2 (and the same Admin is delegated to the two Bosses), the Admin can't pick up a held call from Boss2.
IPPSFB-8705	[C450HD/445HD][Wi-Fi] The 'Add network' option in the 'Manage Wi-Fi Networks' screen is sporadically unsuccessful.
IPPSFB-7961	[C450HD/445HD][Wi-Fi] The phone loses its network connectivity and must be manually reconnected (by pressing the <b>Connect</b> softkey) after a few days of usage.
IPPSFB-8298	[C450HD/445HD][Wi-Fi] The <b>Forget</b> softkey is sporadically unavailable.
IPPSFB-7067	[C450HD/445HD][Wi-Fi] On some occasions, adding a new Access Point causes an automatic attempt to connect without triggering the connection using the <b>Connect</b> softkey.
IPPSFB-8449	[C450HD/445HD][Wi-Fi] The phone doesn't display a warning message if the user enters an incorrect username or password.
IPPSFB-8124	[C450HD/445HD][Wi-Fi] The phone screen doesn't display a 'LAN link failure' message after the network goes down and then comes up again.
IPPSFB-6237	The Slovak and Czech language interfaces require improvement.
IPPSFB-8093	[C450HD] During a conference call, if new incoming calls arrive while the first call is on hold and the handset is on-hook, when the handset is picked up the phone continues to ring.
IPPSFB-8056	[450HD] In some scenarios, when joining a scheduled conference call, audio changes from handset to speaker.
IPPSFB-8128	[Office 365 Boss-Admin] The active line indicator on Boss X's phone is missing when Admin X makes an 'On-Behalf' call to Boss Y and puts the call on hold.
IPPSFB-6974	[Office 365 Boss-Admin] The phone sometimes displays the wrong call indicator for 'On-Behalf' calls.
IPPSFB-7912	[Office 365 environment] Adding a participant to an existing conference via the Skype for Business client may be unsuccessful.
IPPSFB-7736	[440HD/430HD/450HD/405HD] In a very noisy environment, the phone's Comfort Noise feature is ineffective.
IPPSFB-7429	A call cannot be established due to an incorrect candidate list in the SIP SDP.
IPPSFB-8522	The Teams compatible phone performs a Consultation Transfer to a Teams client imperfectly.
IPPSFB-8589	The Teams compatible phone escalates a call to a conference with Teams accounts imperfectly.
IPPSFB-8774	When a Teams client initiates a Call Transfer to a PSTN number, the Teams compatible phone continues to display a call with a client.
IPPSFB-8521	The Teams compatible phone doesn't support a SIP REFER message with a Refer-To header containing URI only with the Host part.

### 3.12.2 Known Constraints in Version 3.2.1.391

Here are the constraints known to exist in Version 3.2.1.391

**Table 3-24: Known Constraints in Version 3.2.1.391**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for the future.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'On behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
100827	[Boss Admin] Response Group: A call initiated by Admin on Boss' behalf to Response Group cannot be picked up by Boss.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.

Incident	Description
-	[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] Calls can't 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.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the Device Manager Pro   Express (formerly known as the IP Phone Manager). The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release as it should.
IPPSFB-9123	[440HD,405HD] [Call Forward] A 'Favorites' contact can't be added as a Delegate.
IPPSFB-8477	[445HD/C450HD] QoE report modifications related to signal level are incorrect.
IPPSFB-8986	The phone fails to process a SAML security token received from Active Directory Federation Services (ADFS) whose size exceeds 6000 characters. The phone's request to acquire an OAuth2 access token is consequently rejected as it contains a corrupted SAML token.
-	In an existing conference call, adding a user with a Teams compatible phone and a PC client results in only the PC client ringing and being added to the call.
-	The Teams compatible phone cannot transfer (any Transfer type) an internal call to PSTN when using an SBC working with Direct Routing.
-	The 'Unmute All' feature does not function in a Teams meeting.
-	When escalating a P2P call to a conference with a Teams compatible phone, only the conference initiator's device displays the conference Roster.
-	When a Discreet call is attempted, the 'caller' successfully establishes the 'call' but the auto answer feature on the other side isn't functioning and the user (typically, a member of the organization's security staff) must manually pick up the 'call'.

## 3.13 Version 3.2.1.236.59



Version 3.2.1 includes firmware build **3.2.1.236.59** for the 405HD, 430HD, 440HD, 445HD, 445HD-R, 450HD, C450HD phone models, and the Huddle Room Solution (HRS).

- **New client ID for OAuth 2.0 modern authentication** in compliance with IETF RFC 6749. The new feature complies with Microsoft's request to register the phone application on the Azure cloud service portal and to apply permissions. The network administrator can enable the new client ID to be used after it's approved. See also <https://online.audiocodes.com/oauth-2-0-appid>.

The following new parameter in this release allows network administrators to configure a new client\_id: `lync/sign_in/azure/Enable_new_client_id = 0` or `1` (default)

If set to `0`, the phone will use the previous client\_id as part of the OAuth2.0 process.

If set to `1` (default), the phone will use a new client\_id as part of the OAuth2.0 process.

- **Support for enterprise HTTP/S proxy servers** enabling phones in an enterprise to send packets via the enterprise's proxy server instead of sending packets directly to the server. The new support enables customers to leverage their proxy as security when accessing cloud services. The following new configuration file parameters have been added to support the capability:
  - `http_client/fwd_proxy/ip`
  - `http_client/fwd_proxy/port`
  - `http_client/fwd_proxy/username`
  - `http_client/fwd_proxy/password`
  - `http_client/fwd_proxy/direct/ip`
  - `http_client/max_host_connections`



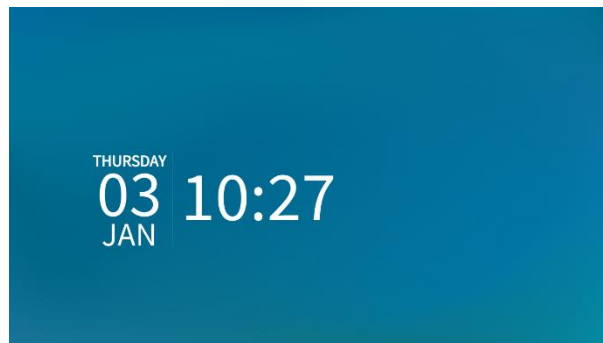
### Important:

- If the proxy server's username and password are not configured, the phone will use the NTLM domain's username and password.
- If 'username' is configured, then 'password' must also be configured as it will not be taken from the domain's data.
- To disable network communications going through the proxy server, the proxy IP address can be configured to "0.0.0.0".

- **The C450HD phone supports Wi-Fi.** The phone can connect to an Access Point via Wi-Fi. The Wi-Fi interface can be used when the phone is installed in an environment free of LAN/cables, to perform VoIP calls over Wi-Fi. Users can connect by pressing the **Networks** icon in the phone's main menu -or- navigating in the 'Settings' menu and then selecting the **Wi-Fi** option.
- **445HD-R IP Phone without the Expansion Module (sidecar) and BLFs + 12 SDs.** The 445HD-R IP phone models UC445HDG-R and UC445HDEPSG-R (shown below) are identical to the 445HD IP phone but do not feature the Expansion Module (sidecar) nor the BLFs + 12 Speed Dials.



- **C450HD IP phone screen saver.** A screen saver displaying a digital clock was added to the C450HD phone (in version 3.2.0 which was C450HD-specific). 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'. 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.



- **Support for SSH (Secure Shell) protocol** for secure remote login to the 450HD, C450HD and 445HD phone models and the HRS. Network administrators can use a newly added configuration file parameter 'management/ssh/enabled' to enable the feature (by default, it is set to 0, i.e., disabled).
- **A phone in BToE mode automatically performs Sign Out** if the BToE application detects that the Skype for Business client is signed in with a different account.
  - Applies only if the phone and the Skype for Business client were automatically paired. If they were manually paired, the feature does not apply.
  - Supported only by BToE version 2.1.10 (not yet released but available on request).
- **Pressing the X hard key on the phone provides 'Back' functionality.** The X hard key was used for both 'Back' and 'Cancel' actions in previous releases. Starting from this release, the key is used for 'Back' only. The difference between the current version and previous versions is that if a user now presses the key while a call is in process, the 'Back' functionality works without disconnecting the existing call. In previous versions, the call was disconnected. Applies to 445HD, 445HD-R, 450HD, C450HD, HRS.

### 3.13.1 Resolved Constraints in Version 3.2.1.236.59

Here are the constraints that are resolved in version 3.2.1.236.59



**Table 3-25: Resolved Constraints in Version 3.2.1.236.59**

Incident	Description
IPPSFB-7985	[445HD] Multicast Paging does not function flawlessly.
IPPSFB-8184	[C450HD] When reverting to the first call after answering another call, the volume significantly decreases and cannot be increased.
IPPSFB-6059	French translation issues.
IPPSFB-8021	A discreet call cannot be performed while the phone is in the middle of an outgoing call.
IPPSFB-6356	The functioning of the phone when handling codec negotiation for Skype Mobile calls is inadequate and needs to be improved.
IPPSFB-7763	The phone performs unexpectedly when configured to use Russian language and navigating to Call Forward.
IPPSFB-7926	In some environments, the names of the phone's Delegates (Admins) are not resolved.
IPPSFB-6976	The incorrect number is dialed when E911 policy includes both "EmergencyDialString" and "EmergencyDialMask".
IPPSFB-6728	When adding an Outlook contact, the phone does not resolve the contact's name.
IPPSFB-7909	[C450HD] In some environments, the phone may freeze during a Consultation Transfer.
IPPSFB-7611	[C450HD/Boss-Admin/O365] Occasionally, "On Behalf" held calls are dropped.
IPPSFB-6155	[Boss-Admin] Caller ID is displayed in Admin's phone when setting lync/bossPrivacyEnable=1.
IPPSFB-7630	The phone supports up to a 9-digit tag in crypto (tag = 1*9DIGIT).
IPPSFB-6371	The phone allows disabling PIN lock code without prompting for the current PIN lock code.
IPPSFB-7623	[405] The phone does not time out per 'voip/dialing/timeout' when the call is made from the speaker or the handset.
IPPSFB-7209	[405HD Common Area Phone] The phone sends a high number of autodiscover messages after receiving a "403 Forbidden".
IPPSFB-6297	[HRS] In the device's Menu screen, the KEYS item is colored gray, indicating that the item is inactive; it's active, so it should be colored blue.
IPPSFB-6947	The phone assigned to receive a Discreet Call can be used <i>only for this purpose</i> ; it cannot be used as a regular phone. If it's occupied with another call when a Discreet Call arrives, it may cause the call not to be discreet.
IPPSFB-8339	During sign-in authorization of an online user with invalid credentials, the phone identifies that the credentials are invalid but instead of displaying an 'Invalid credentials' message, it wrongly displays a 'Failed to obtain user certificate' message.
IPPSFB-8327	A phone that is signed in using the PIN method may display 'An error occurred, please try again later' when the user opens the Call Log menu item.
IPPSFB-8331	[450HD with HW_REVISION >= 3] Downgrading the phone to a version earlier than 3.1.2.89 may cause the phone to malfunction. Downgrade protection must be added to resolve the constraint.
IPPSFB-8650	[440HD/405HD] The phone crashes when using the AudioCodes Device Manager (previously, the AudioCodes IP Phone Manager) to perform Web sign-in.
IPPSFB-8640	[Call Log synchronization] The 'Dialed Calls' list isn't kept locally when the user uses BToE and the phone is Automatically paired. Consequently, some calls may not be updated to the 'Dialed Calls' list in real time.

Incident	Description
IPPSFB-8577	The phone sends HTTP requests with an incorrect header-type value to the Exchange Server.
IPPSFB-8584	The phone sends unnecessary HTTP requests to find a contact picture to the Exchange Server.
IPPSFB-8573	The phone's HTTP service may crash when it loses connection with the Exchange Server.
IPPSFB-6138	When the phone is connected to a Teams Gateway configured with Direct Routing, a one-way voice issue sometimes occurs with an incoming call.
IPPSFB-8782	[Calendar] The meeting in focus is the first scheduled meeting of the day instead of the current / next meeting.
IPPSFB-8801	[AudioCodes Device Manager] HTTP/S may not function due to an excessive buffer size length of the CURL provisioning command.
IPPSFB-8790	[AudioCodes Device Manager] The phone fails to send an HTTP POST request to the AudioCodes Device Manager in the case of HTTPS.
IPPSFB-8700	VLAN support through DHCP Options does not function.

### 3.13.2 Known Constraints in Version 3.2.1.236.59

Here are the constraints known to exist in Version 3.2.1.236.59

**Table 3-26: Known Constraints in Version 3.2.1.236.59**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for future version releases.
-	The HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'on behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
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"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> 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.
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.

Incident	Description
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.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.

Incident	Description
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-6728	After adding a contact to Microsoft Outlook, the user needs to manually edit the contact's name (Key Label) even though it's already been configured in Outlook
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.

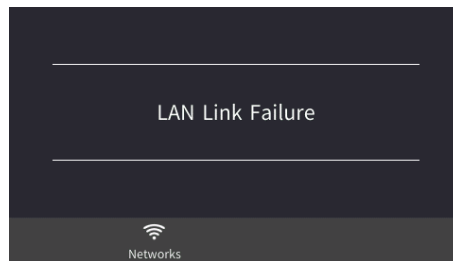
Incident	Description
IPPSFB-7465	Programmable Keys can be configured as Speed Dials only via the phone screen, not via the Web interface. All other options (Key Event, Discreet Call, VocaNOM) can be configured from both phone screen and Web interface.
IPPSFB-4052	[405HD] Device update is not supported in this version release.
IPPSFB-8152	[C450HD, 445HD] [Wi-Fi] Provisioning using TFTP may fail due to timeout.
-	[450HD] Downgrading the phone's firmware to version 3.0.0.410.24 (released in 2016) may damage the phone. This firmware version may be the default in the Device Manager (formerly known as the IP Phone Manager) deployed in old CloudBond installations. If you see that this firmware version is the default, replace it with the current 450HD GA firmware version before adding 450HD phones.
IPPSFB-8053	Semi-Attended Transfer does not function flawlessly in this release.

## 3.14 Version 3.1.4

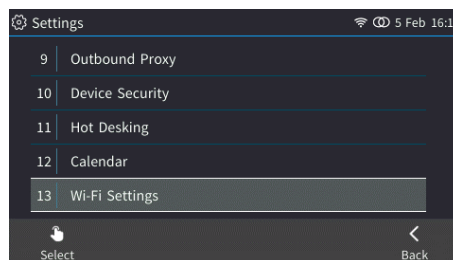


Version 3.1.4 includes firmware build **3.1.4.116** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

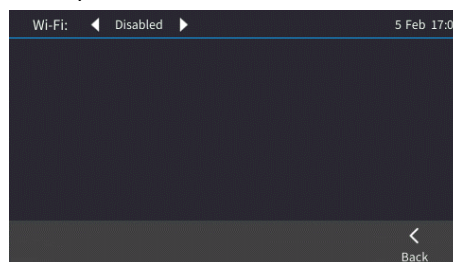
- **Wi-Fi capability on the 445HD.** The 445HD phone can connect to an Access Point via Wi-Fi. The Wi-Fi interface can be used when the phone is installed in an environment free of LAN/cables, to perform VoIP calls over Wi-Fi. Users can connect by pressing the **Networks** icon in the phone's main menu -or- navigating in the 'Settings' menu and then selecting the **Wi-Fi** option.
  - If an Ethernet cable does not connect the 445HD phone to a LAN port, the phone displays a 'LAN Link Failure' message and a **Networks** softkey.



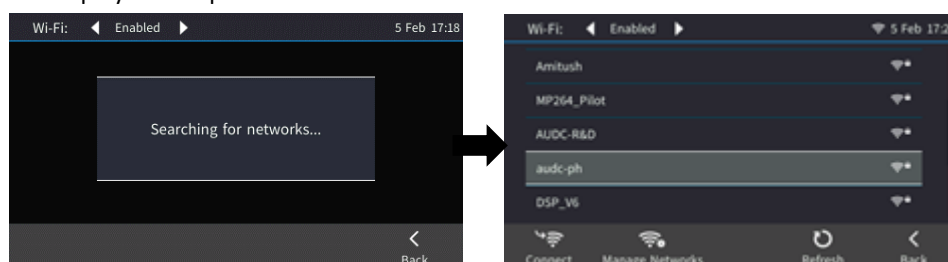
- Wi-Fi settings can also be accessed via the MENU hard key > Settings > Wi-Fi Settings:



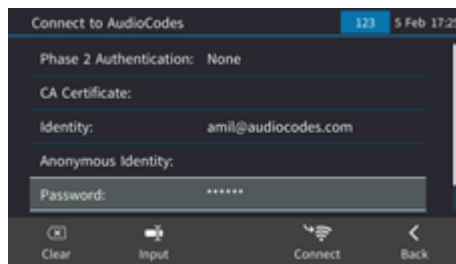
- Wi-Fi is disabled by default. Wi-Fi is enabled | disabled by pressing the right rim | left rim of the navigation button on the phone:



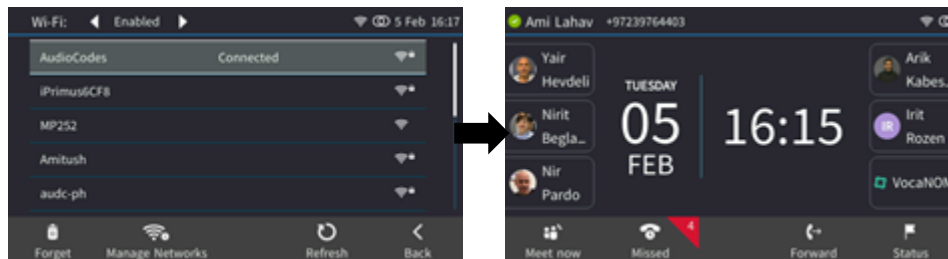
- After enabling Wi-Fi, the screen indicates the phone is 'Searching for networks...'. The phone then displays the available Wi-Fi Access Points. If necessary, the user can press the **Refresh** softkey to display more options:



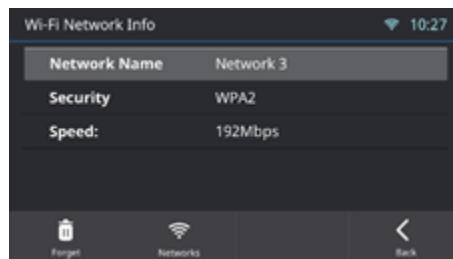
- After selecting a Wi-Fi Access Point, the user must configure Access Point parameters:



- After configuring the Wi-Fi parameters, the user presses the **Connect** softkey again and waits about 20-30 seconds for the phone to connect to Wi-Fi and receive an IP address; the Wi-Fi icon is then displayed in the uppermost right corner of the screen:



- The phone supports the following authentication methods:
  - ◆ Open, no password
  - ◆ Shared, encryption type WEP
  - ◆ WPA2 Personal, encryption type AES or TKIP
  - ◆ WPA Personal, encryption type AES or TKIP
  - ◆ WPA2 Enterprise, encryption type AES or TKIP
  - ◆ WPA Enterprise, encryption type AES or TKIP
  - ◆ 802.1x, encryption type WEP
- The phone allows users to determine Wi-Fi status (network name, authentication method and Wi-Fi signal strength) from the Wi-Fi Network Info screen (Device Status > Wi-Fi).



- **Electronic Hook Switch (EHS) on the 445HD phone.** The 445HD phone supports the Electronic Hook Switch (EHS) DHSG feature. Calls can be answered and volume level can be changed with EHS-capable headsets. The feature was verified on Jabra® PRO 920, Jabra® PRO 9450 headsets, Plantronics® CS540™ and Plantronics SAVI® W745 and require a special EHS cable (purchased from AudioCodes).
- The headset's base unit connects to the phone's headphone port. The Audio connector connects to the headphone's port. The management connector connects to the Auxiliary port using a DHSG cable which can be ordered from AudioCodes. The feature can be enabled using the Web interface or Configuration File through parameter 'Electronic Hook Switch' and parameter 'voip/services/electronic\_hook\_switch/enabled' respectively. The feature allows users to handle calls, i.e., answer calls and change volume level, with EHS-capable wireless headsets at a distance from the phone.

- **Server Certificate validation for secured HTTPS communications over SSL** configured via the configuration file parameter 'security/SSLCertificateErrorsMode' decreases vulnerability to breaches of security. If validation fails after installing phone firmware, HTTPS communication with Skype for Business and EWS servers are impacted, including but not restricted to Skype for Business auto-discover, contacts search, EWS auto-discover, Outlook Calendar, Authorization, etc. The certificate is verified in two steps:
  1. The Root CA is installed using DHCP option 43, LDAP or the Web interface.
  2. The server's hostname is validated; for each certificate in the chain, the 'issuer' field in the certificate must match the 'subject' field of the issuer (uppermost in the chain) certificate.Backward compatibility is supported. To implement backward compatibility, the configuration file parameter 'security/SSLCertificateErrorsMode' must be changed from the default to **Ignore**:
  - SSLCertificateErrorsMode = **Disallow** (default); TLS connection will be rejected and the phone will not communicate with the server.
  - SSLCertificateErrorsMode = **Ignore** (allows backward compatibility though vulnerability will increase); the phone will proceed without checking the received certificates and without any notifications.
- **New 'Offline' user status on the phone.** This new feature is identical to the user offline status supported by Skype for Business client, namely, that a user's presence status can be defined as 'Offline'. The 'Offline' status must be configured in the Skype for Business server (using parameter 'EnableAppearOffline' which must be configured to **True**).
- **The 'Discreet Call' feature can be disabled.** The network administrator can configure a new configuration file parameter 'personal\_settings/discreet\_call/enabled' to **0** to disable the Discreet Call feature.
- **New notifications are displayed when the phone is in recovery mode** to facilitate a friendlier user | network administrator experience; all phone models display:
  - 'Downloading Firmware Image' when downloading the recovery image
  - 'Upgrading Firmware in Recovery Mode' when burning the recovery file



### 3.14.1 Resolved Constraints in Version 3.1.4

Here are the constraints that are resolved in version 3.1.4.

