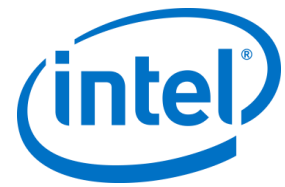# Intel® Unite™ Solution

Plugin Guide for Skype for Business*

June 2016

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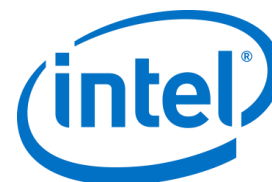
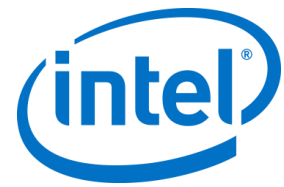© 2016 Intel Corporation. All rights reserved.

Table of Contents

1   Introduction

Welcome to the guide for the Intel® Unite™ Plugin for Skype* for Business.

The guide contains detailed instructions on installing the plugin for Skype for Business as well as information on the key features of the Intel Unite plugin.

1.1   Audience

This document is designed for use by IT professionals within a corporate environment, who are responsible for installing the Intel Unite software and adding optional features to the application.
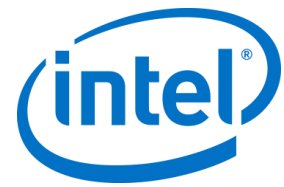
2   Overview

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

An IT department that uses Microsoft Exchange* will add an Exchange account for the Intel Unite solution enabled room, which will allow meeting organizers to schedule the room just like any other resource. By default, the plugin will manage calendar invites, accepting new meetings and updated meetings, and declining invites that conflict. Alternately, you can disable this functionality in the plugin and manage the calendar using existing tools.

When meeting participants enter an Intel Unite solution enabled room that has the plugin installed and has a meeting scheduled, they will enter the PIN, click on the **Intel Unite Plugin for Skype for Business**, and select **Join**. This action will cause the Hub to join the Skype for Business meeting.

When Skype for Business Participants share content, the Hub will display the content, full screen in the room so that Intel Unite client participants can view. When the Intel Unite client participants share content, the Hub will share that content to the Skype for Business meeting.

In addition, if audio or video devices are attached and available to Skype for Business, users connected to the Intel Unite application will be able to control those devices through the plugin for Skype for Business.
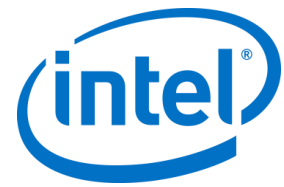
3　Installation

3.1　Pre-requisites

The Intel Unite Plugin for Skype for Business is installed on the Hub and has the following additional requirements:

- **A Microsoft* Exchange* email account (Exchange 2010 or greater) and access to the Exchange Web Service (https://<server>/EWS/Exchange.asmx)**

  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 plugin will manage calendar invites, sending accept messages for new and updated meetings, and sending decline messages for invites that conflict with existing schedules. Alternately, you can disable this functionality from the plugin and use your own tools to ensure the calendar is accurate.

- **Skype for Business installed, running, and automatically signed in on startup (Skype for Business 2013 or greater)**

  Skype for Business needs to be set to launch automatically, and sign in automatically. The Plugin will not automate logging into Skype for Business.

  Note: Ideally, the Microsoft Exchange and Skype for Business account is the same.

- **Version 2.0 or greater of the Intel Unite software for the Hub**
- **Ensure that the plugin is trusted:**
    - **Enterprise Mode:** Refer to the Intel Unite Solution Enterprise Deployment Guide
    - **Standalone Mode:** Refer to the Intel Unite Solution Standalone User Guide
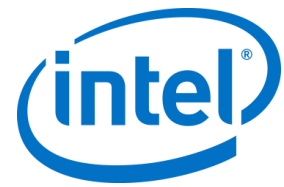
3.2 Installation of the Intel Unite Plugin for Skype for Business

3.2.1 Using the Installer

On the Hub:

1. Close the Intel Unite application.
2. Run "Intel® Unite® Plugin for Skype™ for Business.msi".
3. Enter the Exchange Server URL:

   Example: https://exchange.example.com/ews/exchange.asmx

4. Enter the unique email address for the unique Exchange account for the Hub:
   Example: room101@example.com
5. Enter the password for the email address.
6. Select **Test Connection** to ensure the account information is configured correctly.
7. Ensure Skype for Business is running and logged in.
   a. If you have the Skype for Business 2016 client, you need to open **Settings** > **General** and uncheck **Show call controls when Skype for Business is in the background**.
8. Start the Intel Unite application

Additional Skype for Business client settings

By default, the Skype for Business Client does not automatically join or end meetings. To ensure the plugin can automatically join and leave meetings, you will need to setup a test meeting and select a few options when the Skype for Business client starts:

1) Ensure you 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)
2) 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)
3) Connect to Hub using the Intel Unite client app
4) Click on the plugin icon and select Join. This will cause the hub to attempt to join the meeting but there will be some popup messages. Using the attached mouse, select **Don't show this again** in the Join Meeting Audio screen.
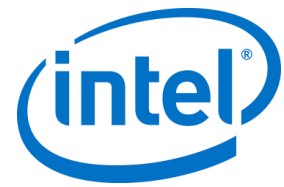
3.2.2 Finding Required Exchange Server information

If you have an exchange email account, but you are unsure of how to get the Exchange Web Service URL, you can follow these steps:

1. Launch Outlook. (Note: Outlook is not required to run on the hub, you can run this on any machine)
2. Press and hold the **Ctrl** key and right-click on the Outlook system tray icon.
3. You will see two new options in the context menu: **Connection Status** and **Test E-mail Auto Configuration**.
4. Click on **Test E-mail Auto Configuration** and then **Test** to check the email server configuration.
5. In the **Results** tab take note of the **OOF URL** to use as the server URL for the plugin (e.g. https://exchange.domain.com/EWS/Exchange.aspx).

3.2.3 Customizing Your Installation

This plugin allows you to customize the icon and name so that you can easily tailor the user experience to your organization's conventions. Refer to the registry settings in Appendix A for customization options.

If you need to change the Exchange username or password after installation, you have two options:

1) Uninstall and re-install the plugin
2) Manually update the configuration file. Please refer to Appendix B for directions on how to do this.
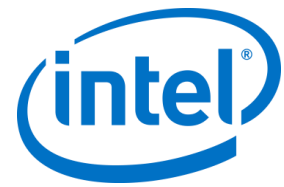
4 Key Features

4.1 Scheduled Meetings

When users use Microsoft Outlook* to schedule a meeting, the plugin will help manage the exchange calendar by accepting meetings. It will not accept meetings which conflict with previously scheduled meetings.

Meetings can be modified in order to cancel, extend or shorten them. The plugin for Skype for Business 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 plugin while the Hub is offline it will be rejected when the Hub comes back online regardless of the validity of the meeting request.

Alternately, you can have a different system manage the calendar invites. To disable the plugin from managing the calendar, you must set the correct registry key (see the table in Appendix A).
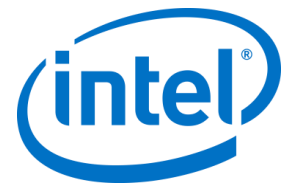
4.2 Join a Skype for Business Meeting

When a scheduled Skype for Business meeting is in progress, users connected to the Intel Unite application will be able to join the Hub to the Skype for Business meeting using the plugin for Skype for Business.

Users are allowed to join a meeting 10 minutes before the start time. When a meeting is available, the plugin icon will show an indicator that a 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 on the plugin icon and select "Join". A toast message will be displayed on the hub indicating that the room is joining the meeting, and within 5 seconds the Skype for Business window should be full screen and in front.

