

# Intel Unite<sup>®</sup> Plugin for Skype for Business

## Plugin Guide

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# 1 Introduction

Welcome to the Skype\* for Business plugin guide for the Intel Unite® solution. This guide contains detailed instructions on how to install and use the Skype for Business plugin and describes key features of the Intel Unite® solution.

## 1.1 Intended Audience

The intended audience for this document includes end-users, engineers, and IT professionals who are responsible for using, installing, configuring, or maintaining the Intel Unite® software.

## 1.2 Plugin Overview

The Skype for Business plugin is a solution for including people from an online Skype for Business meeting in an Intel Unite® app session. The plugin runs on the hub of the Intel Unite® software and manages an email account specific to each hub, in order to set, modify, join, and decline meetings. It also can be added to a Skype for Business conversation and control audio and video devices that Skype for Business is configured to use.

IT departments using Microsoft Exchange\* or Microsoft Office 365\* can add an account for the Intel Unite® solution-enabled room, allowing meeting organizers to schedule the room just like any other resource. By default, the plugin will manage calendar invites, accepting new and updated meetings, and declining invites that conflict with the hub calendar. Alternatively, IT can disable this functionality in the plugin and manage the calendar using existing company tools.

## 1.3 Plugin Flow

The steps below explain the plugin flow for the for Skype\* for Business plugin once it has been installed and configured on the hub.

1. A Skype for Business Meeting is scheduled and invites the hub.
2. The hub automatically accepts the meeting (or declines when a conflict exists).
3. 10 minutes before the meeting starts, the hub will display the meeting information.
4. The user starts the Intel Unite® application and connects to the hub by entering the PIN. The icon for the Skype for Business plugin will be displayed.
5. When the app opens, the “Join” icon will be displayed.
6. The user joins the Skype for Business meeting.
7. Meeting controls are displayed (if enabled, video, audio, and dial-out are present).

## 1.4 Prerequisites

The Skype for Business app for Intel Unite® solution 4.0 will be installed on the hub after being uploaded to the server. It has the following requirements:

- Intel Unite® software for the server, version 4.0 or greater.
- Intel Unite® software for the hub, version 4.0 or greater.
- Microsoft Office 365\* or Microsoft\* Exchange 2010 or greater
- Skype for Business 2013 or greater.
  - Skype for Business must be configured to launch and sign in automatically. The app will not automatically log in to Skype for Business.
  - For the dial-out capability to work, the Skype for Business account needs to have Enterprise Voice enabled. Contact your Skype for Business administrator to enable Enterprise Voice, or enable it through the Office 365 control panel.
  - The Microsoft Exchange and Skype for Business account should be the same.



**Note:** The following versions of Skype are not supported:

- 64-bit Skype for Business
- 64-bit Lync\*
- Skype for Business Basic
- Lync 2013 Basic

## 1.4.1 Microsoft Office 365\* and Microsoft\* Exchange

An email account and access to the Office 365 or Exchange Web Service (<https://<server>/EWS/Exchange.asmx>) are needed for each hub because each hub requires a unique email/calendar that can be scheduled as a resource when creating a meeting. The account needs access to read/write its own calendar, and access to sign into Skype for Business. By default, the app does the following:

- Manages calendar invites.
- Sends accept messages for new and updated meetings.
- Sends decline messages for invites that conflict with existing schedules.

These functions can be disabled from the app, and you can use your own tools to ensure the calendar is accurate. Refer [Section 2.1](#) for information on how to get the Office 365 or Exchange Web Service URL.



**Note:** The account type must be an email account, configured exchange-side when the account is created. If the account is not an email account, the plugin will not work correctly. Contact your IT administrator to properly configure the account.

## 2 Install the Skype\* for Business App

This section explains the prerequisites for the Skype\* for Business app and how to install it.

### 2.1 Configure Skype to Launch and Sign In Automatically

Skype for Business must be configured to launch and sign in automatically. The app will not automatically log in to Skype for Business.

