Administering Avaya Microsoft Lync Integration on IP Office™ Platform

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Chapter 1: New in this Release

The following section details what's new in *Administering Lync Integration on IP Office* (02–604119) for Release 9.1.

Support for Disconnected state

Lync Integration displays the Disconnected state when the connection to Lync Integration is lost.

Support for Lync 2013

As of Release 9.0.3, Lync Integration for IP Office can be deployed with a Microsoft Lync 2013 (32 bit or 64 bit) client. In this release, this document has been updated to reflect support for Lync Integration 2013.

Support for Avaya Communicator for Windows integration

Avaya Communicator for Windows on IP Office can be set to interwork with Lync Integration. When Avaya Communicator for Windows integration is enabled, you can make calls with Avaya Communicator for Windows and use Lync Integration to control these calls.

Support for Windows XP

Lync Integration does not support Windows XP.

Chapter 2: Introduction

Administering Lync Integration on IP Office (02–604119) provides the information needed to administer Avaya IP Office deployments on Lync Integration.

Lync Integration is intended for a network environment where the Microsoft Lync Server is deployed. Lync Integration is a client side add-in to the Microsoft Lync 2010 and 2013 clients.

Terminology

Avaya product names:

The following product names are used for Lync Integration:

- Avaya Lync Integration
- Lync Integration

Microsoft product names:

The following product names are used for the Microsoft Lync solution:

- Microsoft Lync Server 2010 or 2013
- Lync Server 2010 or 2013
- Microsoft Lync 2010 or 2013 (client)
- Lync 2010 or 2013 (client)

Related Links

Support

Go to the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Related Links

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About this task

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Procedure

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  - In **Search**, type `Avaya Mentor Videos` to see a list of the available videos.

  - In **Search**, type the product name. On the Search Results page, select **Video** in the **Content Type** column on the left.

- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:

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  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the website.

  😊 **Note:**

     Videos are not available for all products.

Related Links

Introduction on page 8

Chapter 3: Lync Integration overview

Network administrators can use their Microsoft Lync 2010 or 2013 network infrastructure to enhance existing communication services. Administrators of Microsoft networks can provide unified communication services to the Lync clients utilizing their IP Office communications infrastructure.

Lync Integration interacts with the Lync 2010 or 2013 client directly using Microsoft supported APIs. All telephony capabilities are integrated directly among Lync Integration, Avaya IP Office, and the Microsoft Lync 2010 or 2013 client. The Avaya solutions telephony capabilities with the Lync client require only a Standard CAL (license), eliminating the need for a Microsoft voice infrastructure and the Microsoft Lync Enterprise CAL. Remote Call Control and Enterprise Voice must be disabled on the Lync server.

Related Links

Language support

Lync Integration supports the following languages:

- English
- French, International
- German
- Italian
- Japanese
- Korean
- Portuguese, Brazilian
- Russian
- Spanish, International
- Chinese, Simplified

Lync Integration features

The solution supports the following functionality.

- Make Calls from Contact list, or search dialog box utilizing contacts published numbers.
- Publish Telephony Presences on behalf of the user when their client is signed in and on a call.
- Display a Conversation window with the following mid-call functionality:
  - Release/End call.
  - Place call on Hold and Retrieve call.
  - Insert DTMF digits in to an established call.
- Handling multiple calls.
  - Support for multiple calls.
  - While on a call, start a Call Transfer.
  - Call waiting pop-up display.
- Display an incoming call window with the following functionality:
  - Indicate the Incoming Caller line ID or Caller name.
  - Allow the user to answer or decline the call. If voicemail is enabled on the user's desk phone, a declined call is automatically transferred to voicemail.
  - Allow the user to disconnect an active call.
  - While on a call, indicate that another call is waiting. Answering this call places the first call on hold.
- Support for Telecommuter mode using Avaya one-X® Portal for IP Office.
  - Users can make and receive calls using their mobile or home phone instead of their desk phone.
  - When making calls, the user's desk phone number appears on the callee's call display.
- Integration with Avaya Communicator for Windows. This feature allows you to control calls made with Avaya Communicator for Windows using Lync Integration.

✱ Note:

When you install the Lync Add-in, the **Audio Device** and **Video Device** tabs are removed from the Lync **Options** menu. You cannot use audio and video devices, such as microphones and cameras, with the Lync Add-in.

Lync Integration network

The Microsoft Lync client may be deployed within an Enterprise, on premise, or within a Hosted Office 365 deployment. Avaya Microsoft Lync Integration will inter-operate with Lync 2010 or 2013