4.3 Answer a Skype for Business Call

When a Skype for Business user initiates an audio or video call with the hub running the Intel Unite application, users connected to the Intel Unite app will be able to answer the call. When this happens, a message is displayed on the hub with the name of the person initiating the call. To accept the call,

click on the plugin within the Intel Unite app and select **Answer.** Within 5 seconds, the Skype for Business window should be full screen and in front.

4.4   Share Content

When content is shared by a Skype for Business participant, the content will be displayed on the Hub on the attached primary display and to all Skype for Business participants. Content shared by an Intel Unite client will be displayed on the Hub of the Intel Unite application and to all Skype for Business meeting participants.

4.5   Video Control

If a Skype for Business-enabled camera is attached to the Hub, users attached to the Intel Unite application will be able to start and stop the video through the plugin for Skype for Business. To do this, click on the plugin icon within the Intel Unite app, and click on 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 application will be able to mute and unmute the microphone through the plugin for Skype for Business. To do this, click on the plugin icon in the Intel Unite app, and select the microphone button.
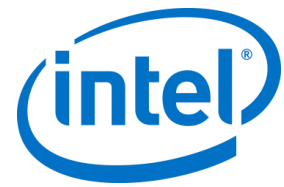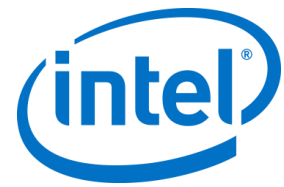
5   Usage

Prerequisite: Schedule a Skype for Business meeting and include the Skype for Business account for your desired Hub using the Intel Unite application in the meeting invite.

The primary usage flow is shown below:

1. Open the Intel® Unite app and enter the PIN.
2. Click on **Skype for Business**.
3. Click **Join**, the hub running the Intel Unite app will join the scheduled Skype for Business meeting.

The following meeting controls will be available:

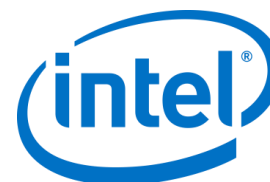- Microphone On/Off
- Camera On/Off
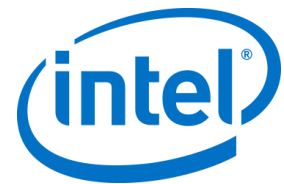- End Meeting

6   Troubleshooting

This section will walk you through common issues, possible causes, and their resolution.

ISSUE	POSSIBLE CAUSES & RESOLUTION
The plugin does not appear in the Intel Unite app or The plugin appears but when you click in the plugin window it says, "Not Connected"	There are a few reasons that can happen. The easiest way to determine what is happening is to enable debug mode for the plugin and launch Intel Unite in debug mode. To enable debug mode for the plugin, refer to the registry setting in Appendix A. To launch the Intel Unite app in debug mode, open a command window and launch Intel Unite.exe with the debug flag by typing the following (including the quotes): "C:\Program Files (x86)\Intel\Intel Unite\Hub\Intel Unite.exe" /debug There will be 2 debug consoles, one looks like a text document and is the Intel Unite app console, the other is a window that looks like a CMD window and will give more information. Possible issues and resolutions: 1) The plugin is not trusted For the Enterprise version, refer to the Enterprise Deployment Guide. For the Standalone version, refer to the Standalone User Guide 2) The plugin was unable to connect to the Exchange Server Uninstall/Reinstall the plugin and ensure you use the "Test Connection" button to ensure you have the correct settings. 3) The plugin was unable to interact with Skype for Business Ensure Skype for Business is installed and logged in before the Intel Unite app starts on the hub.