Follow the steps below to configure Skype to launch and sign in automatically:

1. Open Skype for Business.
2. Select **Options** from the **Tools** drop-down menu.
3. Select **Personal** from the list on the left side of the window.
4. Place a check in the checkbox for **Automatically start the app when I log on to Windows** under My Account on the right side of the window.
5. Click **OK**.

For the dial-out capability to work, the Skype for Business account needs to have Enterprise Voice enabled. Contact your Skype for Business administrator to enable Enterprise Voice, or enable it through the Office 365 control panel.



**Note:** The Microsoft Exchange and Skype for Business account should be the same.

### 2.2 Put Skype in UI Suppression Mode

Skype must be in UI Suppression Mode for the plugin to install and function properly. In UI Suppression Mode, the Skype application runs in the background with no user interface.

Follow the steps below to put Skype in UI Suppression Mode:

1. Configure Skype to auto login.
2. Exit Skype.
3. Set `HKEY _ CURRENT _ USER\Software\Microsoft\Office\15.0\Lync\UISuppressionMode` to 1.
4. Set `HKEY _ CURRENT _ USER\Software\Microsoft\Office\16.0\Lync\UISuppressionMode` to 1.
5. Do not start Skype. The Skype for Business plugin will start Skype when it loads.



**Note:** While step 4 is only required for Skype versions 2013 and newer, Intel recommends setting both DWORDs in the registry as in the steps above.

### 2.3 Find Required Office 365/Exchange Server Information

Follow the steps below to get the Web Service URL for your existing Office 365 or Exchange email account:

1. Launch Microsoft Outlook\* – this can be done on any machine, as there is no requirement to run Outlook on the hub.
2. Press and hold the **Ctrl** key and **right-click** the Outlook system tray icon. You will see two new options in the context menu: Connection Status and Test E-mail AutoConfiguration.
3. Click **Test E-mail AutoConfiguration** and then click **Test** to check the email server configuration.
4. In the **Results** tab, the **Available Service URL** is the Web Service URL (for example, <https://exchange.domain.com/EWS/Exchange.aspx>).

### 2.4 Upload the Skype for Business App Packages

Follow the steps below on a system that is connected to the same network as the Admin Portal server to upload the Skype for Business app packages:

1. Open a web browser (Intel recommends using Chrome\*).
2. Browse to the Admin Portal, <https://<FQDN of Server>/intelunite/admin>.
3. Log into the Admin Portal with an account that has permission to upload packages.
4. Under **Device Management**, click **UPLOAD PACKAGE**.
5. Browse to the location of the Skype for Business app .cab package file.
6. Select the Skype for Business app .cab package file (Skype.Module.cab).
7. Click the **Open** button.
8. Confirm the appearance of the Success message.
9. Repeat steps 4 through 8 for the following .cab package files:
  - ExchangeCalendarReader.Module.cab
  - ScheduleView.Module.cab
  - HPKeyboard.cab
  - CalendarPasser.Client.Module.cab

## 2.4.1 .Cab Package File Functions

This section describes the functions of the packages listed in [Section 2.4](#).

### 2.4.1.1 Skype.Module.cab

This is the Intel Unite® plugin for Skype for Business. It provides the following functions:

- Provides controls to Skype:
  - Join/Leave meetings
  - Volume controls
  - Camera controls
  - Shares content in/from Skype
  - Client UI
- When in a meeting: Displays a partial view that allows the user to leave the meeting.
- When content is available: Displays a presentation view of the camera and/or shared content.
- Meeting list comes from Intel Unite® plugin for Exchange Calendar Reader and/or Intel Unite® plugin for Exchange Calendar Passer.
- (Optional) Displays joinable meetings on the hub display via the Intel Unite® plugin for Schedule View. Only meetings from the Intel Unite® plugin for Exchange Calendar Reader can be displayed on the hub, while meetings from the Intel Unite® plugin for Exchange Calendar Passer module cannot be displayed on the hub.

