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TelephoneIntegration Client for MS CRM 2015/2016 and Dynamics 365

v.0.2, May 2017

TelephoneIntegration Client

(How to work with TelephoneIntegration Client for MS CRM 2015/2016 and Dynamics 365)

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Content

1	How to install TelephoneIntegration Client for Microsoft Dynamics CRM 2015/2016 and Dynamics 365	6
1.1	First steps.....	6
1.2	The EULA (End User License Agreement).....	8
1.3	Folder selection	8
1.4	Start options.....	9
1.5	Confirm the installation.....	9
1.6	Configure the CRM Connection setup.....	10
1.7	Update files in use – FOR UPDATES ONLY	11
1.8	Configure Integrations	12
1.9	Finish the installation	13
2	Getting started.....	14
2.1	The TelephoneIntegration Balloon	15
2.2	How to initiate an outgoing call from the balloon	17
3	The functionalities of TelephoneIntegration Client	18
3.1	Integrated Search	18
3.2	The Context Menu.....	18
3.2.1	The Context Menu Overview	18
3.3	The Application Menu	21
3.3.1	The Application Menu overview	21
3.4	The Personal Phone Book	23
3.5	History.....	24
4	The TelephoneIntegration Client Configuration	26
4.1	The General Tab	27
4.2	The Popup Style Tab	31
4.3	The Balloon Tab.....	34
4.4	The Phone Tab.....	36
4.4.1	TAPI.....	37
4.4.2	OCS	40
4.4.3	Lync 2010.....	45
4.4.4	Lync 2013/Skype for Business	47

4.4.5	Simulation.....	49
4.4.6	TAPI 2	50
4.4.7	RingCentral.....	51
4.4.8	SDK API.....	56
4.4.9	Interactive Intelligence	58
4.4.10	SIP Phone.....	60
4.4.11	ATAPI.....	64
4.4.12	Ubity	66
4.4.13	SIP Client.....	67
4.5	The CRM Tab.....	69
4.6	The Information Tab.....	70
4.7	The Advanced Tab.....	71
4.8	The Registry Tab	73
5	Reporting and Synchronization	74
5.1	Standard Data	74
5.2	Optional Data.....	74
5.3	Field Templates for internal use	75
6	The Power Dialer.....	76
6.1	Server-side Requirements.....	78
6.2	How to configure TelephoneIntegration Server for PowerDialer.....	79
6.2.1	Extended Phone Call Entity.....	82
6.3	The PowerDialer List surface.....	83
7	Tutorials (“How To’s”).....	85
7.1	How to start an outgoing call from MS Dynamics CRM/Dynamics 365.....	85
7.1.1	Server-side UseDFR settings.....	86
7.1.2	Client-side UseDFR setting in the local registry.....	86
7.2	How use TelephoneIntegration with Microsoft Outlook only.....	87
7.3	How to search for an item	88
7.4	How to localize/custom language packs	89
7.5	How to create custom activities.....	90
7.6	How to create custom entities	91
7.7	How to simulate incoming and outgoing calls.....	92

7.7.1	How to simulate incoming calls.....	92
7.7.2	How to simulate outgoing calls.....	92
7.8	How to connect your phone system with SDK API	93
7.9	How to synchronize TelephoneIntegration History with phone calls.....	98
7.10	How to create a PowerDialer list based on the custom PowerDialer list entity	100
7.11	How to work with PowerDialer	102
7.11.1	How to open PowerDialer.....	102
7.11.2	How to work with PowerDialer	103
7.11.3	How to close the PowerDialer workplace.....	105
8	Frequently Asked Questions	106
8.1	How do I generate a debug log file?	106
8.2	Why does the TAPI plugin make no outgoing/incoming calls?.....	106
8.3	Why does the Lync/OCS wrapper stop making outgoing calls?	106
8.4	How do I open the fields.xml settings?.....	106
8.5	Why does the phone call activity/entity not open?.....	106
8.6	Why does the TelephoneIntegration Client not resolve the incoming/outgoing numbers correctly?	106
8.7	Why does the Call number button not react when I try to call out?	106
8.8	How do I use the TAPI Test Tool?	106
8.9	How do I dial from a related CRM/Dynamics 365 record?	106
8.10	How do I set restrictions for dialing from a related CRM/Dynamics 365 record?	107
8.11	How do I rebuild the phone number index table?	107
8.12	How do I synchronize the phone call duration?	107
8.13	How do I customize the context menu to create new activities and/or entities?.....	107
8.14	How do I add a call number Flyout button to MS CRM 2013/2015 or Dynamics 365?	107
8.15	How do I manually stop a TIUpdateService service?	107
8.16	Why is my Skype desktop Client not working?	107
9	Contact.....	108

Preamble

This documentation is intended to guide you through the installation process of TelephoneIntegration Client for Microsoft Dynamics CRM 2015/2016 and Dynamics 365. Furthermore, it explains how to handle phone calls and more with our solution.

Please read this document carefully before you install our product.

Target Audience

This guide is intended for users who want to use TelephoneIntegration for Microsoft Dynamics CRM 2015/2016 and Dynamics 365 who have the following minimum skills:

- Basic Microsoft Dynamics CRM/Dynamics 365 knowledge
- Maintaining and configuring a Microsoft CRM/Dynamics 365 Organization

Supported Web Browsers and versions

Supported Web Browsers:

- Internet Explorer 9 and higher
- Chrome
- Edge
- Firefox

One of the following versions of Microsoft Dynamics CRM must be available:

- Microsoft Dynamics CRM Server 2015/2016
- Microsoft Dynamics 365
- Microsoft Dynamics CRM Online

Any one of the following operating systems is required:

- Windows 10
- Windows 8.1 (64-bit and 32-bit versions)
- Windows 8 (64-bit and 32-bit versions)
- Windows 7 (64-bit and 32-bit versions)
- Windows Vista SP2 (6-bit and 32-bit versions)

Windows Server 2012, Windows Server 2008 R2, or Windows Server 2008 when running as a Remote Desktop Services application.

Purpose of TelephoneIntegration Client?

TelephoneIntegration Client for Microsoft Dynamics CRM/Dynamics 365 enables you to connect your phone system (CTI) to Microsoft Dynamics 2015/2016/Dynamics 365.

1 How to install TelephoneIntegration Client for Microsoft Dynamics CRM 2015/2016 and Dynamics 365

Thank you for installing TelephoneIntegration for Microsoft Dynamics CRM 2015/2016 and Dynamics 365. In the course of this chapter, you will learn more about the installation and the configuration of our add-on.

1.1 First steps

Please login to our website and download the TelephoneIntegration Client for MS CRM 2016/Dynamics 365 .exe-file in order to start the TelephoneIntegration Client Installation. Please make sure that you install version 8.113 if you use Microsoft Dynamics 365.

Installer

Title	Category	Modified Date	Size
TelephoneIntegration Server for MS CRM 2016 / Dynamics 365	v2016.103	11/8/2016	27.41 MB Download
TelephoneIntegration Server for MS CRM 2015 / CRM 2016 / Dynamics 365	v2015.103	11/8/2016	27.24 MB Download
TelephoneIntegration Client for MS CRM 2015	v7.112	11/9/2016	73.69 MB Download
TelephoneIntegration Client for MS CRM 2016 / Dynamics 365	8.113	11/9/2016	73.69 MB Download

Figure 1: TelephoneIntegration Client for Microsoft CRM version 8.113

Next, run the *TelephoneIntegration Client for MS CRM.exe* Setup-file.

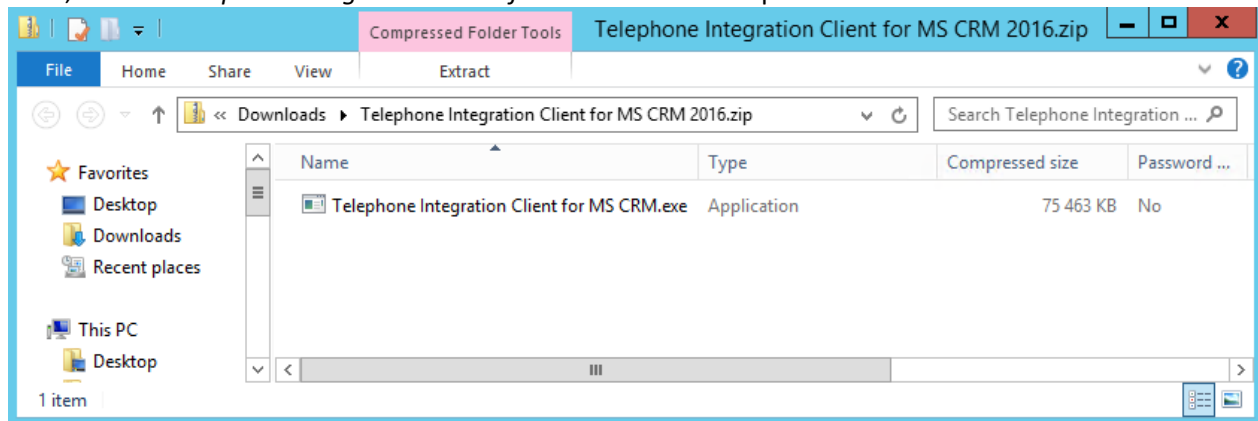


Figure 2: TelephoneIntegration Client for Microsoft CRM .exe-file

The following window appears. Please click on the **[Next]**-button in order to proceed.

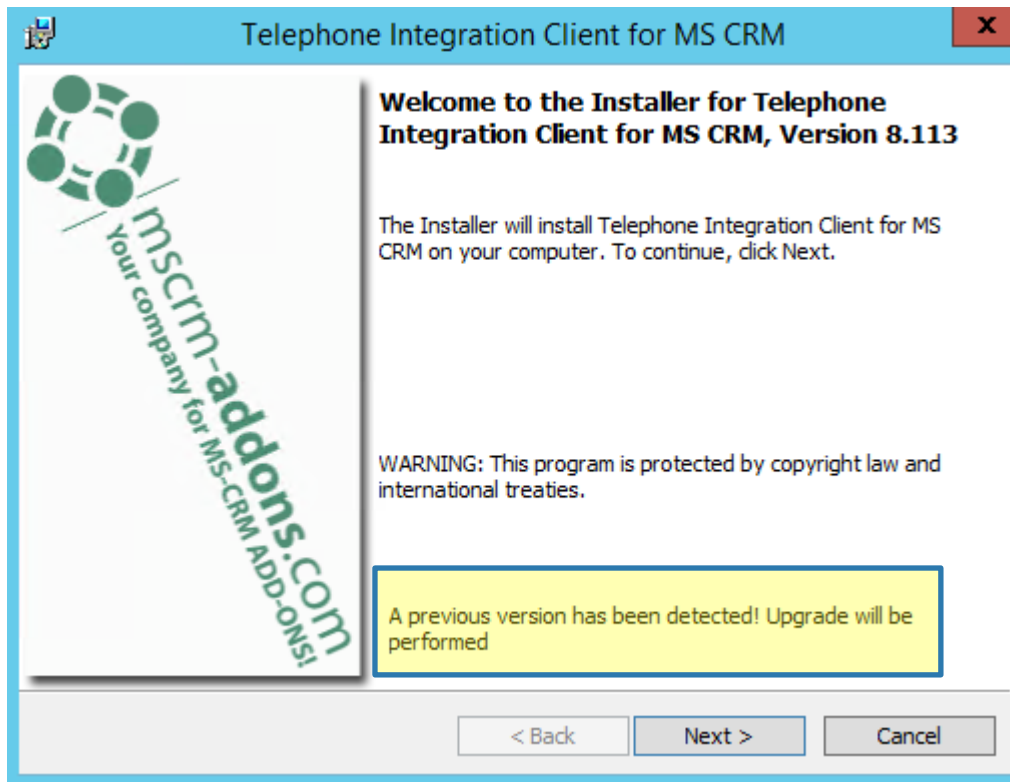


Figure 3: TelephoneIntegration Client Installer



If you do not install TelephoneIntegration for the very first time, but you execute an upgrade, the message highlighted in Figure 3 appears and after accepting the EULA, the installation wizard will directly jump to [CHAPTER 1.7 UPDATE FILES IN USE – FOR UPDATES ONLY ON PAGE 11](#). If you install TelephoneIntegration for the first time, simply proceed with the regular installation.

1.2 The EULA (End User License Agreement)

Next, please accept the EULA (End User License Agreement). Please read it carefully. You could also print the agreement with a click on the **[Print]**-button. If you do not accept the agreement, you cannot proceed with the installation. However, please click on the **[Next]**-button in order to proceed.