clients deployed on the user's computer. The following diagram represents Avaya Lync Integration deployed within an Enterprise. For more information about Lync Integration deployed in a hosted service configuration, see Lync Integration support for Microsoft Office 365 on page 13.
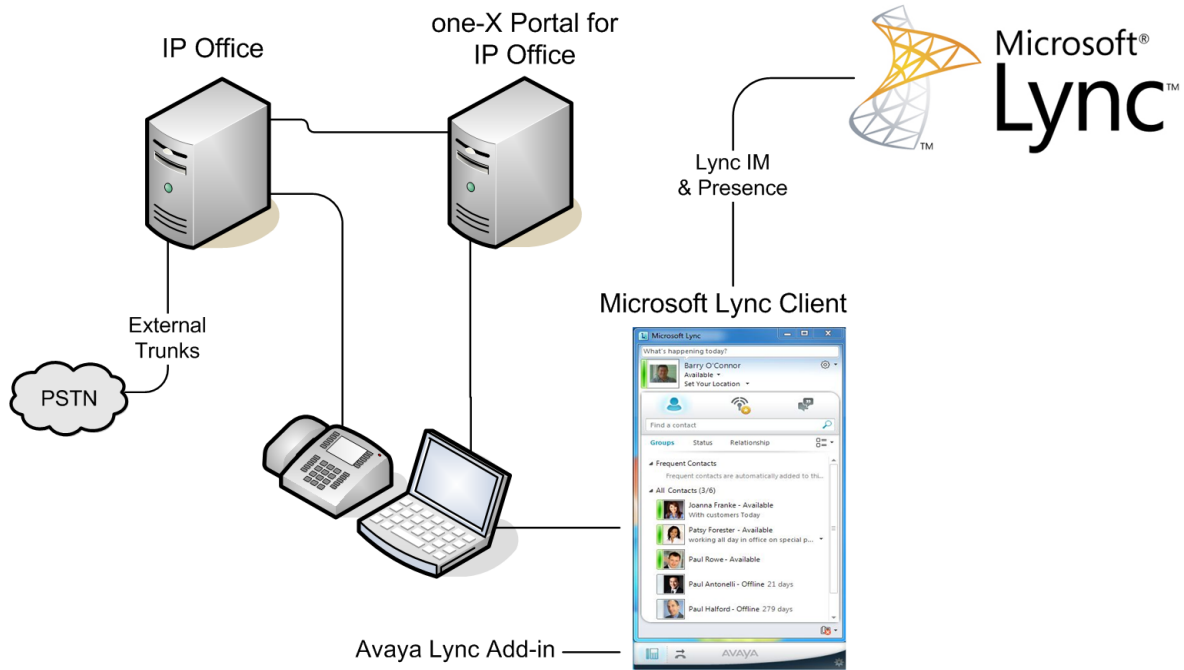
Figure 1: Avaya Lync Integration deployed in an Enterprise

Lync Integration support for Microsoft Office 365
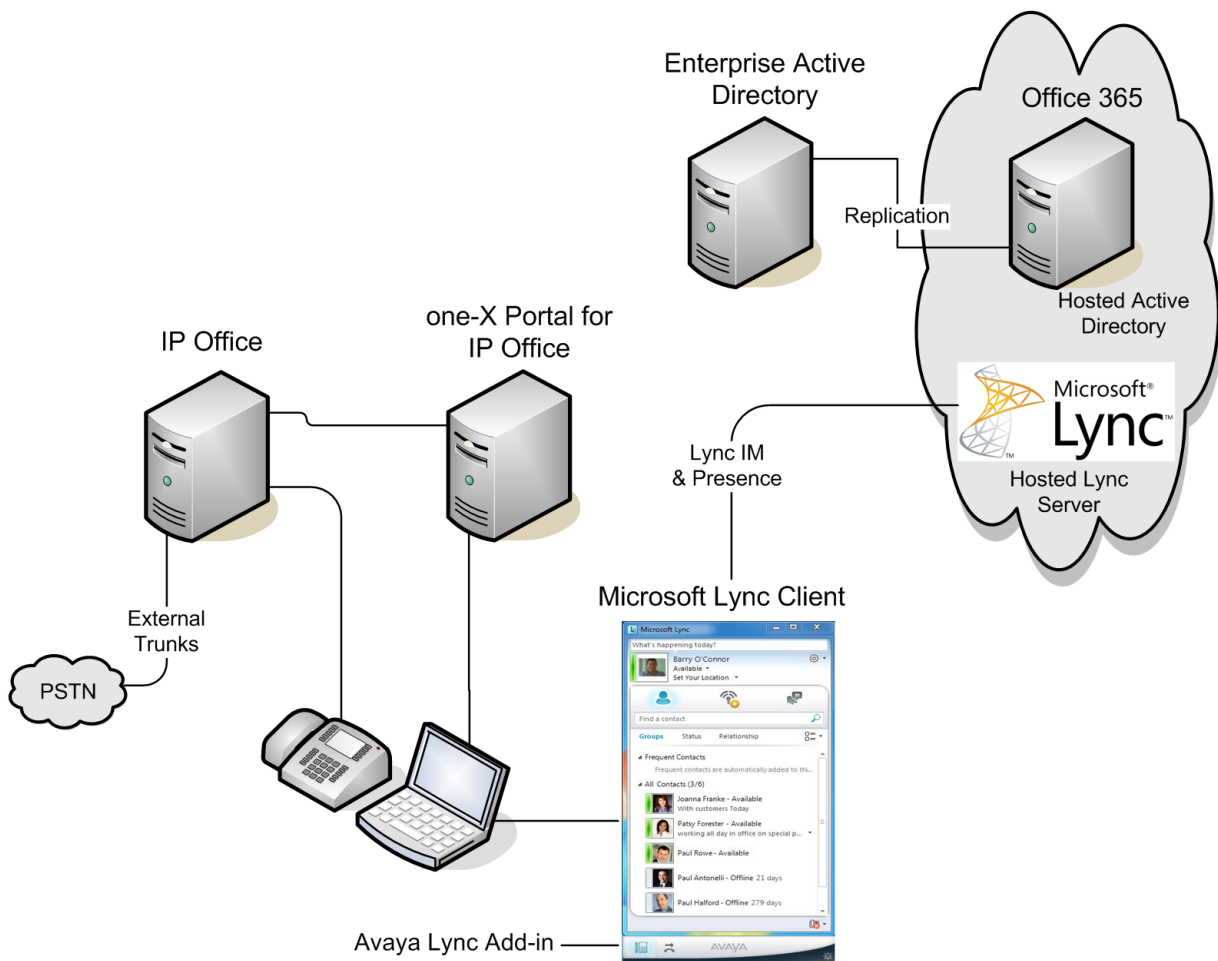
Figure 2: Avaya Lync Integration deployed in a Microsoft Office 365 environment

Authentication within an Office 365 deployment for IP Office

Once the Lync client is successfully logged in, Lync Integration starts. Upon verifying that the published work number of the user matches the Lync Integration extension, authentication occurs between the Avaya UC engine and the Avaya IP Office.

