

Kofax Communication Server

KCS Lync Link Administrator's Guide

Version: 10.3.0

Date: 2019-12-13

The KOFAX logo is displayed in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a consistent weight throughout the word.

© 2019 Kofax. All rights reserved.

Kofax is a trademark of Kofax, Inc., registered in the U.S. and/or other countries. All other trademarks are the property of their respective owners. No part of this publication may be reproduced, stored, or transmitted in any form without the prior written permission of Kofax.

Table of Contents

Chapter 1: Preface	4
Chapter 2: Installation	5
Installing Prerequisites.....	5
Installing Root Certificate on the Link Computer.....	5
Installing Lync Link.....	6
Configuring Connection to Microsoft Lync Server.....	8
Configuring Connection to TWS.....	9
Licensing.....	9
Chapter 3: Configuration	10
Creating KCS Lync Queue Users.....	10
Creating a KCS Service for Lync Addresses.....	11
Creating an In-Event for KCS Users.....	13
Creating a Lync Address for KCS User Profiles.....	13
Addressing Lync Directly.....	14
Notification Templates.....	14
Selecting a Template.....	14
Customizing Templates.....	15
KCS Lync Link Specific Settings.....	16
Chapter 4: Operating / Using	18
Starting KCS Lync Link.....	18
Operation Fails on Startup.....	18
Integration with KCS Monitor.....	19
Retry Mechanism.....	19
Replying to Instant Messages.....	19

Chapter 1

Preface

Microsoft Lync is an instant messaging client targeted for corporate environment. Kofax Communication Server (KCS) can use the KCS Lync Link to connect to Microsoft Lync Server in order to send notifications Lync users when they receive a new message on KCS.

The following use cases are supported:

- When the KCS user Rajesh receives a fax message, KCS Lync Link sends an instant message to his Lync account. The fax message is not included.
- When the KCS user Penny receives an SMS, KCS Lync Link forwards her the message in an instant message.
- KCS administrator Howard has an alert configured in his KCS user profile. When the alert is triggered, KCS sends an alert message to Howard's KCS inbox and forwards the message to his Lync account as an instant message, including the original message text.

The instant messages remain active until the Lync users receive them. The KCS Lync Link does not accept any replies from the Lync users.

Chapter 2

Installation

This section describes the installation.

Installing Prerequisites

- Install one of the supported operating systems: 64-bit version of Windows Server 2008 SP2 or later
- Install Microsoft .NET Framework 3.5 Service Pack 1.
- Install Microsoft Unified Communications Managed API 3.0:

Start `UcmaRuntimeSetup.exe` from the folder `kcs\mslync` on the KCS ISO image.

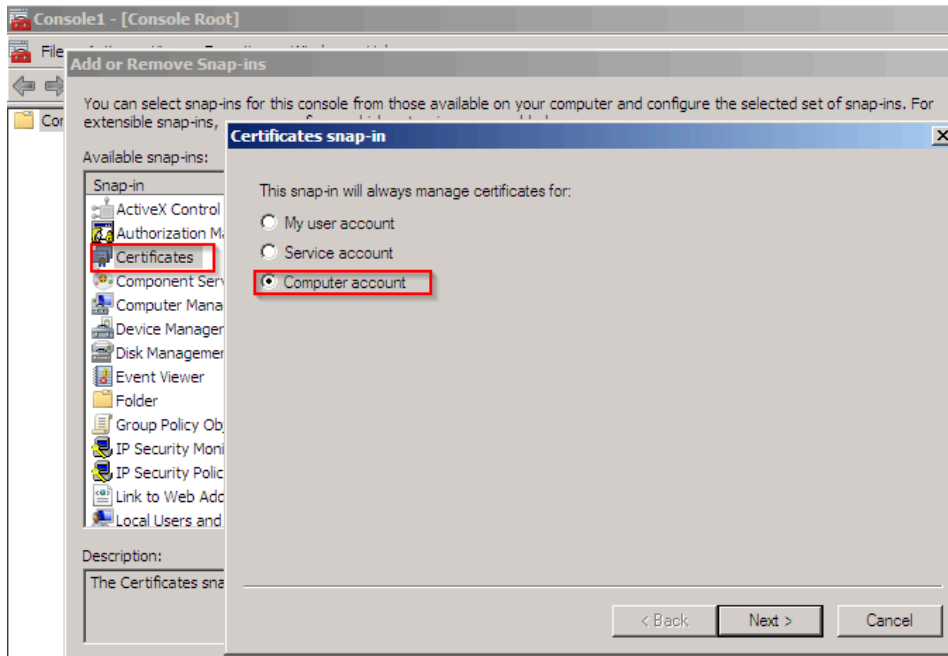
In addition, Microsoft Lync Server 2010 or 2013 must be installed on a different computer to operate the KCS Lync Link. However, the Lync server is not necessary for installing the Lync link.