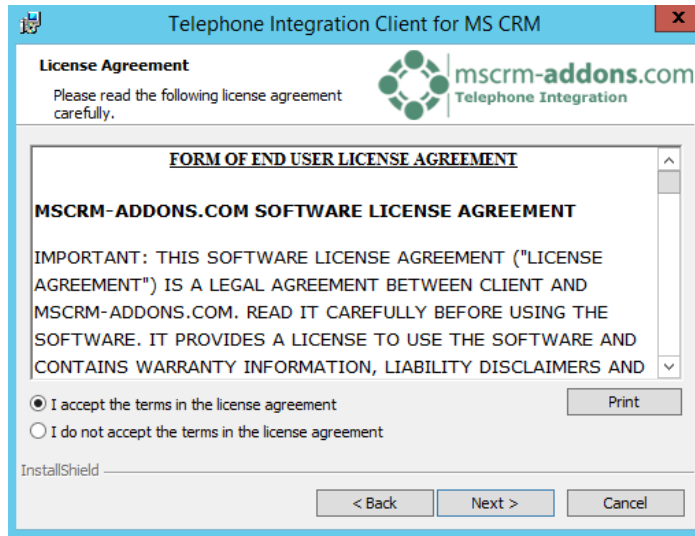


Figure 4: TelephoneIntegration EULA

1.3 Folder selection

In the folder selection, you can specify in which folder you would like to install the installation. Click on the **[Change]**-button if you want to specify a different installation path. Click on the **[Next]**-button in order to proceed with the installation.

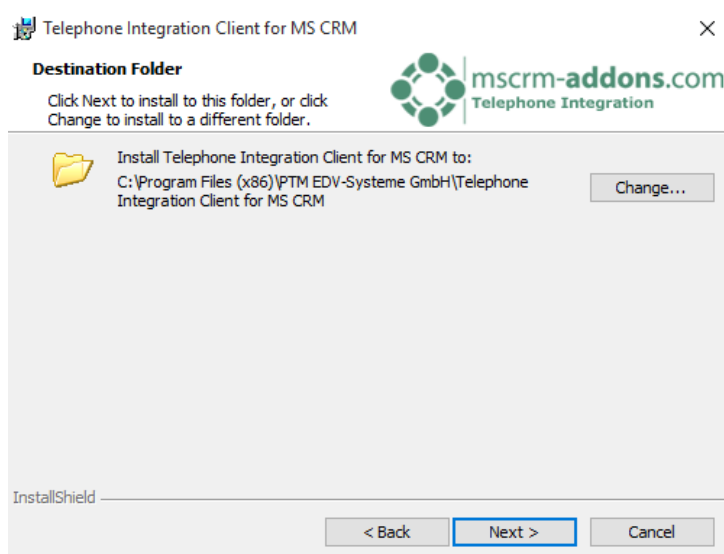


Figure 5: TelephoneIntegration – Folder selection

1.4 Start options

In the next window, the start options can be defined. TelephoneIntegration can be started automatically on the Windows start or directly after the installation – it's your choice. Anyway, click on the **[Next]**-button in order to proceed.

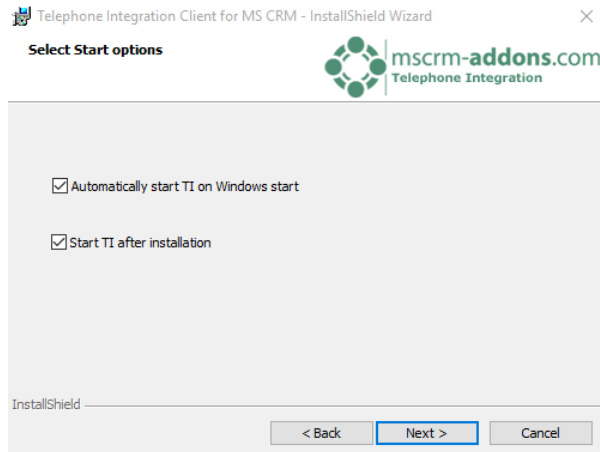


Figure 6: TelephoneIntegration – Start options

1.5 Confirm the installation

Click on the **[Install]**-button in order to start the installation. To change the previously set settings once more, click on the **[< Back]**-button.

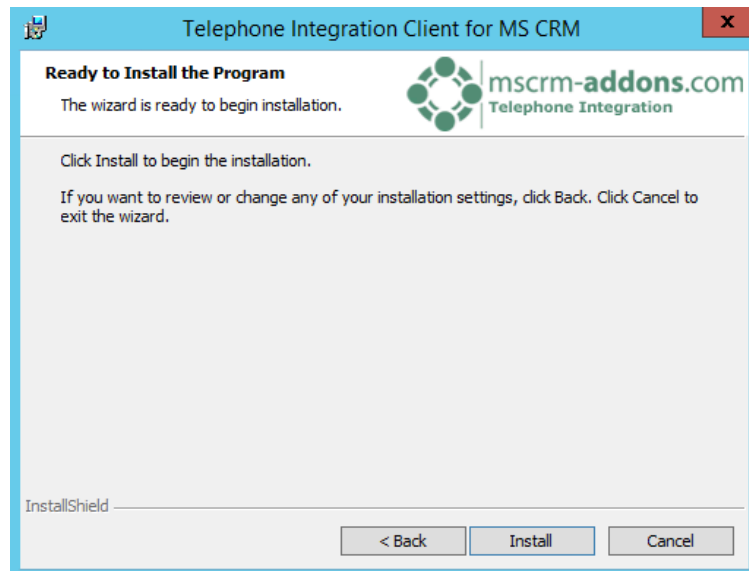


Figure 7: TelephoneIntegration - Installation

1.6 Configure the CRM Connection setup

Next, please configure your Microsoft Dynamics CRM Server, select your profile or create a new profile and select your CRM server type. Then, select the server path and add your login credentials by filling in the field's username, password and domain or select the default credentials. For further information on the [CRM Connection setup dialog](#), please have a look at the documentation of the same name on our website. However, please click on the **[OK]**-button in order to proceed as soon as all the organizations are retrieved.

Logon information

Welcome to your CRM Connection setup.
Please specify your connection details to connect to CRM. If you do not know the connection details, please contact your system administrator

CRM Connection
Advanced Settings | Log

Existing Profiles [HKLM] crm:5555 - Standard Manage

Select your Crm Type

Standard (onPremise)
 IFD (Hosted)
 Crm Online

CRM Server-Url:

✔

Authenticated as:

Use default Credential **Integrated Security (CRMTEST0\administrator)**

Username
 Domain
 Password

Retrieve all Organizations

Organization information:

Friendly name	Unique name	ServiceURL
Standard	Standard	Standard
PTM EDV System...	PTMEDVSystemeG...	PTMEDVSystemeGmbH
crm2016	crm2016	crm2016

Reset LiveID Cache
OK
Cancel

Figure 9: TelephoneIntegration - Installation

1.7 Update files in use – FOR UPDATES ONLY



The next window appears only, if you execute an update. It does not appear during the regular installation, so if you install TelephoneIntegration for the first time, please skip this step.

In the following window, you can manage the update function. Decide, if you want the application to be closed and restarted automatically or if the application should not be closed after the update. Anyway, please click on the **[OK]**-button in order to proceed.

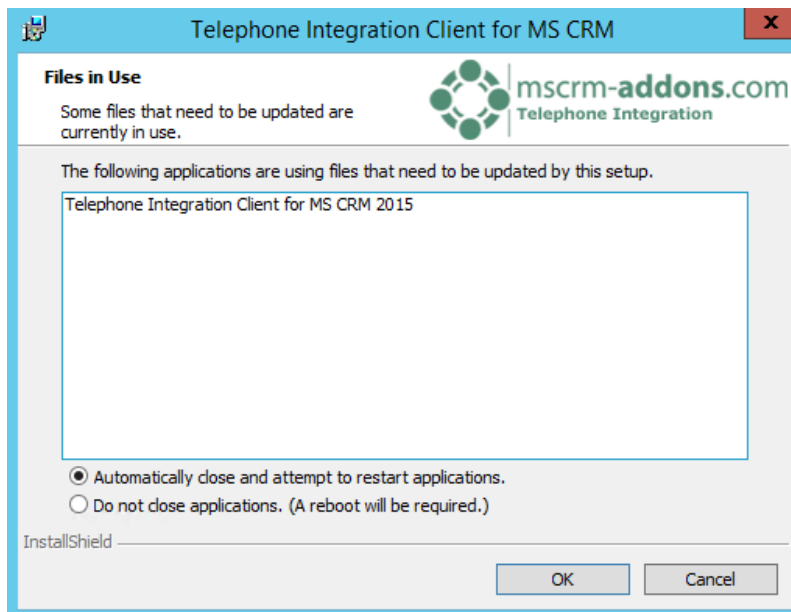


Figure 10: TelephoneIntegration – update required (only if it is an update and not a new installation)

1.8 Configure Integrations

There are thirteen interfaces TelephoneIntegration Client can be used with. In the next step, you can select which Telephone plugin you would like to use as an active and default one. Please have a look at chapter 4.4 THE PHONE TAB ON PAGE 36 in order to get a detailed overview on the functionalities of the different interfaces. Click on the **[Save]**-button in order to proceed.

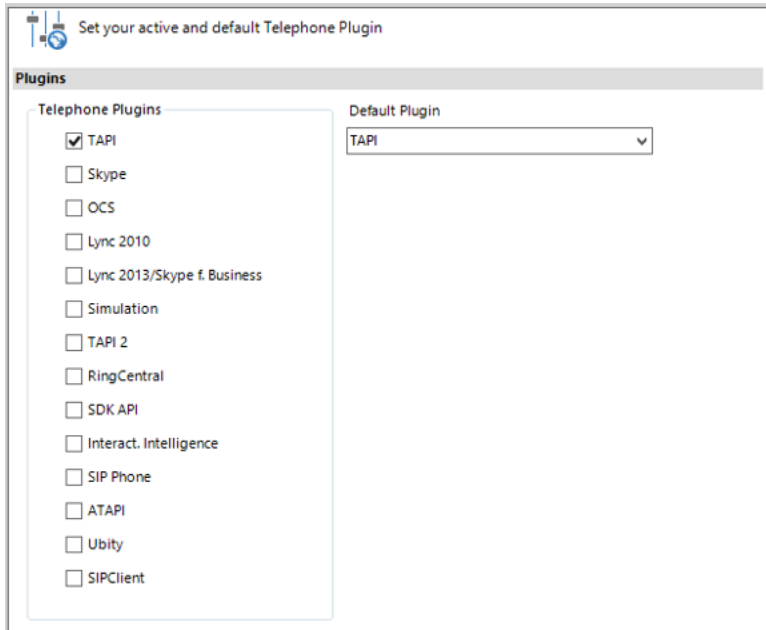


Figure 11: Configure Integrations

Once all settings are defined, you will have to wait until the program features you have selected are being installed. This may take several minutes. So, enjoy some coffee!

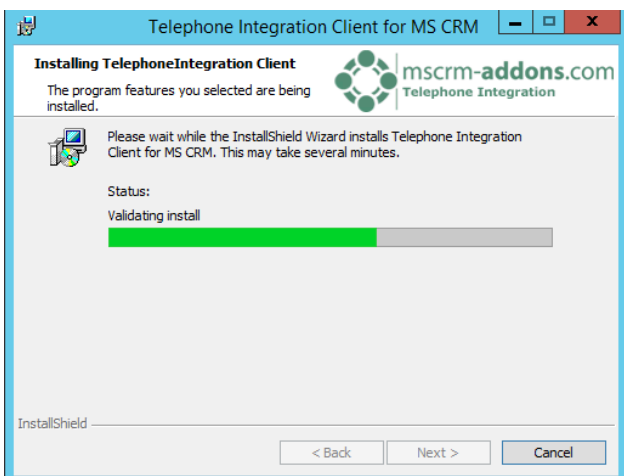


Figure 12: TelephoneIntegration – Installation process

1.9 Finish the installation

Finally, click on the **[Finish]**-button in order to complete the installation.

Depending on the options defined in [CHAPTER 1.4 START OPTIONS ON PAGE 9](#), the Client will start automatically or it can be started as described in [CHAPTER 2 GETTING STARTED ON PAGE 14](#).

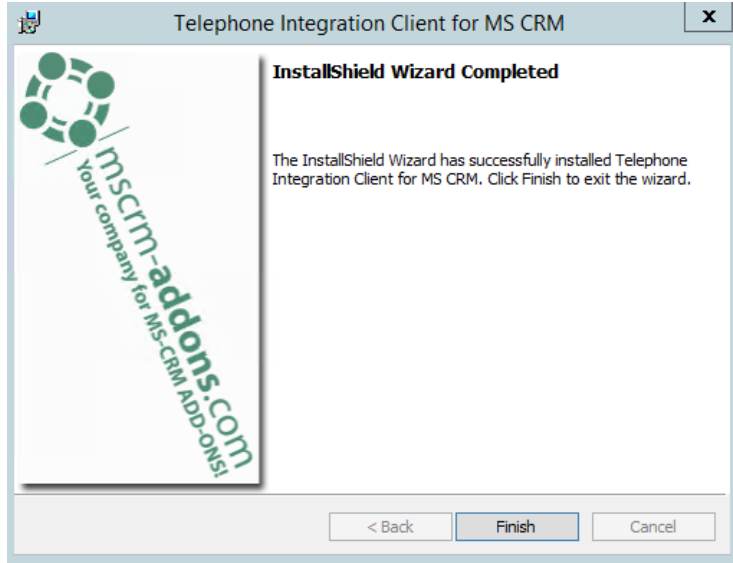


Figure 13: TelephoneIntegration – Installation process

2 Getting started

Depending on your configuration in [CHAPTER 1.4 START OPTIONS ON PAGE 9](#), TelephoneIntegration Client starts automatically. But it could be started from the start pane as well. To do so, simply search for TelephoneIntegration Client in the start pane and hit the **[Enter]**-button on your keyboard.