### 2.4.1.2 ExchangeCalendarReader.Module.cab

This is the Intel Unite® plugin for Exchange Calendar Reader. It provides the following functions:

- Monitors Office 365/Exchange for new meetings.
- (Optional) Accepts/Declines meetings (Manage Calendar).
- (Optional) Displays meetings on the hub screen via the Intel Unite® plugin for Schedule View. This is a list of meetings the hub is attending, regardless of whether or not they have a Skype URL.
- (Optional) Displays toast messages before meetings start.

### 2.4.1.3 ScheduleView.Module.cab

This is the Intel Unite® plugin for Schedule View. It displays a list of meetings on the hub screen in a partial view. The list comes from other plugins. There's an API that allows other plugins to add their meetings to the schedule view.

The Intel Unite® plugin for Exchange Calendar Reader, Skype, and Intel Unite® plugin for Cisco Telepresence send meetings to this plugin.

#### 2.4.1.4 HPKeyboard.cab

This is the Intel Unite® plugin for Skype HP Keyboard. It provides the implementation of the HP Collab Keyboard buttons: join/leave and volume control. In version 3 of the Intel Unite® solution, this functionality was part of the core Skype for Business plugin.



**Caution:** HP's Keyboard driver is not yet fully compatible with the Intel Unite® Plugin for Skype for Business. Work is ongoing with HP to resolve. This package may not function properly.

#### 2.4.1.5 CalendarPasser.Client.Module.cab

This is the Intel Unite® Plugin for Exchange Calendar Passer. It provides the following functions:

- Reads the client's Office 365/Exchange calendar for meetings with Skype URIs and sends them to the Intel Unite® plugin for Skype for Business.
- Does not have a UI or any configurable settings.

### 2.5 Approve the Skype for Business App Package

Follow the steps below on a system that is connected to the same network as the Admin Portal server:

1. Open a web browser (Intel recommends using Chrome\*).
2. Browse to the Admin Portal, <https://<FQDN of Server>/intelunite/admin>.
3. Log into the Admin Portal with an account that has permission to approve packages.
4. Under **Device Management**, click **FEATURES/APPS**.
5. Click the **Package Approval** tab.
6. Click the **Approve** button for Intel Unite® plugin for Skype for Business app package.
7. Repeat Steps 4 through 6 for the rest of the unapproved packages.

### 2.6 Add the Skype for Business App to the Hub Configuration

Follow the steps below on system that is connected to the same network as the Admin Portal server:

1. Open a web browser (Intel recommends using Chrome\*).
2. Browse to the Admin Portal, <https://<FQDN of Server>/intelunite/admin>.
3. Log into the Admin Portal with an account that has permission to create/modify configurations.
4. Under **Device Management**, click **CONFIGURATIONS**.
5. Display the list of hub configurations by clicking **Hub Configurations**.
6. Select a hub configuration to add Skype for Business capability.
7. Click **Edit** for that hub configuration.
8. Click the **plus** sign (+) next to Skype for Business, Exchange Calendar Reader, Schedule View, and HP Conference Keyboard under **Available Features/Apps** and verify that all modules selected are now under **Selected Features/Apps**.
9. Click the **Save Changes** button.
10. Confirm that the hub device is assigned to a hub group that has the hub configuration with Intel Unite® plugin for Skype for Business assigned.

### 2.7 Add the Skype for Business App to the Client Configuration

Follow the steps below on system that is connected to the same network as the Admin Portal server:

1. Open a web browser (Intel recommends using Chrome\*).
2. Browse to the Admin Portal, <https://<FQDN of Server>/intelunite/admin>.
3. Log into the Admin Portal with an account that has permission to create/modify configurations.
4. Under **Device Management**, click **CONFIGURATIONS**.
5. Display the list of client configurations by clicking **Client Configurations**.
6. Select a client configuration to add Skype for Business capability.
7. Click **Edit** for that client configuration.
8. Click the **plus** sign (+) next to Client Passer under **Available Features/Apps** and verify that the module is now under **Selected Features/Apps**.
9. Click the **Save Changes** button.
10. Confirm that the client device is assigned to a client group that has the client configuration with Intel Unite® plugin for Skype for Business assigned.