Chapter 4: Lync Integration key components

Lync Integration features the following key components

Related Links

Microsoft Lync client

Microsoft Lync is the unified communication desktop client providing IM and presence capabilities to the overall solution. Microsoft's Lync server delivers IM and presence aggregation services to the end user.

Users can use one of the following Lync clients:

- Lync 2010 client (standard)
- Lync 2013 client (standard)
- Lync 2013 Basic client

Related Links

Lync Integration

This is a client side add-in to Microsoft Lync 2010 and 2013. It utilizes the Lync client user interface to drive Avaya Voice capabilities to the end user. Lync Integration operates in Desk Phone mode. In the Phone mode, it provides CTI control over the end user's desk phone.

To use Lync Integration on the Lync 2013 client, you must download the minimum patch available at http://support.microsoft.com/kb/2825630.

Related Links

[Lync Integration key components](#) on page 14

Microsoft Lync Server

The Microsoft Lync server provides the end user with IM and Presence aggregation functionality. Lync Integration builds on this Lync functionality and its Lync client user interface to deliver an Avaya voice experience.

Related Links

[Lync Integration key components](#) on page 14

Service provider

The following service providers are supported with Avaya IP Office based Lync Integration deployments:

- IP Office
- Avaya one-X® Portal for IP Office

Related Links

[Lync Integration key components](#) on page 14

Supported phones

Lync Integration for IP Office supports all IP Office phones. However, the following limitation applies for analog phones.

- You cannot answer incoming calls through Lync Integration. You must answer the call from your desk phone.

Related Links

[Lync Integration key components](#) on page 14

Deploy Lync Integration on the desktop

Prerequisites

The machine where Lync Integration is installed must meet the following requirements:

Table 1: Hardware requirements

Processor	2 GHz
Memory	• 2 GB (32 bit)
	• 4 GB (64 bit)
Disk space	500 MB
Connectivity	Download bandwidth: 80 kbps
	Upload bandwidth: 80 kbps

Table 2: Software requirements

Operating Systems	Microsoft Windows 7
	Microsoft Windows 8 and 8.1
	✴ **Note:**
	Apply the latest Microsoft patch to Windows 8
Microsoft .Net	Release 4.0 or higher
Microsoft Lync Client	Microsoft Lync 2010 version 4.0.7577.4103 or higher
	Supports Microsoft Lync 2010 (32 bit) platform
	Microsoft Lync 2013 version 15.0.4535.1507 or higher
	Supports Microsoft Lync 2013 (32 & 64 bit) platforms

Related Links

Chapter 5: Lync Integration services

Lync Integration is an add-in application that extends Microsoft Lync 2010 and 2013 functionality using Lync supported APIs.

Integrating Lync Integration with Microsoft Lync enables telephony services in the Lync client. Lync Integration customizes and configures the Lync client as part of its installation.

😊 **Note:**

If you are using the Lync client over a Microsoft Remote Desktop session, it is recommended that you use Remote Desktop client version 6.1.7600.16385 or higher. Remote Desktop client software is available from the Microsoft web site. You should download the latest available version of the client as well as any available updates.

Related Links

Telephony services with Lync Integration

Lync Integration controls a single line, based on the user's primary line. If the user's desk phone supports multiple lines, non-primary lines will not be represented by Lync Integration.

The following table lists the functionality supported for Lync Integration with IP Office.

😊 **Note:**

The following features are not supported for Lync Integration with IP Office:

- Single Step Transfer (Blind Transfer)
- Call History

Table 3: Telephony feature descriptions

Capability	Description
Make Call	Users can make a call on their phone by clicking a contact in their contact list or entering a number in the Lync client dialog box.
Release Call	Users can end a phone call by clicking the **End Call** icon in Lync Integration Conversation bar.

Capability	Description
Answer Call	Users can accept an incoming call that is presented to them through a pop-up window.
Decline Call	Users can decline a phone call by clicking the **Decline Call** icon in the Lync Integration Incoming Call Notification dialog box. On the PBX line, the call is treated as an unanswered call, and if voicemail is enabled, the call is redirected to voicemail.
Caller ID	Users receive Calling Party Name or Caller line ID in a pop-up window.
Call Hold and Retrieve	Users can place a call on hold using the Hold button within the Lync Integration Conversation bar. The call may be retrieved by clicking somewhere within the text line when the call is in a held state.
Generate Digits (DTMF)	Users can start sending of DTMF digits through the PBX system by selecting the dial pad icon on the Add-in Conversation bar.
Consult Call (multiple calls)	When on an active call, the user can: • Answer a call. • Start a second call by clicking a contact in their contact list or entering a number in the Lync client dialog box. When an additional call is answered or started, the previously active call is placed on hold. Multiple consult calls can be created.
Consult Transfer (multiple call transfer)	When one or more calls are established, the user is able to select, from a list of held calls, the call they wish to transfer their active call to.
Call Waiting	When on an active call, a pop-up is presented indicating that an alternative call is waiting. If the user decides to answer this call, then the current active call is placed on hold. The new call now becomes the active call.

