



RELEASE NOTES

UC Software 5.4.2 | January 2016 | 3725-49125-004A

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## Polycom<sup>®</sup> UC Software 5.4.2

Applies to Polycom<sup>®</sup> VVX<sup>®</sup> Business Media Phones and Polycom  
SoundStructure<sup>®</sup> VoIP Interface



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# What's New in Polycom UC Software

## 5.4.2

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Polycom® Unified Communications (UC) Software 5.4.2 is a release for Polycom for all Open SIP servers along with Microsoft® Lync 2010, Lync 2013, Skype™ for Business, and Skype™ for Business Online interoperability.

Polycom UC Software 5.4.2 supports the following Polycom endpoints:

- VVX 101 business media phones
- VVX 201 business media phones
- VVX 300/310 business media phones
- VVX 301/311 business media phones
- VVX 400/410 business media phones
- VVX 401/411 business media phones
- VVX 500 business media phones
- VVX 501 business media phones
- VVX 600 business media phones
- VVX 601 business media phones
- SoundStructure VoIP Interface
- VVX 1500 business media phones

Polycom UC Software 5.4.2 supports the following Polycom accessories:

- Polycom® VVX® Camera
- Polycom® VVX® Expansion Module

These release notes provide important information on software updates, phone features, and known issues.

## Important Notice

Due to the increase in size of the software code base in UCS 5.4.1, an issue has been found when upgrading to UCS 5.4.2 using the combined image except when upgrading from 5.4.1. This issue may prevent phones from upgrading successfully. Phone administrators utilizing the combined image files should perform one of the following upgrade types.

- Upgrade to UCS 5.2.5 prior to upgrading to UCS 5.4.2. This fix will also be made available in UCS 5.3.3.
- Upgrade to UCS 5.4.2 using the individual split images.

**NOTE:** Attempting to upgrade directly to UCS 5.4.2 will not harm the phone, and the upgrade may succeed. However, this is not recommended. Applying future upgrades to phones running UCS 5.4.2 will not require any special action.

## New Features

There are no new features or enhancements introduced in this release.

## Phone Features and Licenses

The features and licenses required to operate the phones vary by phone model. Refer to this section to find out which phone features and licenses you require for your phone model.

The following table describes features available for each phone and indicates whether a feature license is required. In the following table, *No* indicates that a phone does not support a feature, *Yes* indicates that a phone supports a feature and no license is required, and *Yes\** indicates that the phone requires you to purchase a feature license from Polycom to support a feature.

### VVX Series Features and Licenses

<i>Feature</i>	<i>VVX 101</i>	<i>VVX 201</i>	<i>VVX 300/ 310</i>	<i>VVX 301/ 311</i>	<i>VVX 400/ 410</i>	<i>VVX401/ 411</i>	<i>VVX 500/ 501</i>	<i>VVX 600/ 601</i>	<i>VVX 1500</i>	<i>Sound Structure VoIP Interface</i>
Asian Languages	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Conference Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Customizable UI Background	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Electronic Hookswitch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Enhanced BLF	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Enhanced Feature Keys	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
H.323 Video	No	No	No	No	No	No	Yes	Yes	Yes	No
Server Based Call Recording	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
USB Call Recording	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No

Feature	VVX 101	VVX 201	VVX 300/ 310	VVX 301/ 311	VVX 400/ 410	VVX401/ 411	VVX 500/ 501	VVX 600/ 601	VVX 1500	Sound Structure VoIP Interface
VQMon	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*	Yes (Audio only)	Yes (Audio only)	Yes (Audio only)	No

\*You must purchase a feature license from Polycom.

## Configuration File Enhancements

The following table lists configuration file enhancements that include new or changed parameters for this Polycom UC Software 5.4.2 release. For more information on using configuration parameters to enable or disable features, see the *Administrator Guide for Polycom UC Software 5.4.x* available on the [Polycom Voice Support](#) site.

### Configuration File Enhancements in UC Software 5.4.2

Parameter	Permitted Values	Default
<b>call.urlNumberModeToggling</b>	<b>0 or 1</b>	<b>1</b>
if 1, the dial pad is set to URL dialing mode as default. If 0, the dial pad is set to number dialing mode as default.		
<b>voice.vadTxGain</b>	<b>-20 to +20</b>	<b>0</b>
When in a narrow band call (for example, G.711mu, G.711A, G.729AB, iLBC), the specified gain value in dB is added to the noise level of an incoming VAD or CNG packet. This causes the noise level being synthesized at the local phone to change by the specified amount. This configuration parameter may be useful for tuning VAD or CNG interop in a multi-vendor environment. When tuning in multi-vendor environments, the existing Polycom to Polycom phone behavior can be retained by setting <code>voice.vadTxGain = -voice.vadRxGain</code> . This parameter is ignored for HD calls.		
<b>voice.vadRxGain</b>	<b>-20 to +20</b>	<b>0</b>
When in a narrow band call (for example, G.711mu, G.711A, G.729AB, iLBC), the specified gain value in dB is added to the noise level of an outgoing VAD or CNG packet. This causes the noise level being synthesized at the far end phone to change by the specified amount. This configuration parameter may be useful for tuning VAD or CNG interop in a multi-vendor environment. When tuning in multi-vendor environments, the existing Polycom to Polycom phone behavior can be retained by setting <code>voice.vadRxGain = -voice.vadTxGain</code> . This parameter is ignored for HD calls.		
<b>sec.TLS.profile.webServer.cipherSuiteDefault</b>	<b>0 or 1</b>	<b>1</b>
If 0, use the custom cipher suite for web server profile. If 1, use the default cipher suite.		