## 2.8 Install the Skype for Business App on the Hub

Follow the steps below on the hub to install the Intel Unite® Plugin for Skype for Business:

1. Close the Intel Unite® application.
2. Run the Skype for Business for Intel Unite® solution installation msi.
3. In the Exchange Server Configuration window, enter the following information:
  - o Exchange Server Name – This is the Office 365 or the Exchange Web Server URL described in the prerequisites (refer to the example above).
  - o [https:// <outlook.office365.com>/EWS/Exchange.asmx](https://<outlook.office365.com>/EWS/Exchange.asmx), where <outlook.office365.com> is your server name.
  - o Office 365 or Exchange user name for the hub – This is the unique email address for the unique account for the hub.
  - o Enter the password assigned to the Office 365 or Exchange user name for the hub.

 **Note:** To change the above information for an existing installation, rerun the installer and choose **Repair** to set the new values.
4. Click **Test Connection** to ensure the account information is configured correctly, and ensure Skype for Business is running and logged in.
5. If you have the Skype for Business 2016 client, go to **Settings > Tools > Options**; in the **General** tab, uncheck **Show call controls when Skype for Business is in the background**.
6. Launch the Intel Unite® application.
7. Ensure Skype for Business app can automatically join and leave meetings by setting up a test meeting following the steps below:
 

 **Note:** By default, the Skype for Business Client does not automatically join or end meetings.

  - a. Have a keyboard and mouse attached to the hub for this initial setup (you will not be required to have a keyboard and mouse attached after this initial process).
  - b. On a client machine, schedule a Skype for Business meeting for the current date/time, and invite the email address for the hub (use the same email address you used in the previous steps).
  - c. Ensure that the email account for the hub that you sent the meeting invite to accepts the meeting.
  - d. On the client machine, open the Intel Unite® app and connect using the PIN.
  - e. Click on the app icon and select **Join**. This will cause the hub to attempt to join the meeting, but there will be some popup messages. Use the mouse to select **Don't show this again** in the **Join Meeting Audio** screen.

The app has now been installed and can be customized as desired.

## 2.9 Install the Intel Unite® Plugin for Exchange Calendar Passer on the Client

To allow a client to send calendar meeting information to Skype for Business, install the Intel Unite® Plugin for Exchange Calendar Passer client application. If the Intel Unite® Plugin for Exchange Calendar Passer is not installed on a client, Skype for Business will not know when a meeting is scheduled unless the hub device is invited. To install the Intel Unite® Plugin for Calendar Passer client application on the client, complete the following steps (on the client).

1. Close the Intel Unite® application.
2. Run the Intel Unite® Plugin for Exchange Calendar Passer msi.
3. Click **Next** to continue.
4. Accept the License Agreement and click **Next**.
5. Click **Install** to install the plugin.

## 2.10 Configure the Skype for Business App

This section describes the properties for the Skype for Business modules which are installed by loading packages. Refer to [Section 2.4](#) for loading packages. Skype for Business uses the following modules:

Hub Modules:

- Intel Unite® Plugin for Skype for Business Module
- Intel Unite® Plugin for Exchange Calendar Reader Module
- Intel Unite® Plugin for Schedule View Module
- Intel Unite® Plugin for HP Conference Keyboard Module

Client Module:

- Intel Unite® Plugin for Exchange Calendar Passer Client Module

### 2.10.1 Intel Unite® Plugin for Skype for Business Module Properties

The properties that are used to configure Skype.Module are described in [Table 1](#) below.

**Table 1: Skype.Module Properties**

Value	Description	Default
Auto-start Video (Boolean)	Will force the camera state when Skype joins a meeting. True = Start the camera False = Use Skype default	False
Debug (Boolean)	True = Debug mode is enabled. Provides a debug console, a log button, and a toggle button which will allow you to toggle the Intel Unite® app screen transparency so that you can view the log. False = Debug mode is disabled.	False
Dialback Number (String)	Enter the phone number for your conference room. If you set this, you must start the Intel Unite® app so that it can reconfigure Skype, after which you <b>MUST</b> restart Skype for Business or reboot the hub. No value will cause the app to set Skype for Business to use the default audio device.	None
Display selection (String)	Select a monitor to display the UI from the drop-down list.	Auto
Enable dialer (Boolean)	True = Enables the dial-out capability. Only enable this if you have Enterprise Voice enabled for the Skype for Business account that is running on the hub. False = Dial-out capability is disabled.	True
Enable external meetings (Boolean)	True = Support calendar passer. False = Do not support calendar passer.	False