Disconnected state

The Disconnected state indicates that the connection to Lync Integration is lost. The Disconnected state appears on the Lync Integration bar in place of the operational mode for Desk Phone mode. Disconnected state is displayed for several reasons, such as:

- The service provider or network loses connectivity.
- The server logs out the Add-in.

Lync Integration telephony service limitations

Lync Integration telephone service has the following limitations.

Lync server restarts

Lync Integration does not function during a Lync server outage. Users retain the ability to use their desk phone to make calls until full functionality is restored.

Call Hold and Call Retrieve

After a network connectivity outage, the held state of the call is unknown and should be managed on the device.

Multiple Lync Integration sessions

Microsoft Lync supports multiple client sessions for each user. However, Lync Integration does not. For each user, only a single Lync Integration session can run.

Lync Integration cannot be deployed on a shared computer. To avoid contention for telephony resources, only a single session of Lync Integration can run on a workstation at any time.

Multiple published work phone numbers

Lync Integration cannot support multiple published work phone numbers. Other phones numbers, such as home and mobile, can be published in the Lync client, but only one work phone number can be published. The published work phone number must match the number defined in the Active Directory.

Common phone numbers for multiple users

Multiple Lync Integration users should not publish the same Home, Mobile, or Other phone number in the Lync client. If multiple users have a common phone number, such as a reception or hunt group phone number, the users must create a new contact for the common phone number.

Multiple calls to the same contact

Only one Conversation window can be active against a Lync contact at a time. If a user needs to make a second call to the same contact while already on another active call with that contact, the user must make the call by entering the contact's alternative phone number in the Lync Search bar or by creating a separate contact for the phone number.

IP Office short codes entered in the Lync client's search field

When an IP Office short code is entered in the **Find a contact** bar in the Lync 2010 or 2013 client, the Make Call conversation bar appears. It appears as though the Lync client is making a call even though the user is using the short code to perform a command. The user must close the conversation bar manually.

> ❗ **Important:**
>
> IP Office short codes that contain # do not work when entered in the Lync client. Users can only use short codes that do not contain the # symbol.

Telephony presence with Lync Integration

The Lync Integration telephony presence implementation enables the **Busy – In A Call** status for a Lync user. Other Lync users see the appropriate presence status depending on their relative level of access. Lync Integration publishes the **Busy – In A Call** status when the user starts a call, or when the user answers an incoming call. If the user has a call on hold, then **Busy – In a Call** is still published. If the user is part of multiple calls, **Busy – In A Call** is published until Lync Integration detects that the user is not part of any call. The **Busy – In a Call** presence is an application state

that should not be selected manually. If the user is not in a call and manually changes the presence state to **Busy – In a Call**, Lync Integration automatically changes the presence state back to **Available**.

The Custom Presence definition file is provided as a configuration item within the Lync Integration installation package. When custom presence is enabled on the Lync client, the presence option **Busy – In A Call** is available in the list of presence options.

Do Not Disturb

While the Lync user presence status is **Do Not Disturb**, incoming call notifications are not displayed on the user's Lync client regardless of the Level of Access of the calling contact.

 Note:

If voicemail is set up on your desk phone, the phone rings once and then the call is redirected to voicemail.

Related Links

Chapter 6: Dialing rules fundamentals

By default, Lync Integration uses the configured dial plan information defined within the Lync Integration **Settings** panel. These dial plan settings normalize phone numbers and match presented phone numbers with Lync contacts. This normalization requires the user extension to be a subset of the E.164 phone number; for example, the last 4 digits of the E.164 number. Dialing between users must be either extension dialing or E.164 dialing. In this document, this is referred to as a simple dial plan.

Related Links

Simple dial plan

Users can configure dial plan settings in the Lync Integration **Settings** window by selecting the **Dialing Rules** tab.

Simple dial plan examples

North American dial plan example

E.164 Number +1 613 77[67] xxxx	
Number to dial to access an outside line	9
Your country code	1
Your area/city code	613
PBX Main Prefix	777
Number to dial for long distance calls	1
Number to dial for international calls	011
Extension length for internal extensions calls	4
Length of national phone numbers (including area/city code)	10
Include area/city code when making a local call	check

Results using a simple dial plan: North America

Dialed number is	Dialing number as	Entered number	Dialed number
Extension	E.164	+16133568293	8293
	International	01116133568293	901116133568293
	National	6133568293	8293
	Local	3568293	8293
	Extension	8293	8293
	Short code	500	500
Local	E.164	+16139078177	96139078177 (Include area code) or 99078177
	International	01116139078177	901116139078177
	National	6139078177	96139078177 (Include area code) or 99078177
	Local	9078177	99078177
National	E.164	+19088485596	919088485596
	International	01119088485596	901119088485596
	National	19088485596	919088485596
	Short code	911	911
International	E.164	+441628515068	9011441628515068
	International	011441628515068	9011441628515068