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<b>sec.TLS.webServer.cipherList</b>	<b>String</b>	<b>RSA:!EXP:!LOW:!NULL: !MD5:!RC4:@STRENGT H</b>
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The cipher list for a web server profile. The format for the cipher list uses OpenSSL syntax found at:  
<http://www.openssl.org/docs/apps/ciphers.html>.

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## Supported DHCP Sub-Options

The following table lists the individual sub-options and combination sub-options supported on VVX phones for DHCP Option 43.

### DHCP Option 43 Configuration Options

<i>Option</i>	<i>Result</i>
Option 1 - Subnet mask	The phone parses the value from Option 43
Option 2 - Time offset	The phone parses the value.
Option 3 - Router	The phone parses the value.
Option 4 - Time server	The phone parses the value.
Option 6 - Domain Name Server	The phone parses the value.
Option 7 - Domain Log server	The phone parses the value.
Option 15 - Domain Name	The phone parses the value.
Option 42 - Network Time Protocol server	The phone parses the value.
Option 66 - TFTP Server Name	The phone parses the value.
<b>Sub-options configured in Option 43</b>	
Options 1, 2, 3, 4, 5, 6, 7, 15, 42, and 66	The phone parses the value.

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# Release History

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This following table shows the recent release history of Polycom Unified Communications (UC) Software.

## Release History

<i>Release</i>	<i>Release Date</i>	<i>Description</i>
5.4.2	January 2016	This release has important field fixes.
5.4.1	December 2015	This release includes support for the following features: <ul style="list-style-type: none"><li>• Flexible line key customization for Lync (EFLK)</li><li>• Master Key Identifiers (MKI)</li><li>• Shared Line appearance on Lync</li><li>• BToE for Windows 10</li><li>• Smart Search for Lync ABS</li><li>• Support for simplified Chinese font on VVX 101</li></ul>
5.4.0A	September 2015	<ul style="list-style-type: none"><li>• Microsoft Office 365 and Skype for Business Online</li><li>• Office365 and Skype for Business Provisioning and Manageability</li><li>• Time and Date Initial Setup</li></ul>
5.4.0	May 2015	Added support for Alcatel-Lucent CTS features including <ul style="list-style-type: none"><li>• Advanced Conference</li><li>• Shared Call Appearance with Bridge In</li><li>• Visitor Desk Phone</li></ul> This release also included support for the following features: <ul style="list-style-type: none"><li>• Barge In on Busy Lamp Field Lines</li><li>• DTMF Relay</li><li>• SIP Instance</li><li>• Comfort Noise</li><li>• Opus Codec</li><li>• DNS Server Address Override</li><li>• Global Directory Synchronization</li><li>• Basic Menu Lock</li><li>• Additional features including user interface improvements and resolved known issues.</li></ul>
5.3.2	November 2015	This release has important field fixes.
5.3.1	July 2015	Includes support for locking the settings menu, enhancements for push-to-talk calls, support for Lync location-based routing, and other important field fixes.
5.3.0	March 2015	Includes support for several Lync, BroadSoft, and Open SIP features.

<i>Release</i>	<i>Release Date</i>	<i>Description</i>
5.2.5	December 2015	Includes support for new in call display and off hook dialing as well as critical field fixes.
5.2.4	September 2015	This release delivers important field fixes.
5.2.3	May 2015	This release has important field fixes.
5.2.2	March 2015	This release has important field fixes. Minor feature improvements, an added Open Source Software license, and other resolved issues.
5.2.1	November 2014	This release has important field fixes.
5.2.0	October 2014	Added support for web page sign-in to Lync, user interface optimizations, and support for various GENBAND features.
5.1.3	November 2014	Added support to log into Lync client through the phone's web interface.
5.1.2	September 2014	Added image background lock down and power turn off for all the USB ports.
5.1.1C	July 2014	Introduced Microsoft-qualified UC Software for VVX 410, VVX 500, VVX 600, and SoundStructure VoIP Interface.
5.1.1B	July 2014	Resolved the bandwidth hold issues that existed on VVX 300 phones and SoundStructure VoIP Interface when using Lync 2013 with Call Admission Control.
5.1.1	July 2014	Added full support of Lync contact card and support to forward the delegated call to the boss voicemail.
5.1.0	May 2014	Added visual indication of security classification, centralized call recording controls for BroadSoft server, and enabling or disabling the security vulnerable ports.
5.0.1	October 2013	Added Arabic language support, BToE auto pairing, quick search support for the BroadSoft UC-One local contacts.
5.0.0	September 2013	Added support to Lync Call Park feature, Better Together over Ethernet (BToE), Lync Boss-Admin, and Address Book Services (ABS).



# Install UC Software 5.4.2

Consider the following installation and update information when using Polycom UC Software 5.4.2.

## Download the Distribution Files

To download UC Software 5.4.2, you can choose the combined UC Software package or the split UC Software package, both in ZIP file format. The combined version contains all files for all phone models. The split software package is smaller, downloads more quickly, and contains sip.ld files for each phone model, enabling you to choose provisioning software for your phone model and maintain software versions for each model in the same root directory.

For general use, Polycom recommends using the split resource file that corresponds to the phone models for your deployment. To match the correct UC software resource file to your phone model, see the table [Understand the Combined ZIP and Split ZIP Files](#). If you are provisioning your phones centrally using configuration files, download the corresponding resource file and extract the configuration files to the provisioning server, maintaining the folder hierarchy in the ZIP file.

The current build ID for the sip.ld and resource files is **5.4.2.0334**.

## Understand the Combined and Split ZIP Files

To understand the files distributed in the combined ZIP file, refer to the following table.