**Table 3-27: Resolved Constraints in Version 3.1.4**

Incident	Description
IPPSFB-6650	A reminder that's configured to remind the user about a meeting two hours before the meeting, displays '1H:60' instead of '2H'.
IPPSFB-6883	[405HD/440HD] If a call comes on the phone while in the process of unlocking it ( <b>Unlock</b> softkey > 'Enter Unlock Code') and the user presses the <b>Accept</b> softkey, the phone does not respond.
IPPSFB-5576	[445HD] The 'Time Zone' selection screen sometimes does not pop up.
IPPSFB-6755	[440HD] The speaker LED is illuminated when a discreet call is made during an incoming call.
IPPSFB-4470	[440HD] Configuring a Programmable Key to Event > HotDesk doesn't function.
IPPSFB-5021	[440HD] [CAP] After selecting Programmable Key 1 or long-pressing a Function Key, the phone should display a message 'You can't modify this key'.
IPPSFB-6057	The phone can't complete a Consulted Transfer if it's configured to automatically forward calls.
IPPSFB-6638	[450HD] The phone should not display 'Common Area Phone' under the 'Administrator' menu while the user is signed in.
IPPSFB-6550	Discreet Call works as a Speed Dial call only if the user's name is configured without a domain.
IPPSFB-6052	[445HD/440HD] Discreet Call: 'Line Speed Dial Number' should be changed to 'Line Discreet Call Number' in the Programmable Keys page.
IPPSFB-6061	[440HD] Discreet call: Voice functionality is unavailable for a discreet call when making the discreet call while the phone is ringing to indicate an incoming call.
IPPSFB-5276	[445HD] The SILK_16000 codec must be removed as it is not supported.
IPPSFB-5321	The phone fails to find the Conference URL for an online Skype for Business meeting.
IPPSFB-5973	[440HD/450HD/445HD] A discreet call can be answered by a handset in some scenarios; it shouldn't be possible.
IPPSFB-5830	The Calendar doesn't show a meeting's subject when the subject is long.
IPPSFB-7231	[C450, 450HD] [Boss-Admin] Calls made 'On behalf' aren't displayed in the called party's screen.
IPPSFB-7238	[C450HD, 450HD] [Boss-Admin] After setting the calendar to 'Enable' or 'Disable' from the phone's Settings menu, a warning message should be displayed.
IPPSFB-7232	[C450, 450HD] [Boss-Admin] The Boss cannot pick up held calls from the call menu.
IPPSFB-6913	[450HD] [Boss-Admin] The icon of a fourth Boss displayed in the phone screen is missing the call count.
IPPSFB-6943	[Common Area Phone (CAP) and Call Forward] The Disable Call Forward setting in some cases causes the user not to be available anymore.
IPPSFB-6370	[445HD] In some cases, the phone doesn't play a ring back tone on calls to the PSTN.
IPPSFB-5423	[440HD] After some time, the phone stops using the issued certificate and uses the self-signed certificate [802.1x].
IPPSFB-6852	Long-pressing the HOLD hard key causes the phone to keep sending hold/resume events that cause calls to disconnect.

Incident	Description
IPPSFB-6272	With Response Group Service (RGS) calls, the caller's SIP URI is displayed in the phone screen instead of the RGS name.
IPPSFB-6303	The phone doesn't support the Security Token Service (STS) authentication URL based on a response to a GET / GetUserRealm.
IPPSFB-6668	HTTP headers should be supported.
IPPSFB-6889	In some environments, the phone fails to complete the upgrade from Version 3.1.1.43.1 to Version 3.1.3.144.15 due to a long value configured in DHCP Option 43.
IPPSFB-4826	[450HD] If an incoming call interrupts a user who is in the process of calling, the user can't switch back to the first call.
IPPSFB-6348	In some environments, the phone fails to add a PSTN participant to an ongoing conference call.
IPPSFB-5991	[440HD] When setting the parameter 'lync/sign_in/pin_code_only' to 1, it's impossible to sign in via the Web interface using the PIN method.
IPPSFB-6373	[445HD/450HD] The font of the Cloud Sign-In code is too small in the phone screen.
IPPSFB-6801	[4550HD] The phone fails to merge a Boss to a conference if the Boss is put on hold first.
IPPSFB-6392	[445HD] [Boss-Admin] Programmable Keys are deleted if delegates are removed.
IPPSFB-6352	[450HD] The phone doesn't update the refresh token beyond 90 days.
IPPSFB-6788	In some environments, the phone fails to remove a participant from a conference.
IPPSFB-6454	[450HD/445HD] The user cannot disable the 'Meet Now' softkey when parameter 'lync/IdleScreen/MeetNow/enabled' is configured.
IPPSFB-6731	[O365] Advanced phone features such as Trans, Hold, etc., don't function for the first five seconds after the call is begun.
IPPSFB-4345	[450HD] German translation is subject to improvement.
IPPSFB-6425	The phone restarts after configuring the Forward softkey to forward unanswered calls.
IPPSFB-6166	[405HD] One-way voice (one-way audio) occurs when calling to an Auto Attendant in the cloud and the call is routed to an RGS attendee.
IPPSFB-6343	[405HD] The mute icon is not displayed in the phone's screen in a conference call scenario.
IPPSFB-6102	In some environments, the phone remains stuck at the 'Acquiring IP' stage if the DHCP option's length exceeds 308 characters.
IPPSFB-6100	[445HD] In some environments in which there is more than one mediation server, the phone fails to add a participant to a conference.
IPPSFB-4370	The languages supported by the phone's screen interface are not listed alphabetically.
IPPSFB-6887	[450HD] The phone freezes after user 'A' places a call on behalf of the Boss and then calls user 'B'.
IPPSFB-7233	[C450HD, 450HD] If Admin #3 (Delegate #3) answers the phone for Boss #3 but immediately puts the call on hold, the call cannot be picked up by Boss #3 from the drop-down.
IPPSFB-854	The Dutch language interface needs to be improved.
IPPSFB-6700	The German language interface needs to be improved.

### 3.14.2 Known Constraints in Version 3.1.4

Here are the constraints known to exist in Version 3.1.4.

**Table 3-28: Known Constraints in Version 3.1.4**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for future version releases.
-	The HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'on behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.
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.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
-	<p>HTTP Proxy limitations:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Only IP phones behind the OVR can access the HTTP proxy</li> <li>■ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online</li> </ul>
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-6297	[HRS] The KEYS menu item in the device's Menu screen is colored gray, indicating that the item is inactive; the menu item is active, so it should be colored blue.
IPPSFB-5692	[445HD Wi-Fi] Wi-Fi cannot be configured via the Web interface.
IPPSFB-6705	[445HD Wi-Fi] Wi-Fi Protected Setup (WPS) is not supported.
IPPSFB-6947	The phone assigned to receive a Discreet Call can be used <i>only for this purpose</i> ; it cannot be used as a regular phone. If it's occupied with another call when a Discreet Call arrives, it may cause the call not to be discreet.
IPPSFB-6728	After adding a contact to Microsoft Outlook, the user needs to manually edit the contact's name (Key Label) even though it's already been configured in Outlook.
IPPSFB-7277	[445HD Wi-Fi] After adding a new Wi-Fi Access Point via 'Manage Wi-Fi networks', it isn't shown in the available Wi-Fi Access Points list.
IPPSFB-7169	[445HD Wi-Fi] Wi-Fi phone screens are currently available only in English.
IPPSFB-7135	[445HD Wi-Fi] BToE automatic pairing is not supported.
IPPSFB-6815	[445HD Wi-Fi] Switching between a wired and a Wi-Fi connection requires a phone reboot.
IPPSFB-7465	Programmable Keys can be configured as Speed Dials only via the phone screen, not via the Web interface. All other options (Key Event, Discreet Call, VocaNOM) can be configured from both phone screen and Web interface.
IPPSFB-4052	[405HD] Device update is not supported in this version release.

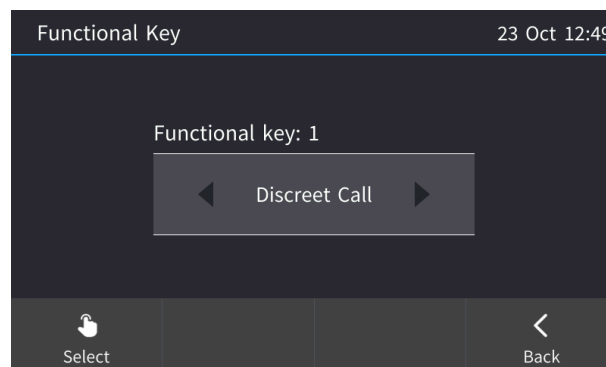
\* This issue is planned to be fixed in the next version release.

## 3.15 Version 3.1.3



Version 3.1.3 includes firmware build **3.1.3.144.15** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

- **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 phone's 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.

The following new configuration file parameters have been added to support this feature:

- `personal_settings/functional_key/[X]/key_label`
- `personal_settings/functional_key/[X]/speed_dial_extension`
- `personal_settings/functional_key/[X]/speed_dial_number`
- `personal_settings/functional_key/[X]/type`

Network administrators must configure the last-mentioned configuration file parameter 'personal\_settings/functional\_key/[X]/type' to **DISCREETCALL**.



- 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.

IPPSFB-5235

- **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.

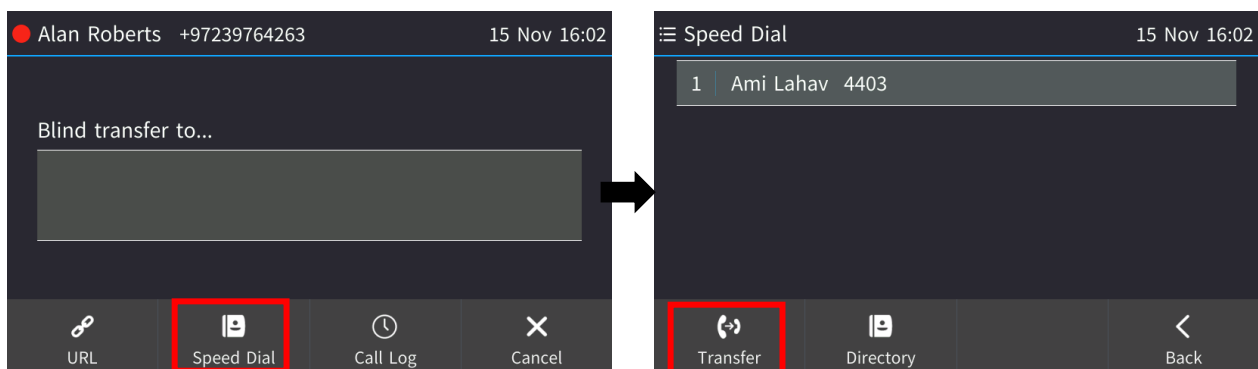


- HDI optimization must be disabled for BToE to function correctly with Citrix XenDesktop.
- XenDesktop (for remote users) runs on Windows 10.
- Thin client is not supported.

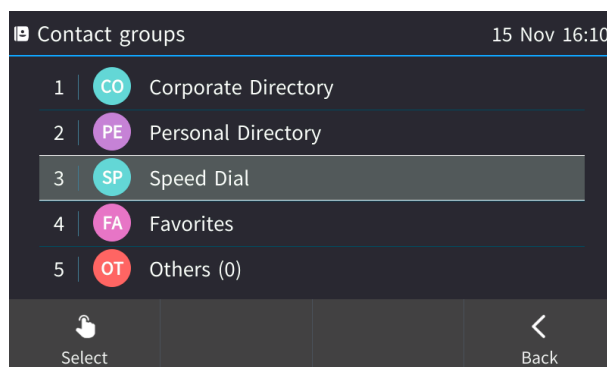
- **The BToE application is more flexible in terms of the user name format.** The BToE application can now receive the username in NetBIOS format (**domain\user**, for example, **companyname\johnb**) in addition to the existing User Principal Name (UPN) format (**user@domain**, for example, **johnb@companyname.com**) 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).

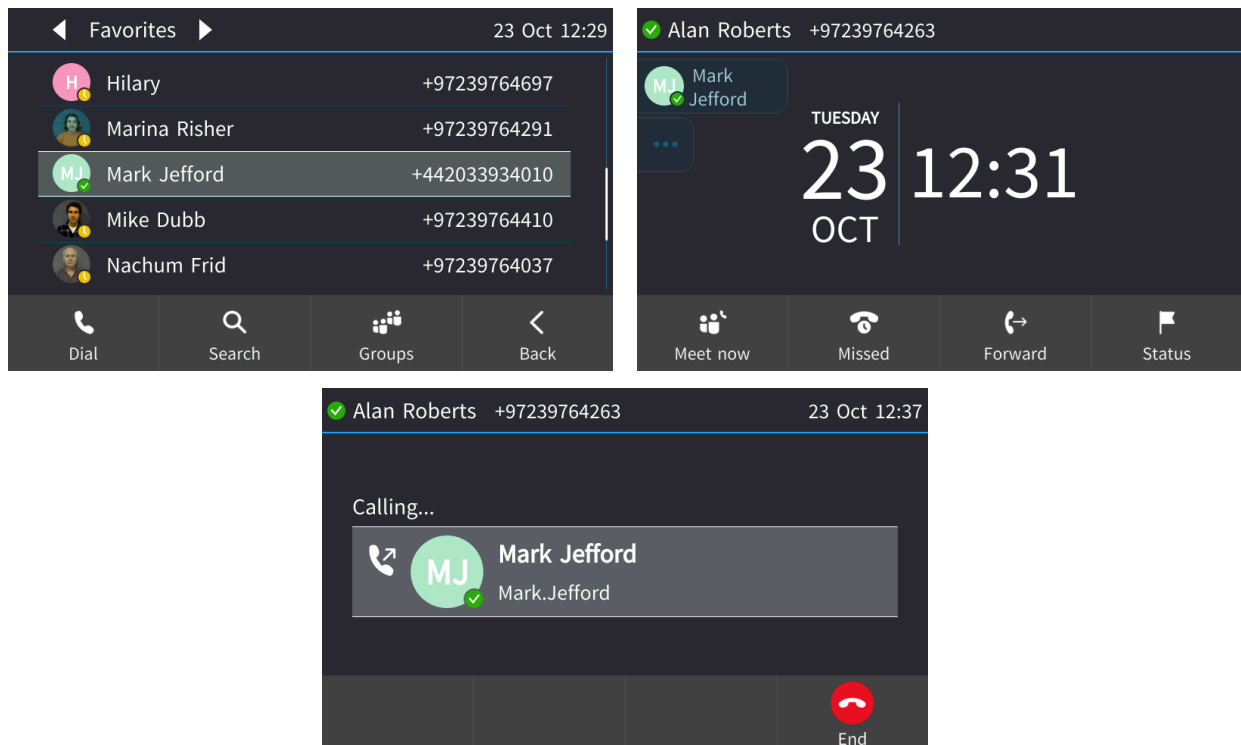
- **450HD phone users and HRS users can access speed dials when an established call is in progress.** A new softkey has been added to the 450HD phone and to the HRS to allow users to access configured speed dials during an active call. The access allows a user to transfer a call to a third party for whom a speed dial was configured, add a participant to whom a speed dial was configured 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



### 3.15.1 Resolved Constraints in Version 3.1.3

Here are the constraints that are resolved in version 3.1.3.

**Table 3-29: Resolved Constraints in Version 3.1.3**

Incident	Description
IPPSFB-5753	[445HD] Disconnecting and reconnecting the USB headset causes the USB controls (hook, mute and volume up/down) to become unresponsive.
IPPSFB-5786	The phone screen gets stuck at 'Downloading firmware' when uploading incorrect firmware manually via the phone's Web interface. The phone then requires a manual reboot.
IPPSFB-5395	If a number is added to a conference and a prompt is then received to press on digits (IVR), the DTMF signal sent from the phone is not recognized.
IPPSFB-5086	[Busy on Busy] Configuring Call Forward on the phone removes a Busy on Busy configuration if the latter is configured.
IPPSFB-4665	The phone doesn't configure VLAN based on DHCP 43:10 if CDP and LLDP are disabled
IPPSFB-5561	[HRS] The Boss-Admin Handoff option is displayed in the Call Menu even though HRS does not support the Boss-Admin feature.
IPPSFB-4113	[450HD] [Paging] The phone fails to join a multicast group. Internet Group Management Protocol (IGMP) is disabled; multicast group membership isn't established.
IPPSFB-5396	The auto-discover process for the 405 and 450HD phones is inadequate. The phones fail to complete sign-in to Skype for Business (on premises) if DNS-SRV records aren't configured.
IPPSFB-5178	In Response Group Service (RGS) calls, a transfer on rare occasions doesn't complete because the phone doesn't send a REFER message.
IPPSFB-4699	When the phone switches to redundant pool, the time-out mechanism is inadequate. With PIN/EXT sign-in, however, Username/Password functions flawlessly.
IPPSFB-4796	Calls from a Skype for Business Response Group which are missed, are not stored as missed calls in the Missed Calls log.
IPPSFB-5543	Dialing extension 88 cannot be performed.
IPPSFB-5541	The phone's Consultative Transfer screen displays incorrect softkeys when the remote party performs hold and resume.
IPPSFB-5528	[445HD/450HD] A phone whose Busy-on-Busy feature is enabled does not display missed calls in the Missed Calls log.
IPPSFB-5625	440HD/405] [Hot Desking] The screen in which the message 'Phone will be signed out in <i>n</i> minutes', flickers.
IPPSFB-5854	After answering an incoming call, the actions 'Hold' or 'Transfer' are blocked for a few seconds until the call's internal negotiation is completed.
IPPSFB-5842	[Calendar] On rare occasions, the 'Join' softkey doesn't function.
IPPSFB-5785	[445HD/450HD] [Voice Mail] It sometimes takes a long time for the phone to mark an unread voicemail as read.
IPPSFB-5319	Enabling Core Dump from the Web interface's 'Diagnostics' page causes the phone to reboot without warning.
IPPSFB-5682	[Advance Forward] There is an option to choose 'My Delegates' without there being any participants.

Incident	Description
IPPSFB-5043	[BToE] On rare occasions, the phone wrongly sends Broadcast packets to the pc port as part of BToE automatic pairing attempts.
IPPSFB-5321	[Calendar] The phone fails to find the Conference URL for an online Skype for Business meeting that was initiated via the Microsoft Office 365 portal.
IPPSFB-5386	[445HD/450HD] [Advance Forward] After configuring Call Forward via the directory, the PSTN number is displayed instead of the user's name.
IPPSFB-5532	The phone blocks the option to send DTMF during a Conference Call. This creates an issue with AudioCodes' Meeting Recorder.
IPPSFB-5499	VLAN priority (802.1p) is not set when VLAN settings are discovered via Link Layer Discovery Protocol (LLDP).
IPPSFB-5026	[405HD/440HD] [Conference] One participant is sometimes missing in the conference's Roster screen.
IPPSFB-5127	450HD/445HD] When two calls come in simultaneously, pressing the headset/speaker button to answer the call does not function.
IPPSFB-5419	[445HD] An outgoing call gets disconnected if a Calendar Reminder pops up during the ringback tone.
IPPSFB-4266	[Call Forward enhancement] The PSTN number appears instead of the user's name after setting Call Forward via the Directory.
IPPSFB-118	Device lock does not function when using the USB headset control.
IPPSFB-5910	[445HD, 450HD] Occasionally, the phone's screen does not switch to dimmer mode, i.e., the phone's screen brightness feature is not flawless yet.
IPPSFB-5978	[445HD, 450HD] The brightness level of the phone's screen (Low, Medium or High) was optimized.
IPPSFB-5416	Improvements were made to the Russian language interface.
IPPSFB-5140	Improvements were made to the Polish language interface.
IPPSFB-5834	[450HD] [BToE] When the Instant Messenger window is open and the user shares a file, the phone plays a one-second ring tone notification.
IPPSFB-5381	[HRS-458] One-way audio. Audio coming into the HRS can be heard.
IPPSFB-5570	Vulnerability issue: Sensitive information such as user credentials can be obtained via a man-in-the-middle (MITM) attack.
IPPSFB-6046	[445HD] [USB headset] The phone's VoIP application occasionally reloads or even needs to be rebooted to recover from USB headset errors during a call.
IPPSFB-6138	When the phone is connected to a Teams Gateway configured with Direct Routing, a one-way voice issue sometimes occurs with an incoming call.
IPPSFB-6417	Sign-in failure may occur in environments in which the phone does not get DNS from the Skype for Business server. This is because Lync Auto Discover functionality is missing. The issue arose due to the Vulnerability fix (IPPSFB-5570) that was added to Version 3.1.3.
IPPSFB-6343	[405HD] [Conference] The <b>Mute</b> icon functions but during a Conference Call it does not appear on the screen.
IPPSFB-6569	[USB Headset] The USB headset controls (mainly <b>Mute/Un-Mute</b> ) do not function flawlessly.
IPPSFB-6510	The phone sometimes cannot close the Calling screen when trying to join a Skype/Teams meeting and the meeting request is rejected by the server (for example, when the meeting ID does not exist).
IPPSFB-6310	[445HD] The handset's self-hearing function is too loud.

### 3.15.2 Known Constraints in Version 3.1.3

Here are the constraints known to exist in Version 3.1.3.