United Kingdom dial plan example

E.164 Number +44 1628 5xxxxx	
Number to dial to access an outside line	9
Your country code	44
Your area/city code	01628
PBX Main Prefix	5
Number to dial for long distance calls	0
Number to dial for international calls	00
Extension length for internal extensions calls	5
Length of national phone numbers (including area/city code)	10, 11
Include area/city code when making a local call	uncheck

Results using a simple dial plan: United Kingdom

Dialed number is	Dialing number as	Entered number	Dialed number
Extension	E.164	+441628515068	15068
	International	00441628515068	900441628515068
	National	01628515068	15068

Dialed number is	Dialing number as	Entered number	Dialed number
	Local	515068	15068
	Extension	15068	15068
	Short code	4190	4190
Local	E.164	+441628777700	901628777700 (Include area code) or 9777700
	International	00441628777700	900441628777700
	National	01628777700	901628777700 (Include area code) or 9777700
	Local	777700	9777700
National	E.164	+441483308721	901483308721
	International	00441483308721	900441483308721
	National	01483308721	901483308721
	Special number	08001111	908001111
	Short code	999	999
International	E.164	+16133568293	90016133568293
	International	0016133568293	90016133568293

Dial plan variables

Variable	Description
Number to dial to access an outside line	The digit or digits you must dial to access an outside line.
Your country code	The dialing code for your country.
Your area/city code	The area code or the city code where your phone server is located. You can enter multiple codes separated by commas. For example, 406, 208. In this example, Lync Integration treats all calls made the 406 or 208 regions as local calls.
PBX Main Prefix	The main prefix of your PBX. This is the digit(s) that comes after the area/city code and before the internal extension. If you cannot obtain the extension number by removing digits up to and including the PBX main prefix from an E.164 representation of the number, then this field should remain blank.
Number to dial for long distance calls	The digit or digits you must dial to make a long distance call.
Number to dial for international calls	The digit or digits you must dial to make an international call.
Extension length for internal extensions calls	The number of digits that comprise an internal extension. For example, if your internal extensions consist of five digits, enter 5. In this example, any number that consists of five digits or less would be treated as an internal extension. If your company supports internal extensions of varying lengths, enter the length numbers separated by comas. For example, if you use three-digit, five-digit, and seven-digit extensions, enter 3, 5, 7.

Variable	Description
	⊛ **Note:**
	If you specify multiple extension lengths, Lync Integration performs exact matches. For example, if you specify 3, 5, 7, then a four-digit number will not be recognized as an internal extension.
Length of national phone numbers (including area/city code)	The number of digits you must dial (including area/city code) for a call within your country.
Include area/city code when making a local call	Check the box if you are required to prefix the area or city code while making a local call.

Chapter 7: Work flow for deploying Lync Integration

This section illustrates the high level work flow required to deploy Lync Integration and lists the requirements for the network components.

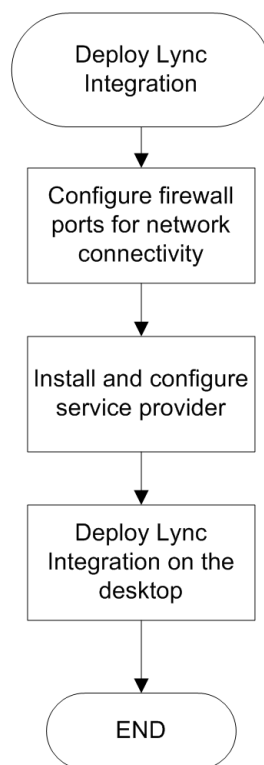**Lync Integration deployment notes**

The following limitations apply to deployment of Lync Integration.

- The Lync Integration builds on Lync's IM and Presence capabilities. This requires the Lync 2010 or 2013 Standard CAL. Upon deployment of Lync Integration, the Microsoft Lync client UC capabilities are disabled.
- Lync Integration cannot be installed in conjunction with any other Lync Extension.
- Lync Integration supports a single extension per end user.
- Lync Integration may not integrate with other third party add-ins to the Microsoft Lync software. If Lync Integration fails to load after the installation of a third party add-in, you must reinstall Lync Integration.

Deploying Lync Integration work flow

The work flow shows the tasks you perform to deploy Lync Integration.

```
       ┌─────────────────┐
       │   Deploy Lync   │
       │   Integration   │
       └────────┬────────┘
                │
                ▼
       ┌─────────────────┐
       │ Configure firewall│
       │ ports for network │
       │   connectivity    │
       └────────┬────────┘
                │
                ▼
       ┌─────────────────┐
       │Install and configure│
       │  service provider │
       └────────┬────────┘
                │
                ▼
       ┌─────────────────┐
       │   Deploy Lync    │
       │ Integration on the│
       │     desktop      │
       └────────┬────────┘
                │
                ▼
       ┌─────────────────┐
       │       END        │
       └─────────────────┘
```

Chapter 8: Port and service provider configuration

Port configuration

Firewall rule configuration may be required for the solution deployment to work. This may require advance planning in order to comply with customer site IT governance and policy enforcement. The port number for the one-X server must be entered in the firewall rule configuration. The default port number is 9443.

When using Lync Integration outside of the company's LAN, the user must use VPN to ensure that a port forwarding rule is defined on the company's firewall. The forwarding rule forwards traffic on the port to the IP address of the one-X server.

IP Office configuration

The IP Office manager and Avaya one-X® Portal software must be installed and functional.

For users to use Lync Integration for IP Office, you must do the following in the IP Office Manager software. For more information, see *IP Office Manager* (15–601011).