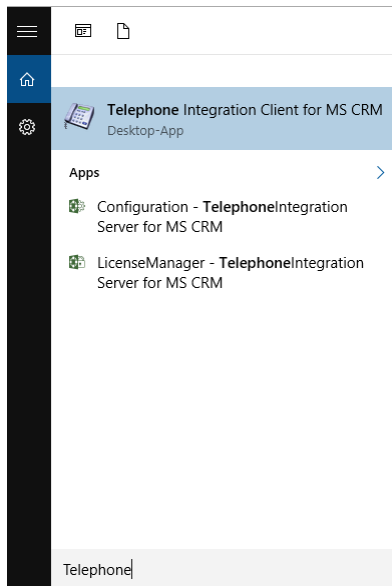


Figure 14: Getting Started

Once started, the TelephoneIntegration Client Icon appears in the task bar.

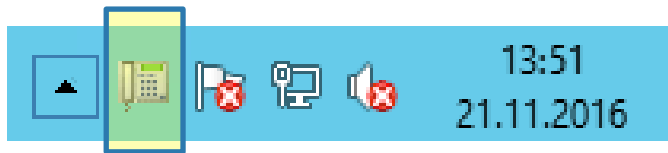



Figure 15: Task Bar with TelephoneIntegration



If the TelephoneIntegration Client Icon is grey and shows a *STOP*-sign such as this one, the application is  still loading and trying to get a connection to CRM/Dynamics 365.

Please wait until the icon appears in color. Then, the Client is ready to use. Click on the icon in order to open the TelephoneIntegration main interface, also known as the *Balloon*. For further information on the balloon, please have a look at the following chapters.

2.1 The TelephoneIntegration Balloon

The balloon, which is also the main user interface, contains all client-side functionalities of TelephoneIntegration.

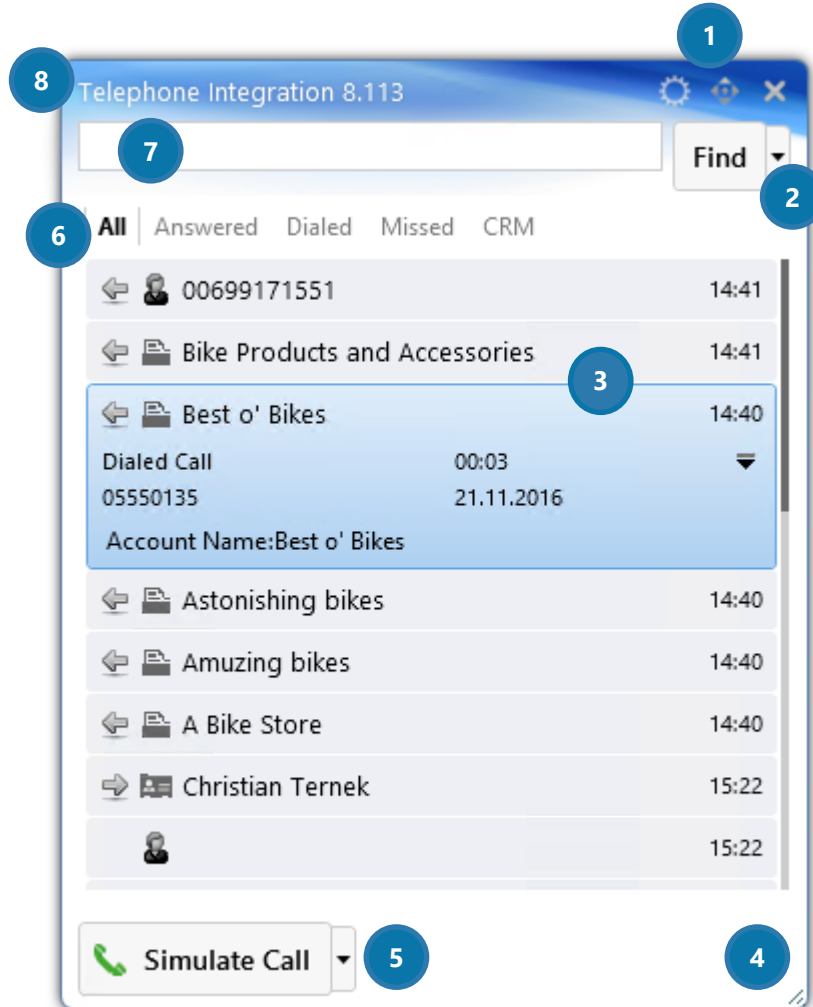


Figure 16: TelephoneIntegration Balloon

1 THE BALLOON CONFIGURATION BUTTONS



The three buttons on the right upper side facilitate the configuration of the balloon interface.

Please click on the **[Gearwheel]**-button (on the left) in order to open the TelephoneIntegration setup. With a click on the button in the middle, you can drag and drop the balloon to another location. Click on the **[x]**-button in order to close the balloon.

2 THE [FIND]-BUTTON

With a click on the [Find]-button, you can find certain numbers in Microsoft Dynamics CRM/Dynamics 365. Furthermore, you can call the inserted number.

3 SEARCH RESULTS AND CALLING LISTS

Search results and calling lists are displayed in two different ways. Usually, you would be provided with the name or number of the entity only.

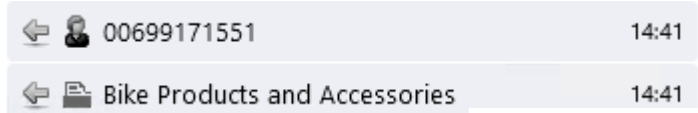


Figure 17: Search results

But if you click on a certain search result or call, you are provided with details regarding the call/search result.

In this example, the details tell us that someone has made an outgoing call that lasted 3 seconds on November, 21st 2016 at 14:40. The number dialed was 05550135. The account name is Best o' Bikes.

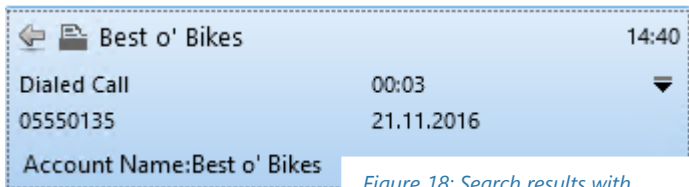


Figure 18: Search results with

4 RESIZE THE TELEPHONEINTEGRATION BALLOON

Drag the small item in the corner in order to resize the TelephoneIntegration Balloon.

5 THE [CALL]-BUTTON

By using the drop-down menu that is part of the **[Call]**-button, you can select via which call plugin you would like to manage the next call. The different call plugins that can be used must be defined in the TelephoneIntegration configuration. Please have a look at [CHAPTER 4 THE TELEPHONEINTEGRATION CLIENT CONFIGURATION ON PAGE 26](#) for further information on the TelephoneIntegration configuration.

6 THE CALL OVERVIEW

Shows all/answered/dialed/missed calls

7 THE NUMBER TEXT FIELD

Please enter the number you would like to call or the item you are searching for here.

8 THE TELEPHONEINTEGRATION VERSION NUMBER

2.2 How to initiate an outgoing call from the balloon

Starting an outgoing call from the TelephoneIntegration balloon is very easy and can be done in two different ways.

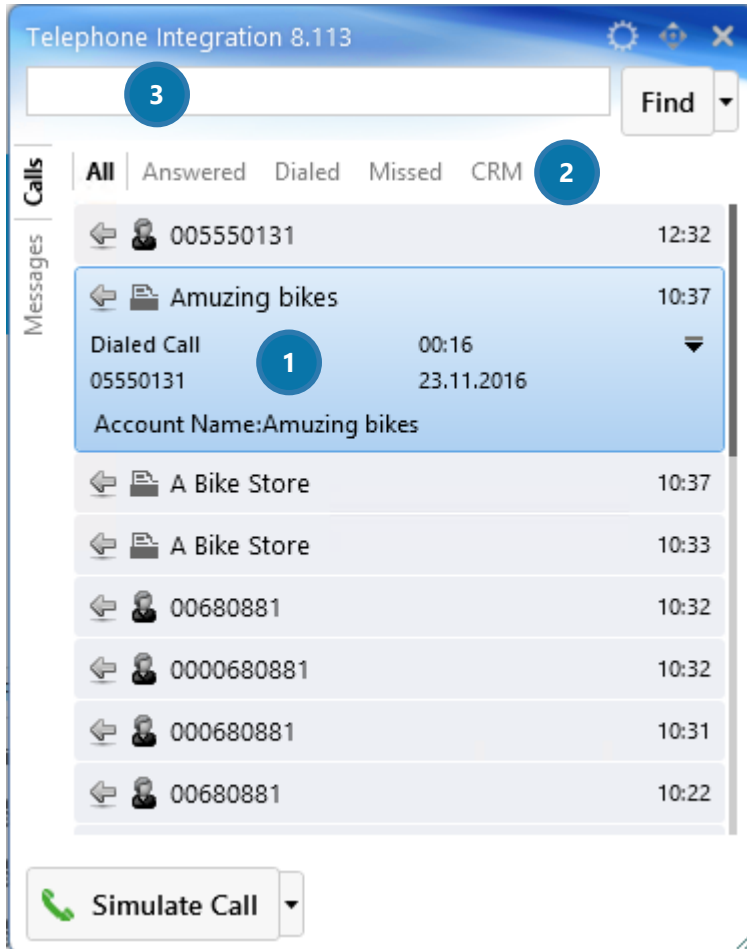


Figure 19: TelephoneIntegration Client

A call can be started by simply double clicking the item **1** (contact, account...) in the list. If you do not have the number in the list, you can search for results from Microsoft Dynamics CRM / Dynamics 365 in the CRM-tab **2** of the TelephoneIntegration Balloon. Please have a look at [CHAPTER 7.3 HOW TO SEARCH FOR AN ITEM ON PAGE 88](#) to see a detailed tutorial. In order to call a number from the so gained results, also simply double click on it.

Additionally, you can just type the number you want to call into the number/text field **3** of the balloon and hit the **[Enter]**-button on your keyboard or click on the **[Call]**-button in TelephoneIntegration directly.

3 The functionalities of TelephoneIntegration Client

TelephoneIntegration Client offers a broad range of different functionalities that facilitate the handling and the analysis of calls.

3.1 Integrated Search

Integrated into the TelephoneIntegration balloon, you can first of all find the Integrated Search.

By using the [Find]-button, it is possible to search for CRM records from within the balloon. The main advantage of that functionality is, that there is no need to open Microsoft Dynamics CRM/Dynamics 365 in order to call a contact, account, lead etc. anymore.



Items can be searched either by phone numbers or name. For further information on how to search for an item, please have a look at [CHAPTER 7.3 HOW TO SEARCH FOR AN ITEM ON PAGE 88](#) in our tutorials.

3.2 The Context Menu

There are several CRM – functionalities that are available in the context menu of a phone call. Please click on the small, down pointing arrow in order to open the context menu.

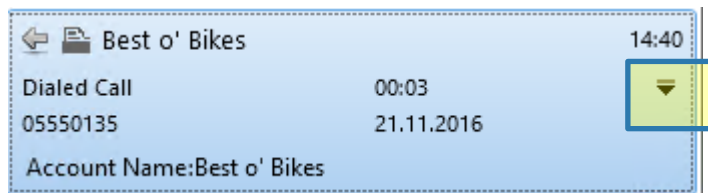
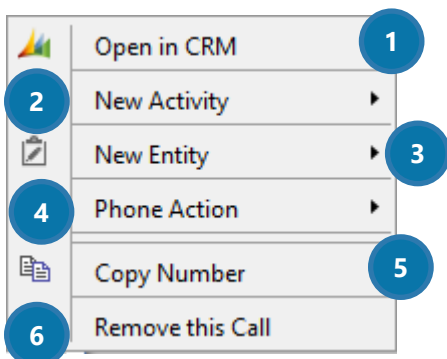


Figure 20: Open context menu

3.2.1 The Context Menu Overview

Now the context menu overview opens. Here, you can modify the call entry and/or apply an activity or entity.



Pa Figure 21: The context menu

1 [OPEN IN CRM](#)

Click here in order to open the entry in Microsoft Dynamics CRM / Dynamics 365.

2 [NEW ACTIVITY](#)

Per default, the following activities are set: Task, Fax, PhoneCall, E-mail, Letter.

But it is also possible to define Custom Activities. For further information on how to create custom activities, please have a look at [CHAPTER 0 IN ORDER TO SELECT ANOTHER](#) language pack, navigate to your installation path and look for the *Localization*-folder.

You can install language files (XML-documents) here or change already existing language files. To change values inside of the file, open the XML-file and change the following values. Once closed, the file will be saved automatically.

It is recommended to make a backup-file of the file you are editing. Furthermore, it is very important to never change the key attributes!

How to create custom activities [ON PAGE 89](#).