**Table 3-30: Known Constraints in Version 3.1.3**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for future version releases.
-	The HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'on behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.

Incident	Description
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.
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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
IPPSFB-4357	[445HD] The Electronic Hook Switch (EHS) wireless headset does not function on this model.
-	<p>HTTP Proxy limitations:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Only IP phones behind the OVR can access the HTTP proxy</li> <li>■ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online</li> </ul>
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-6297	[HRS] The KEYS menu item in the device's Menu screen is colored gray, indicating that the item is inactive; the menu item is active, so it should be colored blue.

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

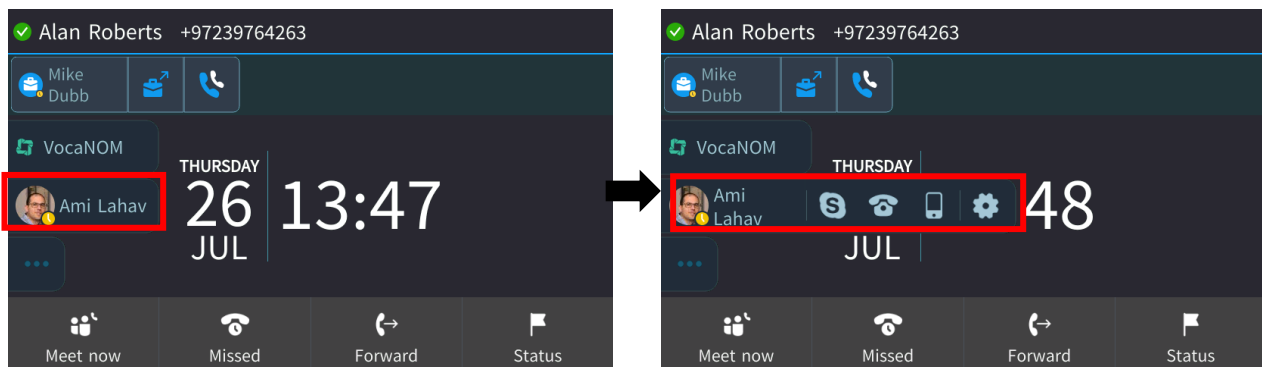
## 3.16 Version 3.1.2



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).

### 3.16.1 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.



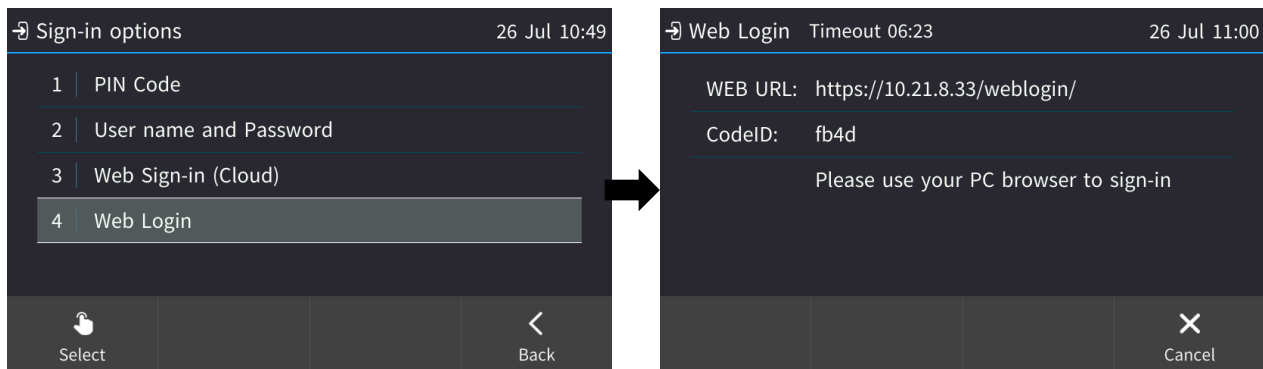
- The user can then touch an item in the popup menu to directly activate its functionality.

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.

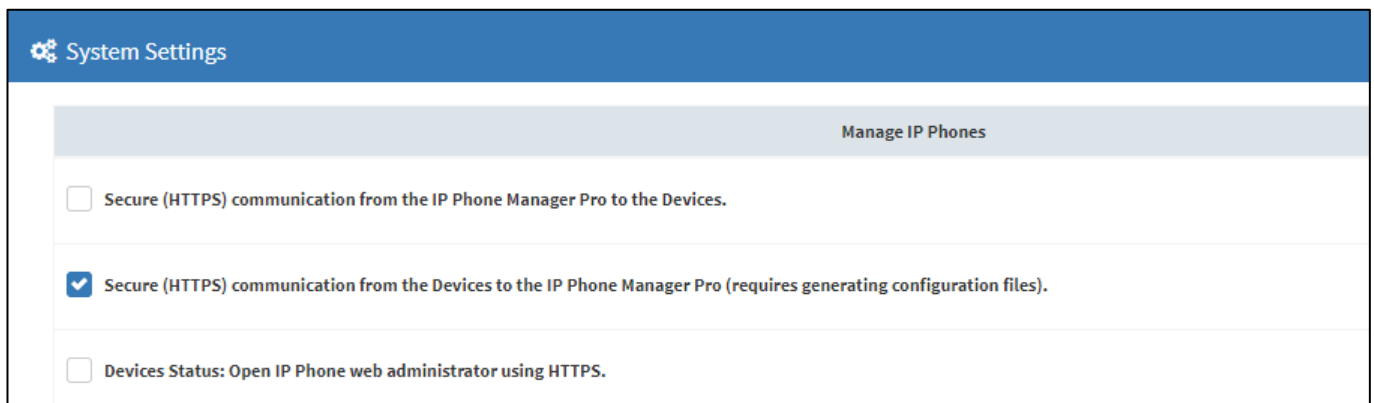


*Touching* a speed dial still dials the default option, namely, a Skype for Business call.

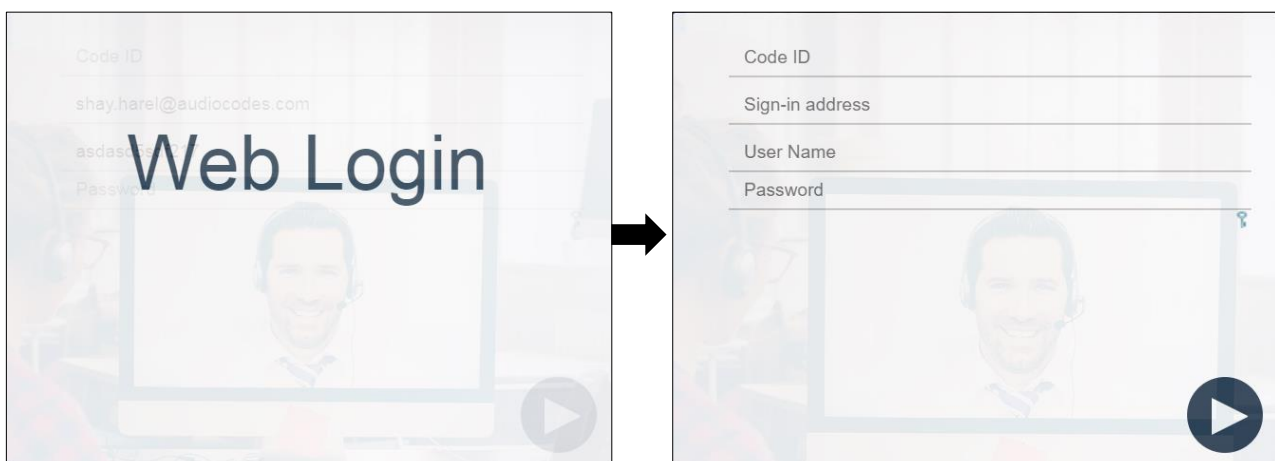
- The **Web login method** for signing in to the phone has been improved security-wise, whereby the IP Phone Manager now acts as a secure proxy between the user's browser and the phone. The aim of this enhancement is to allow the use of HTTPS with signed certificates between the user's PC browser and 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.



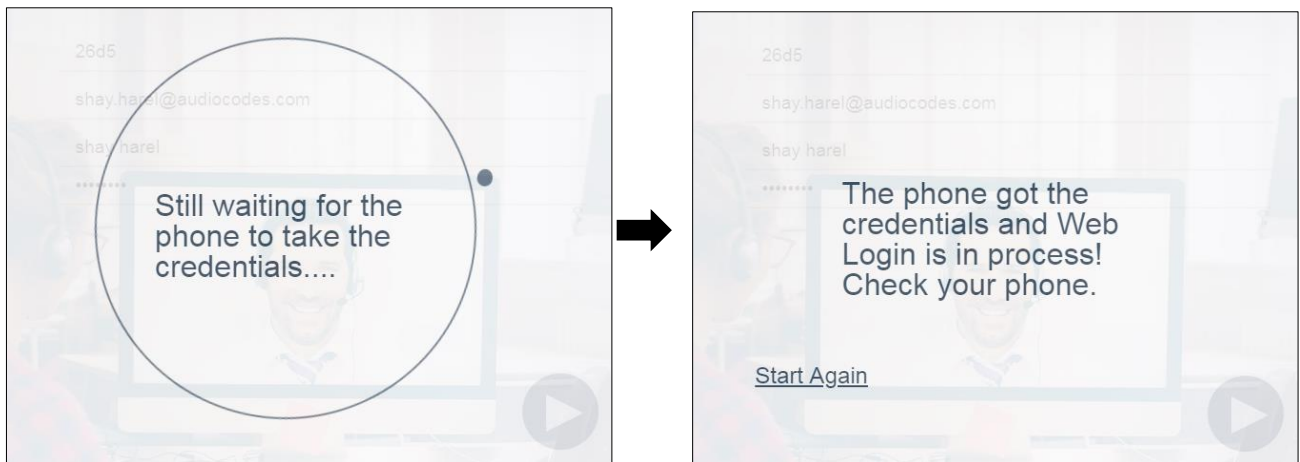
- The parameter 'Secure (HTTPS) communication' in AudioCodes' IP Phone Manager Pro/Express management interface must be enabled for the Web Login feature to function.



- 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.

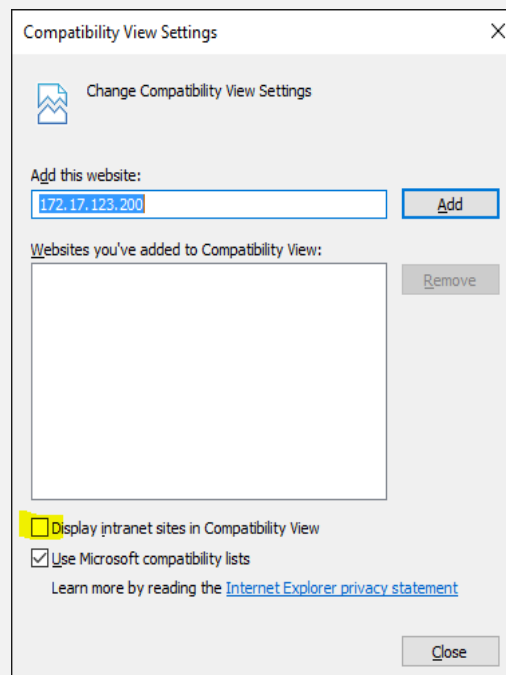


- The server then sends the credentials over HTTPS to the phone. If the phone screen indicates that the Web Login is unsuccessful, the user can 'Start Again' and enter their credentials.

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



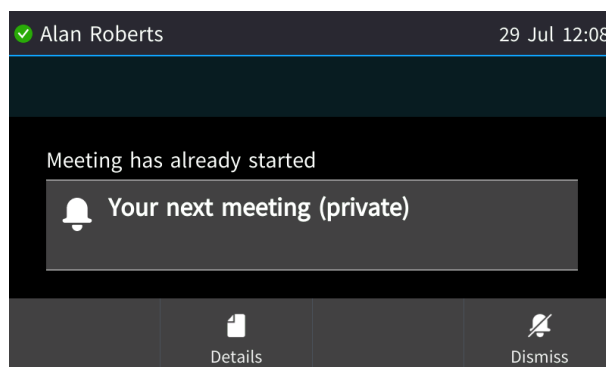
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- The phone displays Calendar meetings configured as 'Private' in Microsoft Exchange, without identifying details such as subject.

The screenshot shows the 'New Appointment' form in Microsoft Exchange. The title bar reads 'New 450HD IP Phone feature - Appointment'. The ribbon includes 'File', 'Appointment', 'Insert', 'Format Text', and 'Review'. The 'Appointment' tab is active, showing options like 'Save & Close', 'Delete', 'Forward', 'Appointment', 'Scheduling Assistant', 'Skype Meeting', 'Meeting Notes', 'Invite Attendees', 'Show As' (set to 'Busy'), 'Reminder' (15 minutes), 'Recurrence', 'Time Zones', 'Categorize', 'Private' (selected), 'High Importance', 'Low Importance', 'Office Add-ins', and 'View Templates'. The form fields are: Subject: 'New 450HD IP Phone feature', Location: 'My office', Start time: 'Sun 7/29/2018 12:45 PM', End time: 'Sun 7/29/2018 1:15 PM', and an 'All day event' checkbox. A tooltip for the 'Private' tag is visible, stating: 'Private: Mark this item as private so that other people cannot see the details of it.'



### 3.16.2 Resolved Constraints in Version 3.1.2

Here are the constraints that are resolved in version 3.1.2.

**Table 3-31: Resolved Constraints in Version 3.1.2**

Incident	Description
IPPSFB-5236	The phone on rare occasions fails to get the Calendar after switching between users (user A signs out from a phone and user B signs in to the same phone).
IPPSFB-4785	[450HD /445HD] When the phone is offline, it doesn't show the 'Paging' Programmable Key.
IPPSFB-5143	[450HD/ 445HD] The phone fails to show two incoming calls that enter at the same time.
IPPSFB-5136	Outlook Contacts are not sorted alphabetically per displayed name.
IPPSFB-5097	[450HD] The phone cannot access a Skype for Business conference when the configuration file parameter 'AllowAnonymousParticipants' is configured to 0.
IPPSFB-4703	[BToE] When a phone is paired, the REDIAL list is not maintained correctly and some outgoing calls may consequently not appear in the list.
IPPSFB-5082	[405HD] The Log Upload action may fail when the phone is in use for a long time.
IPPSFB-5099	[Boss-Admin] Incoming PSTN calls are listed in an incorrect order of appearance in the Call Log.
IPPSFB-4838	Presence statuses are not displayed when the configuration file parameter 'lync/ContactPicture/IPPPhotoUsage' is changed to NoPhoto.
IPPSFB-5058	[450HD/445HD] [Boss-Admin] After Admin accepts a call from Boss handoff, the phone displays irregular strings.
IPPSFB-4425	[450HD] When the phone calls a phone that is off-hooked, the off-hooked phone displays the incoming call in the off-hooked stage.
IPPSFB-4319	[445HD] The phone incorrectly presents Signal/Noise values in the QoE file.
IPPSFB-4934	[Cloud sign in] The relevant message is not displayed if Cloud sign-in fails because the user does not have a valid license.
IPPSFB-3830	[PIN code sign-in] After signing out and then quickly signing in with the PIN code and phone number option, the phone in some cases returns to the idle screen while trying to enter the PIN code and phone number.
IPPSFB-5151	[Contact Picture] Photos suddenly disappear in the Function Keys.
IPPSFB-4795	Contact pictures may disappear but this issue occurs randomly
IPPSFB-4611	When using T9 search, a 'No Matches' message is sometimes displayed when there is a match; the match is eventually displayed after a prolonged wait.
IPPSFB-5001	[450HD/445HD] [VVM] The unread message isn't moved to 'Read' after reading it.
IPPSFB-5012	[Teams meeting] Even after a user joins a Teams meeting, the phone keeps on playing a ringback tone.
IPPSFB-4787	[445HD/450HD] If multiple Bosses are configured on the phone, the Boss's key sequence changes after restarting.
IPPSFB-4964	In some cases, the phone plays a 'double' ringback tone during a call to a PSTN number from the headset or handset.
IPPSFB-4736	[Contact Picture] Hiding a contact picture via the Skype for Business client does not affect the phone.

Incident	Description
IPPSFB-2079	[IP Phone Manager] An HTTP retry request (503) does not cause the phone to retry firmware/configuration provisioning.
IPPSFB-4965	[445HD] In some instances (though rarely), the phone's digits get stuck (and keep playing for a while until stopping).
IPPSFB-5068	[Response Group Service (RGS) / Multiple Points of Presence (MPOP) / Boss-Admin] The phone belonging to the group keeps indicating that the 'call was answered by another user' and does not revert back to idle screen as it should.
IPPSFB-5018	[405HD/440HD] The second incoming call displays a <b>Reject</b> softkey instead of <b>To Voicemail</b> when phone lock is enabled (the user has enabled voicemail).
IPPSFB-4599	In an Amazon Web Services (AWS) environment, the phone fails to get a web ticket and client certificate to complete TLS-DSK registration.
IPPSFB-2469	[BToE] A phone that answers a call from a phone configured in a Response Group Service (RGS) publishes an incorrect call history report to Microsoft Exchange.
IPPSFB-4776	In some cases, the phone remains in a ringing state when a second call comes in and the phone's configuration file parameter <i>voip/services/electronic_hook_switch/enabled</i> is configured to 1.
IPPSFB-5115	When in an IVR call and the call is transferred to a Response Group Service (RGS) agent, the phone disconnects the call when the server replies with a '491 Request Pending'.
IPPSFB-4345	The German translation is inadequate.
IPPSFB-5168	[450HD] On rare occasions, the phone does not display the correct Favorites Groups.
IPPSFB-4623	[450HRS] Menu option 7, <b>Answer device</b> , does not function correctly.
IPPSFB-4624	[450HRS] The 'Speed Dial' softkey option is not displayed in the Contact Details of a contact listed in the Personal Directory.
IPPSFB-5204	Failover fails when the phone fails to establish a TCP connection to the first redirect but not switched to second connection.
IPPSFB-3361	It's unclear from the QoE report which audio device is used as reported by the phone at the end of a Skype for Business call when QoE is enabled. The incorrect audio device is reported; instead of an audio device connected to the phone, an unrelated audio device is reported. Either the SIP header 'CallerCaptureDev' or the SIP header 'CallerRenderDev' is causing the problem. QoE reports consequently confuse users who cannot determine whether the used audio device is the phone headset or a device connected to the phone's USB port, for example.

### 3.16.3 Known Constraints in Version 3.1.2

Here are the constraints known to exist in Version 3.1.2.

**Table 3-32: Known Constraints in Version 3.1.2**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for future version releases.
-	The HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'on behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.

Incident	Description
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
IPPSFB-4266	[Call Forward enhancement] The PSTN number appears instead of the user's name after setting Call Forward via the Directory*.
IPPSFB-4357	[445HD] The Electronic Hook Switch (EHS) wireless headset does not function on this model.
-	<p>HTTP Proxy limitations:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Only IP phones behind the OVR can access the HTTP proxy</li> <li>■ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online</li> </ul>
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.