### Understand the Combined ZIP and Split ZIP Files

Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
3111-40250-001.sip.ld	SIP application executable for VVX 101	x	✓
3111-40450-001.sip.ld	SIP application executable for VVX 201	x	✓
3111-46135-002.sip.ld	SIP application executable for VVX 300	x	✓
3111-48300-001.sip.ld	SIP application executable for VVX 301	x	✓
3111-46161-001.sip.ld	SIP application executable for VVX 310	x	✓
3111-48350-001.sip.ld	SIP application executable for VVX 311	x	✓
3111-46157-002.sip.ld	SIP application executable for VVX 400	x	✓
3111-48400-001.sip.ld	SIP application executable for VVX 401	x	✓
3111-46162-001.sip.ld	SIP application executable for VVX 410	x	✓
3111-484500-001.sip.ld	SIP application executable for VVX 411	x	✓

Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
3111-44500-001.sip.ld	SIP application executable for VVX 500	x	✓
3111-48500-001.sip	SIP application executable for VVX 501	x	✓
3111-44600-001.sip.ld	SIP application executable for VVX 600	x	✓
3111-48600-001.sip	SIP application executable for VVX 601	x	✓
2345-17960-001.sip.ld	SIP application executable for VVX 1500	x	✓
3111-33215-001.sip.ld	SIP application executable for SoundStructure VoIP Interface	x	✓
sip.ld	Concatenated SIP application executable	✓	x
sip.ver	Text file detailing build-identification(s) for the release	✓	✓
000000000000.cfg	Master configuration template file	✓	✓
000000000000-directory~.xml	Local contact directory template file. To apply for each phone, replace the (zeroes) with the MAC address of the phone and remove the ~ (tilde) from the file name	✓	✓
applications.cfg	Configuration parameters for microbrowser and browser applications	✓	✓
features.cfg	Configuration parameters for telephony features	✓	✓
firewall-nat.cfg	Contains configuration parameters for telephony features	✓	✓
H323.cfg	Configuration parameters for the H.323 signaling protocol	✓	✓
lync.cfg	Contains Lync specific configuration parameters	✓	✓
pstn.cfg	Contains parameters for PSTN use	✓	✓
reg-advanced.cfg	Contains configuration parameters for the line and call registration and advanced phone feature settings	✓	✓
reg-basic.cfg	Configuration parameters for line and call registration and basic phone settings	✓	✓

Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
region.cfg	Configuration parameters for regional and localization settings such as time and date and language	✓	✓
sip-basic.cfg	Configuration parameters for the VoIP server and softswitch registration	✓	✓
sip-interop.cfg	Configuration parameters for the VoIP server, softswitch registration, and interoperability configuration	✓	✓
site.cfg	Configuration parameters that are set for each site	✓	✓
video.cfg	Configuration parameters for video connectivity	✓	✓
video-integration.cfg	Configuration parameters for SoundStation IP 7000 and Polycom HDX system integration	✓	✓
VVX-dictionary.xml	Includes native support for the following languages: <ul style="list-style-type: none"> <li>• Chinese, Traditional</li> <li>• Chinese, Simplified</li> <li>• Danish, Denmark</li> <li>• Dutch, Netherlands</li> <li>• English, Canada</li> <li>• English, United Kingdom</li> <li>• English, United States</li> <li>• French, Canada</li> <li>• French, France</li> <li>• German, Germany</li> <li>• Italian, Italy</li> <li>• Japanese, Japan</li> <li>• Korean, Korea</li> <li>• Norwegian, Norway</li> <li>• Polish, Poland</li> <li>• Portuguese, Brazil</li> <li>• Russian, Russia</li> <li>• Slovenian, Slovenia</li> <li>• Spanish, Spain</li> <li>• Swedish, Sweden</li> <li>• Arabic, UAE</li> </ul>	✓	✓
Welcome.wav	Startup welcome sound effect	✓	✓

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Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
LoudRing.wav	Sample loud ringer sound effect	✓	✓
Warble.wav	Sample ringer sound effect	✓	✓

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# Known Issues

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This section lists the known issues and suggested workarounds for this release and previous releases.

## Known Issues and Suggested Workarounds for UC Software 5.4.2

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>	<i>Workaround</i>
Expansion Modules	VOIP-107913	5.4.1	Expansion Modules may go into a reboot loop and may not come up if they are unplugged from the host phone while they are in the process of being upgraded.	Wait 2 seconds for power and 15 seconds for LCD Expansion Module before unplugging.
General	VOIP-108028	5.4.1	On the VVX 600 phone, after attaching a headset, the pop-up stating the device has connected successfully appears twice.	.
General	VOIP-104994	5.4.1	The user is unable to exit to the Home screen from the LAN port diagnostic and PC port diagnostic screens when the Home button is pressed.	Press the home button twice
General	VOIP-105796	5.4.1	In VVX 5XX/6XX phones, Automatic Login using Pin Extension in will not work first time after a reboot when the credentials are provided from a configuration file.	The VVX 5XX/6XX phones need manual input before accepting the Pin Authentication credentials from the Config file.

# Resolved Issues

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This section lists the issues that were resolved in UC Software 5.4.2.