If the user does not have the sufficient CRM-rights to create these records, the functionalities are automatically disabled.

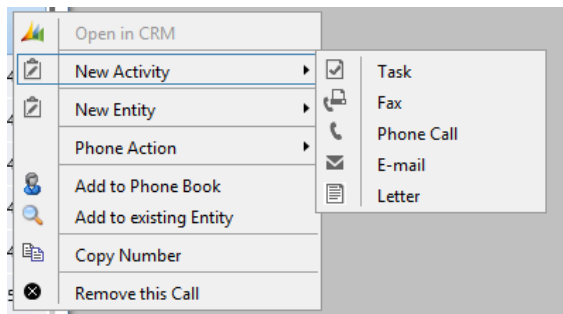


Figure 22: New Activity - extended

3 NEW ENTITY

Per default, the following standard entities are set: Create Case, Create Opportunity, Create Contact, Create Account and Create Lead.

But it is also possible to define Custom Entities. For further information on how to create custom entities, please have a look at [CHAPTER 7.6 HOW TO CREATE CUSTOM ENTITIES ON PAGE 91](#).



If the user does not have the sufficient CRM-rights to create these records, the functionalities are automatically disabled.

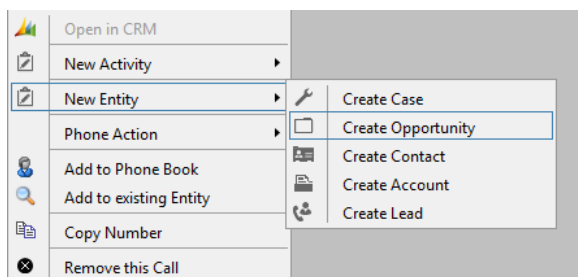


Figure 23: New Entity - extended

4 PHONE ACTION

This functionality allows you to apply actions on your phone call.

You can hold, unhold (retrieve a call from hold) or transfer a call (transfer it to another line).



This functionality depends on the plugin you have in use. As for the moment, this function is only supported by the SIPClient Plugin and ATAPI.

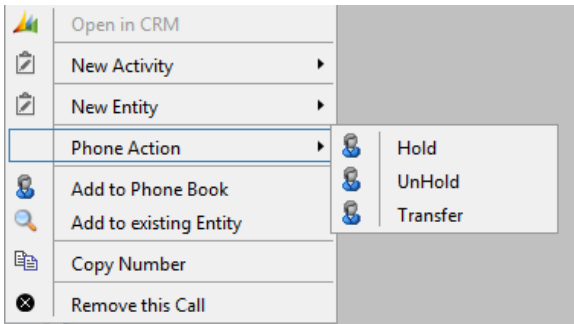


Figure 24: New Entity - extended

5 COPY NUMBER

Click here in order to copy a certain number from the list.

6 REMOVE THIS CALL

Click here in order to remove the call from the list.

3.3 The Application Menu

There are several TelephoneIntegration – functionalities that are available in the application menu of TelephoneIntegration. Please right click on the TelephoneIntegration icon in order to open the application menu.

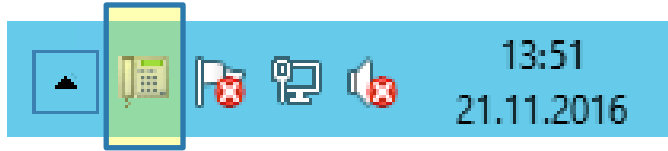


Figure 25: Task Bar with TelephoneIntegration icon

3.3.1 The Application Menu overview

Now the application menu overview opens. Here, you can modify your application.

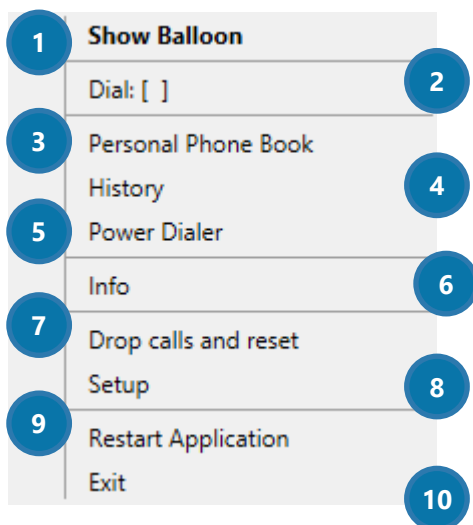


Figure 26: Application Menu Overview

1 SHOW BALLOON

Click here in order to open the balloon.

2 DIAL: []

Click here in order to dial the number directly from the menu.

3 PERSONAL PHONE BOOK

Click here in order to open your personal phone book. For further information on this topic, please have a look at [CHAPTER 3.4 THE PERSONAL PHONE BOOK ON PAGE 23](#).

4 HISTORY

Click here in order to open the call history. For further information on this topic, please have a look at [CHAPTER 3.5 HISTORY ON PAGE 24](#).

5 [POWERDIALER](#)

Click here in order to open the PowerDialer directly from the menu. For further information on this topic, please have a look at [CHAPTER 6 THE POWER DIALER ON PAGE 76](#).

6 [INFO](#)

Click here in order to get more information about your license state.

7 [DROP CALLS AND RESET](#)

Click here in order to reset the CTI. In case of any communication issues with the connected call-info-provider, click here.

8 [SETUP](#)

Click here in order to setup the TelephoneIntegration Configuration. For further information on this topic, please have a look at [CHAPTER 4 THE TELEPHONEINTEGRATION CLIENT CONFIGURATION ON PAGE 26](#).

9 [RESTART APPLICATION](#)

Click here in order to restart the application.

10 [EXIT](#)

Click here to exit the application menu.

3.4 The Personal Phone Book



The personal phone book is not part of Microsoft Dynamics CRM/Dynamics 365.

The personal phone book allows you to store information of people that are not in the CRM system and should not be part of it. The information here is saved here automatically, but not as an entity, lead or opportunity. The entries can be sorted by first name, last name or phone number.

In order to add information, simply insert the phone number, first name and last name in the white fields and click on the **[Add Info]**-button.

	Phone Number	First Name	Last Name	
>	+43316123456	John	Smith	
	+43699171551	Jane	Cumberbatch	
	+43422732	Reginald	Peterson	

Figure 27: Personal Phone Book

3.5 History

The call history provides you with an overview of all your calls.



The records saved here are stored on the CRM server and cannot be deleted by users.

Crm Data	Date	Time	Direction	Phone Number	Caller Name	Duration	Originated From
✓	11/21/2016	4:30 PM	←	05550135	Best o' Bikes	00:00:22	
	11/21/2016	2:41 PM	←	00699171551		00:00:00	
✓	11/21/2016	2:41 PM	←	05550134	Bike Products and Accessories	00:00:03	
✓	11/21/2016	2:40 PM	←	05550135	Best o' Bikes	00:00:03	
✓	11/21/2016	2:40 PM	←	05550135	Astonishing bikes	00:00:01	
✓	11/21/2016			5550131	Amazing bikes	00:00:00	
✓	11/21/2016			680881	A Bike Store	00:00:02	

Figure 28: Call History

1 THE CALL HISTORY DATA BAR

This bar contains all the data regarding the last calls made. A checked field in the column Crm Data column means that there is related data in CRM to that specific call.

2 COPY A NUMBER

Right click on one of the fields and then click on the so appearing [Copy number]-button.

3 OPEN AN ENTRY IN CRM

Click on the caller name (underlined, blue) in order to open the related entry in your Microsoft Dynamics CRM/Dynamics 365.

4 PAGE NUMBER

5 [CALL] - BUTTON

If you mark a call in the history and then click on the [CALL]-button, you can call directly from within the call history and do not have to go back to the balloon or your Microsoft Dynamics CRM / Dynamics 365.

6 THE [DASHBOARD] - BUTTON

Click on the [DASHBOARD]-button in order to open the Microsoft Dynamics CRM / Dynamics 365 dashboard. It will provide you with diagrams that display your call history.

If you mark a history entry and then click on the [CALL]-button, you can call directly from within the call history. The dashboard can be modified to fit your personal needs.

Telephone Integration Overvi... ▾



Figure 29: Example for a customized TelephoneIntegration dashboard

4 The TelephoneIntegration Client Configuration

The configuration can be started directly from within the application menu. For further information on how to access the configuration, please have a look at [CHAPTER 3.3 THE APPLICATION MENU ON PAGE 21](#).

The Configuration itself consists of various tabs. In the course of the following chapters, you will be provided with detailed information regarding the possibilities the Online Configuration offers.

4.1 The General Tab

Using the functionalities of the General-tab, you can set up the general behavior of TelephoneIntegration Client.

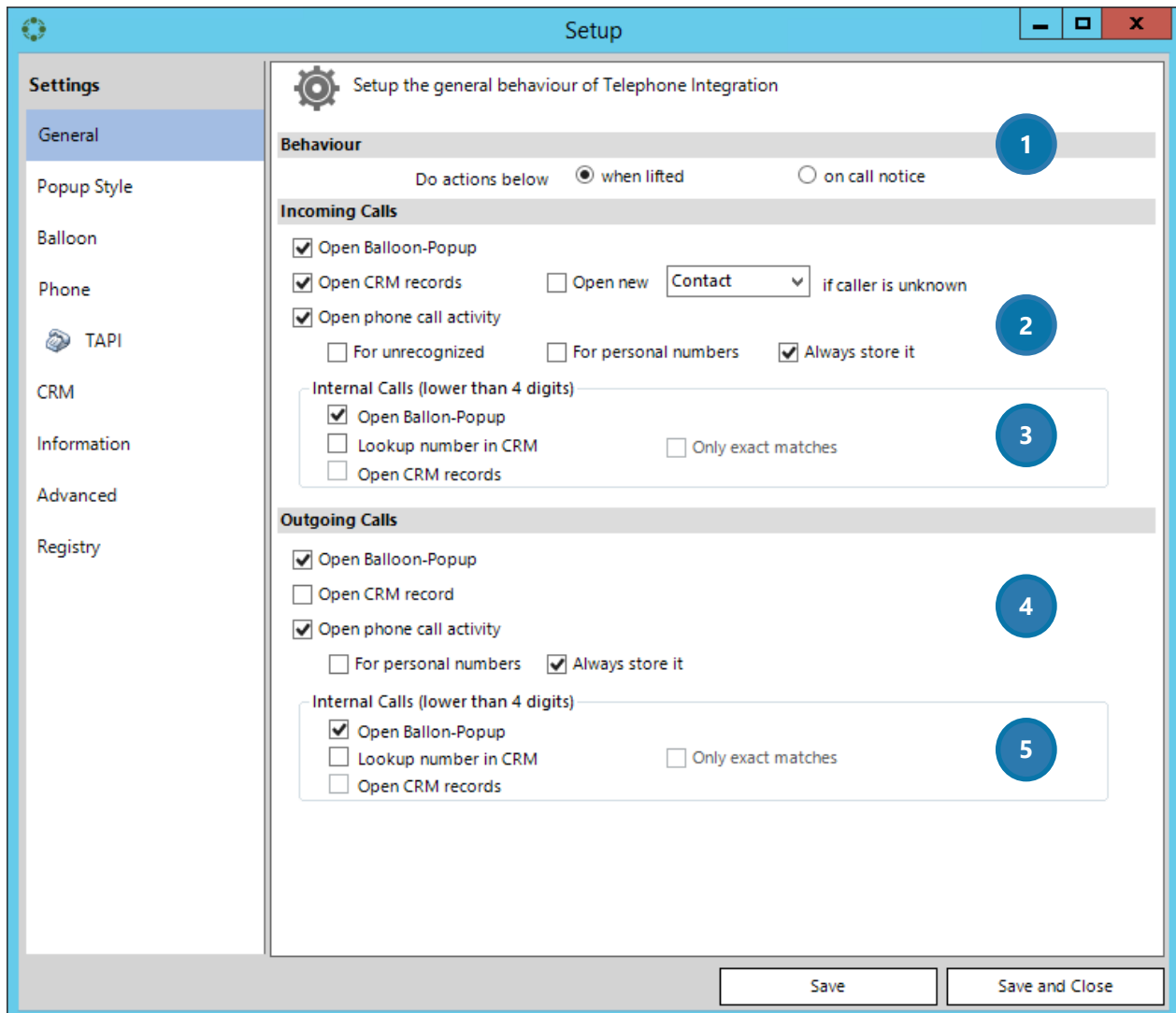


Figure 30: TelephoneIntegration Setup – General-tab

1 BEHAVIOR

Here, you can define when the below settings should be applied to future calls. They can be applied when lifted or on call notice.

2 INCOMING CALLS (EXTERNAL)

In general, the TelephoneIntegration Client distinguishes between incoming internal (e.g. from the same office) and incoming external calls (e.g. from a partner situated in another country).

Incoming external calls are identified by the length of the telephone number (> than 4 digits) or by the domain name (in case of SIP). In this section, you can define the following points:

OPEN BALLOON-POPUP

Check this box if you want the TelephoneIntegration Balloon to pop-up when you receive an incoming external call.

OPEN CRM RECORDS

Check this box if you want the related CRM record to be shown when you receive an incoming external call.