Installing Root Certificate on the Link Computer

Download the certificate chain from the Microsoft Lync Server computer:

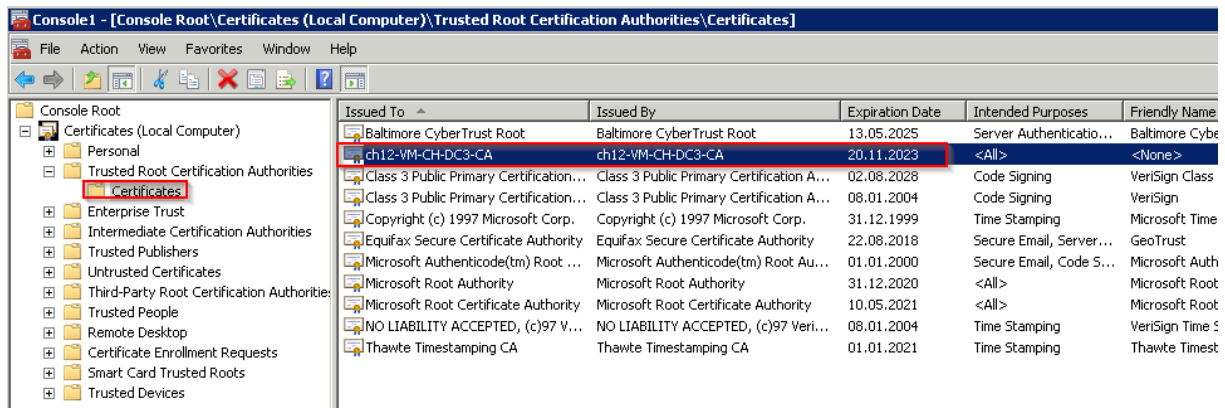
1. Using a web browser, go to `https://<server>/certsrv` and log in.
2. Download the root CA chain.
Prepare the Microsoft Management Console (MMC) to manage certificates:
3. Run `mmc.exe`.
4. Select **Add/Remove Snap-in** from the **File** menu.
5. Select **Certificates** and click **Add**.
6. Select **Computer account**, then select **Local computer**.

- Click **Finish**, then click **OK**.



Use the MMC to import the certificate as a trusted root certificate authority:

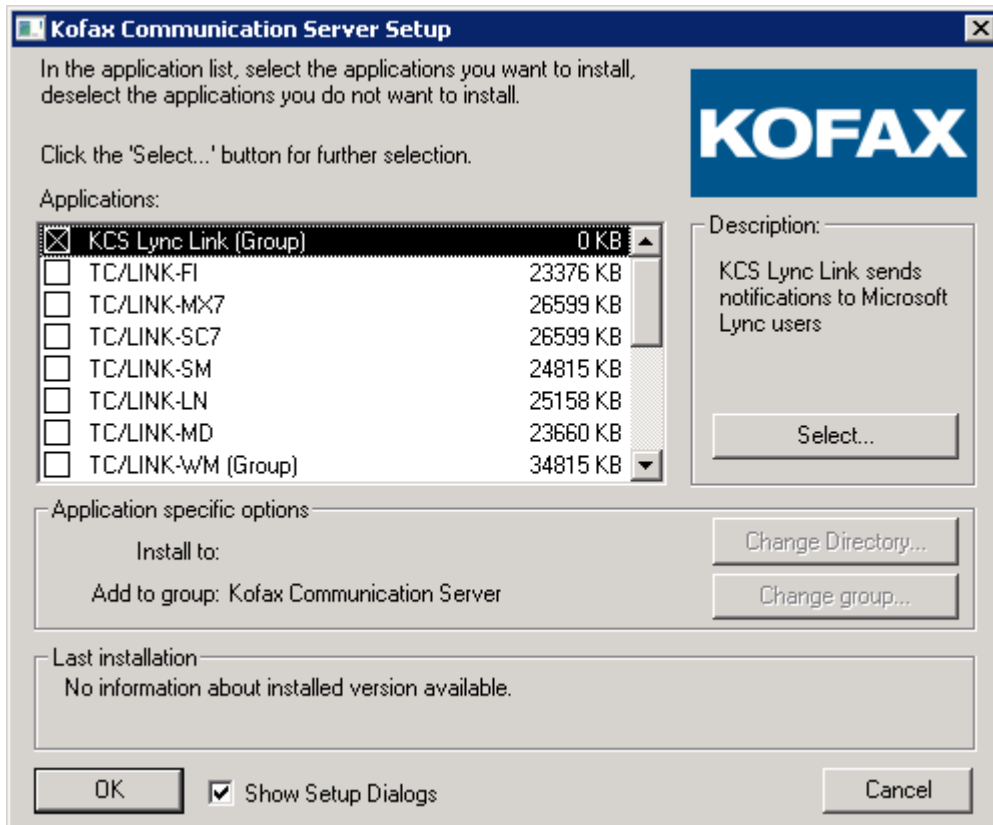
- Expand **Certificates** (Local Computer).
- Right-click **Trusted Root Certification Authorities** and select **All Tasks > Import** from the context menu.
- Use the **Certificate Import Wizard** to import your certificate.



Installing Lync Link

Run the Kofax Communication Server setup program to install the KCS Lync Link.

Select **KCS Lync Link** from the Links group.



In addition, the following KCS components are necessary to operate the Lync link:

- **TWS** from the Common \ Application Interfaces and Services group
- **KCS Monitor** from the Common \ Administrative Tools group.

Tip The KCS setup asks for information about the Lync server, but you can supply the information later using Windows registry editor. See [KCS Lync Link Specific Settings](#).

You can install multiple instances of KCS Lync Link. Additional instances increase the message throughput.

Configuring Connection to Microsoft Lync Server

KCS Lync Link 1 - Lync Configuration [X]

Enter or modify the parameters below

Lync address of user	<input type="text" value="sip:lync_user@lync_server_"/>
Domain password of user (** leaves existing setting)	<input type="text" value="*"/>
Domain of user	<input type="text" value="domain"/>
Domain user ID	<input type="text" value="domain_user_id"/>
Full qualified domain name of Lync server	<input type="text" value="lync_server_FQDN"/>
Transport type	<input type="text" value="TlsTransport"/>
Authentication protocol	<input type="text" value="Ntlm"/>

Configuring Connection to TWS

KCS Lync Link 1 - TWS Configuration

Enter or modify the parameters below

User ID to logon to KCS. May be empty if user is configured on TWS.	TWS_user_id
KCS log in password (* leaves existing setting)	*
TWS URL	http://localhost:25082
KCS queue name	TCLYNC
Name of KCS service for MS Lync	LYNC
Confirm message time out value in seconds	60
Web service call time out value in seconds	30
Poll cycle to check for messages on KCS in seconds	60
Time out value for cached SIP addresses in seconds	300

OK Cancel

Licensing

The KCS Lync Link requires no license.

Chapter 3

Configuration

This section describes the configuration.

Creating KCS Lync Queue Users

Create one queue user for each instance and configure it as shown below.