Value	Description	Default
Enable fullscreen messages (Boolean)	True = Shows the meeting list on the hub's Full Screen Interface. False = Hides the meeting list on the hub's Full Screen Interface.	True
Enable room meetings (Boolean)	True = Enables the ability to join calendar events. False = The ability to join calendar events is disabled Note: If you disable this, you will not be able to join scheduled meetings. Only disable if you have Enterprise Voice enabled and you want the app User Interface to only show the Dial-out view.	True
Icon (String)	Specify a valid path to an image. This provides a way for IT departments to customize the icon that is shown in the client app section for the Intel Unite® solution. Note: The account used to run the hub application must have access to the location where the image is located, otherwise the default image will be used.	None
IM the PIN (Boolean)	True = When the hub has joined a Skype for Business call, the app will Instant Message (IM) the PIN of the hub every time the PIN changes. False = The app will not IM the PIN of the hub when changes occur.	False
Minutes to toast on meeting end (Integer)	The duration in minutes that the end of meeting toast message is displayed.	10
Muted Option (String)	Will force the microphone mute state when Skype joins a meeting. Select from drop-down list. Available options are listed below. none = Use Skype default mute = Start muted unmute = Start unmuted	None
Name (String)	This provides a way for IT departments to customize the name that is displayed in the app section of the client for Intel Unite® solution (just below the icon). You can provide any string. If not specified, the default app name will be: "Skype™ for Business"	None
Screenshare Display (String)	Display used for shared content. Select from drop-down list of available displays.	Display 1
Toast incoming IMs (Boolean)	True = The app will receive an incoming IM and show the message as a toast message on the hub. False = The app will not receive incoming IMs.	False
Toast on meeting end (Boolean)	Display a toast message indicating that the meeting has ended and that the Skype session should hang up. True = Display toast message at the end of the meeting. False = Do not display toast message at the end of the meeting.	False
URL keywords (String)	If your Skype for Business infrastructure overrides the default SimpleURL format, you can specify additional keywords here to search for Online Meetings in calendar invites.	None
Video Display (String)	Display used for video streaming. Select from drop-down list of available displays.	Display 1

## 2.10.2 Intel Unite® Plugin for Calendar Reader Module Properties

The properties that are used to configure EffectiveMeetings.Module are described in [Table 2](#) below.

**Table 2: EffectiveMeetings.Module Properties**

Value	Description	Default
Debug (Boolean)	True = Enable the use of a log for extra information. False = Disable the use of a log for extra information.	False
Enable fullscreen message (Boolean)	True = Enables the showing of the meeting list on the hub's Full Screen Interface False = Disables the showing of the meeting list on the hub's Full Screen Interface	False
Exchange check interval (Integer)	Number of seconds between Exchange server checks.	300
Manage calendar (Boolean)	True = Enable automatic acceptance of meeting invitations False = Disable automatic acceptance of meeting invitations.	True
Room email (String)	User name of the room's Exchange account.	None

### 2.10.3 Intel Unite® Plugin for Schedule View Module Properties

The properties that are used to configure ScheduleView.Module are described in Table 3 below.

**Table 3: ScheduleView.Module Properties**

Value	Description	Default
Debug	True = Enable the use of a log for extra information. False = Disable the use of a log for extra information.	False
Show hub view (Boolean)	True = Display the meeting list on the hub False = Hide the meeting list on the hub.	True
Show toast messages (Boolean)	True = Display toast messages before a meeting. False = Hide toast messages before a meeting.	False
Minutes before start of meeting alert (Integer)	Number of minutes before the start of meeting to show toast message.	5
Toast duration (Integer)	Duration of toast messages in seconds.	30
Toast frequency (Integer)	How often, in seconds, to toast message.	30

### 2.10.4 How to Edit Skype for Business App Properties

Follow the steps below to access and edit the Skype for Business app properties:

1. Log into the Admin Portal.
2. Navigate to the **Hubs and Clients** page.
3. Click the **Hub** tab to display the groups and devices.
4. Select the group that has the Skype for Business app.
5. Select **Group Details** from the select action drop down menu.
6. Click **Edit Properties**.
7. Scroll down to edit the properties for Skype for Business.
8. Click **Save Changes**.