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

## 3.17 Version 3.1.1

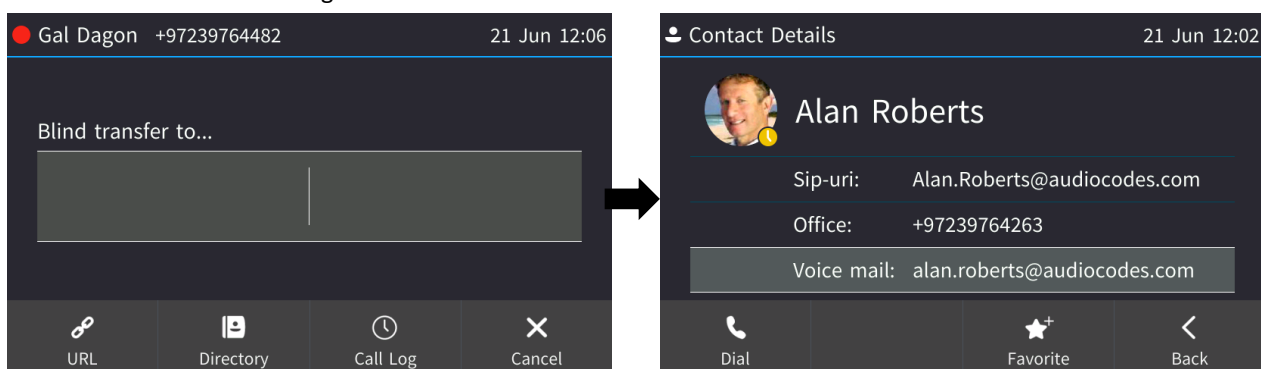


Version 3.1.1 includes firmware build **3.1.1.43.1** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

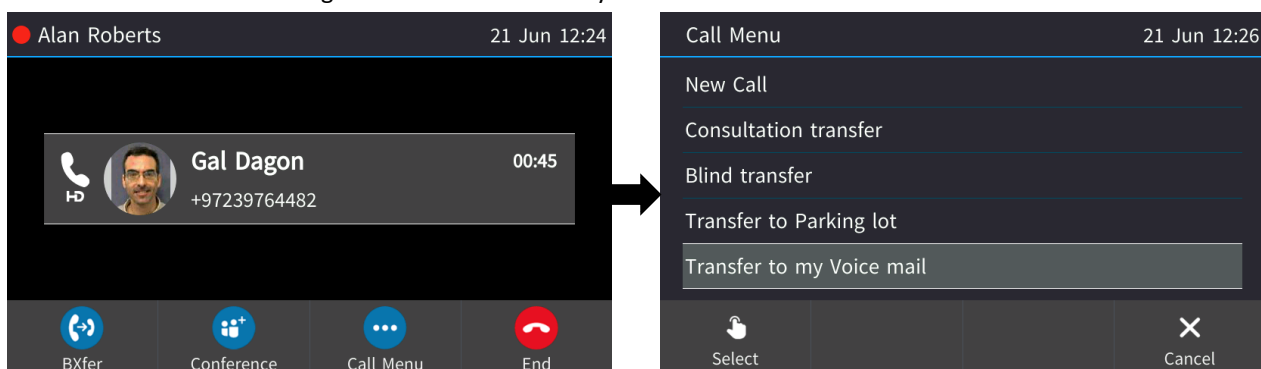
### 3.17.1 What's New

#### ■ 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.

### 3.17.2 Resolved Constraints in Version 3.1.1

Here are the constraints that are resolved in version 3.1.1

**Table 3-33: Resolved Constraints in Version 3.1.1**

Incident	Description
IPPSFB-4574	[445HD] DSP errors cause the VoIP application to be reloaded.
IPPSFB-4052	[405HD] Device update is not supported in this release.
IPPSFB-4309	An external contact is displayed as 'Blocked' in the phone's Contacts.
IPPSFB-5015	The phone sometimes performs an unnecessary re-registration after the user inputs a New Device Lock Code.
IPPSFB-4673	[Contact Picture] On rare occasions, contact pictures disappear during a conference call.
IPPSFB-4521	[Contact Picture] [Visual Voicemail] Contact pictures and presences are not displayed in the Visual Voice Mail list (ALL or UNREAD).
IPPSFB-4780	[Contact Picture] On rare occasions, pictures may not be displayed in calling and incoming screens. The issue is only relevant to online users.
IPPSFB-5005	[Contact Picture] In the Contact Details screen, there's no presence indication in the pictures.
IPPSFB-4736	[Contact Picture] Hiding a contact picture via the Skype for Business client does not affect the phone.
IPPSFB-4853	[Boss/Admin] Rejecting a call by Admin disconnects the call; it should keep ringing on the Boss's (or other Admin's) phones.
IPPSFB-4506	[Provisioning] When Electronic Hook Switch (EHS) is enabled on the phone, it may get 'stuck' when switching from a Skype for Business firmware version to a Generic SIP phone firmware version.
IPPSFB-4381	[Provisioning] When the phone is configured with automatic provisioning, it may proceed with downloading a firmware and upgrading process even if the firmware is damaged (CRC error).
IPPSFB-4816	[Recovery Procedure] When DHCP Option 66 is configured without DHCP Option 67, the phone doesn't request a valid path.
IPPSFB-4832 IPPSFB-4440	[450HD/445HD] The phone displays incorrect information about the accepted call when Semi-Attended Transfer is performed. The transfer itself functions flawlessly.
IPPSFB-4797	Chinese language issues.
IPPSFB-2675	[450HD] [Location] The phone does not notify the user via its screen to configure the location after sign-in.
IPPSFB-2051	[Cloud Auto Attendant] When a call is initiated from a phone to a number that points to an Auto Attendant in Microsoft's Cloud and that leads to a response group, one-way audio occurs when the call is answered by a member of the response group.
IPPSFB-4665	If CDP and Link Layer Discovery Protocol (LLDP) are disabled, the phone does not configure VLAN based on DHCP 43:10.
IPPSFB-4522	DTMF tone continues when the IVR starts playing an announcement in the early media stage.
IPPSFB-4584	The phone does not block phantom calls from the Internet (via port 5060).
IPPSFB-4831	[Skype for Business online users] In some environments, an audio delay of up to 4-5 seconds may occur on incoming calls from the PSTN.



### 3.17.3 Known Constraints in Version 3.1.1

Here are the constraints known to exist in Version 3.1.1.

**Table 3-34: Known Constraints in Version 3.1.1**

Incident	Description
-	The 420HD phone model isn't supported in this version but support is planned for future version releases.
-	The HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call 'on behalf' doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made 'on behalf' from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
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.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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.
-	[440HD Delegated Line Feature] The phone can present up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
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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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
IPPSFB-4266	[Call Forward enhancement] The PSTN number appears instead of the user's name after setting Call Forward via the Directory*.
IPPSFB-4357	[445HD] The Electronic Hook Switch (EHS) wireless headset does not function on this model.
-	<p>HTTP Proxy limitations:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Only IP phones behind the OVR can access the HTTP proxy</li> <li>■ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online</li> </ul>
-	[430HD/440HD/445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-4838	Configuring the parameter 'lync/ContactPicture/IPPPPhotoUsage' to <b>NoPhoto</b> (to disable the Contact Pictures feature) does not function in this release*.
IPPSFB-4795	Contact pictures may disappear but this issue occurs randomly*.
IPPSFB-4785	[450HD, 445HD] The phone doesn't show the Paging programmable key when it is not signed in*.

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

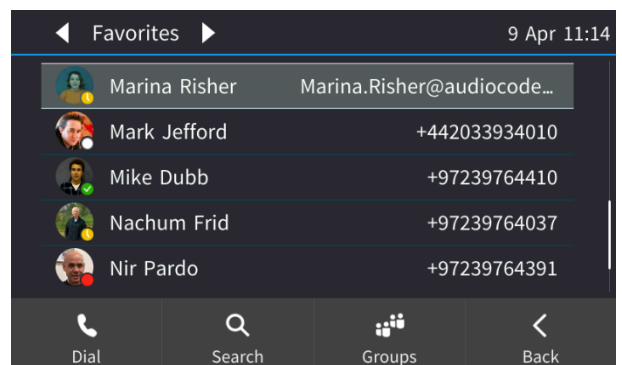
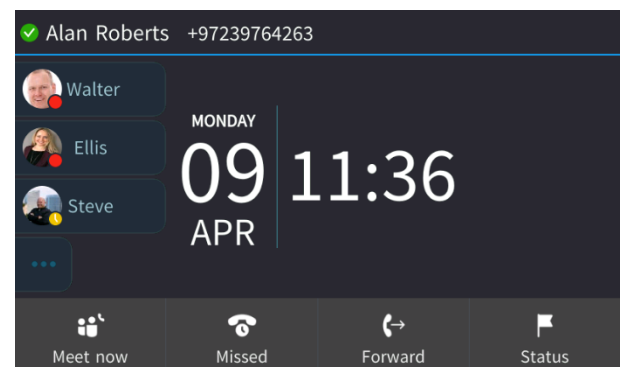
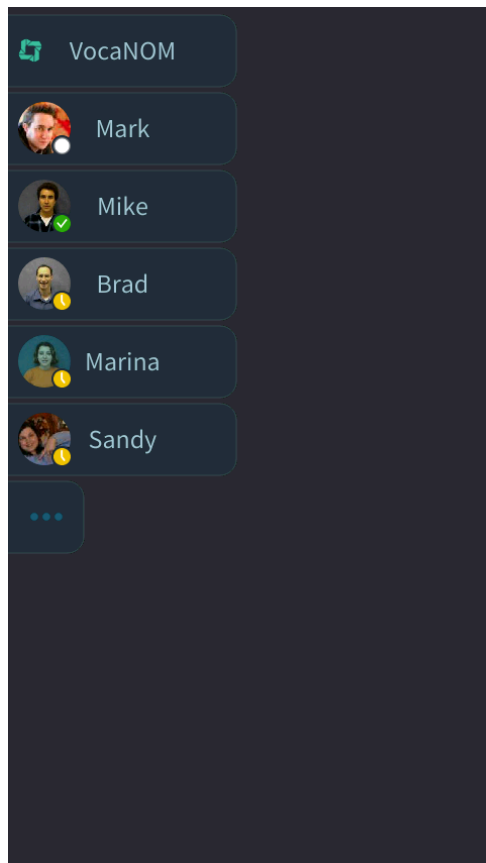
## 3.18 Version 3.1.0

### 3.18.1 What's New

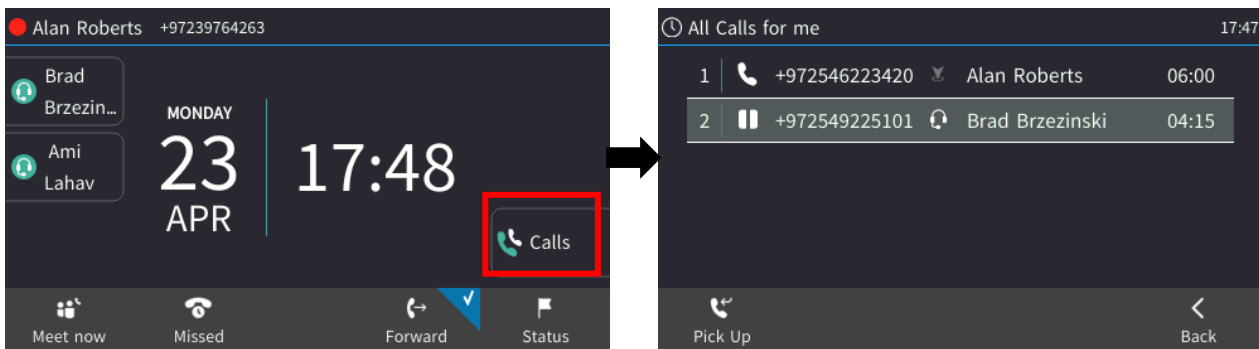


Version 3.1.0 includes firmware build **3.1.0.610** for the 405HD, 430HD, 440HD, 445HD and 450HD phone models, and the Huddle Room Solution (HRS).

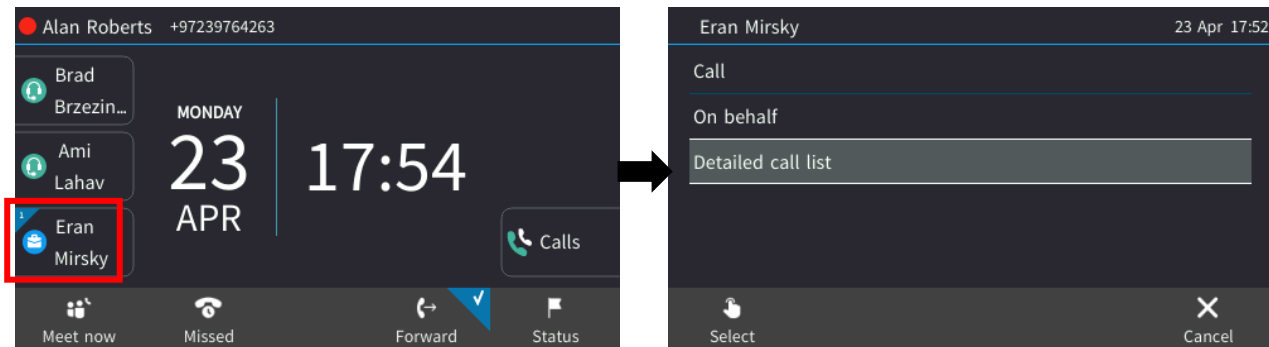
- **Contact Pictures** are now displayed in the screens of the 450HD phone, 450HD Expansion Module, 445HD phone and the HRS. Contact pictures are displayed for speed dials in the idle screen, Favorites, incoming calls, outgoing calls, conference calls, visual voice mail and call logs.



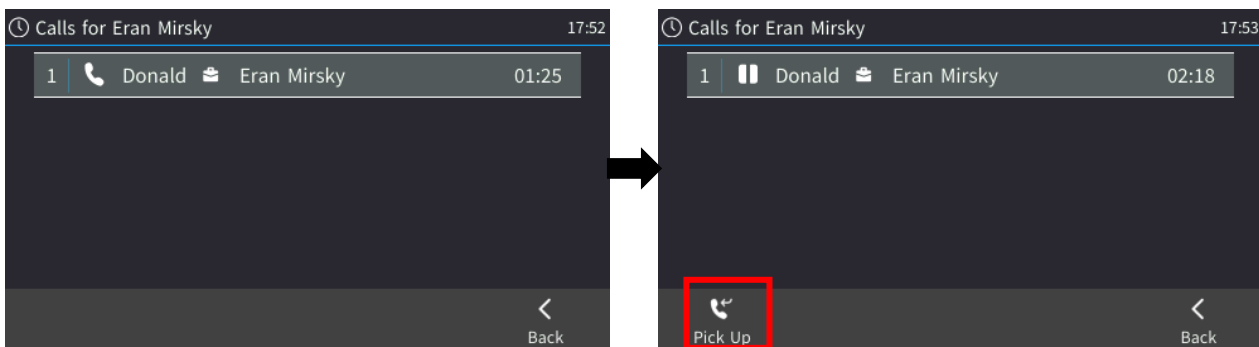
- **445HD phone now supports Boss-Admin (Delegated Line)**
  - Allows a relationship to be established between a boss' phone and an administrative secretary's phone, to streamline office workflow and enhance efficiency.
  - Each phone can support up to five Bosses or Admins. One Boss can have up to five Admins. One Admin can have up to five Bosses. A many-to-many configuration is also supported.
  - The phone's idle screen displays Bosses | Admins. The 'Calls' key allows viewing active calls.



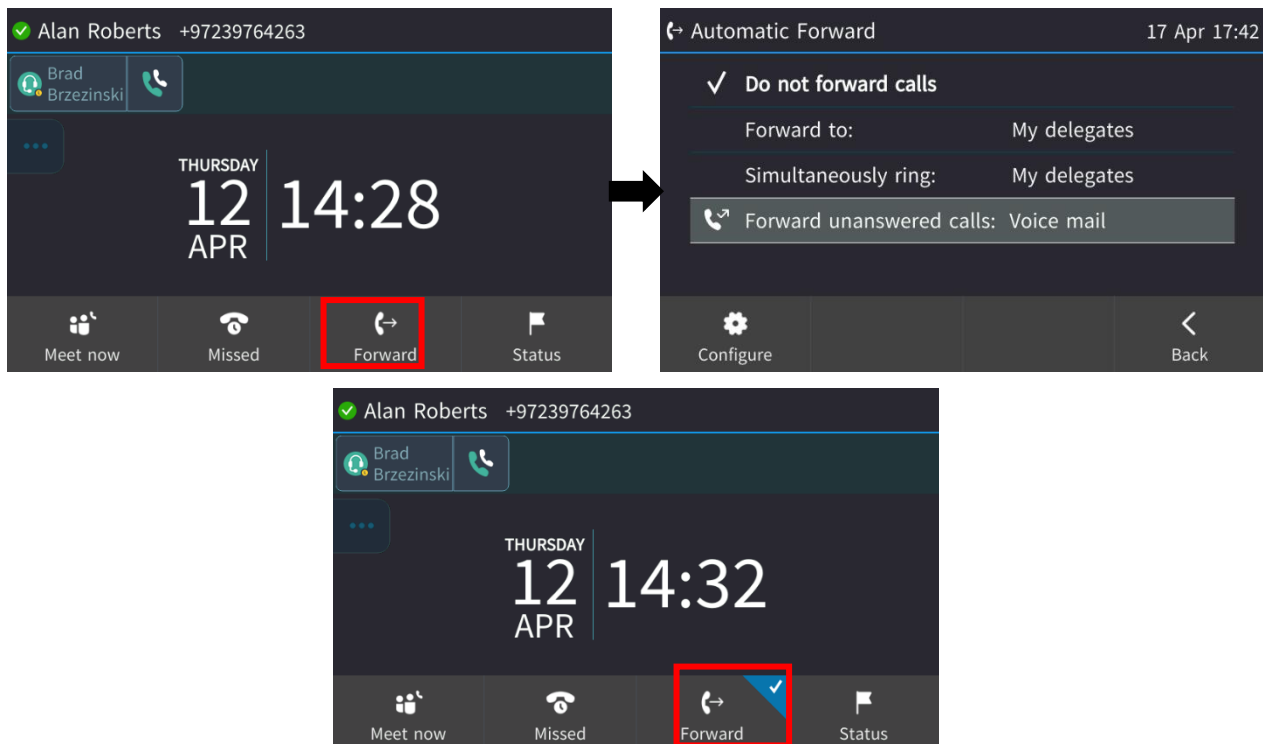
- An Admin key allows viewing a Details call list.



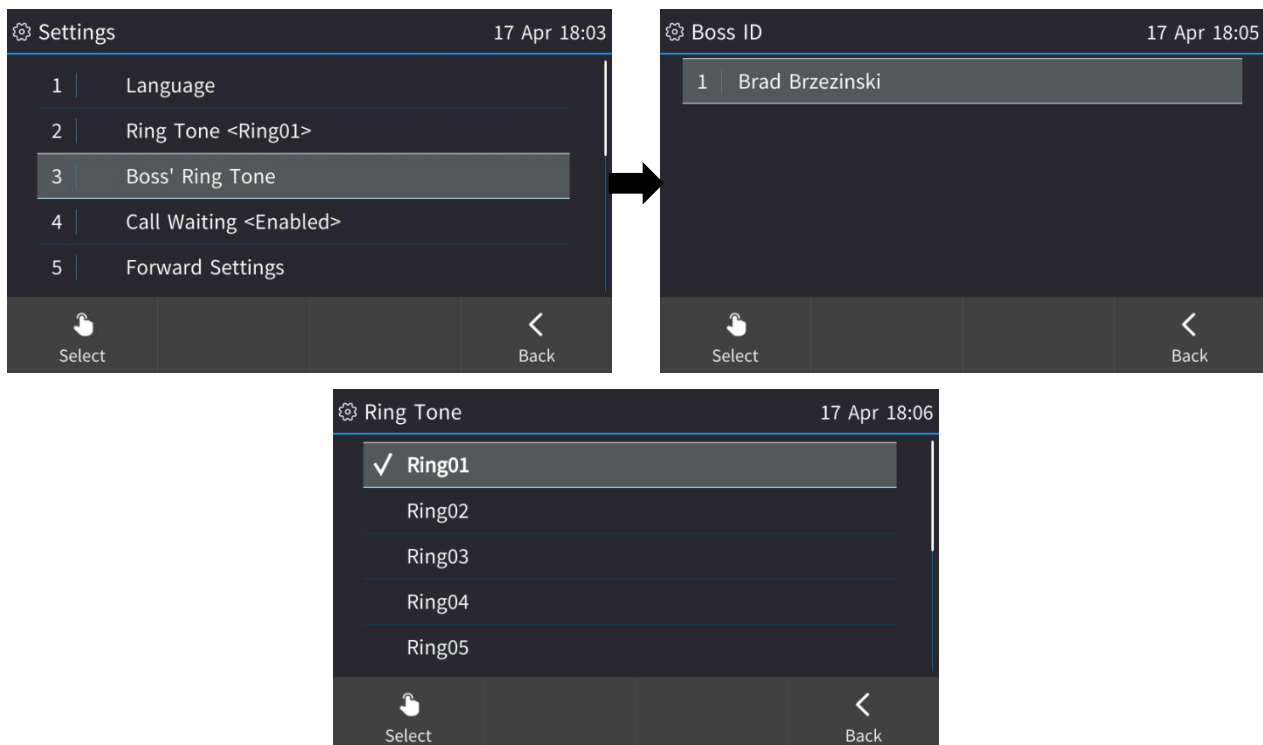
- If an Admin puts a call on hold, the Boss can Pick Up the held call.



- **Call Forwarding has been enhanced** to allow users to set all options currently available on the Skype for Business client, such as 'Call Forward with Delegation', 'Simultaneous ring' and 'Forward unanswered calls'. Users can add Delegates directly from the phone and opt to configure the phones to ring simultaneously. Users can also easily enable calls forward to a mobile phone.
  - The **Team-call group** configuration option for the 'Simultaneously ring' parameter will be viewed in the phone screen after it is configured using Skype for Business client.
  - The 'Forward unanswered calls' parameter allows users to configure the phone to send unanswered calls to voicemail or to a phone number, and to define the unanswered timeout.



- **Boss-Admin distinctive ringing.** Admin can configure on Admin's phone a distinctive ring for each configured Boss, allowing Admin to audially distinguish between incoming calls for Bosses, optimizing Admin's work efficiency.



- **Distribution Groups.** Allows viewing users who are part of Active Directory distribution groups (that were preconfigured as Favorites in the Skype for Business client) on the phone screen. With this feature, users from distribution groups can be called, invited to conference calls, etc.
- **AudioCodes' new corporate logo** is now displayed on its phones and in management interfaces.

#### ■ Phone diagnostics enhancements:

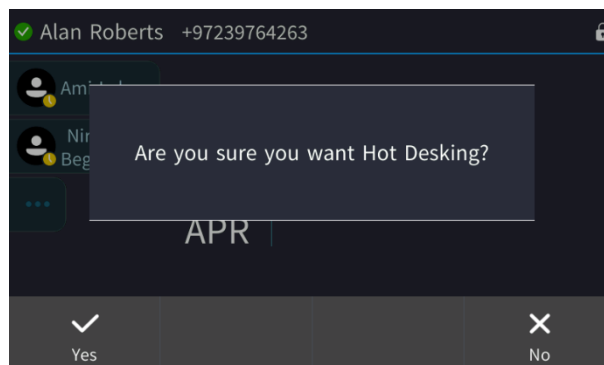
- The phone Web interface's Diagnostics page was modified to include better debugging options:
  - ◆ The 'Logging' Web page has been replaced with 'Syslog – Config'
  - ◆ The 'Tracing' Web page is no longer valid; two new pages have been added instead:
    - 'Syslog – Messages' - includes messages according to the predefined configuration of the 'Syslog – Config' Web interface page.
    - 'Syslog - Messages.alert' - includes system alerts and messages.
- A new phone screen 'Diagnostics' was added under Menu > Device Status. This screen provides important information about the phone's status in terms of networking interfaces, IP Phone Manager Pro and BTtoE. More information will be added in future releases.