1. Select the user.
2. Click the **User** tab.
3. Under **Profile**, make sure that the **Enable one-X Portal Services** check box is selected.

   🛈 **Important:**

   If the check box is not selected, the user receives the following warning when trying to start Lync Integration: `User was not provisioned properly. Please contact your administrator.`

Chapter 9: Deploy Lync Integration on the desktop

Prerequisites

The machine where Lync Integration is installed must meet the following requirements:

Table 4: Hardware requirements

Processor	2 GHz
Memory	• 2 GB (32 bit)
	• 4 GB (64 bit)
Disk space	500 MB
Connectivity	Download bandwidth: 80 kbps
	Upload bandwidth: 80 kbps

Table 5: Software requirements

Operating Systems	Microsoft Windows 7
	Microsoft Windows 8 and 8.1
	✱ **Note:**
	Apply the latest Microsoft patch to Windows 8
Microsoft .Net	Release 4.0 or higher
Microsoft Lync Client	Microsoft Lync 2010 version 4.0.7577.4103 or higher
	Supports Microsoft Lync 2010 (32 bit) platform
	Microsoft Lync 2013 version 15.0.4535.1507 or higher
	Supports Microsoft Lync 2013 (32 & 64 bit) platforms

Related Links

Installing Lync Integration

Installing Lync Integration locally

Use this procedure to install Lync Integration where the installation software is local to the machine where it is being installed. Lync Integration is installed on end user machines coresident with the Lync client.

When using this procedure to install Lync Integration, no installation log file is created. If you experience problems with installation, perform the installation from the command line and view the log file. For more information, see Installing the Lync Integration on multiple machines from a remote server on page 30.

Before you begin

- You must have administrative privileges on the local desktop.
- You must have the Lync Integration `.msi` file.
- The Microsoft Lync 2010 or 2013 client must be installed before Lync Integration is installed.

About this task

The log and support directories can be found in the `APPDATA` system property.

Procedure

1. If open, exit the Microsoft Lync client.

2. If open, exit Internet Explorer.

3. Double-click the Microsoft Lync client SDK installation file `LyncSdkRedist-4.0.7577.124.msi` and follow the instructions to complete the installation. This file only needs to be installed the first time Lync Integration is installed. For subsequent installations of Lync Integration, go to the next step.

4. Double-click the Lync Integration installation file `LyncIntegration-<release#>.msi` and follow the instructions to complete the installation.

   You may receive a prompt to restart the system. If this occurs, you must reboot the machine to complete the installation.

5. Start the Lync client.

6. Start Lync Integration. On the Lync client, select **Tools** > **Avaya Microsoft Lync Integration**.

Related Links

Deploy Lync Integration on the desktop on page 15

Installing Lync Integration on multiple machines from a remote server

To facilitate the integration of the Lync Integration software into bulk software distribution and installation infrastructure, the Lync Integration software can be installed without end-user intervention, using the following command:

```
msiexec /i [LyncIntegration]-<release#>.msi REBOOT=ReallySuppress /L*v
[LyncIntegration].install.log /q
```

Installation notes

- The Microsoft Lync 2010 or 2013 client must be installed before Lync Integration is installed.

- You must have the Lync Integration `.msi` file.

- The `/q` parameter kills the running Lync client, Lync Integration, and one-X engine processes. The installation cannot proceed if the Microsoft Lync client is running.

- You may receive a prompt to restart the system. If this occurs, you must reboot the machine to complete the installation.

- Any interaction with the Microsoft Lync client by an end user during the installation can result in a failed installation. The `[LyncIntegration].install.log` will indicate the operation is complete. Please allow enough time for completion of the operation prior to re-starting the Lync client (up to 1 minute for slower machines). Failure to do so will result in an unsuccessful installation and the installation process must be repeated.

- You must have administrator privileges to install the application. On Windows 7, you must open the Command Prompt window using the **Run as administrator** option. To run the Command Prompt as administrator:

  1. From the Windows start menu, type **Command Prompt** in the **Search programs and files** box.

     The Command Prompt application is displayed in the list under **Programs**.

  2. Right-click **Command Prompt** and select **Run as administrator**.

Lync Integration will start the next time the Microsoft Lync client is started after logging into Windows. To start Lync Integration without restarting Windows, from the Lync client **Tools** menu, select **Avaya Microsoft Lync Integration**.

To validate the installation, view the log file `LyncIntegration.install.log`. The file contains text readable output of the installation process and indicates successful install of Lync Integration.

Related Links

Configuring Lync Integration

After installing Lync Integration, users must configure the client settings. For information about Lync Integration settings, see *Using Lync Integration 2010 on IP Office™ Platform* and *Using Avaya Microsoft Lync Integration 2013 on IP Office™ Platform*.

As an administrator, you might need to provide some configuration details to users. For example, for the Account Settings window, you must provide:

- Avaya one-X® Portal user name

- Avaya one-X® Portal password

- Avaya one-X® Portal server IP address or fully qualified domain name (FQDN)

- Avaya one-X® Portal server port number if different from the default

  ✳ **Note:**

   The default port numbers are 8080 (unsecured) and 9443 (secured).

Related Links

[Deploy Lync Integration on the desktop](#) on page 15

Uninstalling Lync Integration

Uninstalling Lync Integration from the local desktop

✳ **Note:**

- Lync Integration must be uninstalled before the Microsoft Lync 2010 or 2013 client is uninstalled.