**Note:** The steps above modify the properties for the selected group, which will be applied to all devices assigned to the group.

### 2.10.5 Windows Audio Properties

The Windows sound communications properties can be set to alter the audio volume when joining a Skype meeting.

Possible audio behaviors when joining a Skype meeting are listed below:

- Mute all other sounds
- Reduce the volume of the other sounds by 80%
- Reduce the volume of the other sounds by 50%
- Do nothing

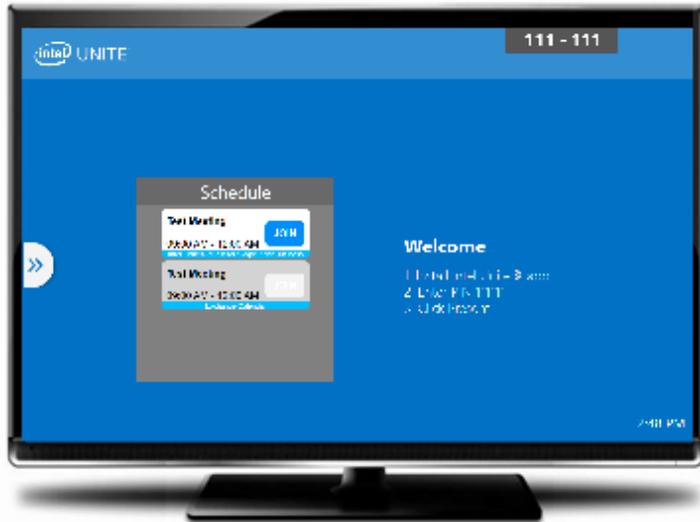
Follow the steps below to set the audio behavior when joining a Skype meeting.

1. Right-click on the **sound icon** in the notification area of the Windows taskbar.
2. Select **Sounds**.
3. Open the **Communications** tab.
4. Select the desired behavior.
5. Click **OK**.

### 3 Enable Skype for Business on the Client Device

Once a Skype for Business meeting is scheduled by inviting the user name/Office 365/Exchange account of the hub and the meeting invite is accepted by the hub, the Online Meeting message will be displayed on the screen 10 minutes before the meeting starts and will last until the meeting ends.

Figure 1: Hub Display of Skype for Business Meetings



When meeting participants enter an Intel Unite® solution-enabled room with a hub that accepts Skype for Business meeting invites, use the following steps to join the meeting.

1. Open the Intel Unite® app and enter the PIN displayed on the hub.
2. Click **Skype for Business**.
3. Click **Join** for the hub to join the Skype for Business meeting.
4. If audio or video devices are attached and are available to Skype for Business, users connected to the Intel Unite® app will be able to control those devices by clicking on icons in the client UI.
5. If the Skype for Business icon is not displayed on the Intel Unite® app (on your client machine), there is no Skype meeting scheduled, or it has already ended. If there is a Skype meeting scheduled, verify that it has been accepted by the hub.
6. If enabled by the IT department or the system administrator, the app will also display a phone dial icon, enabling users to call other participants with the "Dial-out" functionality.

Once connected to a Skype meeting, the following controls will be displayed at the bottom, from left to right:

- Toggle camera output to hub on/off
  - 📄 **Note:** Only available when the camera is on.
- Toggle camera on/off
- Microphone volume down
- Microphone volume up
- Mute microphone
- Exit meeting

## 4 Key Features

This section describes the key features of the Intel Unite® plugin for Skype\* for Business.