- **OVR IP phone Office 365 services can be configured via HTTP Proxy.** Network administrators can configure OVR IP phones to forward Office 365 services via an OVR embedded reverse proxy, to comply with enterprise security policy. The phone then forwards Office 365 HTTP services designated to port 80/443 (TLS), to AudioCodes' HTTP reverse proxy embedded within the OVR, instead of to the original destination (origin server), similarly to the way in which the phone directs SIP traffic to the OVR instead of directly to Office 365 SIP servers.

- The 'Line' key that appeared by default for the phone's first programmable key, i.e., the programmable key located in the uppermost left corner of the phone screen, has been removed. Applies to all phones except 405HD and 420HD.

*If you'd like to use this feature, please contact AudioCodes to discuss the correct SBC version to use.*

- Improved Hot Desking feature: If the phone is locked, a popup prompt is displayed after the HotDesk softkey is selected, prompting users to confirm their request for Hot Desking.

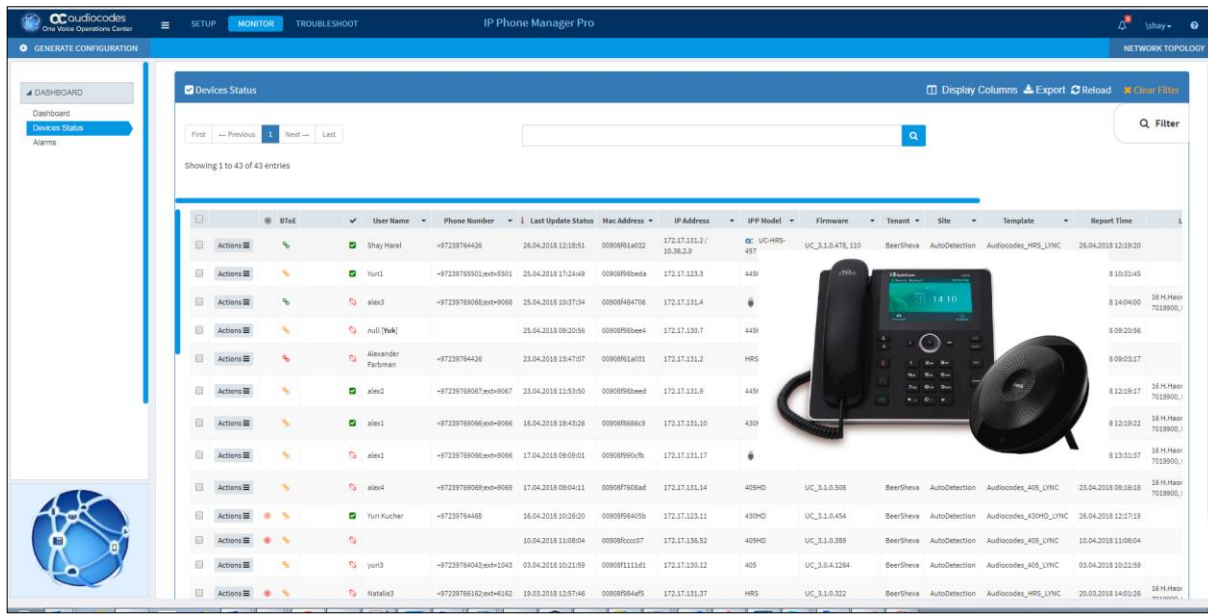


- **AudioCodes' IP Phone Management Pro management interface features new displays** in the Devices Status page:

- Column 'USB Headset Type' displays a headset connected to a phone's USB port
- Column 'IPP Model' displays the USB icon

Devices Status												
Display Columns Export Reload Clear Filter												
First Previous 1 Next Last												
Showing 1 to 42 of 42 entries												
Phone Number	Last Update Status	Mac Address	IP Address	IPP Model	Firmware	Tenant	Site	Template	Report Time	Location	BTtoE Version	USB Headset Type
+97239765501;ext=5501	25.04.2018 17:24:49	00908F98beda	172.17.123.3	445HD	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445HD_LVNC	26.04.2018 10:31:45		unknown	
+97239769068;ext=9068	25.04.2018 10:37:34	00908F484706	172.17.131.4	440HD	UC_3.1.0.528	BeerSheva	AutoDetection	Audiocodes_440HD_LVNC	25.04.2018 14:04:00	16 H. Haor St., Israel, BS, IL, 7019900, IL	2.0.13.0	GN Netcom A/S Jabra EVOLVE 20 HS

- HRS type (457/458) and speaker firmware version



BTtoE	User Name	Phone Number	Last Update Status	Mac Address	IP Address	IPP Model	Firmware	Tenant	Site	Template	Report Time
UC-HRS-457	Shay Harel	+97239764426	26.04.2018 12:18:51	00908f61a032	172.17.131.2 / 10.38.2.9	449	UC_3.1.0.478, 110	BeerSheva	AutoDetection	Audiocodes_HRS_LVNC	26.04.2018 12:18:20
449H	Yuri1	+97239769501;ext=5501	25.04.2018 17:24:49	00908f9b6eda	172.17.123.3	449	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	26.04.2018 10:31:45
449H	alex3	+97239769066;ext=9066	25.04.2018 10:37:04	00908f9b4706	172.17.131.4	449	UC_3.1.0.454	BeerSheva	AutoDetection	Audiocodes_420HD_LVNC	26.04.2018 12:17:19
449H	null [Nak]		25.04.2018 08:20:56	00908f9b6eda	172.17.130.7	449	UC_3.1.0.389	BeerSheva	AutoDetection	Audiocodes_405_LVNC	03.04.2018 11:08:04
449H	Alexander Farberman	+97239764426	23.04.2018 13:47:07	00908f61a031	172.17.131.2	HRS	UC_3.1.0.322	BeerSheva	AutoDetection	Audiocodes_HRS_LVNC	20.03.2018 14:03:26
449H	alex2	+97239769067;ext=9067	23.04.2018 11:53:50	00908f9b6eda	172.17.131.9	449	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	23.04.2018 08:18:18
439H	alex1	+97239769066;ext=9066	18.04.2018 18:43:28	00908f686c9	172.17.131.10	439	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	23.04.2018 08:18:18
449H	alex1	+97239769066;ext=9066	17.04.2018 09:09:01	00908f9b6eda	172.17.131.17	449	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	23.04.2018 08:18:18
405HD	alex4	+97239769066;ext=9066	17.04.2018 08:04:11	00908f686c9	172.17.131.14	405HD	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	23.04.2018 08:18:18
439HD	Yuri Kucher	+97239764465	16.04.2018 10:26:20	00908f6405b	172.17.123.11	439HD	UC_3.1.0.454	BeerSheva	AutoDetection	Audiocodes_420HD_LVNC	26.04.2018 12:17:19
405HD	alex1	+97239764043;ext=1043	03.04.2018 10:21:59	00908f111d1	172.17.130.12	405	UC_3.0.4.1264	BeerSheva	AutoDetection	Audiocodes_405_LVNC	03.04.2018 10:21:59
HRS	Natalie3	+97239766162;ext=4162	19.03.2018 12:57:46	00908f984f5	172.17.131.37	HRS	UC_3.1.0.322	BeerSheva	AutoDetection	Audiocodes_HRS_LVNC	20.03.2018 14:03:26

Last Update Status	Mac Address	IP Address	IPP Model	Firmware	Tenant	Site	Template	Report Time	Location	BTtoE Version	USB Headset Type	HRS Speaker Model	HRS Speaker FW
26.04.2018 12:18:51	00908f61a032	172.17.131.2 / 10.38.2.9	UC-HRS-457	UC_3.1.0.478, 110	BeerSheva	AutoDetection	Audiocodes_HRS_LVNC	26.04.2018 12:19:20		2.0.13.0		HRS_457	110
25.04.2018 17:24:49	00908f9b6eda	172.17.123.3	449H	UC_3.1.0.508	BeerSheva	AutoDetection	Audiocodes_445H_LVNC	26.04.2018 10:31:45		unknown			

### 3.18.2 Resolved Constraints in Version 3.1.0

Here are the constraints that are resolved in version 3.1.0

**Table 3-35: Resolved Constraints in Version 3.1.0**

Incident	Description
IPPSFB-2169	[Pool failover] When the primary Front End server is unexpectedly shut down (due to a network issue or power outage), the phone may not sign in to the backup server, or it might take a long time to sign in. When the shut down is performed for maintenance (i.e., software shut down), the phone successfully signs in to the backup server. Furthermore, in all cases, when the primary Front End server is restored, the phone always signs back in.
IPPSFB-2453	If a Skype for Business user moves from pool A to pool B during a call, the call may be dropped after 15 minutes.
IPPSFB-4364 IPPSFB-4384 IPPSFB-4411	[440HD] [Boss-Admin] Multiple Boss-Admin is not supported in this release.
IPPSFB-3586	[Redirect Server] Provisioning via Redirect Server does not function well in this release.
IPPSFB-4550	[405HD, 430HD, 440HD] [HotDesk] Phone reboots when pressing HotDesk from a locked screen and not confirming.
IPPSFB-4346	[445HD] Disconnecting the USB headset sometimes causes the phone to get stuck.
IPPSFB-4564	[445HD/450HD] [BTtoE] Changing an audio call to video call results in loss of audio (nothing can be heard) and the speaker LED goes off.
IPPSFB-4495	The phone can't display contact pictures from the Active Directory when signing in using the PIN code method.



Incident	Description
IPPSFB-4318	In some cases, contact pictures still may not be displayed.
IPPSFB-4503	[450HD/445HD] The phone rolls back to the host user after it is registered as a Hot Desking user using the Web Login method to sign in. Hot Desking functions correctly when all other sign-in methods are used to sign-in.
IPPSFB-3079	Russian translation is incorrect in some pages.
IPPSFB-4431	[Conference] A phone that is put on hold can perform a Far Mute on the phone of the initiator of the conference.
IPPSFB-3678	[445HD] [Shared Line] A PSTN call is removed from the sidecar after it is picked up. The call should be kept in the sidecar.
IPPSFB-4244	The <i>core_dump</i> file cannot be downloaded using the Web interface in Internet Explorer.
IPPSFB-4715	[Axtel USB headset] A new call cannot be started from the headset control.
IPPSFB-4746	The Voice Dialing feature does not work in an OVR environment.
IPPSFB-4681	[Calendar] The phone cannot access Microsoft Exchange when the Exchange Web Services (EWS) server is configured to return 'Persistent-Auth: false'.
IPPSFB-4662	Paging does not function when there is more than one hop between phones.
IPPSFB-4274	In some scenarios, the phone does not retry signing in when the WAN connection goes down and is then restored.
IPPSFB-4225	[445HD, 450HD] After signing in and entering a new device lock key in the prompt, the keys on the phone occasionally do not respond when pressed; the alphanumerical keys do respond though.
IPPSFB-4567	[450HD, 445HD] When deleting a call from the 'Call Log' menu, the user can't navigate up and down the list.
IPPSFB-3830	After signing out and then quickly signing in with the PIN code and phone number option, the phone in some cases returns to the idle screen while trying to enter the PIN code and phone number.
IPPSFB-3787	[450HD] [Conference] The Mute All softkey is missing when adding another participant.
IPPSFB-4290	[445HD] Long-pressing softkeys causes more than one event.
IPPSFB-3669	[450HD] In certain environments, an incoming call from PSTN is displayed as PSTN#@domain
IPPSFB-4225	[445HD] On rare occasions, the phone's hard keys, apart from the alphanumerical keys, do not respond when pressed.
IPPSFB-2603	[Boss-Admin] When Boss picks up a call from an internal user, the Boss and remote phones' screens still display 'On behalf of Boss'.
IPPSFB-3901	[445HD/450HD] [Boss-Admin] Boss transfers a call to Admin, Admin accepts it, but Admin's phone displays 'Call for Boss'.
IPPSFB-3869	[405HD] When more than one call is on hold on a phone, the position of the current call gets lost and as a result, using the 'Resume' softkey unholds the first call in the list.
IPPSFB-2937	[405HD/430HD/440HD] The presence of the called party doesn't display on the phone screen when the phone initiates a video call.
IPPSFB-4242	Passwords exceeding 40 characters are not supported.
IPPSFB-3800	[405HD/430HD/440HD] When the phone has seven calls on hold and one existing call, pressing the Hold softkey causes incorrect softkeys to be displayed on the phone screen.

Incident	Description
IPPSFB-3619	[HotDesk] A HotDesk user can cancel the phone signing in to the host account by pressing the Cancel softkey.
IPPSFB-3561	[450HD/HRS] It is not possible to configure the TRANSFER hard key to function as Consultation Transfer instead of as Blind Transfer.
IPPSFB-3057	[450HD] [Boss-Admin] Handoff to a Boss does not function when the user is defined both as a Boss and as an Admin.
IPPSFB-3213	[BToE] [Boss-Admin] A consulted transfer on a Skype for Business client fails when the Admin's phone is paired.
IPPSFB-2625	[445HD] The phone displays an active call when a blind transfer to a remote phone is performed, but the remote phone rejects or doesn't answer the call.
IPPSFB-3495	[445HD] [USB headset] Some headsets do not function well (control and media).
IPPSFB-4273	On rare occasions, noise can be heard during calls.

### 3.18.3 Known Constraints in Version 3.1.0

Here are the constraints known to exist in Version 3.1.0.

**Table 3-36: Known Constraints in Version 3.1.0**

Incident	Description
-	420HD phone model isn't supported in this version but support is planned for future version releases.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call on behalf doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made on behalf from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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 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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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 6 hours. Consequently, Call Log information such as missed, received and outgoing calls may not be saved after restarting. [Only relevant if Exchange isn't used, i.e., if a user performs a PIN sign-in or if a user is without 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.

Incident	Description
-	[440HD Delegated Line Feature] The phone is capable of presenting up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.
-	[405HD and early hardware versions of 430HD and 440HD] AudioCodes' new corporate logo is not displayed on the phones and in the management interfaces.
IPPSFB-4052	[405HD] Device update is not supported in this release*.
IPPSFB-4521	Contact pictures and presences are not displayed in the Visual Voice Mail list (ALL or UNREAD)*.

Incident	Description
IPPSFB-4440	[450HD/445HD] The phone displays incorrect information about the accepted call when Semi-Attended Transfer is performed. The transfer itself functions flawlessly*.
IPPSFB-4266	[Call Forward enhancement] The PSTN number appears instead of the user's name after setting Call Forward via the Directory*.
IPPSFB-4357	[445HD] The Electronic Hook Switch (EHS) wireless headset does not function on this model.
-	<p>HTTP Proxy limitations:</p> <ul style="list-style-type: none"> <li>■ 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.</li> <li>■ Only IP phones behind the OVR can access the HTTP proxy</li> <li>■ The HTTP proxy feature is only applicable to users whose Microsoft Exchange server is online</li> </ul>
-	[430HD,440HD,445HD] [Boss-Admin] Configuring a delegation deletes the speed dial from the phone screen (because it uses the same keys). Speed dial information is kept in the IP Phone Manager Pro   Express. The speed dial reappears in the phone screen when delegation is disabled.
IPPSFB-4838	Configuring the parameter 'lync/ContactPicture/IPPPhotoUsage' to <b>NoPhoto</b> (to disable the Contact Pictures feature) does not function in this release*.
IPPSFB-4795	Contact pictures may disappear but this issue occurs randomly*.
IPPSFB-4785	[450HD, 445HD] The phone doesn't show the Paging programmable key when it is not signed in*.
IPPSFB-4780	On rare occasions, pictures may not be displayed in calling and incoming screens. The issue is only relevant to online users*.
IPPSFB-4673	On rare occasions, contact pictures disappear during a conference call.
IPPSFB-4736	Hiding a contact picture via the Skype for Business client does not affect the phone*.

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

## 3.19 Version 3.0.4



Version 3.0.4 includes firmware build **3.0.4.1264** for the 405HD, 430HD, 440HD and 450HD phone models, and the Huddle Room Solution (HRS).

### 3.19.1 What's New in 3.0.4.1264

- This version introduces a **new sidecar option** for the 450HD phone. With the sidecar, users can enjoy many more speed dials + BLFs. The 450HD can be ordered with or without the sidecar. Main features include:
  - Full touch
  - High-resolution color screen
  - Up to 22 configurable speed dials + BLFs (on top of the eight supported in the phone screen)



- **New voice dialing capabilities from the phone to any user in the corporate directory.** AudioCodes' 400HD Series of IP Phones is now directly integrated with AudioCodes' Voca services to allow voice dialing to any other user in same corporate directory. To enable the service, the user must add a VocaNOM key, and IT must configure the VocaNOM IP address service on the phone. The caller hears a voice prompt requesting the callee's first and last name. When the service identifies the callee, the phone dials the callee's number just as it does in a regular call. Later, the user can press the REDIAL hard key on the phone and view the call logged in the phone's 'Dialed Calls' just like with any other call. The service is currently available in English and German only.

### 3.19.2 Resolved Constraints in Version 3.0.4

Here are the constraints that are resolved in version 3.0.4.

**Table 3-37: Resolved Constraints in Version 3.0.4**

Incident	Description
109111*	[405/430/440] If a call comes in from the mobile/home phone of a user who is part of the enterprise and that user's mobile/home phone is listed in the organization's Active Directory, returning a call to them from the Call Log goes to their Skype for Business client rather than to their mobile/home phone.
IPPSFB-2169	[Pool failover] When the primary Front End server is unexpectedly shut down (due to a network issue or power outage), the phone may not sign in to the backup server, or it might take a long time to sign in. When the shut down is performed for maintenance (i.e., software shut down), the phone successfully signs in to the backup server. Furthermore, in all cases, when the primary Front End server is restored, the phone always signs back in.
IPPSFB-3287	[450HD, HRS] If the speaker hard key or the headset hard key is pressed for too long when answering an incoming call, the call may drop.
-	The default dialing option which the phone uses for outgoing calls is the <i>office number</i> . If the user selects a contact and then presses the 'Dial' softkey, the phone calls the <i>office number</i> found in the contact card. Using the office number rather than "sip:uri" as the default destination when making a call compromises call routing when making calls to (for example) users in Skype for Business federated organizations.
IPPSFB-2759	[450HD] In Boss-Admin handoff scenarios, the OK hard key on the phone does not perform the same functionality as the <b>Select</b> softkey.
IPPSFB-3189	[450HD] The 'Location Information' screen under the Device Status menu displays 'Neighbourhood' incorrectly spelled.
IPPSFB-2855	CAP online users encounter an issue related to failover scenarios in Skype for Business environments. The issue occurs when the CAP online user is switched to limited mode.
IPPSFB-3159, IPPSFB-1082	[440HD] In some scenarios, the phone fails to merge PSTN calls in a cloud environment.
IPPSFB-2704	[450HD] In some environments, a phone paired with the BToE application drops the connection and, as a result, BToE is deactivated for few seconds and automatically activated immediately afterwards.
IPPSFB-341	There is no configuration option for a dialing timeout in the Dialing Plan, forcing the user to wait what some consider an unnecessarily long duration (five seconds) for the phone to normalize the destination number after keying the number in and not pressing the <b>Dial</b> softkey.
IPPSFB-3287	[450HD, HRS] If the speaker hard key or the headset hard key is pressed for too long when answering an incoming call, the call may drop.
IPPSFB-3503	A conference call from the phone may be dropped when adding a participant if AudioCodes' SmartTAP is enabled.
IPPSFB-2304	The phone cannot dial users who have "-" or "." in the number.
IPPSFB-2992	[440HD/430HD/405HD] The <b>Web Sign-in (Cloud)</b> sign-in timeout is incompletely displayed in the phone's screen.
IPPSFB-2576	[Call Log] The phone displays an outgoing call in URI format when making the call from the Call Log using a phone number.

Incident	Description
IPPSFB-2968	[CCCP] Muting or unmuting another participant by an online user during a conference call results in incorrect information being displayed on the phone's screen.
IPPSFB-2961	[IP Phone Manager Pro] The phone rejects REST API messages if the IP Phone Manager Pro username differs in upper or lower case from the phone's local parameter.
IPPSFB-2980	The phone's VoIP application may be reloaded on rare occasions (usually related to the network) due to errors from the DSP module.
IPPSFB-3411	[IP Phone Manager Pro] On rare occasions, phones may be presented in the IP Phone Manager Pro as disconnected.
IPPSFB-2854	[450HD Hot Desking] When reverting from Hot Desking to the host user, a Hot Desking timeout reminder is (unnecessarily) triggered.
IPPSFB-3144	[Skype for Business meeting] The phone does not present the Dial-in number for a scheduled Skype for Business meeting if the number includes spaces.
IPPSFB-157	[Provisioning] During the provisioning process (DHCP Option 160), the phone doesn't flawlessly handle a URL that includes the protocol type (HTTPS, FTP, TFTP, HTTP) in capital letters.
IPPSFB-854	Improvements to the Dutch language interface
IPPSFB-2893	Improvements to the German language interface
IPPSFB-2941	Improvements to the Czech language interface
IPPSFB-935	Improvements to the Japanese language interface
IPPSFB-1071	Improvements to the Portuguese language interface
IPPSFB-2514	Improvements to the Hungarian language interface
IPPSFB-2215	Improvements to the Chinese language interface

### 3.19.3 Known Constraints in Version 3.0.4

Here are the constraints known to exist in Version 3.0.4.

**Table 3-38: Known Constraints in Version 3.0.4**

Incident	Description
-	420HD phone model isn't supported in this version but support is planned for future version releases.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call on behalf doesn't appear on the sidecar. If the call is not parked, there is no issue.



Incident	Description
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made on behalf from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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 Exchange servers.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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 6 hours. Consequently, Call Log information such as missed, received and outgoing calls may not be saved after restarting. [Only relevant if Exchange isn't used, i.e., if a user performs a PIN sign-in or if a user is without 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.

