



Administering Avaya Communicator for Microsoft Lync on IP Office™ Platform

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Chapter 1: New in this Release

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

Support for Disconnected state

Avaya Communicator for Microsoft Lync displays the Disconnected state when the connection to Avaya Communicator for Microsoft Lync is lost.

Support for Lync 2013

As of Release 9.0.3, Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 2013.

Support for Avaya Communicator for Windows integration

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

Support for Windows XP

Avaya Communicator for Microsoft Lync does not support Windows XP.

Chapter 2: Introduction

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

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

Terminology

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](#) on page 8

[Viewing Avaya Mentor videos](#) on page 9

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Related Links

[Introduction](#) on page 8

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 - Enter a key word or key words in the Search Channel to search for a specific product or topic.
 - 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: Avaya Communicator for Microsoft Lync 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.

Avaya Communicator for Microsoft Lync interacts with the Lync 2010 or 2013 client directly using Microsoft supported APIs. All telephony capabilities are integrated directly among Avaya Communicator for Microsoft Lync, 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](#) on page 10

[Avaya Communicator for Microsoft Lync features](#) on page 11

[Avaya Communicator for Microsoft Lync network](#) on page 11

Language support

Avaya Communicator for Microsoft Lync supports the following languages:

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

Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync.

 **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.

Avaya Communicator for Microsoft Lync network

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

2013 clients deployed on the user's computer. The following diagram represents Avaya Communicator for Microsoft Lync deployed within an Enterprise. For more information about Avaya Communicator for Microsoft Lync deployed in a hosted service configuration, see [Avaya Communicator for Microsoft Lync support for Microsoft Office 365](#) on page 13.

