

# **MS Lync/OCS CallRex Installation Guide**

*Version 4.2*

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# About Telrex

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Telrex delivers enterprise-class call recording and contact center optimization solutions to companies worldwide. Software and services from Telrex are scalable, affordable, and practical for businesses of all sizes. The Version 4.2 software suite includes IP call recording and monitoring designed with the manager in mind. Businesses rely on Telrex's workforce optimization solutions to streamline business processes, resolve customer disputes, achieve regulatory compliance, ensure high quality customer service, and enhance employee productivity.

Telrex offers the Version 4.2 suite of recording, monitoring, training, and workforce management software through value added resellers worldwide.

For more information about Version 4.2 Call Recording, see its associated product documentation.

## ***Workforce Optimization Solutions***

In addition to call recording software, Telrex offers workforce optimization solutions that complement your Lync/OCS system:

**Version 4.2 Workforce Management™:** Forecast and schedule employee shifts based upon inbound and outbound call data provided by your PBX. Reduce labor costs by staffing with the right number of employees to meet service level goals.

**Version 4.2 Agent Evaluation™:** Evaluate and score recorded PBX calls to determine agent training needs, track performance, script compliance, and compare skills across your contact center.

**Version 4.2 Computer Recording™:** Capture all desktop activities so that managers can listen to phone calls and see what is happening on the agents' computers—all in real time. Ideal for auditing business processes and procedures, spot monitoring, and uncovering training opportunities.

## ***Contact Telrex***

To learn more about the contact center optimization solutions offered by Telrex, visit <http://www.telrex.com/>. Contact the Sales team at [sales@telrex.com](mailto:sales@telrex.com) or +1.425.827.6156 x2 to discuss how Version 4.2 software can enhance your Lync/OCS environment.



# Using this Document

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This document describes how to install CallRex Call Recording 4.2 with Microsoft Lync 2010/Office Communicator (OCS) 2007 R2.

## **Audience**

This document is for the contact center system administrator who installs, configures, and integrates Lync/OCS with Version 4.2 Call Recording.

## **Document Conventions**

The following conventions are used in this document.

**Bold text** indicates a button, field, link, option name, or similar function requiring an action.

`Monospaced Text` indicates code, system messages, or file names.

Icons highlight notes, warnings and special conditions. For example:



### **Note**

Text corresponding with this icon presents additional details for steps, windows, dialogs, menu options, or special circumstances.

## **Document Feedback**

If you have any comments or queries about this document, contact [support@telrex.com](mailto:support@telrex.com).





# Solution Overview

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The CallRex call recording solution supports two recording methods for the Microsoft Lync PBX; recording can be performed via packet capture or callers can be put into a conference and the conference can be recorded via the UCMA API. Recording via the packet capture method requires installing the RTP Data Collector component to sniff RTP packets and forward them to the CallRex server. The RTP Data collector can be deployed at each recorded desktop or a single RTP Data Collector can service the collection of many users' RTP. If all that RTP traffic is mirrored to it, a mirroring deployment is a requirement when recording Lync enabled hardphones. UCMA based conference recording does not require the RTP Data Collector, instead calls to or from a recorded user are rerouted to the CallRex server which is hosting a UCMA trusted application. The trusted application establishes a conference, joins the conference invisibly, and invites the called and calling parties to the conference. The conference is recorded via the UCMA API rather than by employing packet capture. Using the conference based recording does introduce some subtle differences in the appearance of calls as seen by a recorded user at the Lync client. These differences are detailed in the [UCMA Conferencing Limitations](#) section.



# Installing the Software

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To install CallRex Call Recording 4.2 with Microsoft Lync 2010/OCS 2007 R2 follow these steps:

Step 1: [Satisfy the Requirements](#), on page 7.

Step 2: [Download the Installers](#), on page 8.

Step 3: [Install the Standard CallRex Services](#), on page 8.

Step 4: [Install the TelRexNetService on the Lync/OCS Front-end Server](#), on page 10.

Step 5: [Install CallRex RTP Data Collector Service at the Endpoints](#), on page 11.

## Step 1: Satisfy the Requirements



### Note

This document makes frequent reference to the *CallRex 4.2 Installation Guide*, so you must have access to that document before proceeding.

#### **1 to 30 Simultaneous Recordings on a Dedicated Server**

- Processor Speed: At least 2.0 GHz
- Memory: At least 2 GB
- Hard Drive: At least 50 GB

#### **30 to 100 Simultaneous Recordings on a Dedicated Server**

- Processors: Each server requires multiple processors or multiple cores.
- Processor Speed: At least 2.4 GHz
- Memory: At least 2 GB
- Hard drive: At least 80 GB high speed storage. 97.5 KB required per minute of recording (170 hours per GB).