General tab:

The screenshot shows the 'User Profile - TCLYNC' dialog box with the 'General' tab selected. The dialog has a title bar with a close button (X) and a tabbed interface with the following tabs: Queue Length/Age/Pages alerting, Queue Length/Age/Pages logging, TC/WEB, TC/WEB Identity Rights, General, Address, Event, Rights, Manual Fax, Distributor, and Authorize/Sign. The 'General' tab is active and contains the following fields and options:

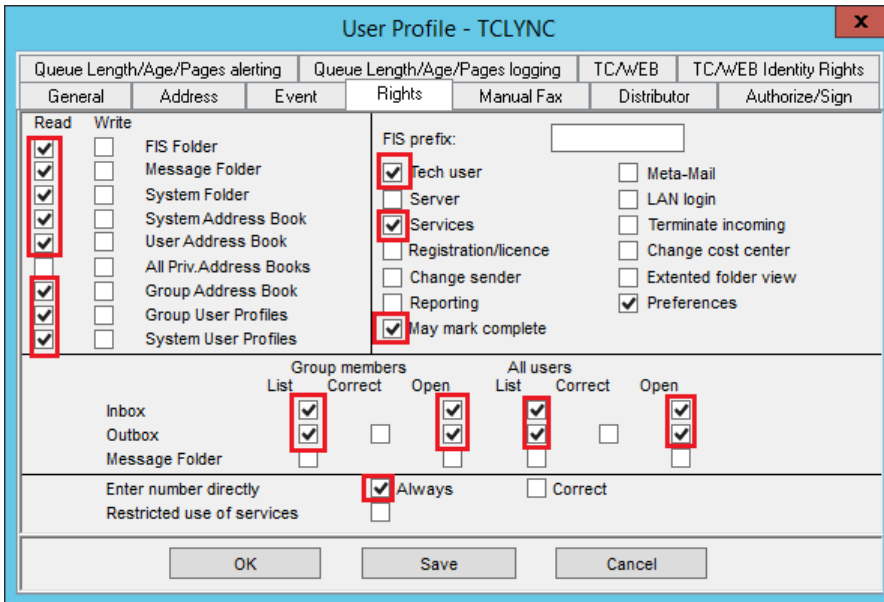
- User ID: TCLYNC
- Password: *****
- Group: TCLYNC
- Retype password: *****
- Location: [Empty]
- Representative: TCLYNC
- Company: [Empty]
- Department: [Empty]
- Full name: [Empty]
- Salutation: [Empty]
- Free Text: [Empty]
- Default template: Built-in default template used!
- User belongs to: Topcall
- VRS Profile: [Empty]
- Language: English (01)
- Time Zone: [Empty]
- Media Type: [Empty]
- Application Name: [Empty]

Options (checkboxes):

- Change own password
- Password never expires
- Password will never expire
- Change password at next login
- Account is locked
- Account is not locked
- Cost center: [Empty]
- Dirsync allowed
- Reject all messages
- Logging of all send attempts
- Number locking
- Visible in outbox