### 4.1 Scheduled Skype\* for Business Meetings

When using Microsoft Outlook\* to schedule a meeting, the app will help manage the Office 365/Exchange calendar by accepting meetings. It will not accept meetings which conflict with previously scheduled meetings.

Meetings can be canceled, extended or shortened. The Skype for Business app must be running on the hub to accept all meeting changes and update the information on the calendar. If a meeting is sent to the app while the hub is offline, it will be declined when the hub comes back online, regardless of the validity of the meeting request.

Alternatively, you can have a different system manage the calendar invites. To disable the app from managing the calendar, you must set the correct configuration (refer to [Section 2.10](#) for details).

### 4.2 Joining a Skype for Business Meeting

When a scheduled Skype for Business meeting is in progress, users connected to the Intel Unite® app will be able to join the hub to the Skype for Business meeting using the Skype for Business app.

Users are allowed to join a meeting up to 10 minutes before the start time. Once a meeting is available, the app icon will indicate that the meeting is ready. In addition, the hub will display the meeting subject and time in the blue status bar at the bottom.

To connect to a meeting from the Intel Unite® app, click the app icon and select **Join**. A toast message will be displayed on the hub indicating that the room is joining the meeting, and the Skype for Business window should open in full screen within five seconds.

### 4.3 Answering a Skype for Business Call

When a Skype for Business user initiates an audio or video call with the hub running the Intel Unite® app, users connected to the Intel Unite® app will be able to answer the call. When this happens, a message will be displayed on the hub with the name of the person initiating the call. To accept the call, click on the app within the Intel Unite® app and select **Answer**. The Skype for Business window should open in full screen within five seconds.

### 4.4 Sharing Content

When content is shared by a Skype for Business participant, the content will be displayed on the primary display attached to the hub for participants to view. When content is shared by a client for Intel Unite® solution, the hub will share that content to the Intel Unite® application, and it will be displayed for all the meeting participants.

### 4.5 Video Control

If a Skype for Business-enabled camera is attached to the hub, users attached to the Intel Unite® app will be able to start and stop the video through the Skype for Business app. To do this, click the Skype for Business app icon within the Intel Unite® app, then click the **Camera** button.

### 4.6 Audio Control

When a Skype for Business-enabled audio device is attached to the hub, users attached to the Intel Unite® app will be able to change its volume and mute/unmute it using the Skype for Business app. To do so, click the Skype for Business app icon in the Intel Unite® app, select the **Microphone** button, and adjust the volume or mute/unmute as needed.

## 4.7 Dial-Out

For hubs that have a Skype for Business account with enterprise voice enabled, you can enable a dial pad within the Skype for Business app which will allow users connected to the Intel Unite® app to dial phone numbers. To use this feature, enable the Dial-out configuration option (refer to [Section 2.10](#) for details).

## 4.8 Ring Back

This feature configures the hub so that Skype for Business will ring back the existing phone in the room every time the hub connects to a scheduled meeting. To use this feature, the Skype for Business solution must have the ability to dial phone numbers.

## 4.9 Camera/Microphone Auto-Start

When Skype for Business joins a meeting, typically the default state of the camera is off, and the microphone is muted. To enable a more automatic user experience, this Skype for Business app allows you to specify the desired default state of the camera and microphone when Skype for Business joins a meeting (refer to [Section 2.10](#) for details).

## 5 Known Issues

This section describes currently-known issues and bugs for the Skype\* for Business plugin.

### 5.1 Text Anomalies Appear on Android Tablets When Displaying Copyright and Trademark Symbols

On Android tablets, text anomalies may appear when displaying copyright and trademark symbols.

**Example:** Intel Unite® Plugin for Skype®, for Business

### 5.2 Screen Sharing Fails When Using Microsoft Office\* 365 and Lync\* 2016

Skype for Business screen sharing can use either Video-based Screen Sharing (VbSS) or Remote Desktop Protocol (RDP).

**Possible resolution:** For systems that fail using Skype for Business version 16.0.6741.2025 or greater, add the following registry keys to switch the protocol from VbSS to RDP.