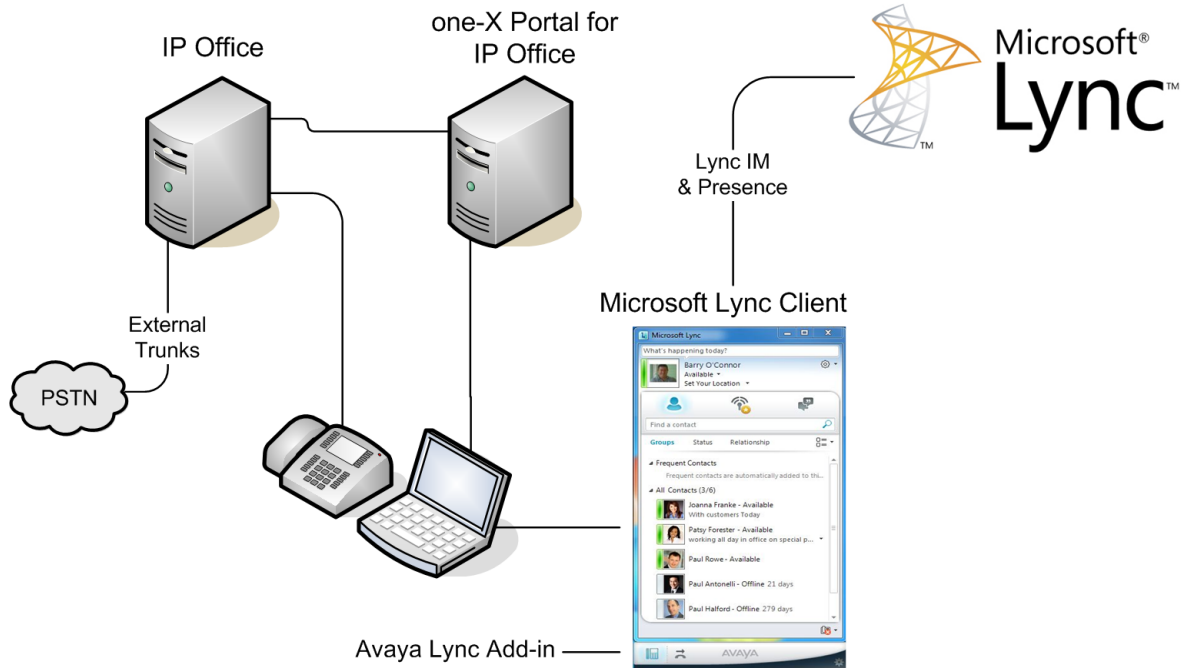


Figure 1: Avaya Communicator for Microsoft Lync deployed in an Enterprise

Avaya Communicator for Microsoft Lync support for Microsoft Office 365

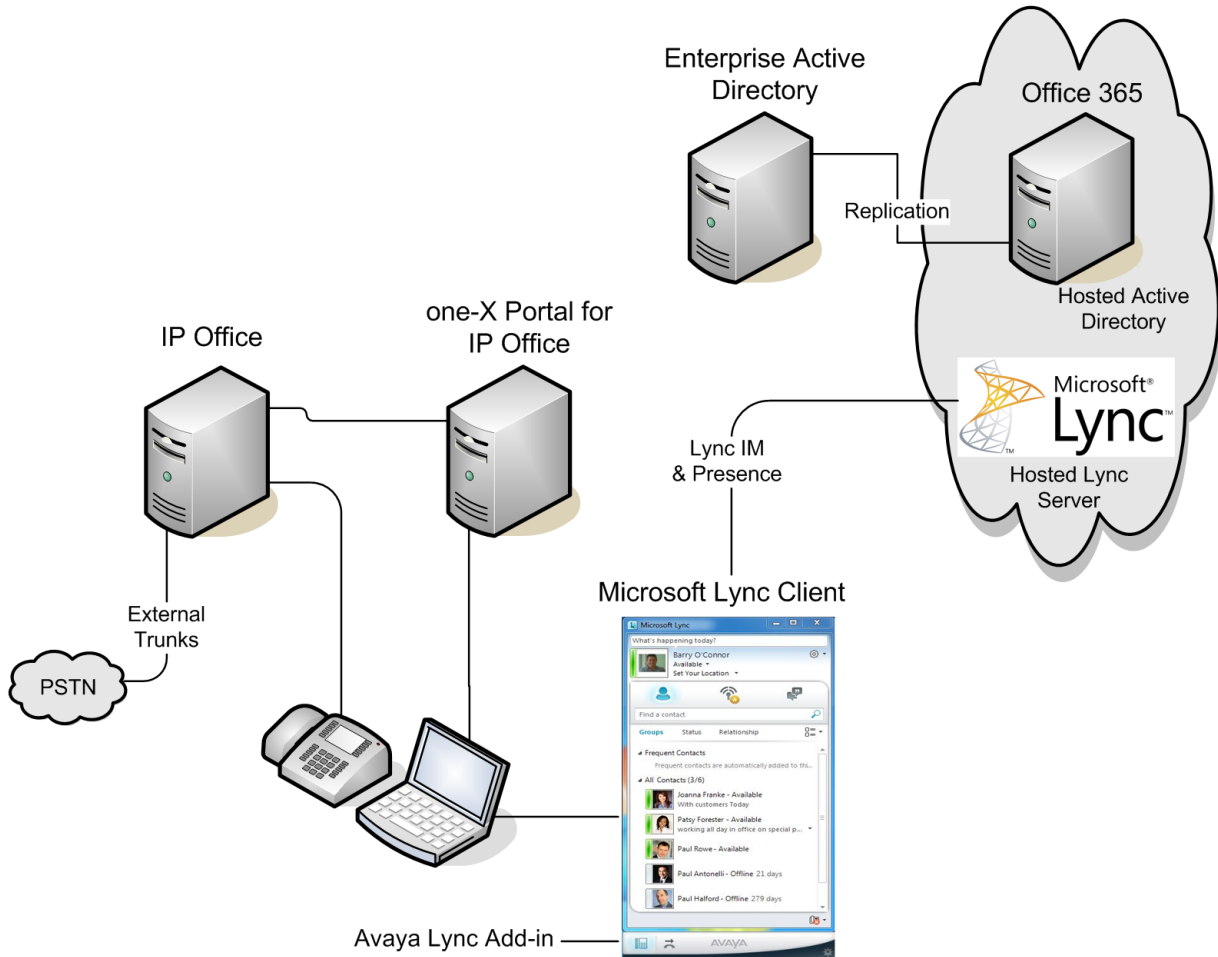


Figure 2: Avaya Communicator for Microsoft Lync deployed in a Microsoft Office 365 environment

Authentication within an Office 365 deployment for IP Office

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

Chapter 4: Avaya Communicator for Microsoft Lync key components

Avaya Communicator for Microsoft Lync features the following key components

Related Links

[Microsoft Lync client](#) on page 14

[Avaya Communicator for Microsoft Lync](#) on page 14

[Microsoft Lync Server](#) on page 15

[Service provider](#) on page 15

[Supported phones](#) on page 15

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

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

[Avaya Communicator for Microsoft Lync key components](#) on page 14

Avaya Communicator for Microsoft Lync

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. Avaya Communicator for Microsoft Lync operates in Desk Phone mode. In the Phone mode, it provides CTI control over the end user's desk phone.