#### **100 to 200 Simultaneous Recordings on a Dedicated Server**

- Processors: Each server requires multiple processors or multiple cores.
- Processor Speed: At least 3.0 GHz, depending on processor type
- Memory: At least 4 GB
- Hard Drive: At least 120 GB high speed storage recommended. 97.5 KB required per minute of recording (170 hours per GB).

#### **Virtual Machines**

- All VMware® applications are supported.
- HyperV applications are **not** supported for a packet capturing installation.
- Virtual machines must be configured to the above specifications.
- A single user account on the Lync/OCS front-end server that is a member of these groups:
  - RTCHSUniversalServices (Active Directory group)
  - RTCUniversalServerAdmins (Active Directory group)

- RTC Server Applications (Local to Front-end Server)

## Packet Capturing Installations

A Packet Capture installation has the following system requirements:

### Operating Systems

- Windows Server 2008 x86
- Windows Server 2008 x64 and Windows Server 2008 R2 x64
- Windows Server 2003 and Windows Server 2003 R2.
- Windows 7 and Windows XP

### Network Interface Cards

Two 100/1000 MB NICs (a dedicated connection to the data switch and a client/internet connection.)

- A working Lync or OCS R2 installation.

## UCMA Conferencing Installations

### Operating Systems

- Windows Server 2008 R2 x64
- Windows 7 x64

### Network Interface Cards

One 100/1000 MB NIX

- A working Lync installation

## Step 2: Download the Installers

Download the following installers, as required:

- CallRex 4.0.x - [http://www.telrex.com/downloads/evaluation/CallRex\\_Call\\_Recording.zip](http://www.telrex.com/downloads/evaluation/CallRex_Call_Recording.zip)
- RTP Data Collector installer and the TelrexNetService installer - [http://www.telrex.com/downloads/evaluation/CallRex\\_Lync\\_Support.zip](http://www.telrex.com/downloads/evaluation/CallRex_Lync_Support.zip)
- If upgrading from CallRex 3.9.x - [http://www.telrex.com/downloads/evaluation/CallRex\\_Upgrade.zip](http://www.telrex.com/downloads/evaluation/CallRex_Upgrade.zip)

## Step 3: Install the Standard CallRex Services



### Note

Running the Lync integration steps should be done with a Domain Admin user account.

Before installing the CallRex services, the UCMA integration pieces should be installed first onto the CallRex server. Prior to installing the UCMA integration pieces, the UCMA 3.0 Runtime must be installed on the CallRex server using the following steps:

1. Download the UCMA 3.0 Runtime from <http://www.microsoft.com/download/en/details.aspx?displaying=en&id=20958>
2. Run the UcmaruntimeSetup.exe and accept defaults to install the Runtime.

3. Once that setup completes , a secondary install must be run to install the Lync Server 2010 Core Components.
  - a. This installer is generally located in C:\ProgramData\Microsoft\Lync Server\Deployment\cache\4.0.7577.0\Setup. The file name is *OCSCore.msi*, and the defaults can again be accepted.

**Note**

The ProgramData folder is hidden by default, but can be accessed by typing C:\ProgramData into a Windows Explorer window's location bar..

**Note**

There is also a Ucm-runtime.msi file located in that folder. This file should not be run, as it is not part of the needed installation.

After these two components are installed, the CallRex Lync integration setup steps can be executed.

To setup the CallRex Lync integration, complete the following steps:

1. Open the LyncUcmaSetup folder in the installers zip file.
2. Open the subfolder called Release, and in the folder there should be a setup.exe file.
3. Run the *setup.exe* file to begin the install process. The Lync Integration Information window displays.
4. The **Domain** and **CallRex Server Name** fields are filled out automatically, which can be accepted or changed.
5. Enter the corresponding information into the **Lync Front-end Server** and **Domain Controller Name** fields.

**Note**

The **CallRex Server Name**, **Lync Front-end Server**, and the **Domain Controller Name** fields require the computer names (i.e. computer1) and they do not accept Fully Qualified Domain Names (FQDN).

6. Accept or change the remaining defaults .
7. After the install completes, complete the followings steps to update the key in the Registry to allow PowerShell scripts to be run:
  - a. Open C:\Program Files (x86)\CallRex and double-click the *execPolicy.req* file.
  - b. Click **Yes** when asked to continue.
8. Run the Powershell that adds the necessary information into the Lync Server Topology for CallRex to integrate correctly. To run the Powershell, complete the following steps:
  - a. Open C:\Program Files (x86)\CallRex\CallRex Lync Integration.
  - b. Right-click the *ucmaPowerShellScript.ps1* file and select **Run with Powershell**. The installation may take a few minutes.

Install the standard CallRex Services ( CallRex Services and CallRex Client) as described in [http://help.telrex.com/call\\_recording/default.aspx?pageid=installation](http://help.telrex.com/call_recording/default.aspx?pageid=installation).