OPEN NEW CONTACT / ACCOUNT / LEAD IF CALLER IS UNKNOWN (DROP-DOWN MENU)

Define which CRM record should be opened when the caller is unknown. The unknown number will be automatically shown in that particular record.

OPEN PHONE CALL ACTIVITY

if you receive a call and you lift the handset, TelephoneIntegration can create one of the following phone call activities:

FOR UNRECOGNIZED

The phone call activity will open if somebody is calling with an unknown number that is not stored in your Microsoft Dynamics CRM / Dynamics 365.

FOR PERSONAL NUMBERS

The phone call activity will open if somebody is calling with a number that has already been stored in your Microsoft Dynamics CRM / Dynamics 365.

ALWAYS STORE IT

A new phone call activity will be opened and stored in any case.

3 INCOMING CALLS (INTERNAL)

In general, the TelephoneIntegration Client distinguishes between incoming internal (e.g. from the same office) and incoming external calls (e.g. from a partner situated in another country).

Incoming internal calls are identified by the length of the telephone number (< than 4 digits) or by the domain name (in case of SIP numbers).

Distinguishing calls that way, TelephoneIntegration Client can determine, if a phone call with a certain number should be processed or not.

Processed means in that case:

- Should the number be recognized (resolved) as a CRM record?
- Should the corresponded *CRM entity* be opened for that call?
- Should the *Call Phone activity* be opened for that call?

In this part of the General-tab, you can determine how to proceed with incoming internal calls:

OPEN BALLOON-POPUP

Check this box if you want the TelephoneIntegration Balloon to pop-up when you receive an incoming internal call.

LOOKUP NUMBER IN CRM

Check this box if the TelephoneIntegration Client should search for an incoming internal number in your Microsoft Dynamics CRM / Microsoft Dynamics 365.

OPEN CRM RECORDS

Check this box if you want the related CRM record to be shown when you receive an incoming internal call.

ONLY EXACT MATCHES

Check this box, if you only want records to be shown that are equal to the phone number. Otherwise, TelephoneIntegration would also show records that end with the searched phone number digits.

4 OUTGOING CALLS (EXTERNAL)

In general, the TelephoneIntegration Client distinguishes between outgoing internal (e.g. to the same office) and outgoing external calls (e.g. to a partner situated in another country).

Outgoing external calls are identified by the length of the telephone number (> than 4 digits) or by the domain name (in case of SIP). In this section, you can define the following points:

OPEN BALLOON-POPUP

Check this box if you want the TelephoneIntegration Balloon to pop-up when you make an outgoing external call.

OPEN CRM RECORDS

Check this box if you want the related CRM record to be shown when you make an outgoing external call.

OPEN PHONE CALL ACTIVITY

if you call a number, TelephoneIntegration can create one of the following phone call activities:

FOR PERSONAL NUMBERS

The phone call activity will open if you call somebody whose number has already been stored in your Microsoft Dynamics CRM / Dynamics 365.

ALWAYS STORE IT

A new phone call activity will be opened and stored automatically.

3 OUTGOING CALLS (INTERNAL)

In general, the TelephoneIntegration Client distinguishes between outgoing internal (e.g. to the same office) and outgoing external calls (e.g. to a partner situated in another country).

Outgoing internal calls are identified by the length of the telephone number (< than 4 digits) or by the domain name (in case of SIP).

Distinguishing calls that way, TelephoneIntegration Client can determine, if a phone call with a certain number should be processed or not.

Processed means in that case:

- Should the number be recognized (resolved) as a CRM record?
- Should the corresponded *CRM entity* be opened for that call?
- Should the *Call Phone activity* be opened for that call?

In this part of the General-tab, you can determine how to proceed with outgoing internal calls:

OPEN BALLOON-POPUP

Check this box if you want the TelephoneIntegration Balloon to pop-up when you make an outgoing internal call.

LOOKUP NUMBER IN CRM

Check this box if the TelephoneIntegration Client should search for an outgoing internal number in your Microsoft Dynamics CRM / Microsoft Dynamics 365.

OPEN CRM RECORDS

Check this box if you want the related CRM record to be shown when you make an outgoing internal call.

ONLY EXACT MATCHES

Check this box, if you only want records to be shown that are equal to the phone number. Otherwise, TelephoneIntegration would also show records that end with the searched phone number digits.

4.2 The Popup Style Tab

Using the functionalities of the Popup Style-tab, you can set up the TelephoneIntegration Client's style when it is opened.

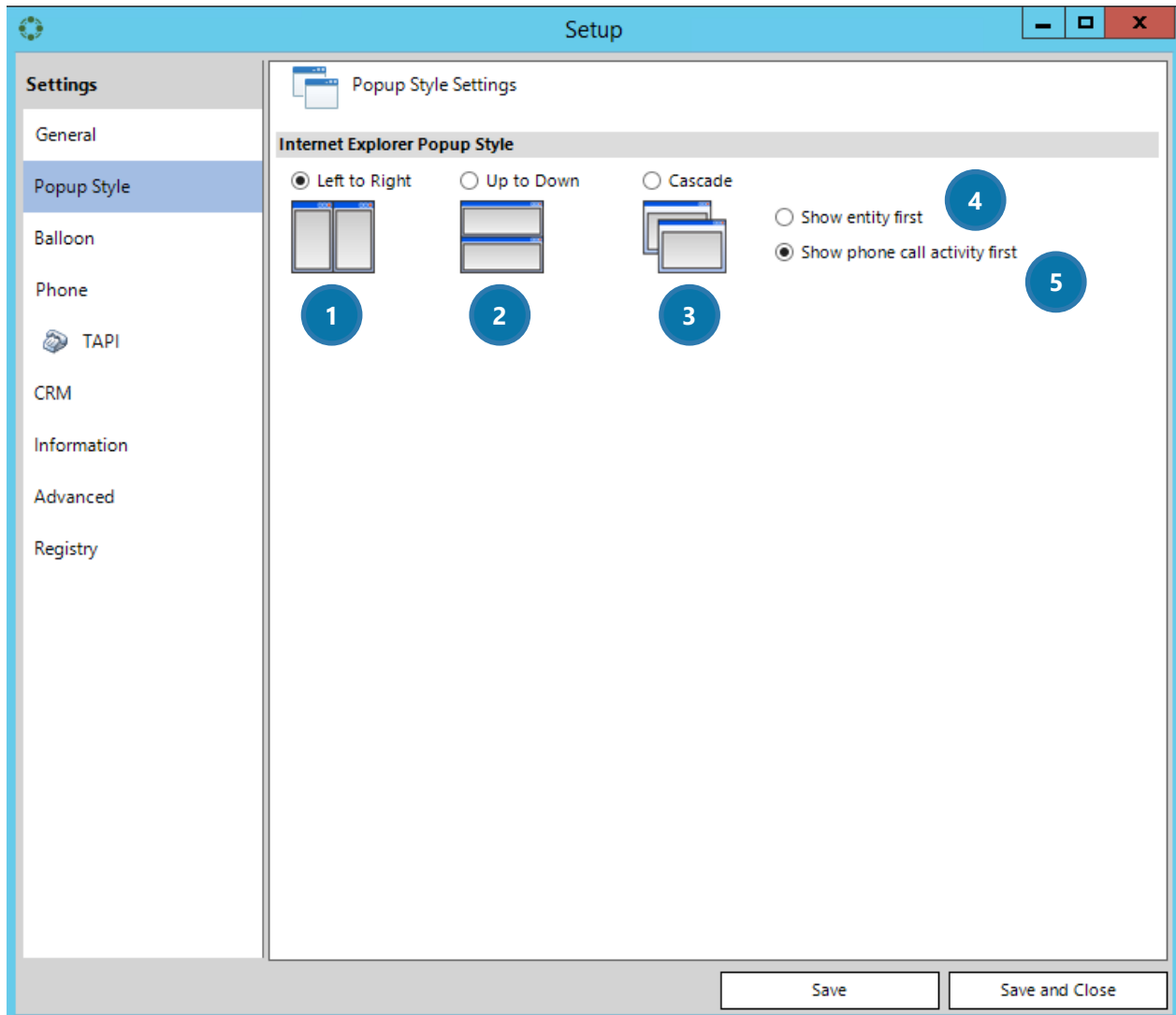


Figure 31: TelephoneIntegration Setup – Popup Style - tab

TelephoneIntegration provides you with the possibility to automatically open CRM records and a new phone-call activity in separate browser windows. Users can define the position and order of the Microsoft Dynamics CRM/Dynamics 365 record-window and the *phone call activity*-window here. Please find some example for each popup style on the next pages.



All changes done here are immediately applied to the next call.

3 CASCADE



In the cascade style, two new windows of the same size pop up. They do have the exact same position. However, for demonstrating purposes, we decided to display one bigger and one smaller window, although in the live system both windows are actually of the same size.

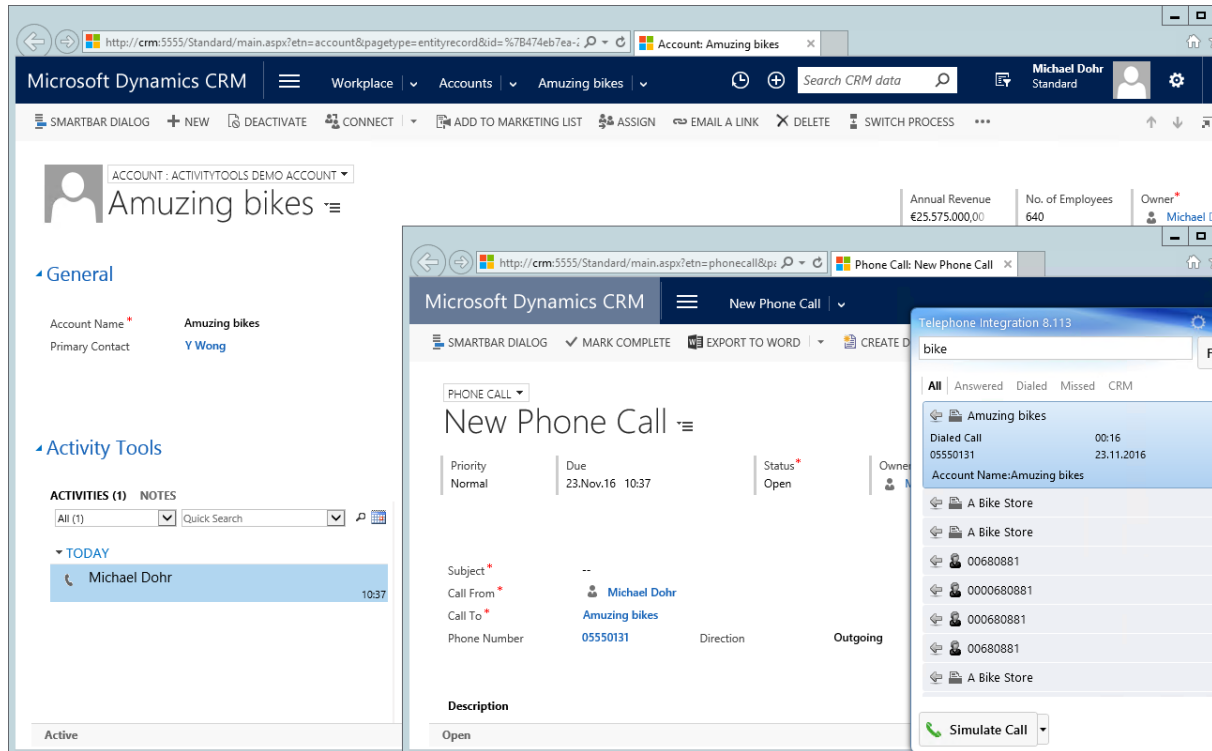


Figure 34: Example for cascade pop-up style including the TelephoneIntegration Balloon

4 SHOW ENTITY FIRST

If you check this option, the first window will show the entity, while the second one will show the phone call activity. All the above examples are based on that option.

5 SHOW PHONE CALL ACTIVITY FIRST

If you check this option, the first window will show the phone call activity, while the second one will show the entity.

4.3 The Balloon Tab

Using the functionalities of the Balloon-tab, you can define the settings of the TelephoneIntegration Client balloon.