Incident	Description
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.
-	[440HD Delegated Line Feature] The phone is capable of presenting up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.
108485	[USB headset] Trying to disconnect/reconnect the USB headset several times may result in the phone becoming 'stuck and may require a reboot.*
108960	If a Skype for Business user moves from pool A to pool B during a call, the call may be dropped after 15 minutes.
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.

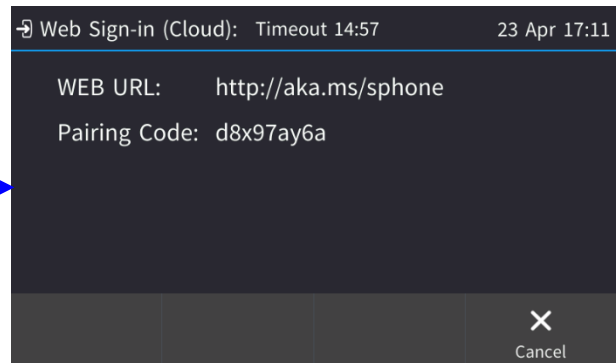
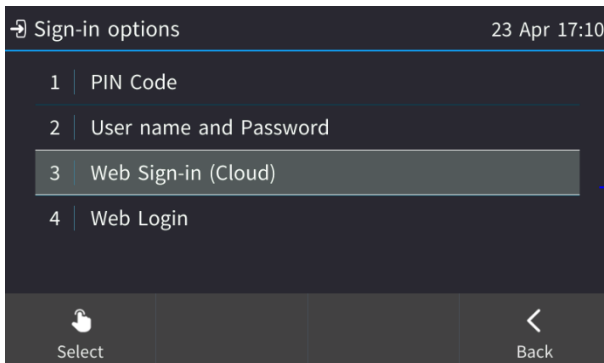
\* A fix for this issue will be available in the next release.

## 3.20 What's New in Version 3.0.4



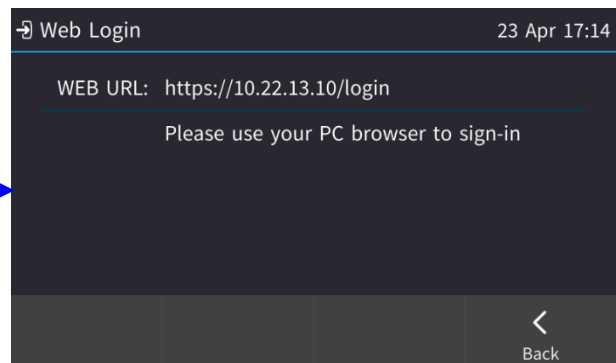
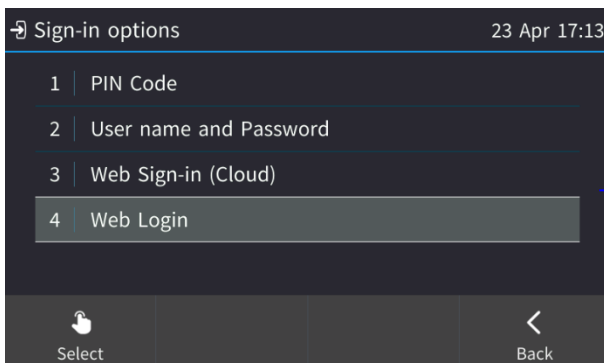
Version 3.0.4 includes firmware build **3.0.4.1192** for the 405HD, 430HD and 440HD phone models and firmware build **3.0.4.1192.3** for the 450HD phone model and the Huddle Room Solution (HRS).

- **Signing in using the sign-in option 'Web Sign-in (Cloud)'**. Allows connectivity to Microsoft's Cloud PBX, Microsoft's cloud-hosted version of enterprise voice. Also known as Device Pairing, signing in with this option only applies to Microsoft Cloud PBX users.



The name of this sign-in option was previously **Web sign-in**. The option's name was changed to **Web Sign-in (Cloud)** in line with Microsoft's recommendations, and to avoid confusion.

- **Signing in using a new sign-in option 'Web Login'**. 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].



In the browser's address field, the user enters the displayed Web URL **<phone IP address>/login** and then in the Web Login page that opens, they enter their username and password to sign in, as shown on the next page.

The image shows a 'Web Login' form. It has three input fields: 'Sign-in address' with the value '10.22.13.12', 'User name' with the value 'admin', and 'Password' with masked characters '••••'. A blue 'Sign in' button is located at the bottom right of the form.



- If CAP is enabled, the sign-in option **CAP Provisioning** replaces the sign-in option **Web Sign-in (Cloud)**.
- 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.

- **Enhanced Phone Lock.** New options have been added to allow new capabilities to users whose phones are in lock state, in compliance with Microsoft Skype for Business.

Network administrators can configure parameters to:

- Allow users to make outgoing calls even though the phone is locked
- Allow users to receive incoming calls even though the phone is locked
- Allow users to answer Delegate calls even though the phone is locked
- Allow users to use the phone's handset even though the phone is locked
  - ◆ New inband provisioning parameter 'DisableHandsetOnLockedMachine'
    - [0] Allows incoming and outgoing calls when the phone is in locked state
    - [1] Allows only incoming calls when the phone is in locked state
    - [2] Disallows incoming and outgoing calls when the phone is in locked state

If the parameter is not provisioned, the phone functions as if the parameter is set to [1] [only incoming calls are allowed when the phone is in locked state].
  - ◆ New local phone parameter 'AllowCallsInLockState'
    - [GET\_FROM\_INBAND] Phone's capabilities when locked are set by inband provisioning parameter (default)
    - [ALLOW\_BOTH] Allows users to make and receive calls when the phone is in locked state
    - [ALLOW\_INCOMING\_ONLY] Allows users only to receive incoming calls when the phone is in locked state
    - [DENY\_BOTH] Disallows users from making calls and receiving incoming calls when the phone is in locked state

If set to **ALLOW\_BOTH** or **ALLOW\_INCOMING\_ONLY** or **DENY\_BOTH**, this parameter overrides the 'DisableHandsetOnLockedMachine' inband provisioning parameter.

- ◆ **New local parameter 'AnswerDelegateIncomingCalls'** has been added to allow users to answer second-hand (Share Line Appearance and Delegation) incoming calls in when the phone is in lock state. This parameter is applicable only if the phone is allowed to answer incoming calls when in locked state.

[0] Users cannot answer incoming Delegate calls when the phone is in locked state

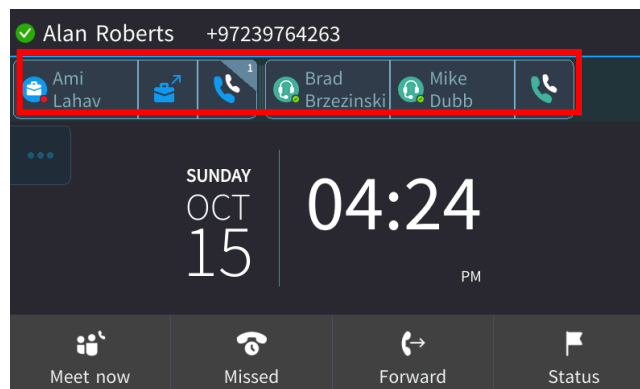
[1] Users can answer incoming Delegate calls when the phone is in locked state (default)

- **Media bypass for Cloud Deployment.** Allows a phone to send media directly to the SBC or PSTN gateway, eliminating when possible the Cloud Connector Edition (CCE) from the media path, thereby reducing latency, the possibility of packet loss and the number of points of potential failure, and thus improving voice quality. Only applicable to an online hybrid Skype for Business deployment.

### 3.20.1 450HD Phone

#### ■ Boss-Admin (Delegated Line)

- Allows a relationship to be established between a boss' phone and an administrative secretary's phone, to streamline office workflow and enhance efficiency.
- Each phone can support up to five Bosses or Admins. One Boss can have up to five Admins. One Admin can have up to five Bosses. A many-to-many configuration is also supported.

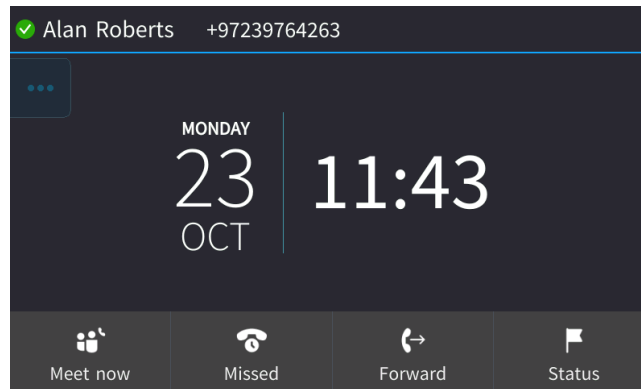


Boss-Admin Icons	Description
	Boss is [L-R] Online   Offline   Busy   Away   Do not Disturb
	Allows Admin to view Boss' calls.
	Admin is [L-R] Online   Offline   Busy   Away   Do not Disturb
	Allows Boss to view calls answered by Admins
	Allows Admin to call on behalf of Boss

- Delegation must be allowed for the user in the environment else configuration will not work. All users must be allowed to configure all users as delegates.
- Call Pick-up:
  - ◆ Boss can monitor Admin when Admin is in a call on Boss' behalf
  - ◆ Boss can pick up a call from Admin when Admin is in a call on Boss' behalf and has put the call on hold

- ◆ Admin can pick up a call from Boss if Boss puts the call on hold
- ◆ Admin 1 can pick up a call from Admin 2 (if Admin 2 is in the call on Boss' behalf and then puts the call on hold)
- ◆ Admin can forward to Boss' voicemail without picking up Boss' line
- **New screen theme reflects Skype for Business 2016 client look & feel | New softkeys match the de facto Skype for Business standard.** This new feature ensures uniformity across all devices used by the same user, for Unified Communications.

Here's the new-theme idle screen:

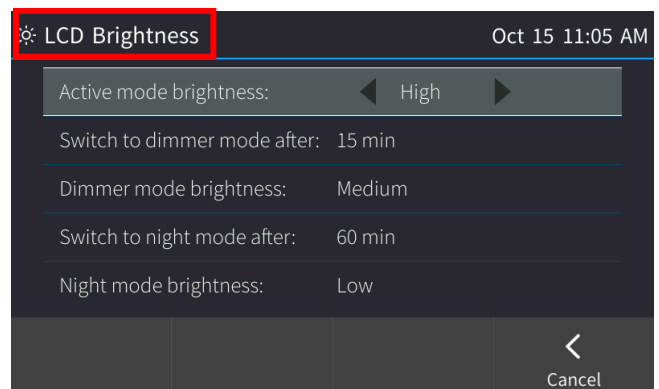
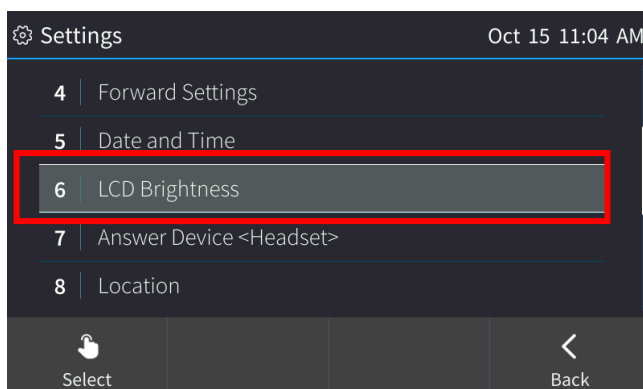


Here're the new-theme softkeys that are displayed in the phone's idle screen:

New Softkey	Name
	Meet Now
	Missed
	Forward
	Status

Network administrators can opt to switch from the default theme back to the legacy theme by changing the setting of the new configuration file parameter *personal\_settings/ui\_theme* from MSFT\_THEME to AUDIOCODES\_THEME.

- **Power Saving mode.** When a phone enters Power Saving mode, the screen's brightness is reduced, lowering power consumption. The phone enters the mode after being inactive for a configured period (timeout). Any user activity returns the phone to regular Active mode.



Users can configure a brightness level of High, Medium or Low for Active mode, Dimmer mode and Night mode. By default, the phone enters Dimmer mode after 15 minutes of inactivity; by default, the phone enters Night mode after *another* 60 minutes of inactivity. If the capability to determine working hours is configured, the phone only enters Night mode *during non-working hours*.

Dimmer mode is less bright than Active mode. Night mode is lowest. When a phone enters Dimmer mode, *LCD\_Dimmer\_mode\_timeout* starts. When it expires, the phone switches to Night mode (which is allowed only during non-working hours if working hours are available). Any phone operation such as an incoming call or touching the screen causes the phone to exit Power Saving mode and revert to the regular screen brightness level.

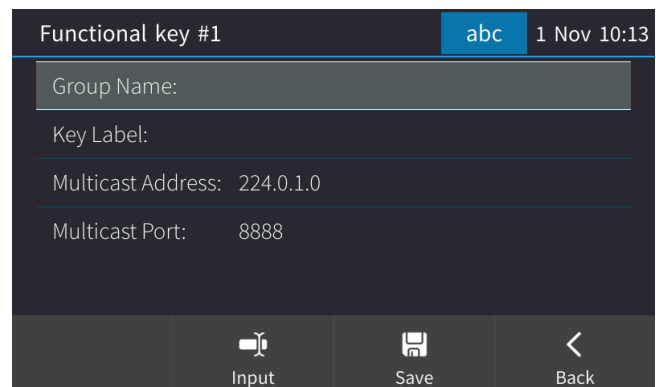
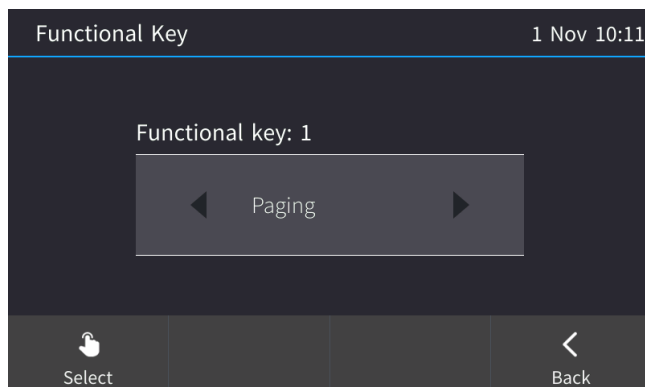
In Skype for Business online, three new inband configuration parameters control Power Saving mode:

- *EnablePowerSaveMode* [True]
- *PowerSaveDuringOfficeHoursTimeoutMS* [15 minutes]
- *PowerSavePostOfficeHoursTimeoutMS* [5 minutes]



These parameters do not apply to Skype for Business on premises.

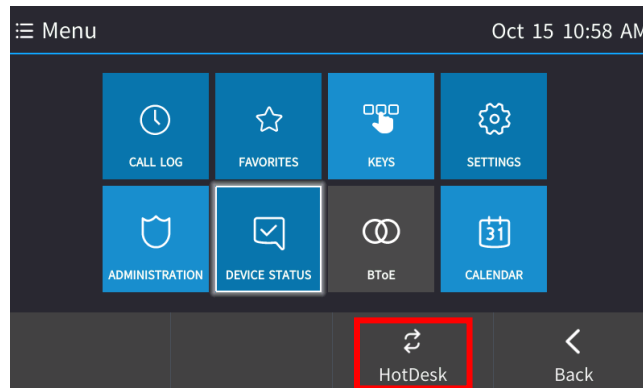
- **Multicast Paging, including Barge-in.** Allows live announcements to be made (paged) from a phone to a group of phones, to notify a team (for example) that a meeting is about to commence at a certain venue. The paged announcement is multicast via a designated group IP address, in real time, on all 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. The feature must first be enabled by the network administrator in the phone's Web interface before users can configure a Functional Key for paging on the phone.



- **Barge-in.** Allows paging calls to interrupt (barge in on) phone conversations that are in progress, without prompting recipients with an option to accept or reject the paging call. When disabled (default), those who are in regular calls when a paging call comes in are prompted in their phones' screens to choose whether or not to accept or reject the paging call. If it's accepted, the regular call is put on hold and the paging call is heard. The feature must first be enabled by the network administrator in the phone's Web interface before users can use it.

### 3.20.2 All Phones

- **HotDesk feature for enterprises that operate according to the 'touch-down desk' concept.** Employees in these enterprises typically travel frequently to remote branches, or work in shifts. They can now 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.



The feature must be enabled on the server by setting parameter *EnableHotDesk* to 'True'. 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 HotDesk use. HotDesk users cannot perform all operations that the original (CAP or regular) user could perform, for example, change Language.

- **Support for Lync AutoDiscover Web Service Protocol [MS-OCDISCWS].** This feature improves discovery of the phone's SIP home server after signing in. Using the AutoDiscover procedure the phone is capable of finding its home server URL for a specific Skype for Business account, based on user credentials. It is especially efficient for Skype for Business online and hybrid environments, when phones must sign in to a different Skype for Business server according to the user's account. Previously, the home server was found using DNS SRV records based only on a SIP account domain [MS-CONMGMT]. If AutoDiscover is unsuccessful, the phone falls back to SRV DNS.
- **The phone's Call Log is synchronized with Microsoft's Exchange server.** All devices that a user signs into are fully 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. All lists in each device's Call Log except the Missed Calls list are synchronized.
  - **To disable the Call Log synchronization** - Network administrators can now disable the Call Log synchronization feature by setting new configuration file parameter *lync/callLog/sync/enabled* to 0. Call Log synchronization is by default enabled (1).
- **Power Saving mode.** Three new inband configuration parameters control the 'Backlight Timeout' feature from the Skype for Business online server (applies to all phones except 450HD but only if the phone is configured on the server):
  - *EnablePowerSaveMode* [True]
  - *PowerSaveDuringOfficeHoursTimeoutMS* [15 minutes]
  - *PowerSavePostOfficeHoursTimeoutMS* [5 minutes]



These parameters do not apply to Skype for Business *on premises*.

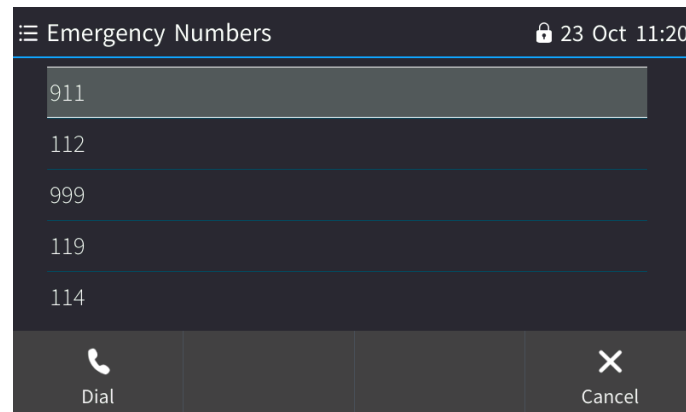
During office hours, phones enter power saving mode after 15 minutes of inactivity by default.

After office hours, phones enter power saving mode after 5 minutes of inactivity by default.

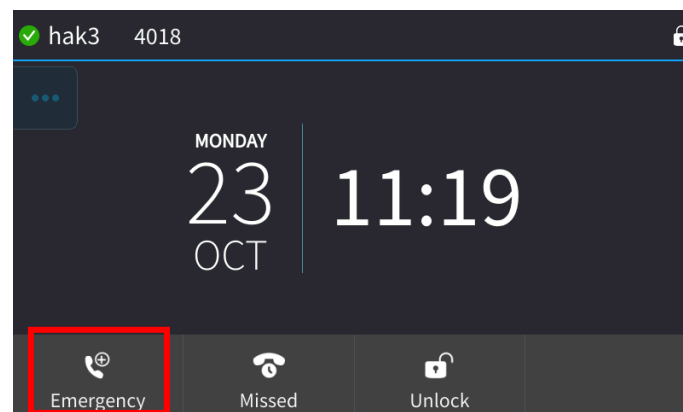
After entering power saving mode, screen brightness is reduced, lowering power consumption. Any user activity returns the phone to regular active mode.



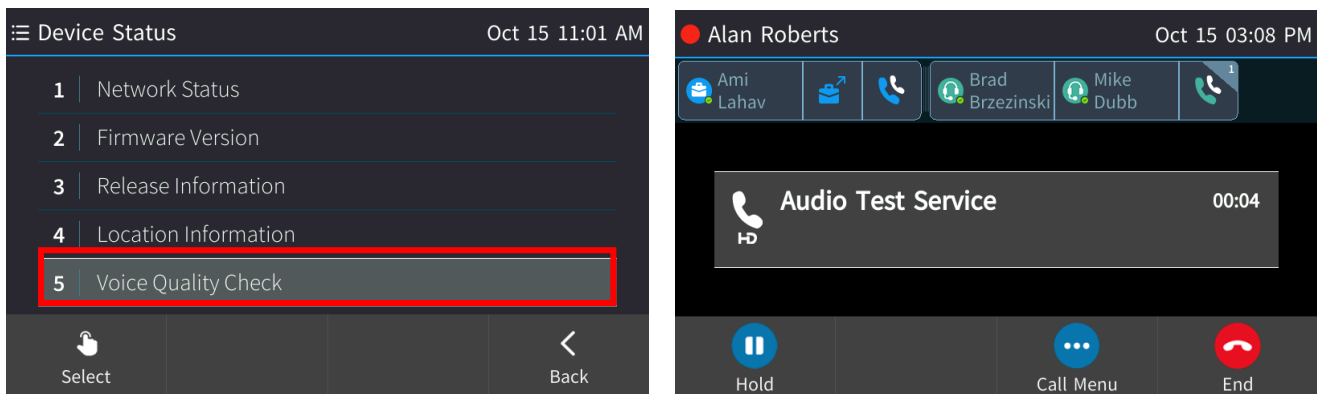
- **Dial Plan Normalization.** Network administrators can enable and configure dial plans on the Microsoft Skype for Business server. Normalization rules can be downloaded from the server via in-band provisioning. The feature was fully certified and tested with Microsoft in this version. It was supported in previous versions, but without Microsoft certification.
- **Multiple Emergency Numbers.** A caller 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:



If the phone locks, emergency numbers will still be available and dialable via a new **Emergency** softkey that is displayed after the lock takes effect.