To use Avaya Communicator for Microsoft Lync on the Lync 2013 client, you must download the minimum patch available at <http://support.microsoft.com/kb/2825630>.

Related Links

[Avaya Communicator for Microsoft Lync key components](#) on page 14

Microsoft Lync Server

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

Related Links

[Avaya Communicator for Microsoft Lync key components](#) on page 14

Service provider

The following service providers are supported with Avaya IP Office based Avaya Communicator for Microsoft Lync deployments:

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

Related Links

[Avaya Communicator for Microsoft Lync key components](#) on page 14

Supported phones

Avaya Communicator for Microsoft Lync for IP Office supports all IP Office phones. However, the following limitation applies for analog phones.

- You cannot answer incoming calls through Avaya Communicator for Microsoft Lync. You must answer the call from your desk phone.

Related Links

[Avaya Communicator for Microsoft Lync key components](#) on page 14

Deploy Avaya Communicator for Microsoft Lync on the desktop


Prerequisites

The machine where Avaya Communicator for Microsoft Lync is installed must meet the following requirements:

Table 1: Hardware requirements

Processor	2 GHz
Memory	<ul style="list-style-type: none"> • 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

[Avaya Communicator for Microsoft Lync key components](#) on page 14

[Configuring Avaya Communicator for Microsoft Lync](#) on page 31

[Upgrading Avaya Communicator for Microsoft Lync](#) on page 33

[Installing Avaya Communicator for Microsoft Lync with Lync peer-to-peer calling enabled](#) on page 34

Chapter 5: Avaya Communicator for Microsoft Lync services

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

Integrating Avaya Communicator for Microsoft Lync with Microsoft Lync enables telephony services in the Lync client. Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync](#) on page 17

[Telephony presence with Avaya Communicator for Microsoft Lync](#) on page 20

Telephony services with Avaya Communicator for Microsoft Lync

Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync.

The following table lists the functionality supported for Avaya Communicator for Microsoft Lync with IP Office.

*** Note:**

The following features are not supported for Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync Conversation bar.
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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 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)	<p>When on an active call, the user can:</p> <ul style="list-style-type: none"> • 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. <p>When an additional call is answered or started, the previously active call is placed on hold.</p> <p>Multiple consult calls can be created.</p>
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 Avaya Communicator for Microsoft Lync is lost. The Disconnected state appears on the Avaya Communicator for Microsoft Lync 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.

Avaya Communicator for Microsoft Lync telephony service limitations

Avaya Communicator for Microsoft Lync telephone service has the following limitations.

Lync server restarts

Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync sessions

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

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

Multiple published work phone numbers

Avaya Communicator for Microsoft Lync cannot support multiple published work phone numbers. Other phone 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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync

The Avaya Communicator for Microsoft Lync 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. Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 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**, Avaya Communicator for Microsoft Lync automatically changes the presence state back to **Available**.

The Custom Presence definition file is provided as a configuration item within the Avaya Communicator for Microsoft Lync 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

[Avaya Communicator for Microsoft Lync services](#) on page 17

Chapter 6: Dialing rules fundamentals

By default, Avaya Communicator for Microsoft Lync uses the configured dial plan information defined within the Avaya Communicator for Microsoft Lync **Settings** panel. These dial plan settings normalize phone numbers and match presented phone numbers with the 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](#) on page 21

Simple dial plan

Users can configure dial plan settings in the Avaya Communicator for Microsoft Lync **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


Table continues...

Dialed number is	Dialing number as	Entered number	Dialed number
	National	01628515068	15068
	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, Avaya Communicator for Microsoft Lync 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

Table continues...

Variable	Description
	<p>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.</p> <p> Note: If you specify multiple extension lengths, Avaya Communicator for Microsoft Lync performs exact matches. For example, if you specify 3, 5, 7, then a four-digit number will not be recognized as an internal extension.</p>
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 Avaya Communicator for Microsoft Lync

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

Avaya Communicator for Microsoft Lync deployment notes

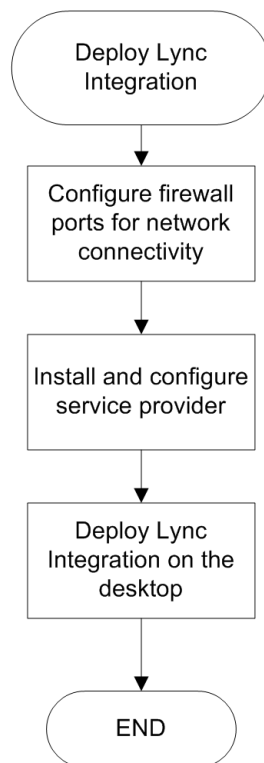
The following limitations apply to deployment of Avaya Communicator for Microsoft Lync.