Buttons: OK, Save, Cancel

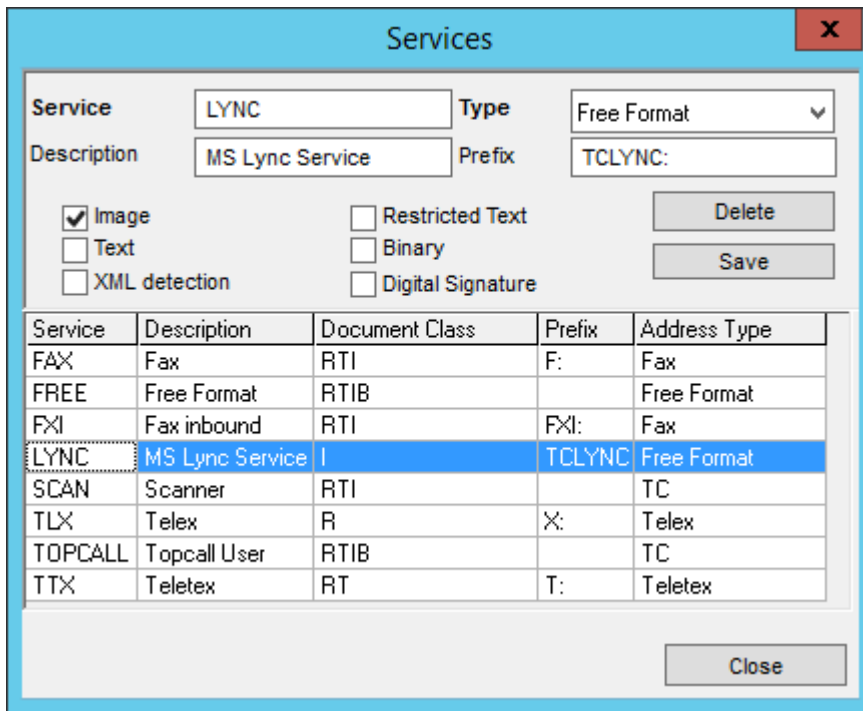
Rights tab:



Creating a KCS Service for Lync Addresses

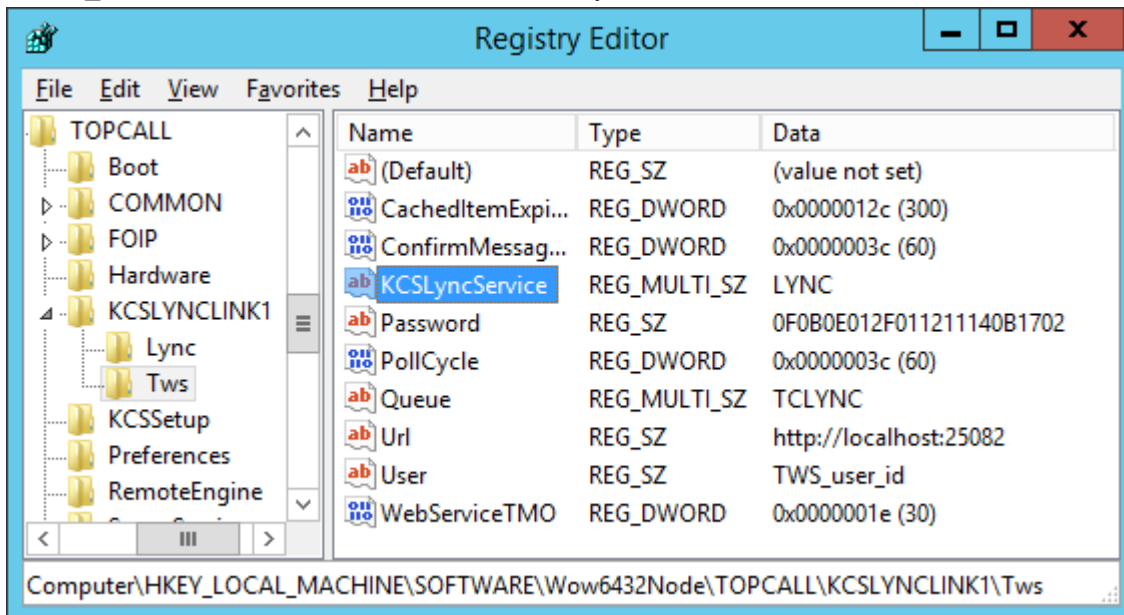
Create a KCS service of type 'Free Format' for Lync addresses on KCS.

Use the name of KCS Lync Link queue user + a colon for the prefix.



Configure the service name on the KCS Lync Link computer in

%KCS_REGISTRY%\KCSLYNCLINKx\Tws\KCSLyncService



Creating an In-Event for KCS Users

KCS users that should get a notification of new KCS messages in Microsoft Lync must have an In-Event configured in the KCS user profile. This In-Event will forward all new messages from the KCS user to the queue of the KCS Lync Link user.