## Resolved Issues in 5.4.2

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
Audio	VOIP-108826	5.4.2	If a caller places call on mute, the notification sound for the recipient is improved.
Calling	VOIP-109264	5.4.2	If the contact directory has more than 40 contacts, the phone used to fail to display caller ID for an incoming call from a saved contact. This has been fixed.
Calling	VOIP-108811	5.4.2	In the Skype for Business environment, phone successfully establishes a conference when originating user alias starts with a number.
Calling	VOIP-108427	5.4.2	If a call was received on a sixpexs shared line number (with multiple line keys), there is only one call appearance instead of the incorrect two call appearances on two lines.
Calling	VOIP-105402	5.4.2	In a UC-One environment, phone can call speed dial contacts using the DID numbers instead of URL dialing. This enables the phone to call to the speed dial contacts even if the URL is disabled.
Calling	VOIP-102024	5.4.2	If a phone has shared and BLF lines and the shared line goes off hook, there is incoming call display but no ringing on the monitoring phone. This has been fixed.
Contact Directory	VOIP-108611	5.4.2	When the parameter 'reg.x.server.y.specialInterop' is set to Genband, the user can enter multiple entries in the contact directory without causing any issues.
General	VOIP-111245	5.4.2	For VQMoN users, the voice quality reports are improved. Voice quality reports for the VQMoN users has been improved.
General	VOIP-110690	5.4.2	If the SIP server challenges a BYE with old nonce from the phone, the phone responds with a BYE with new nonce.
General	VOIP-108947	5.4.2	Group paging works when a monitored Enhanced Park Orbit is active.
General	VOIP-108310	5.4.2	Web SDK Call Action API works properly and nCallReference is referenced correctly in XML API.
General	VOIP-107930	5.4.2	On VVX phones, you can set the parameter 'feature.presence.enabled' to 1 and enable Buddy Watch with Genband Personnel Address Book mode.
Interoperability	VOIP-110265	5.4.2	Phone successfully synchronizes call logs with Exchange.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
Interoperability	VOIP-108375	5.4.2	To support a wide variety of switches, the LLDP power value for VVX 101 and 201 is reduced from 5000mW to 3500mW.
Localization	VOIP-108185	5.4.2	Support for Swedish language in the Broadsoft directory is improved.
Security	VOIP-109249	5.4.2	Denial of service vulnerabilities CVE-2015-1788, CVE-2015-1789, CVE-2015-1790, CVE-2015-1791, CVE-2015-1792, and CVE-2015-4000 in OpenSSL are fixed.
Security	VOIP-109212	5.4.2	Security issues involving RC4 encryption ciphers have been addressed.
Security	VOIP-110376	5.4.2	The cipher option for a web server is configurable.
User Interface	VOIP-109316	5.4.2	The administrator can set a URL or number mode as default with the parameter <code>call.urlNumberModeToggling</code> .
User Interface	VOIP-109211	5.4.2	The phone request timezone information only on first-time login when there is no SNTP server set and not after every reboot.
User Interface	VOIP-108943	5.4.2	A single line VVX 600 phone configured with one call per line displays the <b>park</b> softkey.
User Interface	VOIP-108664	5.4.2	The phone's idle screen displays 'Directories' softkey.
User Interface	VOIP-108570	5.4.2	Recent call list displays the Umlaut correctly while using LYNC Base Profile and Exchange on VVX 500 and 600 phones.
User Interface	VOIP-108489	5.4.2	The phone web interface displays contacts in the same order as on the phone display.
User Interface	VOIP-107262	5.4.2	The <b>search</b> field of the Broadsoft Directory supports '*' and '#' keys.
Video	VOIP-107706	5.4.2	Substantial video quality improvement on VVX 1500 phones for H.323 bridge calls.
VQMon	VOIP-111493	5.4.2	Voice Quality score, NLR and MOSQ are now improved to match the RX RTP traffic
Lync	VOIP-106843	5.4.2	VVX phones now register after failover/failback to the secondary server when the second server details are added in the DNS server after the phone is registered
General	VOIP-109240	5.4.2	The exchange calendar integration configuration parameter <code>feature.exchangeCalendar.enabled</code> now controls all other Exchange integrations

# Security Updates

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Refer to the [Polycom Security Center](#) for information about known and resolved security vulnerabilities.



# Updates to Previous Software Releases

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## What's New in Polycom UC Software 5.4.1

Polycom® Unified Communications (UC) Software 5.4.1 is a release for Polycom for all Open SIP servers along with Microsoft® Lync 2010, Lync 2013, Skype™ for Business, and Skype™ for Business Online interoperability. UC Software 5.4.1 is the first release to support the new VVX 301, 311, 401, 411, 501, and 601 business media phones.

Polycom UC Software 5.4.1 supports the following Polycom endpoints:

- VVX 101 business media phones
- VVX 201 business media phones
- VVX 300/310 business media phones
- VVX 301/311 business media phones (new phones introduced in this release)
- VVX 400/410 business media phones
- VVX 401/411 business media phones (new phones introduced in this release)
- VVX 500 business media phones
- VVX 501 business media phones (new phones introduced in this release)
- VVX 600 business media phones
- VVX 601 business media phones (new phones introduced in this release)
- SoundStructure VoIP Interface
- VVX 1500 business media phones

Polycom UC Software 5.4.1 supports the following Polycom accessories:

- Polycom® VVX® Camera
- Polycom® VVX® Expansion Module

These release notes provide important information on software updates, phone features, and known issues.



### **Note: Unsupported version for VVX 501 and VVX 601**

UCS 5.4.1.**14510** should not be used for VVX 501 and VVX 601 phones. A Bluetooth headset issue has been fixed in 5.4.1.**16215** for VVX 501 and 601 phones. For all the other phone models UCS 5.4.1.**14510** is the supported GA release.

## Important Notice

Due to the increase in size of the software code base in UCS 5.4.1, an issue has been found when upgrading to UCS 5.4.1 using the combined image. This issue may prevent phones from upgrading

successfully. Phone administrators utilizing the combined image files should perform one of the following upgrade types.

- Upgrade to UCS 5.2.5 prior to upgrading to UCS 5.4.1. This fix will also be made available in UCS 5.3.3.
- Upgrade to UCS 5.4.1 using the individual split images.

**NOTE:** Attempting to upgrade directly to UCS 5.4.1 will not harm the phone, and the upgrade may succeed. However, this is not recommended. Applying future upgrades to phones running UCS 5.4.1 will not require any special action.