Before you begin

- You must have administrator privileges to uninstall the application.

- Close the Lync client before performing the uninstallation.

Uninstallation notes

- If you attempt to uninstall Lync Integration from the Control Panel while an instance launched by a different user is still running, you receive the following message:
 	
`The following application is running and cannot be terminated: Avaya Microsoft`
`Lync Integration. The uninstaller cannot proceed.`
`Continue by choosing one of the following options:`
`-    Restart the system and repeat the uninstall from the Control Panel.`
`-    Uninstall using the command line procedure Uninstalling Lync Integration`
`from multiple machines.`

Uninstallation notes
- You may receive a prompt to restart the system. If this occurs, you must reboot the machine to complete the uninstallation.
- Based on industry standard practise, the uninstall process does not remove the Lync Integration registry keys. The registry keys can be removed manually from `HKey_Current_User\Software\Avaya\Avaya Microsoft Integration`.
- The uninstall process does not remove the existing product log files. When upgrading from a previous version of the Lync client to a more recent version of the Lync client, the log destination folder changes. The log files from the previous client must be removed manually.

Procedure

1. From the Windows **Start** menu, select **Settings**, **Control Panel**, then **Add or Remove Programs**.

2. In the Add or Remove Programs window, select **Avaya Microsoft Lync Integration** and then click **Remove**.

   You must exit the Lync client before removing Lync Integration.

3. You are prompted to confirm the uninstall. Click **Yes**.

Related Links

[Deploy Lync Integration on the desktop](#) on page 15

Uninstalling Lync Integration from multiple machines

✱ **Note:**

- Lync Integration must be uninstalled before the Microsoft Lync 2010 or 2013 client is uninstalled.

To facilitate the integration of the Lync Integration software into bulk software distribution and installation infrastructure, the Lync Integration software can be uninstalled without end-user intervention, using the following command.

```
msiexec /x [LyncIntegration]-<release#>.msi REBOOT=ReallySuppress /L*v
[LyncIntegration].uninstall.log /q
```

Uninstallation notes

- The `/q` parameter kills the running Lync client, Lync Integration, and one-X engine processes. The uninstallation cannot proceed if the Microsoft Lync client is running.

- Any interaction with the Microsoft Lync client by an end user during the uninstallation can result in a failed uninstallation. The `[LyncIntegration].install.log` will indicate the operation is complete. Please allow enough time for completion of the operation prior to restarting the Lync client (up to 1 minute, for slower machines). Failure to do so will result in an unsuccessful uninstallation and the uninstallation process must be repeated.

- You must have administrator privileges to uninstall the application. On Windows 7, you must open the Command Prompt window using the **Run as administrator** option. To run the Command Prompt as administrator:

  1. From the Windows start menu, type `Command Prompt` in the **Search programs and files** box.

     The Command Prompt application is displayed in the list under **Programs**.

  2. Right-click **Command Prompt** and select **Run as administrator**.

- You may receive a prompt to restart the system. If this occurs, you must reboot the machine to complete the uninstallation.

- Based on industry standard practice, the uninstall process does not remove the Lync Integration registry keys. The registry keys can be removed manually from `HKey_Current_User\Software\Avaya\Avaya Microsoft Integration`.

- The uninstall process does not remove the existing product log files. When upgrading from a previous version of the Lync client to a more recent version of the Lync client, the log destination folder changes. The log files from the previous client must be removed manually.

To validate the uninstallation, view the log file `LyncIntegration.uninstall.log`. The file contains text readable output of the uninstallation process and indicates successful uninstall of Lync Integration.

Related Links

Deploy Lync Integration on the desktop on page 15

Upgrading Lync Integration

Procedure

1. Uninstall the old version of Lync Integration.

2. Install the new version of Lync Integration.

Related Links

Deploy Lync Integration on the desktop on page 15

Chapter 10: Troubleshooting Lync Integration

Use the information in this chapter to help troubleshoot issues related to Lync Integration configuration.

For the most detailed log information, run Lync Integration in debug mode. Click ✷ to open the Settings window and then select the **Support** tab.

Related Links

Application does not launch

User Alert

Lync Integration does not launch when signing into the Lync client. The Windows **Start** menu does not contain the Lync Integration menu item.

Logs/Alarms

None.

Root Cause

Lync Integration application was not installed successfully.

Recovery Action

Examine Lync Integration installation log, rectify the failing condition, and repeat the installation. Microsoft Installer (MSI) error codes can be found here: http://support.microsoft.com/kb/229683 .

Related Links

Enabling debug when Lync Integration is not starting

User Alert

The user cannot get Lync Integration running, and you require more logs and debug information to resolve the issue.

Logs/Alarms

You must enable debug mode.

Root Cause

Unknown.

Recovery Action

1. Uninstall Lync Integration.

2. Reinstall Lync Integration using the following command line parameter:
   ```
   msiexec /i LyncIntegrationIPO-6.2.0-SNAPSHOT.msi DEBUG=true
   ```

3. Restart Lync Integration.

Related Links

Invalid phone number format: published phone number does not appear to My Contacts

User Alert

The Microsoft Lync client presents the following warning:`This number is not a valid phone number. Check the number and try again.`

Logs/Alarms

None.

Root Cause

The telephone number is not a valid phone number. Only direct inward dial numbers are supported with the solution.