The screenshot shows the 'User Profile - JAZA' window with the 'Event' tab selected. The 'Event' dropdown is set to 'In', and the 'Service' dropdown is set to 'TOPCALL'. The 'User ID' is 'TCLYNC'. The 'Filter' is set to 'all'. The 'Archive entry' is set to 'Always'. The 'Used for' section shows 'Sender service' as '(All)' and 'Recipient number' as '(All)'. The table below shows the event configuration:

Active	Event	Service	Number	Archive	Auto	Regis	Deliv	Send	Filter
X	In	TOPCALL	TCLYNC	Always			(All)	(All)	all

Creating a Lync Address for KCS User Profiles

KCS users need a Lync address defined in their user profiles to receive instant messages. The syntax is:

```
sip:user@host
```

- User: The user ID on the Lync server

- Host: Fully qualified name of the Lync server

The screenshot shows the 'User Profile - JAZA' dialog box with the following configuration:

- Queue Length/Age/Pages alerting: []
- Queue Length/Age/Pages logging: []
- TC/WEB: []
- TC/WEB Identity Rights: []
- General: []
- Address: []
- Event: []
- Rights: []
- Manual Fax: []
- Distributor: []
- Authorize/Sign: []

Service: LYNC (dropdown) | Addr. no.: 2 (input) | Active

Free address: sip:jaza1@vm-ch-ocs.ch8.local (input) | [Delete Addr] | [Save Addr]

Active	Addr	Service	Number:
X	1	TOPCALL	JAZA,
	2	LYNC	sip:jaza1@vm-ch-ocs.ch8.local,

[OK] [Save] [Cancel]

If no Lync address is configured, KCS Lync Link uses the KCS user ID and the configured fully qualified domain name of the Microsoft Lync Server to build the address for the Lync notification.

Addressing Lync Directly

KCS Lync Link allows you to send a message to a Lync user. You must specify the Lync user in the recipient name using the following syntax:

```
LyncService, sip:user@host
```

Example:

```
LYNC, sip:jaza1@vm-ch-ocs.ch8.local
```

Notification Templates

Notifications to Microsoft Lync users are sent by using Microsoft Lync instant messaging calls. Microsoft Lync supports instant messages in HTML format. KCS Lync link supports 3 HTML templates that are used to send notifications to Microsoft Lync.

The default templates are installed to C:\ProgramData\Kofax\KCSLyncLink\Html-Templates.

Selecting a Template

The priority of a KCS message determines which HTML template is used for the notification.

- TemplateLow.htm – for KCS messages with priority low

- TemplateNormal.htm – for KCS messages with priority normal
- TemplateHigh.htm – for KCS messages with priority high

Optionally, you can specify the template for the instant message in the recipient number of the KCS message. The priority is specified in the recipient number overrules the priority of the KCS message. The syntax is:

```
LyncService, sip:user@host, PRIORITY=x
```

The following PRIORITY values are supported: LOW, NORMAL, HIGH.

Example:

```
LYNC, sip:jaza1@vm-ch-ocs.ch8.local, PRIORITY=HIGH
```

Customizing Templates

You can edit the HTML templates to change the layout and content of your notifications.