The Join button doesn't appear inside the plugin window	This indicates that the plugin doesn't find a Skype for Business meeting in the current schedule. Verify that a Skype for Business meeting is scheduled for the current time and was accepted by the Skype for Business user associated with the Hub you are connected to. Verify that the Skype for Business URL is not included in the body of the email. For this plugin to work, the "Join" URL must be included in the body of the email.
The Join button appears, but doesn't do anything	This indicates that the plugin is unable to launch the meeting. To join a meeting, the Plugin attempts to launch the meeting using Internet Explorer (on the hub). Ensure that Internet Explorer is installed. In addition, you can enable debug mode, which will give you an additional "Toggle" button which will allow you to toggle the screen (which hides Intel Unite) and attempt to join the meeting. In doing so, you may be able to better identify if Skype for Business is failing to join the meeting for a different reason.
The scheduled meeting was not accepted or declined by the plugin for Skype for Business.	The system may have been offline when the meeting invite was sent or the Skype for Business app was not installed. Close the Intel Unite application. Verify that Skype for Business is running and logged in as the appropriate user and then start the Hub of the Intel Unite app. Resend the meeting invite and verify that the meeting was accepted.

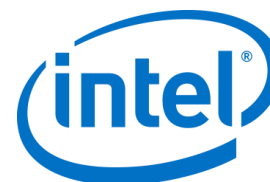|	
The Camera and/or Microphone controls do not show up inside the plugin window.	The plugin will only show the Camera and Microphone buttons when connected to a meeting, and only if Skype for Business is configured to use the devices. To troubleshoot this, you may need to re-configure Skype for Business to use the devices.
Somebody requested control through Skype for Business while the Hub was presenting	When this happens, the request will eventually time out. The plugin currently doesn't handle these types of requests.

7　　　Appendix A

The following registry keys can be added to help you debug your installation. Note: This key doesn't exist by default, you may need to create it.
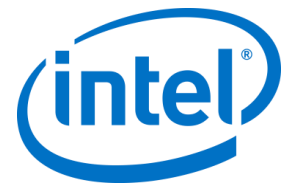
Registry Key: HKLM\Software\Intel\Unite\S4BPlugin

Values:

Value	Description	Default
Debug (dword)	1 = Enable Debug When debug mode is enabled, it will provide 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.	0 (Debug disabled)
ManageCalendar (dword)	0 = The plugin won't manage the calendar 1 = The plugin will manage the calendar By default the plugin will manage incoming calendar invites (accepting and declining invitations) to ensure that there are no conflicts. IT departments may want to use a different tool or method to manage the calendar, so this setting provides a way to disable the default functionality.	1 (Plugin will manage the calendar)

| 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 Intel Unite client plugin section.

Note: Instead of the registry, you can also place an image named "s4bpluginicon.png" in the plugin directory (C:\Program Files (x86)\Intel\Intel Unite\Hub\Plugins\s4bplugini con.png) | Use built-in default icon |
| --- | --- | --- |
| Name (string) | This provides a way for IT departments to customize the name that is displayed in the Intel Unite client plugin section (just below the icon). You can provide any string. | Use the built-in default name (the application will detect if the client is Lync or Skype and will display the text accordingly):

Intel® Unite™ Plugin for Skype™ for Business

Intel® Unite™ Plugin for Microsoft® Lync® |

8   Appendix B

This section describes the XML settings file the plugin will read to connect to exchange.

The settings file is located in the same directory as the plugin and is generated during installation. It is located in C:\Program Files (x86)\Intel\Intel Unite\Hub\Plugins\ExchangeServerConfiguration.xml.

During installation, the username and password are encrypted to the local system using the Microsoft Data Protection API. You need to make sure that you properly secure this file.

If you want to update the username/password post installation, you can follow these steps:

1) Exit the Intel Unite app on the hub
2) Ensure that the user making changes has write access to the settings file
3) Edit the settings file:
    a. Modify the XML elements
       <email>yourNewAddress@yourdomain.com</email>
       <password>yourNewPassword</password>
    b. Add or modify the following XML Element
       <encrypt>true</encrypt>
4) Start the Intel Unite application (when the plugin starts, it will re-encrypt the username/password fields and set <encrypt> to false
5) If you changed file settings, you will need to re-secure the settings file