- **Save/restore personal settings via IP Phone Manager Pro version 7.4 [Phase 1].** The phone automatically saves personal configuration performed by the user, on the IP Phone Manager Pro. In this release [Phase 1], only settings performed on the Function Keys, such as Speed Dials, or any other function defined by the user, such as Calendar, Voca, etc., are saved. These keys are now always available to the user who defined them, even if the user signs out and then signs in on another phone (of the same model). The keys are therefore saved *per user* rather than *per phone*. This enhancement is useful for Hot Desking mode where users sign-in to different phones according to desk availability, or for when phones are replaced due to a hardware issue.
- **Malicious call tracing.** Users can report a malicious call. If a user gets a call and wants to report it as malicious, the phone allows them to send a report to the Skype for Business server. To allow malicious call reporting by the phone, the feature must be enabled by the network administrator on the Skype for Business server (the option 'Enable malicious call tracing' must be selected).
- **Sign-in can be cancelled during the signing in procedure.** Users can cancel signing in after starting the sign-in process.
- **Voice Quality Check.** A new option to check IP phone voice quality has been added to the phone's Device Status menu.



If selected, the user is invited to "Record a short message after the tone then wait to hear how you sound".

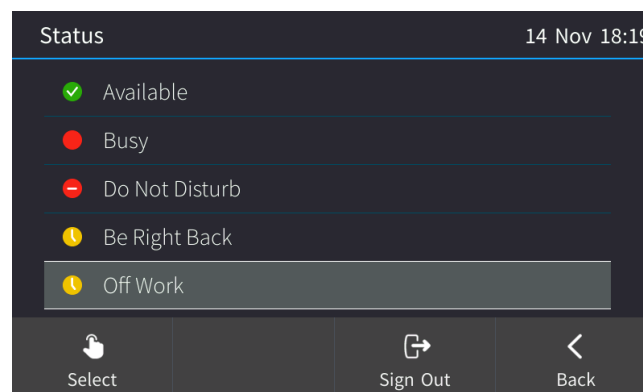
To enable the feature, the network administrator must enter the following command on the Skype for Business server:

```
set-CsAudioTestServiceApplication -Enabled $True
```

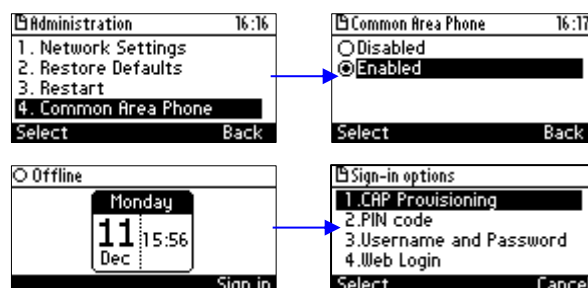
Additionally, the 'Identity' parameter must be configured with the the SIP address of the audio test service contact to be modified. For example:

```
<sip:RtcApplication-bc516080-3233-42f2-a732-826dd6f99702@audio-codes.info>
```

- **'Off Work' user presence status.** A new user presence status 'Off Work' was added to the list of possible user presence statuses. Users can select it before (for example) going on vacation.



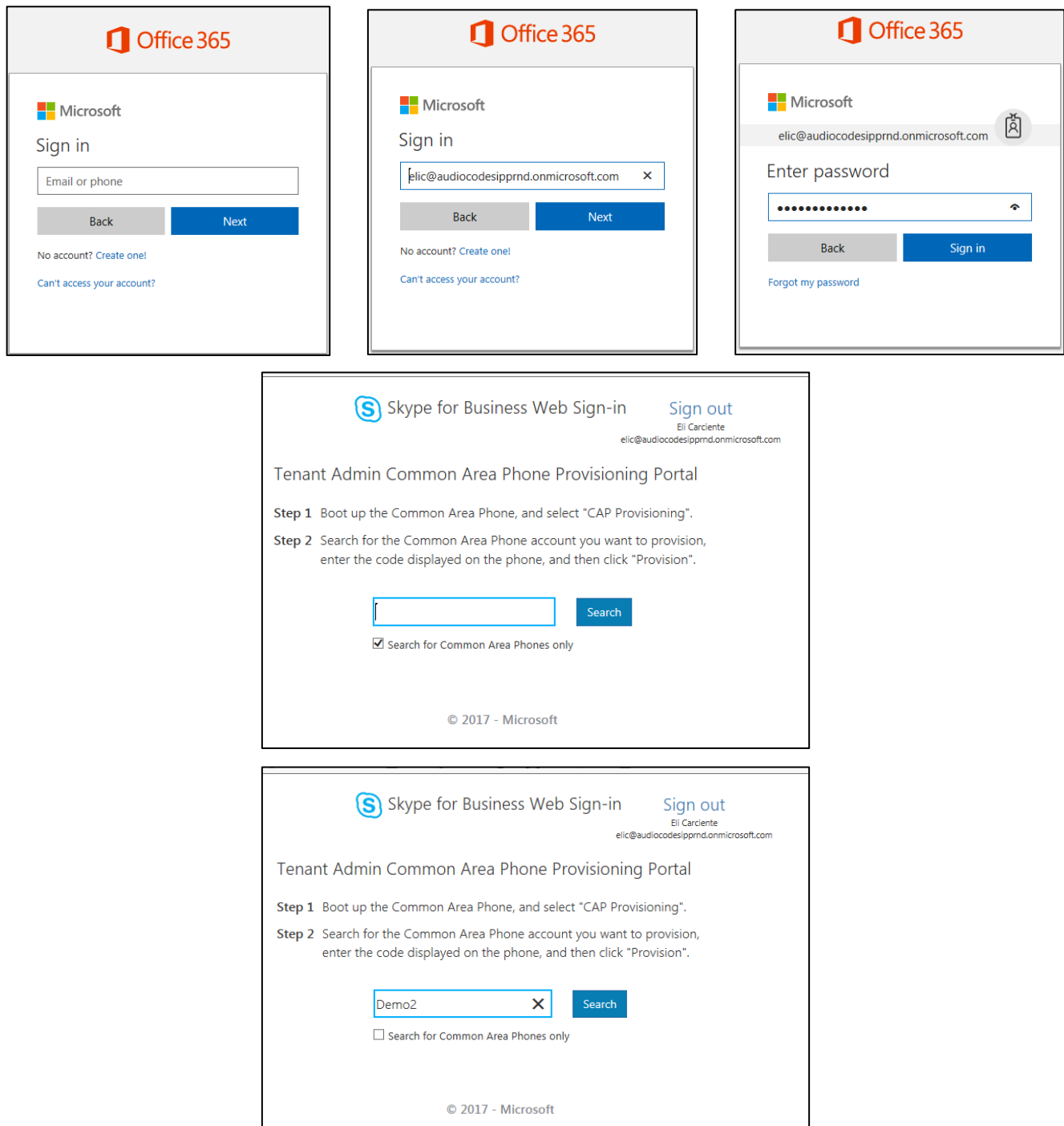
- Blind Transfer places the remote party on hold while the transfer is performed.
- **Common Area Phone (CAP) online support.** Phones can now be defined as CAPs when using a cloud PBX. Defined *per physical phone* rather than *per user*, a CAP requires a special sign-in method called 'CAP provisioning', exclusive to cloud PBX. Before signing in, users must enable the phone as a CAP and then sign in using this special 'CAP provisioning' method. CAPs in server mode are unchanged. The change applies only to cloud PBX.



A URL and Pairing Code are displayed:



The administrator points the browser to the URL, signs in to Office 365 and locates the phone.



The administrator enters the Pairing Code in the Microsoft web page and clicks **Provision**.

Skype for Business Web Sign-in Sign out  
El Cariente  
elc@audiocodesippmd.onmicrosoft.com

Tenant Admin Common Area Phone Provisioning Portal

Step 1 Boot up the Common Area Phone, and select "CAP Provisioning".

Step 2 Search for the Common Area Phone account you want to provision, enter the code displayed on the phone, and then click "Provision".

Demo2 Search

☐ Search for Common Area Phones only

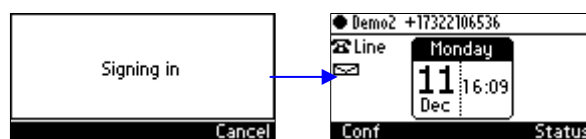
Search Results

UPN	Display Name	Phone Number	Type	Pairing Code	Action
demo2@audiocodesippmd.onmicrosoft.com	Demo2		User	1edxbkqsf	Provision

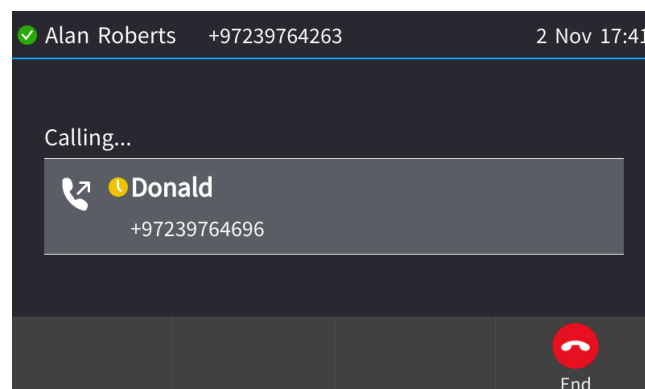
Note: Clicking on "Provision" button will reset the account's password to a random string.

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



- **Viewing presence status when making an outgoing call.** Allows participants to view the called party's presence status when making an outgoing call. In the screen below, for example, the caller can see that the presence status of the called party (Donald) is 'Be right back'.



- **AudioCodes Huddle Room Solution (HRS)** turns virtually any space into a meeting room. Designed to audio-enable huddle rooms and small group meeting spaces with advanced capabilities in a powerful, yet simple and cost-effective package. Centralized management helps lower operational costs. Scalability: Six to up to 15 users. Fully integrated with Microsoft Skype for Business.
  - Two available product flavors:
    - ◆ **UC-HRS-457:** AC-HRS main control unit with one 457 HRS speaker designed for smaller-sized huddle rooms seating up to six participants (2m/6ft distance from each participant to the 457 speaker). USB audio connectivity.
    - ◆ **UC-HRS-458:** AC-HRS main control with one 458 HRS speaker designed for larger-sized huddle rooms seating up to 15 participants (5m/16ft distance from each participant to the 458 speaker). USB audio connectivity.

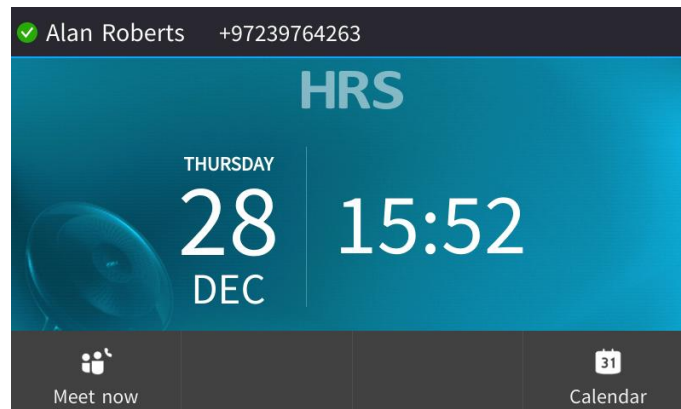
The HRS's default audio device is the external speaker/s connected to the phone. The phone unit's speaker hard key is disabled. The phone's integral speaker is consequently disabled. Only the external speaker and the handset provide audio capability in the HRS.

- Large, full-color touch screen for meeting control

- ◆ Idle screen specially designed for conference rooms facilitates the simple addition of remote participants in a familiar Skype for Business meeting management experience.

**Meet Now** softkey

**Calendar** softkey



The solution provides full management control over the speaker

**Prompts in the phone screen** alert to a disconnected speaker cable (for example)

Comprehensive **HRS software upgrade** can be performed via the Web interface or EMS

- Feature-rich conferencing management:
  - ◆ Initiate a conference and add a participant to a meeting through the Meet Now softkey in the idle screen.
  - ◆ Mute all participants | Mute a single participant | Unmute a participant
  - ◆ **Change a participant's privileges:** Attendee can add participants | Host can do everything
  - ◆ Lock a conference
  - ◆ View conference info
  - ◆ Join a meeting through the integrated Exchange 'Calendar Reminder'
  - ◆ **Operate the speaker from the phone** which features the speaker's functionalities (volume down, volume up, mute, answer call, end call, etc.). Every operation performed on the phone unit is automatically synced with the external speaker and vice versa. Participants can optionally operate the speaker locally.
- **Full HRS management capability through AudioCodes' management utilities (Web interface, IP Phone Manager)** which enable network administrators to deploy and monitor the HRS, identify problems and fix them rapidly and efficiently. When the speaker is disconnected:
  - ◆ An alert is displayed on the phone screen to notify conference participants in the huddle room
  - ◆ An alarm is sent to the IP Phone Manager informing the remote network administrator that an issue related to speaker connectivity has occurred. (Calls can only be made using the handset; the phone's integral speaker is disabled).
- **Power Saving mode.** Identical to the Power Saving mode on the 450HD phone. See [here](#) for detailed information.

### 3.20.2.1 Resolved Constraints in Version 3.0.4

Here are the constraints that are resolved in version 3.0.4.

**Table 3-39: Resolved Constraints in Version 3.0.4**

Incident	Description
105106	[Web Sign-in] When using the phone's Web interface to perform Web sign-in, cancelling the operation via the Web is not reflected correctly on the phone's screen.
106716	[Voice Mail] The LED lights up to present a new voice message, but it may take few minutes for the envelope icon to be displayed on the phone's screen.
101224	Accessing the phone's Web interface with HTTPS via Internet Explorer requires TLS 1.2 support. TLS 1.2 can be set in Internet Explorer via Tools > Internet Options > Security tab. If TLS 1.2 cannot be supported, the Chrome browser can be used instead of Internet Explorer.
107433	System/password is not saved when set via provisioning.
105845	The phone doesn't use the minimum and maximum media ports given by the Skype for Business server.
105058	The phone keeps displaying the Time Zone screen regardless of the GMT offset setting given by the DHCP server.
101944	The phone's tone level parameter is set to its maximum value when the phone is restored to its default settings.
101158	[IP Phone Manager Pro] When the phone performs sign-out, the phone's status in IP Phone Manager Pro is not updated.
106747	The phone will not display the <i>time_zone</i> popup after it is restored to default settings if DHCP Option 2 (Time Offset) is not configured.
103775	Even though parameter <i>headset_only</i> is enabled, incoming calls can be answered with the speaker.
106622	[Device Lock] [405HD]: The phone plays a long keypad tone when pressing on a digit in a call while the phone is in locked state.
106324	[Visual Voice Mail] VVM cannot be played when the phone is in an active call.
105640	The display name in the upper left corner of the phone screen sometimes disappears.
105106	[Web Sign-in] Canceling Web Sign-in via the phone's Web interface does not reflect correctly on the phone's screen.
105064	[Web Sign-in] A dark line appears in the phone's Web sign-in pair code screen.
104218	Consultative Transfer is unsuccessful when the phone is occupied with eight calls.
104213	CDP packets are sent even though 'LLDP Only' mode is configured.
105575	Russian language: The 'Emergency numbers' string is too long; it eclipses other fields.
108839	[Web Sign-in] The sign-in process may take more than 10 minutes.
108773	[IP Phone Manager Pro] The phone may be shown as disconnected from the server due to a short timeout of the REST_API keepalive waiting response.
108764	[IP Phone Manager Pro] The phone may be shown as disconnected from the server since the REST_API keepalive is sometimes not sent by the phone.
108660	The network shuts down for several hours causing phones that were signed in using PIN and Extension Number, to be signed out, since they stop retrying to sign in.

Incident	Description
107478	[IP Phone Manager Pro] The phone fails to create a REST_API connection to IP Phone Manager Pro via HTTPS.
107227	The phone reboots to start an unnecessary provisioning process, even though it doesn't get a cfg or image file from a provisioning server.
108381	When using Boss Admin, performing a Transfer using a Speed Dial does not function.
107669	Call duration on the phone screen continues counting up after the phone sends a BYE, due to a missing ACK from One Voice 365.
107271	Calling an IVR in order to access a colleague's voice account fails because DTMF detection is not working.
108454	[405HD] Redialing to a "NON DID" number (number with a different extension) from the Call Log list fails.
108465	[405HD] Ring volume cannot be reduced to Mute.
108450	[405HD] The mute icon is not displayed in the phone screen if the mute hard key on the phone is pressed during a conference call.
108768	[440HD] The phone cannot dial users whose phone numbers contain "-" or ".".
108638	[440HD/405HD] [Canceling sign-in] The phone returns to the incorrect screen (sometimes displaying DnD) after sign-in is canceled.
106703	[400HD Series except 450HD] Japanese language improvements
108305	[HRS] The LED in the upper right corner of the phone lights up blue and stays lit blue after disconnecting and then reconnecting the HRS speaker.
108524, 108734	A call is sometimes disconnected and the phone gets stuck when accepting a call from an Auto Attendant environment.
108580	The phone may accept incoming non-TLS calls.
108597	[Resiliency] Calls are disconnected when performing a server shutdown.
108380	The normalization rules buffer cannot accept a string larger than 4096 bytes.
108145	User credential passwords longer than 32 characters are not supported.
108689	A voice delay of up to five seconds may occur when answering a PSTN call, when the first media packet is a Comfort Noise packet.
108945	[450HD] DTMF "bar" is located on top of the screen instead of on top of the softkeys.
108667	[450HD] [Call Log synchronization]: Presence status is not displayed when making an outgoing call.
106462	[450HD] An incorrect name is displayed on the screen when making/receiving Federate calls.
106383	[450HD] Semi Attendant transfer fails when at least one additional phone (besides the 450HD) is signed in with the same username.
108511	[450HD] Call Forward to a number does not succeed when a stored contact number has an extension.
108523	[450HD] Call Log synchronization: The phone cannot successfully redial a Federate call from the phone's Call Log.
108677	[450HD] The phone's Call Log synchronization feature cannot be disabled (it's required for backward compatibility purposes).

Incident	Description
108360	[450HD] A search for a contact results in a double line if the OK softkey is touched during the search process.
108366	[450HD] A phone that is signed in with a CAP on-premises user may reboot after touching the HotDesk softkey and as a result, the HotDesk user will be signed out.
108265	[450HD Visual Voicemail] The phone displays an incorrect number of read messages after indicating messages as read or unread.
IPPSFB-3287	[450HD, HRS] A call may drop if the speaker hard key or headset hard key is pressed for too long when answering an incoming call.
108787	The user is sometimes not notified when they add or remove another user to a Favorites list from the Call Log.
105076	An incorrect name is displayed in the Call Log when the call was forwarded to voicemail.
106618	The Hold softkey is missing when the phone is in held state.
108463	Busy on Busy: Junk characters are added to the New Call screen when the phone gets an incoming call while it's in a call.
108520	Call admission control (CAC) does not function well (the re-route to the PSTN does not work).
108980	The length of the Call Log (Redial, Received Calls and Missed Calls) is limited to 20 entries.
108651	[IP Phone Manager Pro] REST API Keep Alive fails when using HTTPS and as a result, the phones are not displayed in the IP Phone Manager Pro.
108211	BLF presence is sometimes not updated.
108769	[Device Lock] The phone cannot transfer a call via the Contacts directory if it receives the incoming call after it locks.
106602	[450HD] Phone A doesn't return to idle when Phone B ends the call in a Federation station.
109107, 108543	[450HD] [BToE video] Incoming video continues being displayed on the phone screen and requires a reboot to remove it.
109168, 108897	[HRS] The HRS sometimes does not configure the voice VLAN correctly.
109208	[USB headset] The mute button doesn't work with the Plantronics Voyager Legend Bluetooth headset.
108764	[IP Phone Manager Pro] In some cases, if the network goes down for a while, the phone does not send a REST API Keep Alive and the IP Phone Manager Pro reports that phone's state is 'Disconnected'.
100828	[Boss Admin] Response Group: An incoming call from Admin (on behalf of Boss) appears in Response Group agent's phone screen as a regular call and not as a Response Group call.
106815	[Boss-Admin] A second pickup is sometimes unsuccessful, i.e., if Admin picks up a Boss call and then Boss tries to pick up the call back.
107455	To successfully upload the configuration file manually via the Web interface, the user must first delete the line <i>system/type=HRS</i> .
109390	'Missed call' is translated incorrectly into Japanese.
107407	[440HD/405HD] <b>[Viewing presence status when making an outgoing call]</b> User presence for a second outgoing call is not displayed.