## New Features

Polycom UC Software 5.4.1 includes the features and functionality of previous releases and includes the following new features:

- Enhanced Flexible Line Key (EFLK) customization for Skype for Business
- Master Key Identifier (MKI)
- Shared Line Appearance for Lync (SLA)
- Support for Simplified Chinese font on VVX 101
- Support for Better Together over Ethernet (BToE) on Windows 10®
- Smart Search for Lync Address Book Service
- Incoming Call Handling for Locked Phones for Lync/Skype for Business
- Global Directory Synchronization

## Enhanced Flexible Key Line Customization for Lync (EFLK)

The Enhanced Flexible Line Key feature is now supported for users in a Lync environment using the Polycom VVX line of business media phones, facilitating workflow and greater ease of use. This feature is not supported on VVX 101, 201, and 1500 business media phones.

In Default mode, Polycom VVX Business Media phones display registrations and other contacts in the following order:

- Registration
- SLA Lines/ Boss contacts
- Pinned contacts
- Favorites (Local contacts)

In Customized mode, users can assign/customize contacts to each line.

EFLK functionality enables you to assign up to 100 customized contacts to unassigned lines; clear any contact assigned to a line; delete contacts; insert an empty line above or below the selected line key; and search and assign any local or Lync contact to an unassigned line.

The EFLK feature is disabled by default. You can configure the following parameters to enable EFLK functionality on supported phones:

- `feature.flexibleLineKey.enable`

See the section [Configuration File Enhancements](#) for permitted values and descriptions for this parameter.

## Master Key Identifiers (MKI)

VVX Business Media Phones now support encryption (crypto) with or without Master Key Identifiers (MKI) in the offered Session Description Protocol (SDP). The following parameter enables administrators to select encryption with or without MKI while establishing a call.

Also a VVX Business Media Phones can now establish an audio call when it receives an offer crypto in SDP without MKI even when this feature is enabled.

Users can configure the following parameters to enable MKI functionality on supported phones:

- `sec.srtp.mki.enabled`

See the section [Configuration File Enhancements](#) for permitted values and descriptions for this parameter.

## Shared Line Appearance for Skype for Business (SLA)

This feature enables you to join a common call group sharing the same line registration. Each shared line can receive only one incoming call at a time. You cannot make outgoing calls from the shared line, neither can you make 911 emergency calls. Conference calls, BTOE, and the Call Park feature are not supported on SLA lines, and are available on the user's primary line.

An incoming call to the shared line is received by all phones sharing the line. After the call is answered, anyone sharing the line can view the call state, or pick up the call if another user places it on hold. Barge-in is not supported on Microsoft-registered phones.

This feature is not supported on VVX 101 or 1500 business media phones.

Note that you must install the Shared Line Application on the Microsoft Front End server and configure SLA groups in Windows Powershell.

You can configure a ring tone type using a parameter, and users can set a ring type from the phone menu system at: **Settings > Basic > RingType > SLA Ring type**.

See the section [Configuration File Enhancements](#) for permitted values and a description for this parameter.



### Note: Unsupported Features in SLA Lines

Conference, BTOE, and Call park features are not supported for SLA lines. Please note that these features are only available on the primary line.

## Better Together over Ethernet for Windows 10

Better Together over Ethernet (BToE) is now supported on Microsoft® Windows® 10.

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## Smart Search for Skype for Business Address Book Service

VVX phones registered with Skype for Business now offer predictive search when searching for contacts in the Skype for Business Address Book Service. You can choose to search by number or press the ABC soft key to enable predictive alphabetical search.

## Answer Incoming Calls on a Locked Phone in Lync/Skype for Business

You can allow users to answer incoming calls on a locked phone when deployed in a Lync/Skype for Business environment. Administrators can configure phones registered with Skype for Business to display an Answer soft key that displays when a locked phone receives an incoming call. When users answer a call with the Answer soft key, an Unlock and End Call soft key displays. Users can lock or unlock the phone at any time.

Users cannot make outgoing calls until a phone is unlocked. Conferences, Call Park, and Call Transfer are not available until a user unlocks the phone.

See the section [Configuration File Enhancements](#) for permitted values and a description for this parameter.

## Global Directory Synchronization

You can now download the <MAC>-directory.xml and 000000000000-directory.xml files. Both these files are needed to build the local contact directory.

Any contacts that you add, update, or save locally are uploaded to the <MAC>-directory.xml file.

See the section [Configuration File Enhancements](#) for permitted values for this parameter.

## Additional Features in This Release

The following feature enhancements were made for this UC Software 5.4.1 release:

- Do Not Store Browser Page Context When the Browser is Opened
- Remove QSetup Fields Based on Configuration. See [Configuration File Enhancements](#)
- Support Sending SUBSCRIBE for message-summary/MWI on SCA

## Configuration File Enhancements

The following table lists configuration file enhancements that include new or changed parameters for this Polycom UC Software 5.4.1 release. For more information on using configuration parameters to enable or disable features, see the *Administrator Guide for Polycom UC Software 5.4* available on the [Polycom Voice Support](#) site.