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

Deploying Avaya Communicator for Microsoft Lync work flow

The work flow shows the tasks you perform to deploy Avaya Communicator for Microsoft Lync.

Work flow for deploying Avaya Communicator for Microsoft Lync



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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync: `User was not provisioned properly. Please contact your administrator.`

Chapter 9: Deploy Avaya Communicator for Microsoft Lync on the desktop


Prerequisites

The machine where Avaya Communicator for Microsoft Lync is installed must meet the following requirements:

Table 4: Hardware requirements

Processor	2 GHz
Memory	<ul style="list-style-type: none">• 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

[Avaya Communicator for Microsoft Lync key components](#) on page 14

[Configuring Avaya Communicator for Microsoft Lync](#) on page 31

[Upgrading Avaya Communicator for Microsoft Lync](#) on page 33

[Installing Avaya Communicator for Microsoft Lync with Lync peer-to-peer calling enabled](#) on page 34

Installing Avaya Communicator for Microsoft Lync

Installing Avaya Communicator for Microsoft Lync locally

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

When using this procedure to install Avaya Communicator for Microsoft Lync, 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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync .msi file.
- The Microsoft Lync 2010 or 2013 client must be installed before Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync is installed. For subsequent installations of Avaya Communicator for Microsoft Lync, go to the next step.
4. Double-click the Avaya Communicator for Microsoft Lync installation file `AvayaCommunicatorForMicrosoftLync-<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 Avaya Communicator for Microsoft Lync. On the Lync client, select **Tools > Avaya Communicator for Microsoft Lync** .

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Installing Avaya Communicator for Microsoft Lync on multiple machines from a remote server

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

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

Installation notes

- The Microsoft Lync 2010 or 2013 client must be installed before Avaya Communicator for Microsoft Lync is installed.
- You must have the Avaya Communicator for Microsoft Lync .msi file.
- The /q parameter kills the running Lync client, Avaya Communicator for Microsoft Lync, 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 [AvayaCommunicatorForMicrosoftLync].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**.

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

To validate the installation, view the log file

AvayaCommunicatorForMicrosoftLync.install.log. The file contains text readable output of the installation process and indicates successful install of Avaya Communicator for Microsoft Lync.

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Configuring Avaya Communicator for Microsoft Lync

After installing Avaya Communicator for Microsoft Lync, users must configure the client settings. For information about Avaya Communicator for Microsoft Lync settings, see *Using Avaya Communicator for Microsoft Lync 2010 on IP Office™ Platform* and *Using Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Uninstalling Avaya Communicator for Microsoft Lync

Uninstalling Avaya Communicator for Microsoft Lync from the local desktop

 **Note:**

- Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 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 Communicator for Microsoft Lync . 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 Avaya Communicator for Microsoft Lync from multiple machines.
```
- 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 Avaya Communicator for Microsoft Lync registry keys. The registry keys can be removed manually from `HKey_Current_User\Software\Avaya\Avaya Communicator For Microsoft Lync`.
- 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 Communicator for Microsoft Lync** and then click **Remove**.

You must exit the Lync client before removing Avaya Communicator for Microsoft Lync.

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

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Uninstalling Avaya Communicator for Microsoft Lync from multiple machines

Note:

- Avaya Communicator for Microsoft Lync must be uninstalled before the Microsoft Lync 2010 or 2013 client is uninstalled.

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

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


Uninstallation notes

- The `/q` parameter kills the running Lync client, Avaya Communicator for Microsoft Lync, 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 `[AvayaCommunicatorForMicrosoftLync].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 Avaya Communicator for Microsoft Lync registry keys. The registry keys can be removed manually from `HKey_Current_User\Software\Avaya\Avaya Communicator For Microsoft Lync`.
- 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

`AvayaCommunicatorForMicrosoftLync.uninstall.log`. The file contains text readable output of the uninstallation process and indicates successful uninstall of Avaya Communicator for Microsoft Lync.

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Upgrading Avaya Communicator for Microsoft Lync Procedure

1. Uninstall the old version of Avaya Communicator for Microsoft Lync.
2. Install the new version of Avaya Communicator for Microsoft Lync.

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Installing Avaya Communicator for Microsoft Lync with Lync peer-to-peer calling enabled

About this task

Use the following procedure to enable the Avaya Communicator for Microsoft Lync UC Telephony setting during a command line installation.

! Important:

Lync peer-to-peer calling should not be enabled in conjunction with virtual desktop infrastructure deployments.

Procedure

1. In the command line, use CD to change the directory to the location with the extracted folder that contains the Avaya Communicator for Microsoft Lync set up.
2. Enter the following string:
`msiexec /i AvayaCommunicatorForMicrosoftLync2013<x64 or x86>-<release#>.msi LYNCTELEPHONYMODE=?,` where ? indicates a Microsoft UC Telephony setting of 0 or 5.

If Lync UC is on, the setting is 0. If Lync UC is off, the setting is 5.

* Note:

If the file name is different from `AvayaCommunicatorForMicrosoftLync2013<x64 or x86>-<release>.msi`, change the file name.

You can make calls using two different call controls when the Lync UC is active. Avoid running both the call paths simultaneously as one call cannot be on hold when another call is active.

3. If an error occurs, reverse the registry entry.

You can manually change the Lync **TelephoneMode** to a value of 5 on the affected computer by modifying the registry.