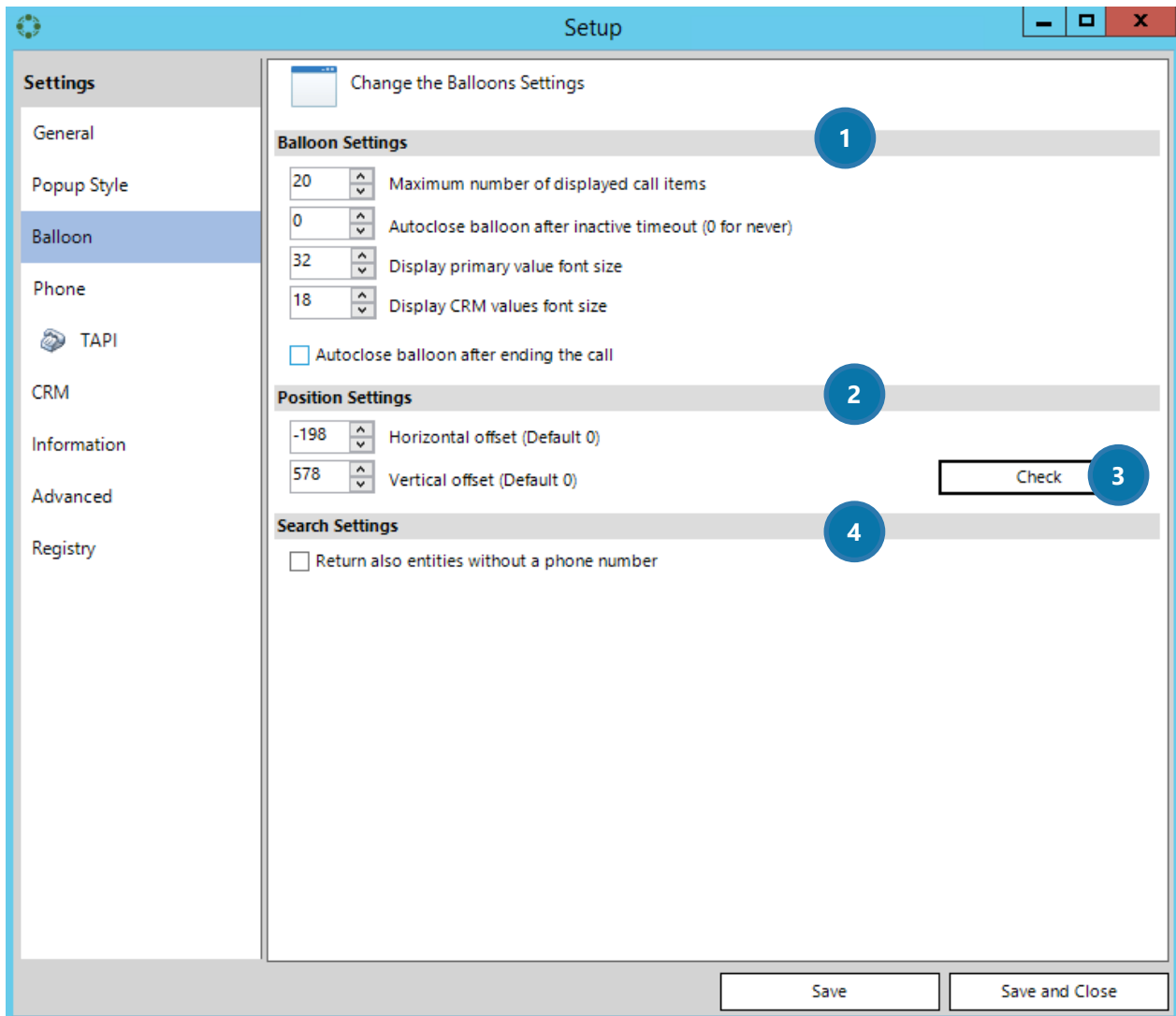


Figure 35: TelephoneIntegration Setup – Balloon - tab

1 THE BALLOON SETTINGS

In this section, you can define the number of displayed call items, if the balloon should be closed automatically after ending the call or after a certain amount of time and the font size by using the up and down arrows.

2 THE POSITION SETTINGS

In this section, you can define the spacing between the balloon and the right screen edge (horizontal) and/or the bottom screen edge (vertical).



If you use the Lync2010 or the Lync 2013 Plugin, we recommend a minimum value of 100, because otherwise the Balloon and the Lync Client pop-up could overlap.

3 THE **[CHECK]**-BUTTON

Click on the **[Check]**-button in order to check if the position of the TelephoneIntegration balloon you have previously set here fits your requirements.

4 THE SEARCH SETTINGS

Check this box if you want to return all entities (including such that do not contain a telephone number) when you search for a number in the balloon.

4.4 The Phone Tab

Using the functionalities of the Phone-tab, you can define which interface should be used to connect the phone system with Microsoft Dynamics CRM / Dynamics 365.

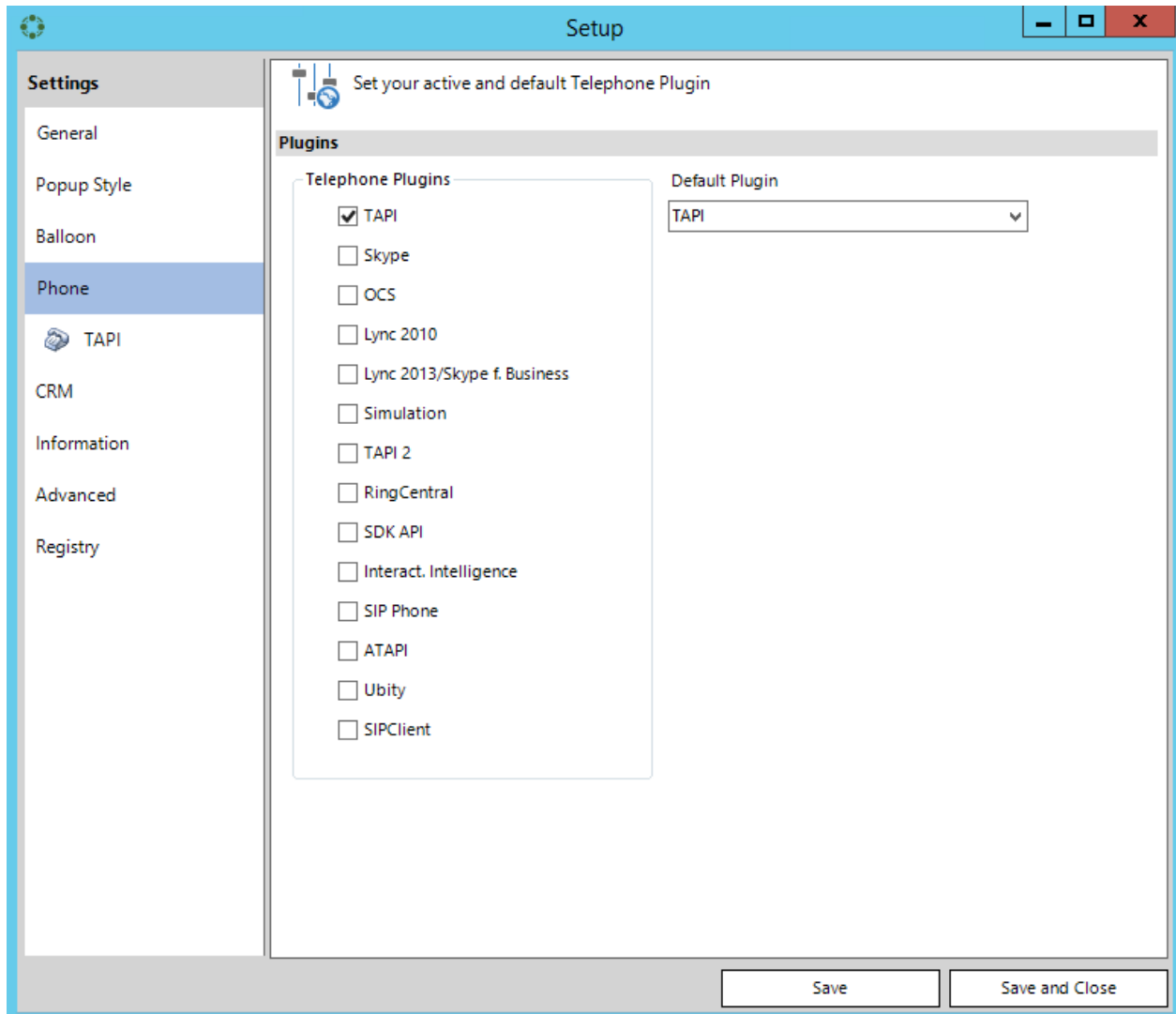


Figure 36: TelephoneIntegration Setup – Phone - tab

If you select one plugin from the TelephonePlugins list, it appears in the Default Plugin list. In the drop-down menu, you can then select which plugin you would like to have installed per default. In the course of the following chapters, we will provide you with information regarding the plugins above listed.

4.4.1 TAPI

Check this option only, if you have a valid TAPI (**T**elephony **A**pplication **P**rogramming **I**nterface) driver on your computer. A TAPI enables computers running on Windows to use certain telephone services, thus allowing applications to control certain functions between a computer and a telephone network (e.g. data, fax and/or calls).



TAPI drivers are PBX dependent, so please contact your PBX vendor for support. Before you proceed with the TelephoneIntegration Client setup, please check the installed TAPI driver with the [TAPI Test Tool](#). Please login to our download section and navigate to TelephoneIntegration. There, you will find the [TAPI Test Tool](#).

To be absolutely sure, you could also try to call out with the WindowsDialer.exe. If all goes well, the TAPI driver works correctly and so, the TelephoneIntegration Client will as well work properly. For users who can access 2 TAPI lines at the same time, please use the TAPI2 Plugin too. Its functionalities are basically the same as the functionalities for TAPI.

4.4.1.1 The TAPI settings

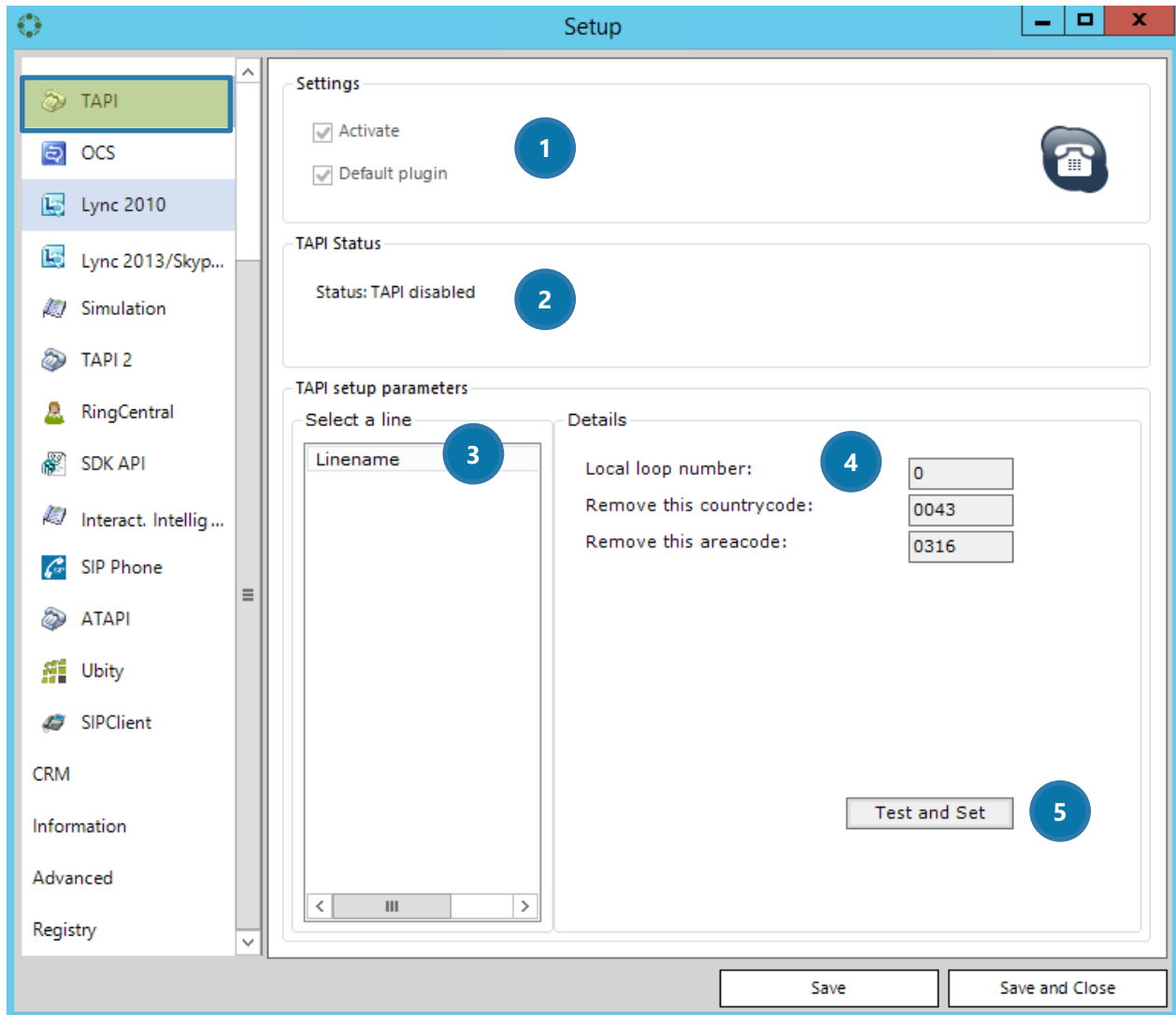


Figure 37: TelephoneIntegration Phone-Tab TAPI settings

1 SETTINGS

Check the *Activate* – option in order to activate TAPI. If unchecked, TAPI is not activated.
Check the *Default plugin* – option in order to set TAPI as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 TAPI STATUS

This section displays the status of the TAPI plugin. It can be enabled or disabled.