Incident	Description
107330	In some cases, when a phone recovers from a network failure, the phone's BLF displays only extension numbers and not usernames-presence statuses.
109318	[450HD] In some cases, when phone recovers from a network failure, it connects the Exchange but cannot find the Calendar and then displays the message 'No Calendar found'.
109149	[Boss-Admin] When Boss picks up a call held by Admin, they see an incorrect message: 'On behalf of: Boss'
109036	Hungarian language improvements.
107949	German language improvements.
107703	Chinese language improvements.
108989	A call may result in one-way voice if the first received media packet from the remote party is a Comfort Noise packet.
109154	[405HD/430HD/440HD] The 'Hold' softkey is not displayed when the phone is busy with two or more calls and is then put on hold by one of the remote phones.
109391	[450HD] The configuration file can be updated through auto provisioning but not through the Web interface.
103574	Electronic Hook Switch (EHS) headset is currently not supported on the HRS phone.
109021	[USB headset] Sometimes, noises may be heard during a call through the USB headset.
108888	[Conference Call] If a user holds a muted call and then resumes with the conference, the mute LED on the phone does not show the correct state but the call remains muted as it should be.
109574	A phone configured in a Response Group Service (RGS) demonstrates constraints when issuing a 'new call' while an incoming call is answered by another phone in this RGS.
109507	[450HD] The <b>Transfer</b> hard key cannot be configured for Consultation Transfer. The phone reverts to the default Blind Transfer.
106944	[450HD] [Common Area User] The voicemail LED on the phone is illuminated red after a CAP user signs in.
109502	BToE conference fails if a call is made to a PSTN user from the PC client and then after that an attempt is made to establish a conference via the phone with this PSTN user and another local user.
109480	[450HD] [Boss-Admin] The phone displays incorrect information when Admin answers a call on behalf of Boss.
109291	[450HD] A call may unexpectedly be ended.
109283	[450HD] On rare occasions, the phone re-initiates its VoIP application.

### 3.20.2.2 Known Constraints in Version 3.0.4

Here are the constraints known to exist in Version 3.0.4.

**Table 3-40: Known Constraints in Version 3.0.4**

Incident	Description
-	420HD phone model isn't supported in this version but support is planned for future version releases.
-	HRS does not support Boss-Admin, Better Together over Ethernet (BToE) and Multicast Paging.
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.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call on behalf doesn't appear on the sidecar. If the call is not parked, there is no issue.
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made on behalf from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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 Exchange servers.
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.

Incident	Description
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
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 6 hours. Consequently, Call Log information such as missed, received and outgoing calls may not be saved after restarting. [Only relevant if Exchange isn't used, i.e., if a user performs a PIN sign-in or if a user is without 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.
-	[440HD Delegated Line Feature] The phone is capable of presenting up to 12 incoming calls on the phone's sidecar. Calls over and above the 13th call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
-	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
-	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) and the phone's BToE feature is not supported.
-	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
-	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
-	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.
-	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
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.
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.

Incident	Description
108485	[USB headset] Trying to disconnect/reconnect the USB headset several times may result in the phone becoming 'stuck and may require a reboot.*
108960	If a Skype for Business user moves from pool A to pool B during a call, the call may be dropped after 15 minutes.
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.
109111*	[405/430/440] If a call comes in from the mobile/home phone of a user who is part of the enterprise and that user's mobile/home phone is listed in the organization's Active Directory, returning a call to them from the Call Log goes to their Skype for Business client rather than to their mobile/home phone.
IPPSFB-2169	[Pool failover] When the primary Front End server is unexpectedly shut down (due to a network issue or power outage), the phone may not sign in to the backup server, or it might take a long time to sign in. When the shut down is performed for maintenance (i.e., software shut down), the phone successfully signs in to the backup server. Furthermore, in all cases, when the primary Front End server is restored, the phone always signs back in.*

\* A fix for this issue will be available in the next release.

## 3.21 Version 3.0.1

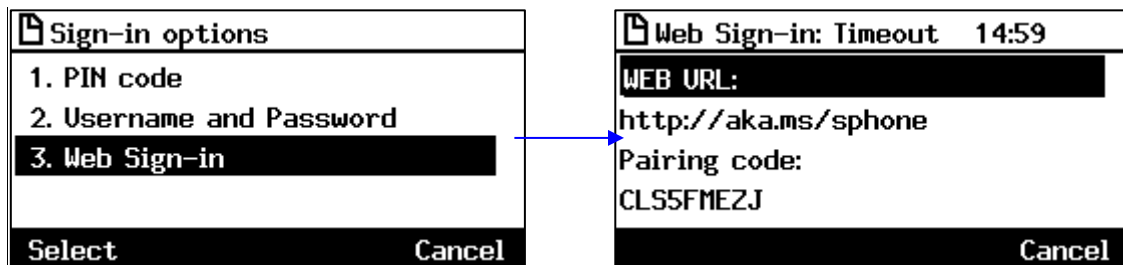


Version 3.0.1 includes the following firmware builds:

- **3.0.1.322** (all 400HD Series IP Phones except the 450HD phone)
- **3.0.1.89.392** (only the 450HD phone)

### 3.21.1 What's New in Version 3.0.1

- **Cloud PBX Web Sign-in, a.k.a. Device Pairing - connectivity to Microsoft's Cloud PBX**, Microsoft's cloud-hosted version of enterprise voice. AudioCodes' IP phone features a sign-in option allowing users to connect to Microsoft's Cloud PBX: **Web Sign-in**.



This sign-in option applies only to Microsoft Cloud PBX users

The option exempts users from having to laboriously key in their user name and password using the phone keypad in order to sign in. If the option is selected, a URL and a Pairing Code are displayed, as shown in the figure above. Users must then point their browser to the URL and enter the Pairing Code in the Microsoft web page. Sign-in to Microsoft's Cloud PBX is then performed.

- **Capability to add and delete contacts to/from Skype for Business 'Favorites'**. Users can add a person to the Favorites group after (for example) a call with the person is logged. A maximum of 1,000 people can be added. Users can delete the added person if necessary.
- **Join Meeting Enhancement**. With this version, users can enjoy a 'join' option for online meetings even if the TNEF option is disabled on Exchange; Exchange enables sharing information between federated parties; by default, the sharing option is disabled (TNEF = disabled); the phone relies on the Join Skype Meeting link in the calendar meeting request. The join link is usually found in the body of a meeting request. However, the phone depends on this link to be present in the MAPI properties of the message. When this meeting request is sent to remote organizations (Skype for Business federated partners), the remote organization's phone by default will not show the meeting join link in the calendar because Outlook and Microsoft Exchange do not use Transport Neutral Encapsulation Format (TNEF) to package information for sending messages across the Internet. TNEF, which encapsulates MAPI message properties, is by default disabled for messages sent externally from an Exchange organization.
- **Secured connection to IP Phone Manager**. The connection between the phone and the IP Phone Manager can now be fully secured using HTTPS.



To increase the security level, it's advisable to block any HTTP connection using the configuration file parameter *security/web/https\_only*.

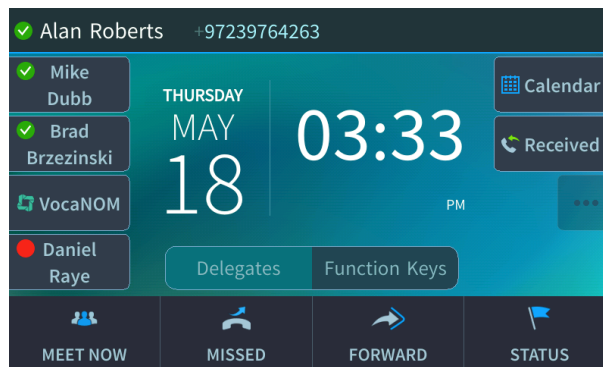
- **New Boss-Admin experience exclusive to 440HD**. Boss and Admin can utilize the 440HD sidecar to present active and held calls in the queue.
  - Admin can see each Boss queue on the sidecar

- Boss can see all Boss calls in the queue on the sidecar
- A mix of Admin and Boss can be also used in this mode
- Users can still use the sidecar for Speed Dial/BLF. The upper sidecar key allows users to switch between BLF and Boss/Admin queues.
- **Boss Privacy mode.** Conceals a remote caller's ID from the Admin's (delegate's) phone in order to protect their Boss's privacy. The feature is disabled by default; the network administrator can enable it. The feature applies to the phone's sidecar and to the Call List in the phone's screen.
- **BToE default pairing mode is now automatic.** As of this version, the default BToE pairing mode is *automatic*. Using the *manual* pairing option requires changing the phone's configuration. The new default pairing mode allows users to derive maximum benefit from the BToE feature.



As a result of this change (BToE default pairing mode now Automatic), the **BToE** softkey is no longer displayed after pressing the MENU hard key.

- 450HD phone's idle screen now displays both Function Keys (i.e., Speed Dial/BLF) and Delegates (i.e., delegated users):



- **Pause dialing<sup>1</sup>.** Pause dialing can be configured for a Speed Dial in order to create a time break, typically needed when configuring a Speed Dial to dial a destination extension number that is behind an Interactive Voice Response (IVR) system.
- **Enhanced Visual Voicemail (VVM).** The phone updates the MWI LED and the number of messages even if the configuration between Exchange and Skype Online has not been performed correctly. This is relevant to users whose Skype or Exchange is online.
- **Users can make new calls during incoming calls<sup>1</sup>.** This feature is now supported on all phone models.
- **Headset ringer activated on incoming calls<sup>1</sup>.** The headset plays a ringer when calls come in, in addition to the phone's ring.
- **New language support.** Korean is now supported on the 405HD phone.
- **Improved debugging<sup>1</sup>.** DSP Packet Recording can be enabled on the fly, without requiring the network administrator to reset the phone.
- **Ability to change the DTMF level.** Network administrators can now change the DTMF level with a new configuration file parameter *voip/audio/gain/dtmf\_tone\_signal\_level*.
- **Improved Common Area phone.** The DND (Do not Disturb) key and the Call Forward key were removed from the Common Area phone's menus to prevent Common Area phone users from making the phone 'unavailable'.  
For **backward compatibility**, a new 'voip/common\_area/enhanced\_mode' parameter can be set to **0** to allow Common Area phone users to be able to view the Call Forward key if necessary.

- **Improvement to the 'Locking / unlocking a paired phone' feature.** Starting from this release, a **paired phone is automatically locked 10 seconds after the PC with which it is paired, is locked**. If the user continues using the phone within 10 seconds after the PC is locked, the phone is locked 10 seconds after being in idle state. In version 3.0, when the user locked the paired PC, the phone was locked after a timeout preconfigured in the Skype for Business server lapsed.  
If the user's phone was automatically paired (by connecting its PC port to the PC/laptop 'behind' it) and if the PC/laptop was active (not locked), the phone could not be manually locked. The user could manually lock it only after locking the PC/laptop.
- The phone in a Response Group plays a beep shortly after the agent answers, indicating that the call has been connected, that the agent can start talking and that the other side will hear the agent. Until the beep is played, a fleeting delay may occur during which the other side won't hear the agent.
- The Calendar can now be enabled or disabled from the phone's screen via Menu > Settings > Calendar.

### 3.21.2 Resolved Constraints in Version 3.0.1

The table below shows the constraints that were known to exist in previous releases but which are now resolved in Version 3.0.1.

**Table 3-41: Resolved Constraints in Version 3.0.1**

Incident	Description
105871	[USB headset] Sometimes there is a voice delay on the second call.
105922	Delegate settings are removed from the Skype user if Call Forward is disabled from the phone.
104727	ToS (Type of Service) default value was set to 0xA0.
99962	[Presence] The phone sometimes shows status as 'Away' when the user is in fact available.
106086	[Multi-Party Skype for Business Remote Conferencing] Meet Now/Join does not function with extensions that are not in E164 format.
104851	[Multi-Party Skype for Business Remote Conferencing] The participant can unmute themselves when the conference host presses Mute All when the participant's status is 'Mute'.
103803	[Multi-Party Skype for Business Remote Conferencing] Phones added to the conference fail to mute themselves.
105796	The phone's user interface occasionally gets stuck on the registration message and cannot recover after pool failover. Occurs only to users who are signed in with extension number and PIN code.
102259	[EHS] No audio on Electronic Hook Switch (EHS) can be heard when answering an incoming call using the headset key.
106031	[Response Group] Attended transfer to Response Group fails.
106155	[Device Lock] 440HD phone's sidecar keys can be configured when the phone is locked.
104733	The phone doesn't support DHCP Option 42 and Option 4 (Time server) which is set with hostname. When DHCP is set with IP address, the phone successfully acquires its IP address from DHCP).
103541	The phone displays an incorrect time format when the time format is set to <b>12h</b> and the date format is set to <b>American</b> .
104465	[Transfer] Semi-attendant transfer fails when pressing the TRANSFER hard key on the phone instead of the <b>Dial</b> softkey.
104147, 104580	[Transfer] The <b>Transfer</b> softkey is missing when the phone is configured for semi-attendant transfer.
104672	[Transfer] Semi-attendant transfer cannot be performed with the 'New Call' option.

Incident	Description
104927	[USB headset] Voice may not be heard when switching audio device from headset to speaker.
104469	[Boss-Admin] Admin can't make a blind transfer to the Boss from Admin's own directory.
104992	The phone removes the held far-end user from other AudioCodes phone during a call shuffle (when switching between two calls).
103883	The handset/speaker/headset volume is not saved after restarting the phone.
104728	Users who sign in with PIN code cannot perform a search for a contact in the Corporate Directory.
104539	[Paging] A paged call can be ended only by pressing the <b>End</b> softkey or by on-hooking the handset. Pressing the speaker hard key does not end the paged call.
103640	In a conference call, when the phone performs a far mute, an unmute, and then a far mute, the popup message 'A presenter has muted you' is not displayed on the far phone.
103995	[405HD model phone] Korean Language is not yet supported in this version release.
100705	[USB headset] Occasionally, the phone's user interface performs slowly.
107004	[USB headset] Incorrect volume scale for some USB headset types.
107101	[USB headset] The Plantronics headset becomes unresponsive after several clicks on the new <b>Call/Disconnect</b> button.
107100	[USB headset] The Plantronics headset does not receive a dial tone the first time a new call is initiated from the headset controller.

### 3.21.3 Known Constraints in Version 3.0.1

The table below shows the constraints known to exist in Version 3.0.1.

**Table 3-42: Known Constraints in Version 3.0.1**

Incident	Description
-	420HD IP phone does not support: <ul style="list-style-type: none"> <li>■ Exchange integration (Calendar)</li> <li>■ Visual Voice Mail</li> <li>■ Outlook contacts and Skype for Business 'Favorites' contacts</li> </ul>
-	450HD IP phone does not support: <ul style="list-style-type: none"> <li>■ Boss-Admin</li> <li>■ Multicast Paging</li> </ul> Support for these is planned for forthcoming 450HD releases.
106815	[Boss-Admin] Second pickup sometimes fails, i.e., if Admin picks up a Boss call and then Boss tries to pick up the call back).
106161	[Boss-Admin] Skype user whose name starts with a small letter and configured as Admin, it's displayed on the Boss phone as a URI address rather than with the display name.
106517	[New 440HD Boss-Admin] When there is a crossed delegation, i.e., when Admin 1 is Boss of Admin 2 and Admin 2 is Boss of Admin 1), the Boss doesn't see the call when Admin answers the call.
106254	[New 440HD Boss-Admin] Retrieving a parked call on behalf doesn't appear on the sidecar. If the call is not parked, there is no issue.



Incident	Description
105852	<p>[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:</p> <ul style="list-style-type: none"> <li>■ RGS/Delegate call made on behalf from the PC client</li> <li>■ Call from IM (Instance Message) that was opened before the phone was paired.</li> </ul> <p>This is aligned with Microsoft's BToE implementation.</p>
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.
105172	[Skype for Business 'Favorites'] Only the SIP URL is added to 'Favorites' when adding a contact from the Personal Directory or from Outlook.
104326	[Skype for Business 'Favorites'] The phone does not retrieve Outlook contacts from On Premises Exchange servers.
105106	[Web Sign-in] When using the phone's Web interface to perform Web sign-in, cancelling the operation via the Web is not reflected correctly on the phone's screen.
106716	[Voice Mail] On the 405HD model phone, the LED lights up to present a new voice message, but it may take few minutes for the envelope icon to be displayed on the phone's LCD screen.
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 this is 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.
96650	[Boss Admin] When the Boss configures an Admin user, the phone's LCD displays the Admin's username instead of the Admin's regular name.
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.
100454	[Boss Admin] The list in the Dialed Calls screen, shown after pressing the REDIAL key, is incorrect after a call to Boss is made and the call is answered by Admin. When the caller presses REDIAL, they see Admin's phone number instead of Boss'.

Incident	Description
100827	[Boss Admin] Response Group - A call initiated by Admin on Boss' behalf to Response Group cannot be picked up by Boss.
100828	[Boss Admin] Response Group - Incoming call from Admin (on behalf of Boss) appears in Response Group agent's phone LCD as a regular call and not as a Response Group call.
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.
101198	[405HD model phone] The Ringtones list in the phone's Web interface is incorrect.
103651	Provisioning by the Redirect Server doesn't function if the phone receives any provisioning of configuration URL via DHCP options.
	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 6 hours. Consequently, Call Log information such as missed, received and outgoing calls may not be saved after restarting.
-	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.
	When performing a Consultative Transfer, the prompt 'Press <b>Trans</b> to transfer' is displayed too briefly.
	DHCP Option 160 does not read correctly if there is no forward slash (/) at the end of the sent path.
100478	[420HD phone] Configured Function Keys do not function after the phone parks a call.
101224	Accessing the phone's Web interface with HTTPS via Internet Explorer requires TLS 1.2 support. TLS 1.2 can be set in Internet Explorer via Tools > Internet Options > Security tab. If TLS 1.2 cannot be supported, the Chrome browser can be used instead of Internet Explorer.
101269	The Chrome browser cannot be used to manually update the phone's firmware through the Web interface over HTTPS protocol. Internet Explorer can be used instead.
	[440HD Delegated Line Feature] The phone is capable of presenting up to 12 incoming calls on the phone's sidecar. Calls over and above the 13 <sup>th</sup> call will not be managed on the sidecar. They will not be displayed nor will they be capable of being picked up. Even if an index on the sidecar will free up, the call will not occupy the free index. A newly free index will be occupied by the next incoming call.
	[440HD Delegated Line Feature] The phone is currently capable of simultaneously handling up to eight calls per line (configured with the 'number_of_calls_per_line' parameter). If eight calls are concurrently managed on the phone, attempting to pick up an additional call will fail. Other phones in the group can still pick up the call.
	[440HD phone's 'Delegated Line' feature] Simultaneous configuration of this feature (the 440HD phone's 'Delegated Line' feature) <i>and</i> the phone's BToE feature is not supported.
	[440HD Delegated Line Feature] Accepting, rejecting and resuming calls must be performed using the softkeys or by picking up the handset. They cannot be performed from the audio device keys – speaker/headset.
	[440HD Delegated Line Feature] On rare occasions, switching between calls displayed in the phone's sidecar, i.e., picking up calls in succession, one after the other, may cause the phone to handle some pickups incorrectly; best practice is therefore to wait five seconds between each pickup to allow the previous action to finish.
	[440HD Delegated Line Feature] On rare occasions, ending several calls too fast may cause unexpected behavior; best practice therefore is to have a 5-second delay between actions.

Incident	Description
	[440HD Delegated Line Feature] If two phones simultaneously try to pick up two calls held by a certain phone, one of the pickups may fail. Re-attempting to pick up will be successful.
105213	[Voice Mail] If the user calls their Voice Mail and then gets an incoming call, the call with the Voice Mail 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 is preferable to use the phone's mute key instead.
107485	[USB headset] Jabra HSC016: Using the volume keys on this headset is not recommended as they send an unexpected unmute command. It is advisable to use the phone's mute key and volume up/down keys instead.
107517	[USB headset] On some Jabra USB headset models (the Evolve series, Bizz2400, though other models may also be applicable), the remote party may complain that the volume is too low. In the next release, the gains will be tuned per model. In this release, the gain can be increased, if necessary, in order to set the volume to a higher level. The following parameters must be configured via the IP Phone Manager: <b>voip/audio/gain/NB/headset_digital_input_gain=10</b> (Default: 0) <b>voip/audio/gain/WB/headset_digital_input_gain=10</b> (Default: 0)
107760, 107694	[Calendar - Join URL] The phone responds to Google Calendar meeting invitations with accepted/tentative/decline messages. **
107605	[BToE] Pairing is sometimes deactivated and then activated again during normal use. **
107353	OnPrem users fail to log in using PIN Authentication when OAuth is configured on the server. **
107626	[CCCP] The remote phone can get stuck - its screen displaying 'Connecting' - when another phone admits the remote phone to the call, while conference is locked. **
107825	[CCCP] When the Meet Now feature is used, the first attempt to add a user by dialing their URL fails; the second attempt to dial their URL succeeds. **
107692	[USB headset] The user may experience a short disconnection from audio (up to 8 seconds) during long calls with Jabra Evolve. **
107439	[USB headset] Disconnecting/connecting the USB headset from the phone during a call several times may cause the phone to malfunction. **
107439	[USB headset] After three Hold/Resume actions or three toggles between several existing calls, the USB headset is disconnected for up to 8 seconds. **
105881, 105954	The phone does not publish Quality of Experience reports via the QoE server if a call was a Media Bypass call. **
107305	DTMF may not function during the early media stage; DTMF is sometimes needed in order to input digits into an IVR system. **
107433	System/password is not saved when set via provisioning. **
107034	The phone gets stuck on 'Acquiring IP' if it receives a DHCP Option message which is longer than 308 chars. **

\*\* An existing fix for this constraint can be provided on demand.

**International Headquarters**

1 Hayarden Street,  
Airport City  
Lod 7019900, Israel  
Tel: +972-3-976-4000  
Fax: +972-3-976-4040

**AudioCodes Inc.**

200 Cottontail Lane  
Suite A101E  
Somerset, NJ 08873  
Tel: +1-732-469-0880  
Fax: +1-732-469-2298

Contact us: <https://www.audiocodes.com/corporate/offices-worldwide>

Website: <https://www.audiocodes.com>

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Document #: LTRT-08548