Sample notification:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<html>
  <head>
    <title></title>
  </head>
  <body>
    <h4>KCSLYNCLINK-$INSTANCEID$:New KCS message</h4>
    <p>
      <span style="color:blue"><b>From: </b></span>$ORIGINATOR$<br/>
      <span style="color:blue"><b>Subject: </b></span>$SUBJECT$<br/>
      <span style="color:blue"><b>Received: </b></span>$RECEIVED$<br/>
      <span style="color:blue"><b>Message: </b></span>$BODYTEXT$<br/>
    </p>
  </body>
</html>
```

You can use the following message metadata in the notification:

Parameter name	Description
\$ORIGINATOR\$	The originator of the KCS message
\$SUBJECT\$	The subject of the KCS message
\$RECEIVED\$	Date and time when the KCS message was received via TWS call ReceiveMessage
\$CREATED\$	Date and time when the KCS message was created on KCS
\$INTENDED\$	Date and time when the KCS message should have been sent
\$SCHEDULED\$	Date and time when the KCS message is ready in the reception queue
\$BODYTEXT\$	The text body of the KCS message
\$INSTANCEID\$	Instance ID of the KCS Lync Link

Note If the text body of the KCS message is larger than 32KB, KCS Lync Link splits the text body into multiple messages.

KCS Lync Link Specific Settings

The configuration of KCS Lync Link is saved in the Windows registry.

Registry values in the subkey TCLYNCLINK:

Value	Type	Default	Description
CommandLine	REG_SZ		Command-line used by TCSRVS
LogonType	REG_SZ		Type of how the process gets logged on to the system
Domain			Domain of user account
UserId	REG_SZ		User account when started with TCSRVS
LogOnType	REG_SZ	Service	Service, Batch
TraceLevel	REG_DWORD		Trace level
TraceFile	REG_SZ		Path of the trace file
TraceToFile	REG_DWORD	1	Enables output of trace information to file
MaxTraceFiles	REG_DWORD	2	max. number of stored trace files
MaxTraceFileSize	REG_DWORD	128	max size of one trace file in kB
AppendTrace	REG_DWORD	0	Trace file counter / Append switch

Registry values in the subkey TCLYNCLINK\Tws:

Value	Type	Default	Description
Url	REG_SZ	http://localhost:25082	URL of TWS
User	REG_SZ		User ID to logon to KCS. Not required if the user is configured on TWS computer.
Password	REG_SZ		Password to logon to KCS
Queue	REG_MULTI_SZ		KCS queue names
KCSLyncService	REG_MULTI_SZ		Name of KCS Lync service
WebServiceTMO	REG_DWORD	30	Web service call time out value in seconds
ConfirmMessageTMO	REG_DWORD	60	Confirm message time out value in seconds
CachedItemExpiredTime	REG_DWORD	300	Time out value for cached SIP addresses in seconds
PollyCycle	REG_DWORD	60	Poll cycle to check for messages on KCS in seconds

Registry values in the subkey TCLYNCLINK\Lync:

Value	Type	Default	Description
ServerFQN	REG_SZ		FQN name of Lync server
UserURI	REG_SZ		Lync address
Domain	REG_SZ		Windows Domain
User	REG_SZ		Windows User ID
Password	REG_SZ		
TransportMode	REG_SZ	TcpTransport	TcpTransport, TlsTransport
AuthProtocol	REG_DWORD	0	Authentication protocol 0 = Ntlm 1 = Kerberos

Chapter 4

Operating / Using

This section describes the operation of KCS Lync Link.

Starting KCS Lync Link

The KCS Lync Link is started and monitored by the TCSRVR service. You can use KCS Monitor to manage it.

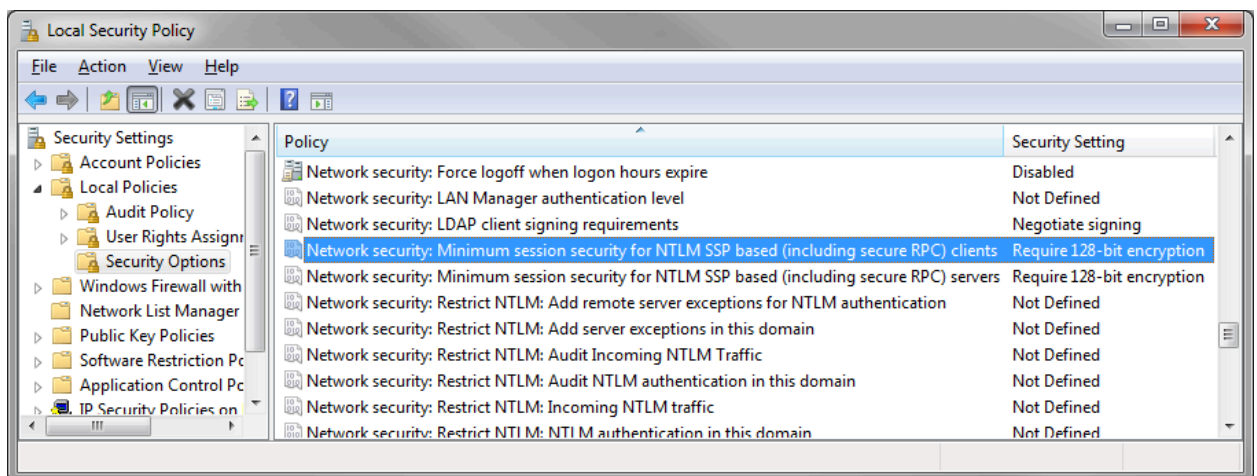
Operation Fails on Startup

On Windows Server 2008 x64 operating systems (not R2), the link may fail to start with an error:

```
ERROR [Thread=7] [PipeService] Microsoft.Rtc.Signaling.RegisterException:The operation failed after several attempts.
```

If this occurs, verify that the local security policy on the link computer is set properly:

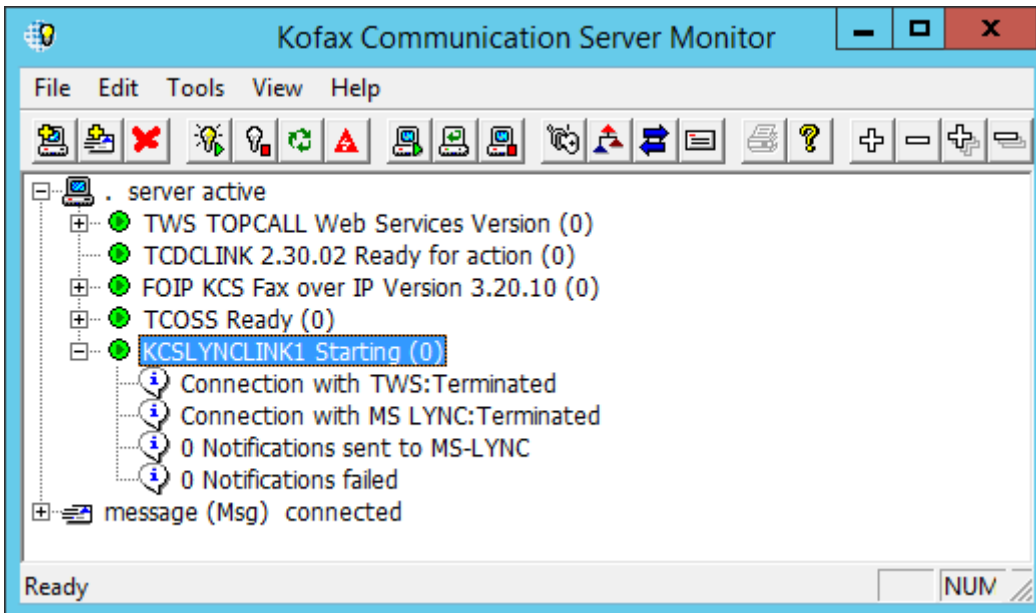
1. Start **Local Security Policy**.
2. Click **Security Settings > Local Policies > Security Options**.
3. Verify that **Require 128-bit encryption** is selected for the following policies:
 - **Network security:** Minimum session security for NTLM SSP based (including secure RPC) clients
 - **Network security:** Minimum session security for NTLM SSP based (including secure RPC) servers



Integration with KCS Monitor

KCS Lync Link is integrated in KCS Monitor. The following values can be displayed in KCS Monitor:

- Number of notifications sent to Microsoft Lync.
- Number of notifications that could not be sent to Microsoft Lync.



Retry Mechanism

When notifications cannot be sent to Lync users because they are offline, KCS Lync Link delays the message for later retrieval. When the Lync user goes online, KCS Lync Link reactivates all KCS messages for this Lync user.

Replying to Instant Messages

Replying to instant messages from KCS using the Lync client is not supported. The Lync client displays an error:

This message was not delivered to <user> because this person is unavailable or offline.