### Configuration File Enhancements in UC Software 5.4.1

<i>Parameter</i>	<i>Permitted Values</i>	<i>Default</i>
<b>call.shared.remoteActiveHoldAsActive</b>	<b>0 or 1</b>	<b>1</b>
If 1, both remote hold and remote active calls are treated as active calls on the phone. If 0, both remote hold and remote active calls are not treated as active calls on the phone.		
<b>device.sntp.serverName</b>	<b>0 or 1</b>	<b>0</b>
If 1, an alternate SNTP server address will be used when the DHCP's SNTP Server (received from the DHCP server) is not present and the SNTP Server (set to tcplpApp.snntp.address) is empty.		
<b>feature.flexibleLineKey.enable</b>	<b>1 and 0</b>	<b>0</b>
If 1, allows users to enable the EFLK feature on the phone. If 0, the feature is disabled. If enabled, EFLK is active on both the host phone and the expansion module.		
<b>log.level.change.flk</b>	<b>0 or 1</b>	<b>0</b>
If 1, users can set the log level for Microsoft EFLK logs. If 0, the feature is disabled.		
<b>phoneLock.Allow.AnswerOnLock</b>	<b>0 or 1</b>	<b>0</b>
If 0, default phone lock behavior is applied. If 1, an Answer soft key displays to allow users to answer incoming calls on locked phones.		
<b>prov.quickSetup.limitServerDetails</b>	<b>0 or 1</b>	<b>0</b>
If 1, user is prompted to enter user name and password, and the system supplies other required information such as DHCP option, server address, and server type from ztp/dhcp(option66). If 0, the user must enter all required information.		
<b>regOnPhone</b>	<b>0 or 1</b>	<b>0</b>
If 1, contacts users assign to a line key are pushed to the attached expansion module. If 0, contacts return to the position the user assigned on the phone line keys.		
<b>sec.srtp.mki.enabled</b>	<b>0 or 1</b>	<b>OpenSIP=0 Lync=1</b>
If 1, the Polycom phone offers two cryptos in the SDP offer, one without an MKI, and one with a four-byte MKI parameter in the SDP message of the SIP INVITE / 200 OK. If 0, Polycom phone offers only one non-MKI crypto in the SDL offer.		
<b>tcplpApp.snntp.address</b>	<b>0 or 1</b>	<b>0</b>
If 1, SNTP server address will be used when DHCP's SNTP Server (received from the DHCP server) is not present or the tcplpApp.snntp.address.overrideDHCP is set to 1.		

<i>Parameter</i>	<i>Permitted Values</i>	<i>Default</i>
<b>tcplpApp.snmp.address.overrideDHCP</b>	<b>0 or 1</b>	<b>0</b>
If 1, determines whether the SNMP Server address should override the DHCP SNMP server.		
<b>up.SLA.ringType</b>	<b>0 or 1</b>	<b>1</b>
If 1, sets the ring type for the shared line so that users can distinguish among incoming calls to a private, primary line and the group SLA line. Note that users can set this ring type from the phone menu system which overrides the value you set here.		
<b>volpProt.SIP.newCallOnUnRegister</b>	<b>0 or 1</b>	<b>1</b>
If 0, the phone does not generate new call-ID and From tag during re-registration.		
<b>volpProt.SIP.specialEvent.checkSync.downloadDirectory</b>	<b>0 or 1</b>	<b>0</b>
If 1, the phone downloads both the <MAC>-directory.xml & 000000000000-directory.xml along with the other configuration files. The local contact directory is created from both these files.		

## Install UC Software 5.4.1

Consider the following installation and update information when using Polycom UC Software 5.4.1.

### Download the Distribution Files

To download UC Software 5.4.1, you can choose the combined UC Software package or the split UC Software package, both in ZIP file format. The combined version contains all files for all phone models. The split software package is smaller, downloads more quickly, and contains sip.ld files for each phone model, enabling you to choose provisioning software for your phone model and maintain software versions for each model in the same root directory.

For general use, Polycom recommends using the split resource file that corresponds to the phone models for your deployment. To match the correct UC software resource file to your phone model, see the table [Understand the Combined ZIP and Split ZIP Files](#). If you are provisioning your phones centrally using configuration files, download the corresponding resource file and extract the configuration files to the provisioning server, maintaining the folder hierarchy in the ZIP file.

The current build ID for the sip.ld and resource files is **5.4.1.14510** (Except VVX 501 and VVX 601)

The current build ID for VVX 501 and VVX 601 is **5.4.1.16215**

### Understand the Combined and Split ZIP Files

To understand the files distributed in the combined ZIP file, refer to the following table.

#### Understand the Combined ZIP and Split ZIP Files

Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
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Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
3111-40250-001.sip.ld	SIP application executable for VVX 101	x	✓
3111-40450-001.sip.ld	SIP application executable for VVX 201	x	✓
3111-46135-002.sip.ld	SIP application executable for VVX 300	x	✓
3111-48300-001.sip.ld	SIP application executable for VVX 301	x	✓
3111-46161-001.sip.ld	SIP application executable for VVX 310	x	✓
3111-48350-001.sip.ld	SIP application executable for VVX 311	x	✓
3111-46157-002.sip.ld	SIP application executable for VVX 400	x	✓
3111-48400-001.sip.ld	SIP application executable for VVX 401	x	✓
3111-46162-001.sip.ld	SIP application executable for VVX 410	x	✓
3111-484500-001.sip.ld	SIP application executable for VVX 411	x	✓
3111-44500-001.sip.ld	SIP application executable for VVX 500	x	✓
3111-48500-001.sip	SIP application executable for VVX 501	x	✓
3111-44600-001.sip.ld	SIP application executable for VVX 600	x	✓
3111-48600-001.sip	SIP application executable for VVX 601	x	✓
2345-17960-001.sip.ld	SIP application executable for VVX 1500	x	✓
3111-33215-001.sip.ld	SIP application executable for SoundStructure VoIP Interface	x	✓
sip.ld	Concatenated SIP application executable	✓	x
sip.ver	Text file detailing build-identification(s) for the release	✓	✓
000000000000.cfg	Master configuration template file	✓	✓
000000000000-directory~.xml	Local contact directory template file. To apply for each phone, replace the (zeroes) with the MAC address of the phone and remove the ~ (tilde) from the file name	✓	✓
applications.cfg	Configuration parameters for microbrowser and browser applications	✓	✓
features.cfg	Configuration parameters for telephony features	✓	✓

Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
firewall-nat.cfg	Contains configuration parameters for telephony features	✓	✓
H323.cfg	Configuration parameters for the H.323 signaling protocol	✓	✓
lync.cfg	Contains Lync specific configuration parameters	✓	✓
pstn.cfg	Contains parameters for PSTN use	✓	✓
reg-advanced.cfg	Contains configuration parameters for the line and call registration and advanced phone feature settings	✓	✓
reg-basic.cfg	Configuration parameters for line and call registration and basic phone settings	✓	✓
region.cfg	Configuration parameters for regional and localization settings such as time and date and language	✓	✓
sip-basic.cfg	Configuration parameters for the VoIP server and softswitch registration	✓	✓
sip-interop.cfg	Configuration parameters for the VoIP server, softswitch registration, and interoperability configuration	✓	✓
site.cfg	Configuration parameters that are set for each site	✓	✓
video.cfg	Configuration parameters for video connectivity	✓	✓
video-integration.cfg	Configuration parameters for SoundStation IP 7000 and Polycom HDX system integration	✓	✓



Distributed Files	File Purpose and Application	Combined ZIP	Split SIP
VVX-dictionary.xml	Includes native support for the following languages: <ul style="list-style-type: none"> <li>• Chinese, Traditional</li> <li>• Chinese, Simplified</li> <li>• Danish, Denmark</li> <li>• Dutch, Netherlands</li> <li>• English, Canada</li> <li>• English, United Kingdom</li> <li>• English, United States</li> <li>• French, Canada</li> <li>• French, France</li> <li>• German, Germany</li> <li>• Italian, Italy</li> <li>• Japanese, Japan</li> <li>• Korean, Korea</li> <li>• Norwegian, Norway</li> <li>• Polish, Poland</li> <li>• Portuguese, Brazil</li> <li>• Russian, Russia</li> <li>• Slovenian, Slovenia</li> <li>• Spanish, Spain</li> <li>• Swedish, Sweden</li> <li>• Arabic, UAE</li> </ul>	✓	✓
Welcome.wav	Startup welcome sound effect	✓	✓
LoudRing.wav	Sample loud ringer sound effect	✓	✓
Warble.wav	Sample ringer sound effect	✓	✓

## Resolved Issues

This section lists the issues that were resolved in UC Software 5.4.1.

### Resolved Issues in 5.4.1

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
Audio	VOIP-105578	5.3.1	The phone no longer displays the PC Audio screen when BToE is out of sync.
Audio	VOIP-107424	5.3.0	Inbound audio no longer experiences any cutting out while buddy watching user's own extension.
BToE	VOIP-106212	5.3.1	When BToE is activated and receiving calls from the Response group, the phone now displays the name and number correctly.
Busy Lamp Field	VOIP-101729	5.3.0	A problem was resolved that caused the Busy Lamp Field (BLF) to display incorrectly.
Calling	VOIP-102296	5.3.0	An issue was resolved that caused problems with calling a UC-One contact from a Shared Call Appearance line with URL dialing enabled.
Calling	VOIP-108207	5.4.0	Receiving a PTT or Talk event on the VVX 500 and 600 during away / inactive state no longer causes the phone to set status back to available once the PTT/TALK is finished.
Calling	VOIP-106603 VOIP-106123	5.4.0	In a UC-One deployment, a number having + as prefix in the INVITE message now establishes the call successfully when work number is dialed-out
Calling	VOIP-106543	5.3.0	The phone now successfully transfers a call establishes two-way audio with no issues while initiating a transfer multiple times.
Calling	VOIP-106341	5.2.2	In a Lync Shared Line Appearance, placing a third call on a VVX 300 is now available and no longer causes any issues.
Contact Directory	VOIP-102294	5.3.0	The phone now correctly displays the extension separately from the phone number in the UC-One directory.
General	VOIP-108547	5.4.0	The VVX 500 no longer logs out the user intermittently with EXT/PIN on a 500 Internal Server Error but gracefully discards it.
General	VOIP-108288	5.3.1	The VVX primary Admin pickup/presence no longer fails after the server goes in to Survivable Mode.
General	VOIP-108097	5.4.0	The phone no longer automatically places the active call on hold when it receives a second incoming call.
General	VOIP-107939	5.4.0	Users are now able to retrieve a private parked call with no issues.
General	VOIP-107815	5.4.0	PIN Authentication now works automatically when set up using the configuration files.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
General	VOIP-107786	5.3.0	The phone now ignores the CDP packets without VLAN information.
General	VOIP-107737	5.4.0	The Lync Address book search is working with First and Last name search and matches with previous software behavior.
General	VOIP-107669	5.3.0	Receiving VLAN via LLDP from the Extreme switch no longer causes any issues when the lldpFastStartCount parameter is configured.
General	VOIP-107278	5.3.1	A Boss Voice Mail transfer now works correctly for Boss names that contain a special character
General	VOIP-106618	5.3.1	The phone no longer reboots upon signout if "feature.callList.enabled" is set to 0.
General	VOIP-106261	4.1.5	The phone now displays an incoming call alert without any issue if call forwarding is disabled and the indefinite ringing setting is enabled.
General	VOIP-105972	5.3.1	In a Bridged Line Appearance (BLA) scenario, the phone now successfully resumes a remote call.
General	VOIP-104828	5.4.1	The phone now picks up the remote hold call without issue when the far end PSTN number's display name has spaces included in it.
General	VOIP-104360	5.3.0	The phone now sends subscribe to all 64 contacts and updates their presence.
General	VOIP-104340	5.3.0	Selecting a Music on Hold (MOH) filename from the config parameter Feature.moh.filename now works as expected.
General	VOIP-103880	5.4.1	Support for parsing DHCP Option 43, sub-options 128 to 254 for use as a custom boot server has now been added.
General	VOIP-103131	5.3.0	Clicking the Select button in the VVX410 system's caller list now transfers a call with a single click.
General	VOIP-102493	5.3.0	A problem was resolved that caused the phone to occasionally sign the user out in some environments.
General	VOIP-107929	5.3.0	Help and label displayed for configuring the SNTP server address has been modified.
General	VOIP-98498	5.2.0	When the Simultaneously Ring to My Team Call Group feature is enabled, the phone can receive incoming calls when DND is enabled.
Interoperability	VOIP-107055	5.3.0	The VVX series phone no longer causes any issues when monitoring Broadsoft BLF with long press when dialog terminates.
Localization	VOIP-107728	5.4.0	Japanese characters are now displayed correctly under the Calendar menu of the phone.
Localization	VOIP-107316	5.4.0	Using German as language now displays correctly the Settings Menu as Einstellung.