3 TAPI SETUP PARAMETERS – SELECT A LINE

In this section, you can select your TAPI line after the installation of the TAPI driver.

4 TAPI SETUP PARAMETERS - DETAILS

In this section, you can set the TAPI setup details.

Should you have any outside access number, it must be inserted into the *Local loop number*-field.

Furthermore, you can define here, that a certain country- and area code must be removed automatically (e.g. when receiving/making calls in your own region)

5 TAPI SETUP PARAMETERS – THE **[TEST AND SET]**-BUTTON

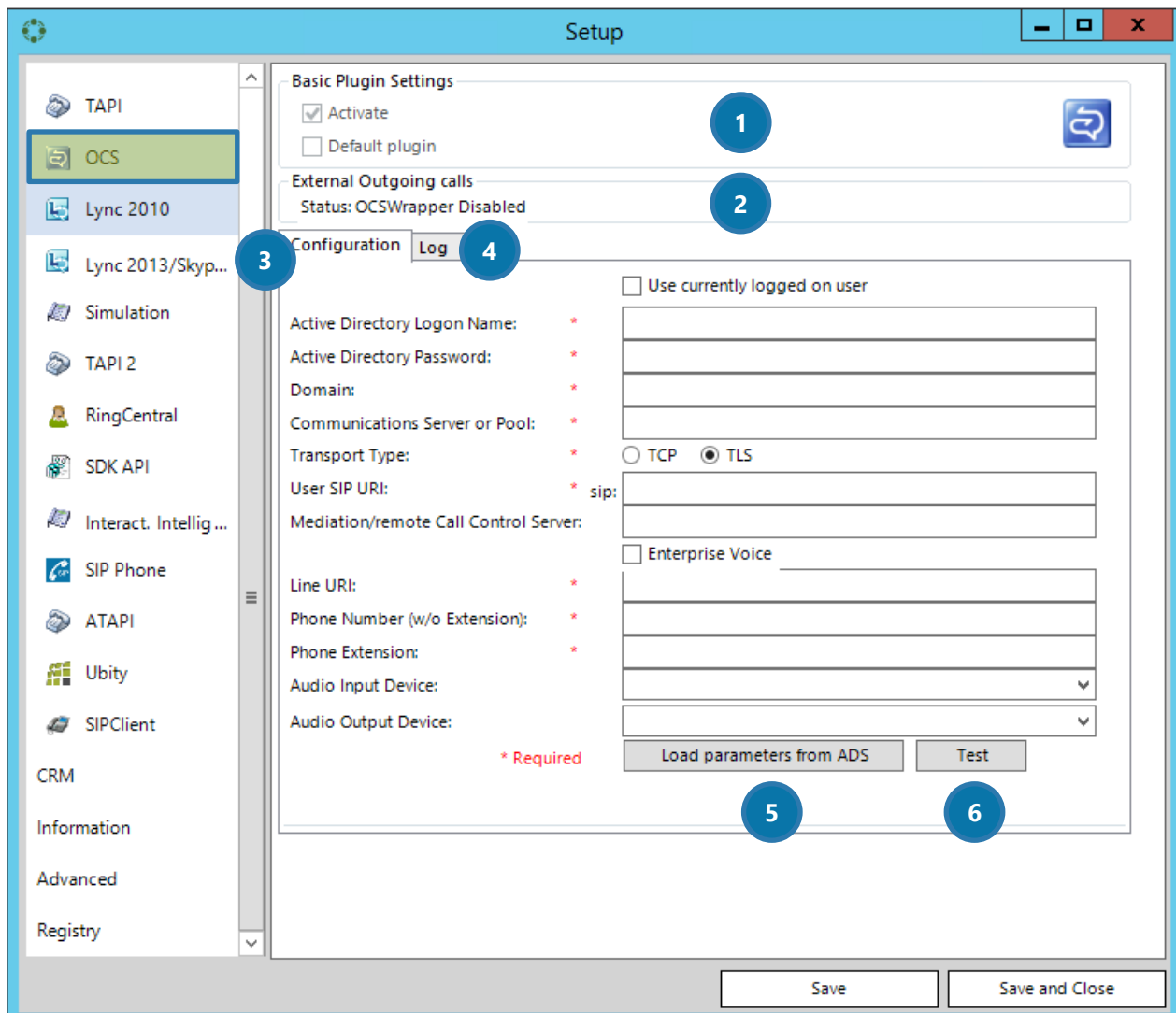
Click on the [Test and Set]-button in order to register your settings. Please restart the TelephoneIntegration Client after applying this action.

4.4.2 OCS

OCS stands for Microsoft **O**ffice **C**ommunications **S**erver. Its purpose is to integrate real-time communication media with user presence awareness, such as audio/video conversations (e.g. web conferencing), and instant messaging. OCS also allows the transfer of calls directly from your TelephoneIntegration Client.



OCS is not activated per default. However, activating it will register the UccApi.dll. This behavior could cause conflicts with your Lync 2015 Clients. Please activate OCS only, if you are sure that Lync2015 is NOT installed on your PC.



All fields marked with a red asterisk (*) are mandatory, otherwise the wrapper cannot

Figure 38: TelephoneIntegration Phone-Tab OCS



corresponding error message will pop up.

1 BASIC PLUGIN SETTINGS

Check the *Activate* – option in order to activate OCS. If unchecked, OCS is not activated.
Check the Default plugin – option in order to set OCS as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 EXTERNAL OUTGOING CALLS

This section displays the status of the OCS plugin. It can be enabled or disabled.

3 THE CONFIGURATION-TAB



Please enter your login credentials for OSC here. Please find a short description for every field below.

All fields marked with a red asterisk (*) are mandatory, otherwise the wrapper cannot sign into the OSC system properly. Should you have inserted some wrong values, a corresponding error message will pop up.

USE CURRENTLY LOGGED ON USER

Please check this field if you want to use the currently logged on user. The fields will be filled automatically.

ACTIVE DIRECTORY LOGON NAME

Please enter your regular Active Directory username here.

ACTIVE DIRECTORY PASSWORD

Please enter your regular Active Directory user password here.

DOMAIN

Please enter your Active Directory domain here (for example: yourdomain.com)

COMMUNICATIONS SERVER OR POOL

Please enter your OCS Frontend server name here. (for example: ocs.yourdomain.com)

TRANSPORT TYPE

Please select the type of connection used by your OCS system here.

USER SIP URI

Please enter the SIP URI for a particular user here. (for example: sip:YourFirstNameYourSecondName@yourdomain.com')

MEDIATION/REMOTE CALL CONTROL SERVER

Please enter the mediation or telephone control server name here (for example: callcontrol.yourdomain.com)

ENTERPRISE VOICE

This checkbox indicates, if the Enterprise Voice configuration is configured for the OCS users or not. If you do not check this box, a Remote Call Control scenario is assumed to be set up.

LINE URI

Please insert the Line URI from your telephone settings (to be found in the communications tab in the Active Directory user configuration) here. Usually, the number should be formatted similar to this: "tel:+43316123456123" or "tel:+43316123456123;ext=123".

PHONE NUMBER (W/O EXTENSION)

Please enter the basic telephone number *without* the particular users' extension here (e.g. +43316123456). The extension is usually the users' internal telephone number.

PHONE EXTENSION

Please enter the extension of the telephone here. But you could as well enter internal numbers that should be used to route calls to/from here.

AUDIO INPUT DEVICE

When using the Enterprise Voice feature of OCS, this drop-down-field can be used to define the audio input device. Say, it is possible to carry out an audio session with TelephoneIntegration without having the Office Communicator Client installed. However, this will only work for OCS calls within the Enterprise Voice environment. The remote call control audio sessions usually use the configured telephone.

AUDIO OUTPUT DEVICE

When using the Enterprise Voice feature of OCS, this drop-down-field can be used to define the audio output device. Say, it is possible to carry out an audio session with TelephoneIntegration without having the Office Communicator Client installed. However, this will only work for OCS calls within the Enterprise Voice environment. The remote call control audio sessions usually use the configured telephone.

4 THE LOG-TAB

In general, all errors or problems that occur are reported here. If you, for example, test your OCS connection, the *Log*-tab will provide you with information. Please have a look at number 6 for further information.

5 THE **[LOAD PARAMETERS FROM ADS]**-BUTTON

The **[Load parameters from AD]**-button attempts to populate the fields from the Active Directory, making the initial configuration easier. The values obtained from the Active Directory should be checked before you save them, because this feature only provides a *best-effort*-result. However, the *Transport Type*- and the *Enterprise Voice*-configuration cannot be read from the Active Directory.

6 THE **[TEST]**-BUTTON

The **[Test]**-button allows you to test the connection using the newly entered credentials. It takes a while to complete the test. You will be provided with a *success* or *failure* message. During this test, OCS will provide you with information on the *Log*-tab. Any errors or problems that occur during the test are reported here. As per default, the log is cleared before every test.

4.4.3 Lync 2010

There are two possible Lync versions that can be connected to your Microsoft Dynamics CRM/Dynamics 365 via TelephoneIntegration Client: Lync2010 and Lync2013. Lync also allows the transfer of calls directly from your TelephoneIntegration Client.



Lync 2010 can be used with the Lync2010 Client only. Both Lync versions must not be activated at the same time!

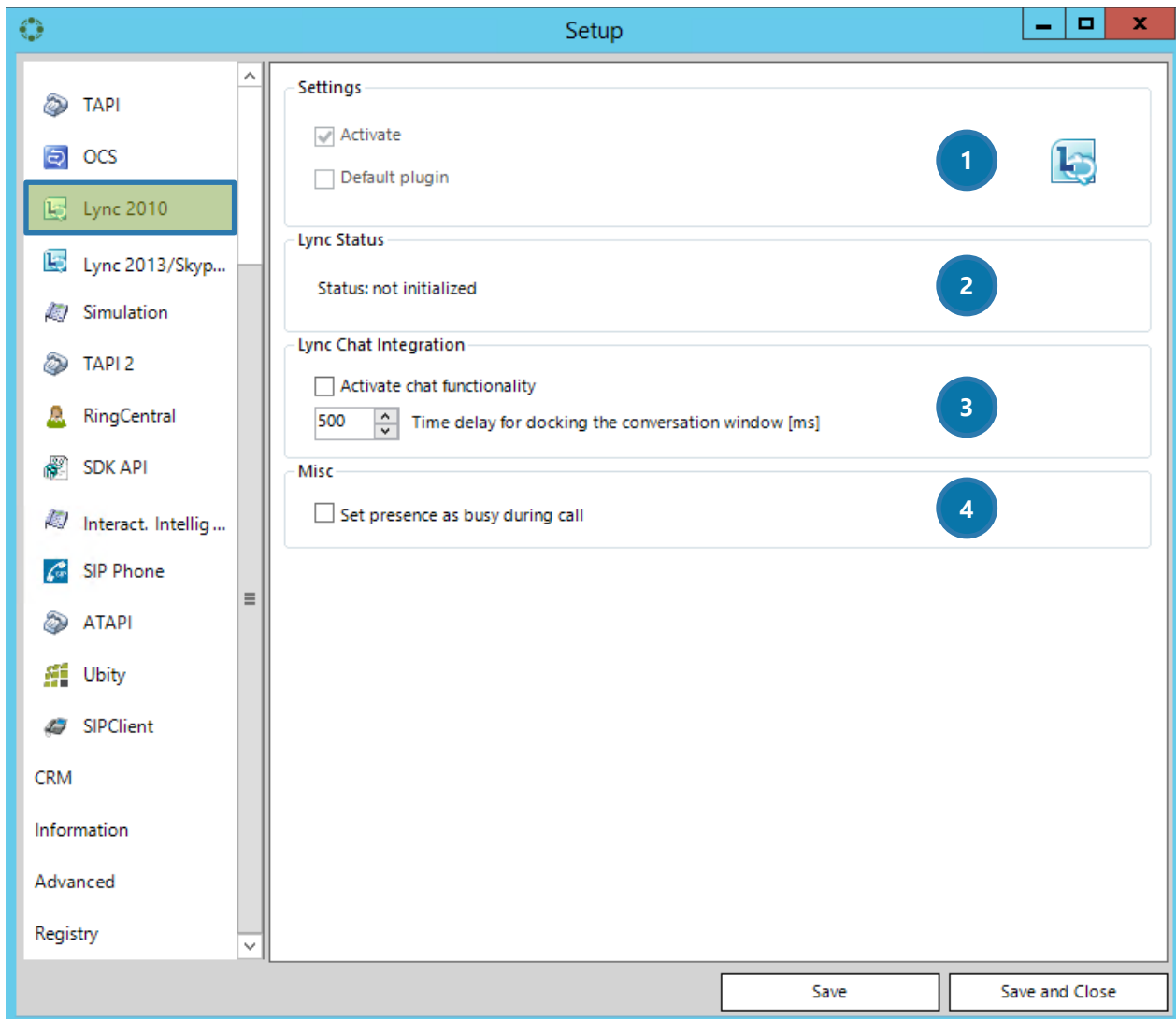


Figure 39: TelephoneIntegration Phone-Tab Lync 2010

1 SETTINGS

Check the *Activate* – option in order to activate Lync2010. If unchecked, Lync2010 is not activated.
Check the Default plugin – option in order to set Lync2010 as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 LYNC STATUS

This section displays the status of the Lync2010 plugin. It can be initialized or NOT initialized.