**Registry Path:** HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Lync

**Key Name:** EnableConferenceScreenSharingOverVideo (DWORD) set to 00000000

**Registry Path:** HKEY\_CURRENT\_USER\Software\Microsoft\Office\16.0\Lync

**Key Name:** EnableP2PScreenSharingOverVideo (DWORD) set to 00000000

### 5.3 Screen Sharing and Camera Fails when Microsoft Lync Runtime Assemblies are Installed in .Net Global Assembly Cache (GAC)

In order for the camera and screen share to work, while Lync is set to UI suppression mode, the Lync runtime requires that the user that runs it have write access to the folder where the runtime assemblies are installed. The GAC is protected and requires the user to be in “Run as Admin” mode to have write access. .NET Framework always uses assemblies in the GAC first. If the Lync runtime assemblies are there the plugin will use it, rather than the Lync runtime assemblies in its own folder.

Follow the steps below to determine if Lync runtime assemblies are installed in the GAC:

1. Open a command prompt window (press **Windows+R**, type **CMD**, then press **Enter**).
2. At the command prompt, type: `cd %windir%`
3. At the command prompt, type: `dir /s Microsoft.Lync.Model.dll`
4. At the command prompt, type: `dir /s Microsoft.Lync.Controls.dll`
5. At the command prompt, type: `dir /s Microsoft.Lync.Utilities.dll`

If any of the items listed above are found, screen sharing and camera will fail.

**Possible resolutions:**

1. Uninstall Lync runtime assemblies.
2. Manually remove the files that were discovered above. Sometimes these files are installed, but Lync runtime assemblies are not listed in Control Panel->Programs and Features. These files can be manually removed from the GAC.



**Warning:** If the Lync runtime assemblies are installed by another program, the program may no longer be fully functional after removing the Lync runtime assemblies from the GAC.

## 5.4 Hubs Without Audio Devices Can Not Join Skype\* for Business Meetings

Skype\* for Business requires an audio device for the plugin to function properly. When it loads on the hub, Skype for Business looks for a connected audio device. If there is no audio device connected, the hub will not be able to join the meeting, and the following issues will occur :

- Upon clicking **Join**, the hub will appear to have joined the meeting, but was unsuccessful.
- There is no timeout, and no error message will be displayed.
- No meeting details will be displayed.
- The **End Meeting** button will not work.

Hubs can be configured to use a virtual audio device as a workaround to this issue.



**Note:** Although the hub will be unable to join the Skype meeting without an audio device, client functionality is unaffected. Users can still join the meeting from their clients even if the hub does not have an audio device.

## 5.5 Modern Authentication Causes Skype to Hang while Signing In

Skype for Business uses elements of the user interface when prompting for modern authentication. Because the Intel Unite® plugin for Skype for Business requires Skype to be in UI Suppression Mode to function properly, Skype may hang on while signing in when attempting to authenticate. To resolve this issue, Skype can be configured to use Microsoft Sign-In Assistant libraries to authenticate instead of using modern authentication. Follow the steps below to configure Skype to use Microsoft Sign-In Assistant Libraries:

1. Close Skype if it is currently running, then open Registry Editor.
2. Navigate to `HKCU\SOFTWARE\Microsoft\Office\16.0\Common\Identity`, create a new DWORD named `EnableADAL`, and set its value to 0.
3. Navigate to `HKCU\SOFTWARE\Microsoft\Office\15.0\Common\Identity`, create a new DWORD named `EnableADAL`, and set its value to 0.
4. Set `Computer\HKEY_CURRENT_USER\Software\Microsoft\Office\16.0\Lync\UISuppressionMode` value to 0.
5. Set `Computer\HKEY_CURRENT_USER\Software\Microsoft\Office\15.0\Lync\UISuppressionMode` value to 0.
6. Open Skype, log in, then exit Skype.
7. Set `Computer\HKEY_CURRENT_USER\Software\Microsoft\Office\16.0\Lync\UISuppressionMode` value to 1.
8. Set `Computer\HKEY_CURRENT_USER\Software\Microsoft\Office\15.0\Lync\UISuppressionMode` value to 1.