<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
Localization	VOIP-105148	5.4.0	The Recent Call list now displays the umlaute correctly while using LYNC Base Profile and Exchange on VVX 500 and 600 phones.
Lync	VOIP-108407	5.4.0	In the Idle Screen, Message Count will be shown incrementally upon receiving a Voice Mail on Lync-enabled phones.
Lync	VOIP-107953	5.4.0	In Microsoft Lync deployments, the phone now observes only one Microsoft subnet message and no longer causes any call issues.
Lync	VOIP-107795	5.4.0	VVX 5XX/6XX Utilizes newly added device.lync.timeZone Parameter works AN issue and does not show any errors in the log.
Lync	VOIP-106545 VOIP-106544 VOIP-105835	5.3.0	The Lync SLA feature now works during WAN outage with only SBS available.
Lync	VOIP-105932	5.3.1	In Lync Boss Admin scenario, direct Blind transfer to the Boss voicemail is now working.
Lync	VOIP-102580	5.2.0	A problem was resolved that caused issues when establishing a call with an Avaya IP phone in a Lync 2013 environment.
Power	VOIP-108815	5.4.0	Power usage values for VVX 101 and 201 have been changed from 5000mw to 3500mw to support some specific switches.
Registration	VOIP-108215	5.4.0	Following a software upgrade, both Pin and Extension from Flash/configuration parameters are now used to fetch the certificate enabling user registration.
Registration	VOIP-102393	4.1.8	Currently, Polycom phones send a REGISTER message with new call-ID for each re-registration once it is unregistered.  If you enable this config parameter, the phone will not create a new call-ID for each re-registration until reboot. Refer to the <a href="#">Configuration File Enhancement</a> section for details of this parameter.
Security	VOIP-103745	5.4.1	Resolved important security vulnerabilities.
Security	VOIP-102522	5.2.3	Resolved important security vulnerabilities.
SIP	VOIP-99638	4.1.8	A problem was resolved that caused phones to momentarily lose connection when SIP/TLS is in use.
User Interface	VOIP-106898	5.3.1	On the Off the hook mode phone now displays "Dial pad", "Contact" and "Recent" soft keys when "Feature.directory.enable" is disabled.
User Interface	VOIP-105634	5.3.1	The phone now displays the Parked call line and the Retrieve soft key for retrieving the paging as expected.
User Interface	VOIP-103976	5.4.0	The phone now displays the email address or username for external non-Lync contacts added to Outlook.

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<i>Category</i>	<i>Issue No.</i>	<i>Release</i>	<i>Description</i>
User Interface	VOIP-103281	5.4.0	The Configuration Status menu display now truncates and displays the information properly even when the length of the server address is very long.
BToE	VOIP-106202	5.3.1	When BToE is activated and received calls from Response group, Phone now displays the name and number correctly.
Expansion Modules	VOIP-102708	5.4.0	Stability and performance have been improved for VVX Expansion Modules.
Bluetooth	VOIP-102614	5.4.0	Audio quality via Bluetooth on the receiver side has been improved

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# Get Help

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For more information about installing, configuring, and administering Polycom products, refer to Documents and Downloads at [Polycom Support](#).

For additional information about the Polycom VVX Business Media Phones, the VVX Camera, the VVX Expansion Modules, and SoundStructure VoIP Interface, view the following support pages:

- [Polycom VVX 101](#)
- [Polycom VVX 201](#)
- [Polycom VVX 300 and 310](#)
- [Polycom VVX 400 and 410](#)
- [Polycom VVX 500](#)
- [Polycom VVX 600](#)
- [Polycom VVX 1500](#)
- [Polycom VVX Camera](#)
- [Polycom VVX Expansion Modules](#)
- [Polycom SoundStructure](#)

You can view the following types of documents on each product page:

- **User Documents:**
  - *Quick Tips* A quick reference on how to use the phone's most basic features.
- **Setup and Maintenance Documents:**
  - *Quick Start Guide* This guide describes the contents of your package, how to assemble the phone or accessory, and how to connect the phone to the network. The quick start guide is included in your phone package.
  - *Wallmount Instructions* This document provides detailed instructions for mounting your phone on the wall. To install your phone on the wall, you need the optional wallmount package, which includes the wallmount instructions.
  - *Administrator Guide* This guide provides detailed information about setting up your network and configuring phone features.
  - *Regulatory Guide* Provides regulatory, warranty, and copyright information.
- **Feature Descriptions and Technical Notifications** These documents describe workarounds to existing issues and provide expanded descriptions and examples for phone settings and features. You can find these documents on the [Polycom Profiled UC Software Features](#) and [Polycom Engineering Advisories and Technical Notifications](#) support pages.

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San Jose, CA 95002

USA

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