```
HKEY_CURRENT_USER\Software\Policies\Microsoft\office\15.0\Lync
```

Related Links

[Deploy Avaya Communicator for Microsoft Lync on the desktop](#) on page 15

Chapter 10: Troubleshooting Avaya Communicator for Microsoft Lync

Use the information in this chapter to help troubleshoot issues related to Avaya Communicator for Microsoft Lync configuration.

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

Related Links

[Application does not launch](#) on page 35

[Enabling debug when Avaya Communicator for Microsoft Lync is not starting](#) on page 36

[Invalid phone number format: published phone number does not appear to My Contacts](#) on page 36

[Avaya Communicator for Microsoft Lync Communicator Bar does not appear](#) on page 37

[Avaya Communicator for Microsoft Lync may disable PC](#) on page 38

[Add-in disappears when Conversation window is maximized](#) on page 38

[Plugin is unable to connect to One-X Portal through a proxy server](#) on page 39

[Privacy settings block contact display: published phone number does not appear to My Contacts](#) on page 39

[Published work phone number does not appear in the Lync client](#) on page 40

[Scripting access to WMI is not working](#) on page 41

Application does not launch

User Alert

Avaya Communicator for Microsoft Lync does not launch when signing into the Lync client. The Windows **Start** menu does not contain the Avaya Communicator for Microsoft Lync menu item.

Logs/Alarms

None.

Root Cause

Avaya Communicator for Microsoft Lync application was not installed successfully.

Recovery Action

Examine Avaya Communicator for Microsoft Lync 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

[Troubleshooting Avaya Communicator for Microsoft Lync](#) on page 35

Enabling debug when Avaya Communicator for Microsoft Lync is not starting

User Alert

The user cannot get Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync.
2. Reinstall Avaya Communicator for Microsoft Lync using the following command line parameter:

```
msiexec /i AvayaCommunicatorForMicrosoftLyncIPO-6.2.0-SNAPSHOT.msi DEBUG=true
```

3. Restart Avaya Communicator for Microsoft Lync.

Related Links

[Troubleshooting Avaya Communicator for Microsoft Lync](#) on page 35

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 Avaya Communicator for Microsoft Lync](#) on page 35

Avaya Communicator for Microsoft Lync Communicator Bar does not appear

User Alert

No user alert displayed.

Logs/Alarms

No Avaya Communicator for Microsoft Lync logs.

Root Cause

The Avaya Communicator for Microsoft Lync process is not running because:

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

Recovery Action

Start Avaya Communicator for Microsoft Lync.

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

Related Links

[Troubleshooting Avaya Communicator for Microsoft Lync](#) on page 35

Avaya Communicator for Microsoft Lync may disable PC

Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync](#) on page 35

Add-in disappears when Conversation window is maximized

User Alert

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

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 Avaya Communicator for Microsoft Lync](#) on page 35

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

User Alert

Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync](#) on page 35

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 Avaya Communicator for Microsoft Lync contact card, or uses the **Make Voice Call** buttons from the Avaya Communicator for Microsoft Lync 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 Avaya Communicator for Microsoft Lync. 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 Avaya Communicator for Microsoft Lync](#) on page 35

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, Avaya Communicator for Microsoft Lync shuts down. This issue occurs every time the user launches Avaya Communicator for Microsoft Lync.

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 Avaya Communicator for Microsoft Lync](#) on page 35

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 Avaya Communicator for Microsoft Lync](#) on page 35