Then:

For UCMA Conferencing Installations

- If your organization plans to enable recording encryption in the Callrex system, in addition to the permissions detailed in the CallRex Call Recording Services Requirements section found in the *CallRex 4.2 Installation Guide*, the account that runs the CallRex Call Recording Service needs the following permissions:
  - The account has to be able to read the private key data of the certificate the Callrex server uses to establish TLS connectivity with the Lync Front

End Server. This permission can be granted using the Certificate snap-in for the Microsoft Management Console.

- The account has to be a member of the "RTC Component Local Group" on the Callrex server. This permission can be granted using the "Local users and groups" snap-in for the Microsoft Management Console.
1. When you configure the services within CallRex, select **Microsoft OCS 2007** for packet capture based installations.
  2. Select **Microsoft Lync UCMA** for conferenced based recording installations.
  3. For each CallRex User:
    - Set the SIP URI, which has the format `sip:<user>@<domain>`.
    - Set the Endpoint IP Address to 0.0.0.0. The actual address is detected and updated automatically.

## **Step 4. Install the TelRexNetService on the Lync/OCS Front-end Server**

Install the TelrexNetService on the OCS front-end server:

1. Login to an account that is a member of:
  - RTCHSUniversalServices (Active Directory group)
  - RTCUniversalServerAdmins (Active Directory group)
  - RTC Server Applications (Local to Front-end Server)
2. Copy the TelrexNetService installer to the server and unzip it.
3. Double-click `TelrexNetServiceSetup.msi`.
4. Update the `Service.DisallowedIPAddresses` setting to reflect the IPV4 addresses of both the CallRex Server and the OCS/Lync Front-end server.
5. In response to the prompt, enter the credentials the TelrexNetService will run as. The user specified must meet the membership requirements in step 1. Specify the username as either `<domain>\<user>` or `<user@domain>`. If the user isn't a member of the three groups the installation will be rolled back.
6. Enter the machine name or IP address of the CallRex installation.  
In an environment where there is more than one consolidated recorder, you can enter multiple machine names or IP addresses separated by spaces.

The value you enter here is inserted into the application configuration file under the key `Service.CallRecordingHosts`.

The TelrexNetService creates a persistent TCP connection to the named CallRex installation(s) on port 8008.

After installing the TelRexNetService, you need to update the `TelRexNetService.exe.config` file in the installation directory:

1. Use a text editor to open the file.
2. Look for the a line similar to this:  
`<add key="Service.LocalDomain" value="ocs.telrex.com"/>`
3. Update the `Service.LocalDomain` value to reflect the local OCS domain. For example, if OCS users are addressed as `user@ocs.telrex.com` the Local Domain setting is `ocs.telrex.com`.
4. Restart the TelrexNetService.

## Step 5. Install CallRex RTP Data Collector Service at the Endpoints

The CallRex RTP Data Collector service captures the audio packets from each Lync/OCS client (*adapter*) and sends them to the Call Recording service configured to record the user.

You must install the CallRex RTP Data Collector service on every computer running the Lync/OCS client (the client communicates with the Lync/OCS server). These computers are known as *endpoints*.



### Note

The installation of the CallRex RTP Data Collector Service is not required for a UCMA conference based recording installation, this step only applies to the packet capture installations.

To install the CallRex RTP Data Collector Service on an endpoint:

1. Unzip the downloaded installation zip file.
2. Double-click `RtpDataCollectorServiceInstaller.msi`.  
The CallRex RTP Data Collector Service installation wizard runs.
3. In the wizard, click **Next**.
4. In the **License Agreement** page, select **I Agree**, and then click **Next**.
5. In the **Select Installation Folder** page, click **Browse** to specify the installation directory, and then click **Next**.
6. In the **Confirm Installation** page, click **Next**.  
The CallRex RTP DataCollector Service is installed.
7. In the **Configure RTP DataCollector Service** page, enter the **CallRex CallRecording Service host** machine name or IP address, and then click **Next**.
8. In the **Installation Complete** page, click **Close**.

## UCMA Conferencing Limitations

- There are slight differences in the state of the Lync client GUI based on whether a user is in a two party or a conference call. For a Lync user configured to record in CallRex, all calls to or from that user are escalated into a conference call to facilitate recording. The most obvious difference is that a two party call ends when either party drops the call, this is not the case for a conference call where each party remains on the call until they explicitly end their involvement in the call.
- Once a user that is tagged for recording has had a two party call migrated to a conference for recording purposes, it is not possible to perform a blind transfer or supervised transfer of that user out of the conference. It is possible to invite other parties to the conference after which the party that initiated the invitation can choose to drop out of the conference.
- When a call appears at a recorded desktop as the result of a call to a Response Group, the name of the ringing Response Group will appear in the Subject line of the incoming call, typically the name of the ringing Response Group would be in the Title area of the Lync Client window associated with the call.
- There is no feedback notification at a recorded user's desktop that indicates which member of the response group fields a call to the group.