Recovery Action

Phone numbers must use a Microsoft supported phone number format. See the Microsoft Lync documentation for information on supported formats. The following are links to online documents:

- For Lync 2010, Set Phones options and numbers for Lync 2010
- For Lync 2013, Set Phone options and numbers for Lync 2013

Related Links

Troubleshooting Lync Integration on page 34

Lync Integration Communicator Bar does not appear

User Alert

No user alert displayed.

Logs/Alarms

No Lync Integration logs.

Root Cause

The Lync Integration process is not running because:

- The process was not started after a local install.
- The process has exited.

Recovery Action

Start Lync Integration.

- From the Windows **Start** menu, select **Programs** > **Avaya**. For Lync 2010 clients, select **Lync 2010 Integration** > **Lync Integration**. For Lync 2013 clients, select **Lync 2013 Integration** > **Lync Integration**.
- From the Lync client **Tools** menu, select **Avaya Microsoft Lync Integration**.

Related Links

Troubleshooting Lync Integration on page 34

Lync Integration may disable PC

Lync Integration may disable the computer on which it is running. The computer displays a blue screen and is not responsive.

User Alert:

No user alert displayed.

Logs/Alarms:

No Lync Integration logs.

Root Cause:

The problem occurs because the computer graphics driver is not up to date and is conflicting with a Microsoft security update. The problem can be avoided by ensuring that the current graphics driver is installed.

Recovery Action:

1. Remove Security Update MS11-011 KB2393802.

2. Update graphics display driver to the latest manufacturer recommended version.

3. Reinstall the MS11-011 KB2393802 security patch.

If the workaround described above is not successful, do the following:

1. Restore a system update to a snapshot before installing the MS11-011 KB2393802 security patch.

2. Update graphics display driver to the latest manufacturer recommended version.

3. Reinstall the MS11-011 KB2393802 security patch.

Related Links

Troubleshooting Lync Integration on page 34

Add-in disappears when Conversation window is maximized

User Alert

The Avaya Lync Integration add-in disappears when users click the icon to maximize the Conversation window. Users cannot control calls with Lync Integration.

Logs/Alarms

None.

Root Cause

Microsoft takes control of the screen when windows are maximized in the Lync client.

Recovery Action

Minimize the Conversation window. Expand the window by stretching it manually.

Related Links

Troubleshooting Lync Integration on page 34

Plugin is unable to connect to One-X Portal through a proxy server

User Alert

Lync Integration cannot connect to Avaya one-X® Portal for IP Office through a proxy server. The user sees an error message: `Login to communication server failed`.

Logs/Alarms

None.

Recovery Action

Configure the computer to run without an HTTP proxy server.

Related Links

[Troubleshooting Lync Integration](#) on page 34

Privacy settings block contact display: published phone number does not appear to My Contacts

User Alert

When the user selects a contact and opens the Lync Integration contact card, or uses the **Make Voice Call** buttons from the Lync Integration Conversation Bar, the user is presented with a `No call options available` message.

Logs/Alarms

None.

Root Cause

The contact has not published a phone number, or has not granted you access per the Microsoft Lync Privacy Relationship.

Recovery Action

The rules that apply to Microsoft Lync presence and privacy relationships also apply to Lync Integration. For information on presence and privacy relationships, see the Microsoft Lync documentation. The following are links to online documents:

- [Presence and Privacy Relationships for Lync 2010](#).
- [Presence and Privacy Relationships for Lync 2013](#).

Related Links

[Troubleshooting Lync Integration](#) on page 34

Published work phone number does not appear in the Lync client

User Alert

The user's published work phone number does not appear in the Lync client for up to several minutes. The user also receives a pop-up saying that the Lync Client Work Phone Number is not defined. If the user clicks **Cancel** in the pop-up message, Lync Integration shuts down. This issue occurs every time the user launches Lync Integration.

Logs/ Alarms

None.

Root Cause

The user's published work phone number has not been published in the E.164 format.

Recovery Action

Do one of the following:

- If the user's published work phone number is imported from Active Directory, make sure that all phone numbers in the Active Directory are published in the E.164 format.
- The user may also have permission to manually edit phone numbers in the Lync client. If this is the case, in the Lync client, under **Tools** > **Options** > **Phones**, the user must enter the published work phone number in the E.164 format.

Related Links

Troubleshooting Lync Integration on page 34

Scripting access to WMI is not working

User Alert

There is a problem with this Windows Installer package. A script required for this install to complete could not be run. Contact your support personnel or package vendor.

Logs/Alarms

None.

Root Cause

The WMI repository on Windows is corrupted.

Recovery Action

Use the following steps to fix a corrupted WMI repository on Windows. For more information, see *Avaya one-X® Communicator Troubleshooting* (16–603218).

1. From the **Start** menu, select **Run**.
2. In the Run window, type `CMD.EXE`.

3. Enter the following command `net stop winmgmt`. Then press **Enter** on your keyboard.

4. Rename the folder `%windir%\System32\Wbem\Repository` (for example, you can rename the folder as `%windir%\System32\Wbem\Repository_Bad`).

   > ⊛ **Note:**
   >
   > `%windir%` represents the path to the Windows directory, which is typically `C:\Windows`.

5. Open the Command Prompt window. To launch this window from the **Start** menu, do the following:

   • Click **Start** > **Programs** > **Accessories** > **Command Prompt**.

6. Type the following command:

   ```
   net start winmgmt
   EXIT
   ```

   Press **Enter** on your keyboard after each line.

Related Links

Troubleshooting Lync Integration on page 34