3 LYNC CHAT INTEGRATION

Check the *Activate chat functionality*-box in order to activate the *LyncChat*-window. In this window, all InstantMessage conversations are tabbed. The LyncChat window cannot be closed, unless this option is deactivated.

Sometimes, the Lync conversation window is not yet ready to be docked into our LyncChat window and the conversation window appears minimized. Because of that, users can set a number of milliseconds that delay this action.

4 MISC

Check this box if you want your presence in Lync2010 to be shown as *busy* when you are having a call.

4.4.4 Lync 2013/Skype for Business

There are two possible Lync versions that can be connected to your Microsoft Dynamics CRM/Dynamics 365 via TelephoneIntegration Client: Lync2010 and Lync2013. Lync also allows the transfer of calls directly from your TelephoneIntegration Client.



Lync 2013/Skype for Business can be used with the Lync2013/Skype for Business Client only. Both Lync versions must not be activated at the same time!

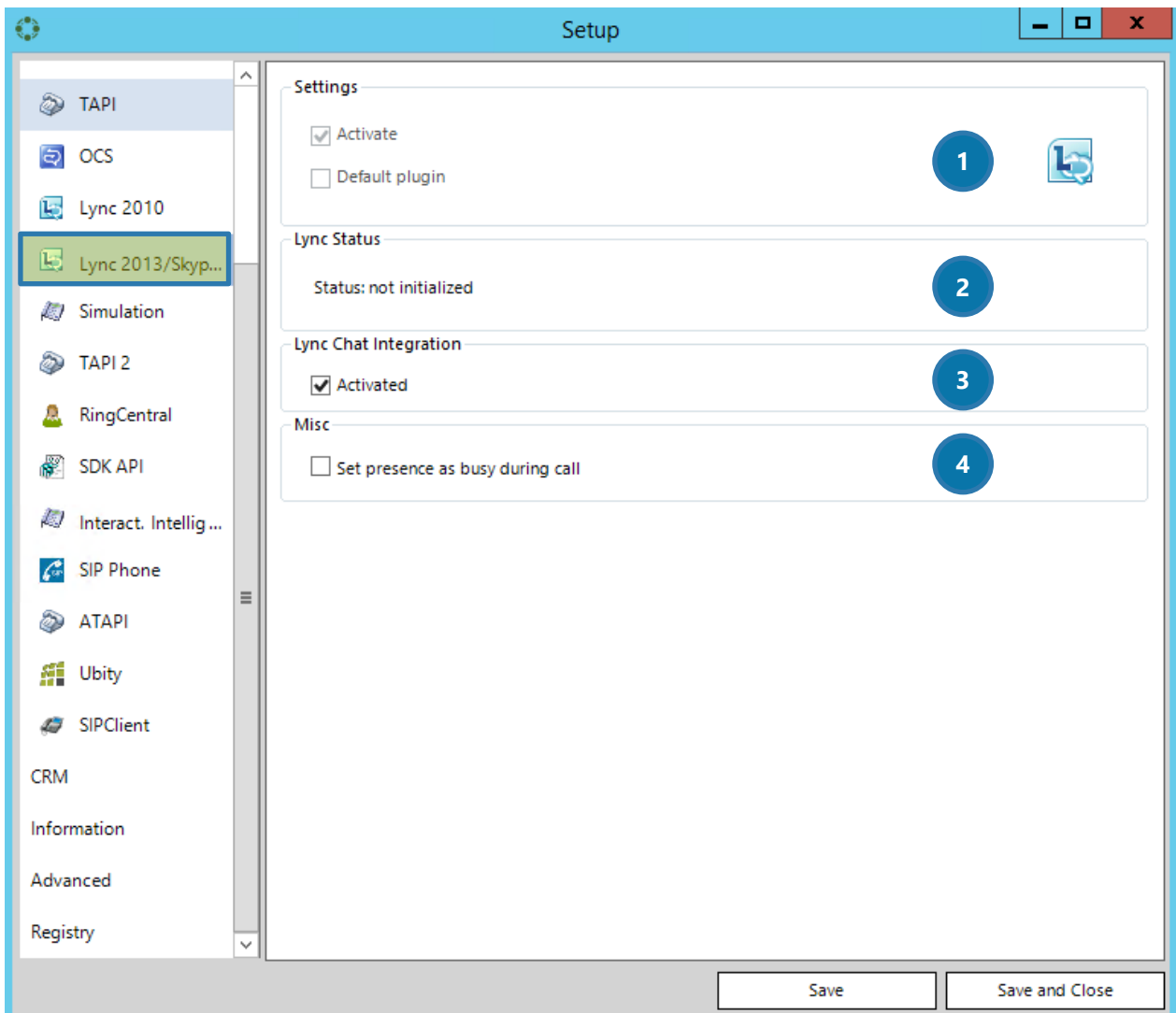


Figure 40: TelephoneIntegration Phone-Tab Lync/Skype for Business

1 SETTINGS

Check the *Activate* – option in order to activate Lync2013/Skype for Business. If unchecked, Lync2013/Skype for Business is not activated. Check the Default plugin – option in order to set Lync2013/Skype for Business as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 LYNC STATUS

This section displays the status of the Lync2013/Skype for Business plugin. It can be initialized or NOT initialized.

3 LYNC CHAT INTEGRATION

Check the *Activated*-box in order to activate the *LyncChat/Skype for Business*-window. In this window, all InstantMessage conversations are tabbed.

4 MISC

Check this box if you want your presence in Lync2010 to be shown as *busy* when you are having a call.

4.4.5 Simulation

The functionalities of the Simulator allow you to simulate incoming or outgoing calls to/from the TelephoneIntegration Client. There is no need to activate any other tool. For further information on how to simulate incoming and outgoing calls, please have a look at [CHAPTER 7.7, HOW TO SIMULATE INCOMING AND OUTGOING CALLS ON PAGE 92](#).

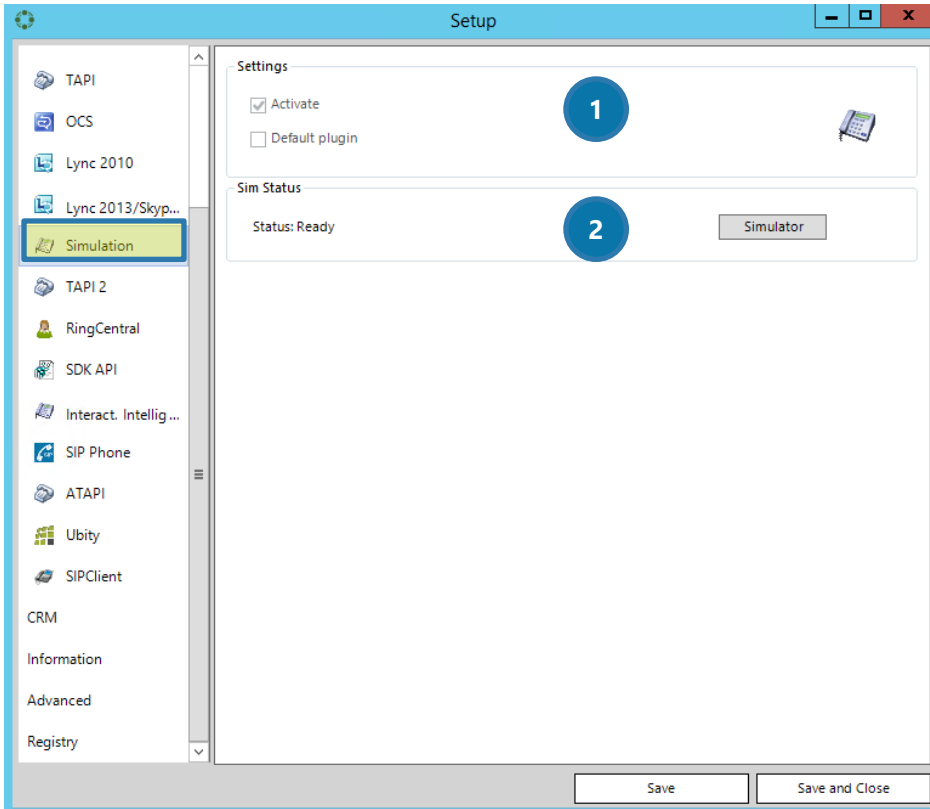


Figure 41: TelephoneIntegration Phone-Tab Simulator

1 SETTINGS

Check the *Activate* – option in order to activate the Simulator. If unchecked, the Simulator is not activated. Check the *Default plugin* – option in order to set the Simulator as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 SIM STATUS

This section displays the status of the Simulator plugin. It can be ready or not ready.

4.4.6 TAPI 2

Within this tab, you can establish a second TAPI connection, in case a certain user had two different extensions. However, the functionalities are the same as for TAPI. For further information, please have a look at [CHAPTER 4.4.1 TAPI ON PAGE 37](#).

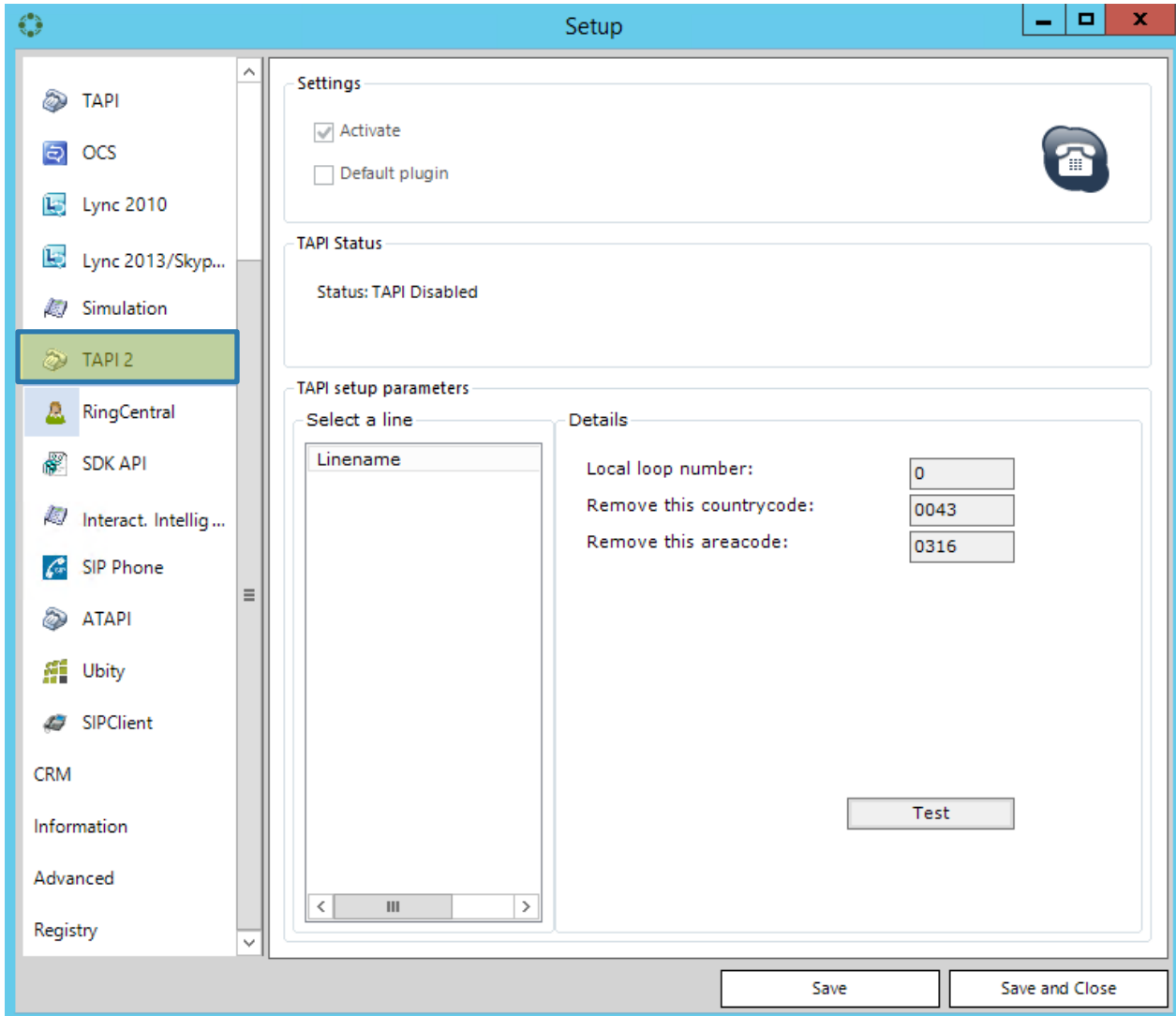


Figure 42: TelephoneIntegration Phone-TAPI 2



If you need an alternative TAPI, please use ATAPI before you use TAPI 2, because in general, the TAPI or ATAPI plugin is more stable than TAPI 2.

4.4.7 RingCentral

RingCentral is a publicly traded provider of cloud-based phone systems for businesses.

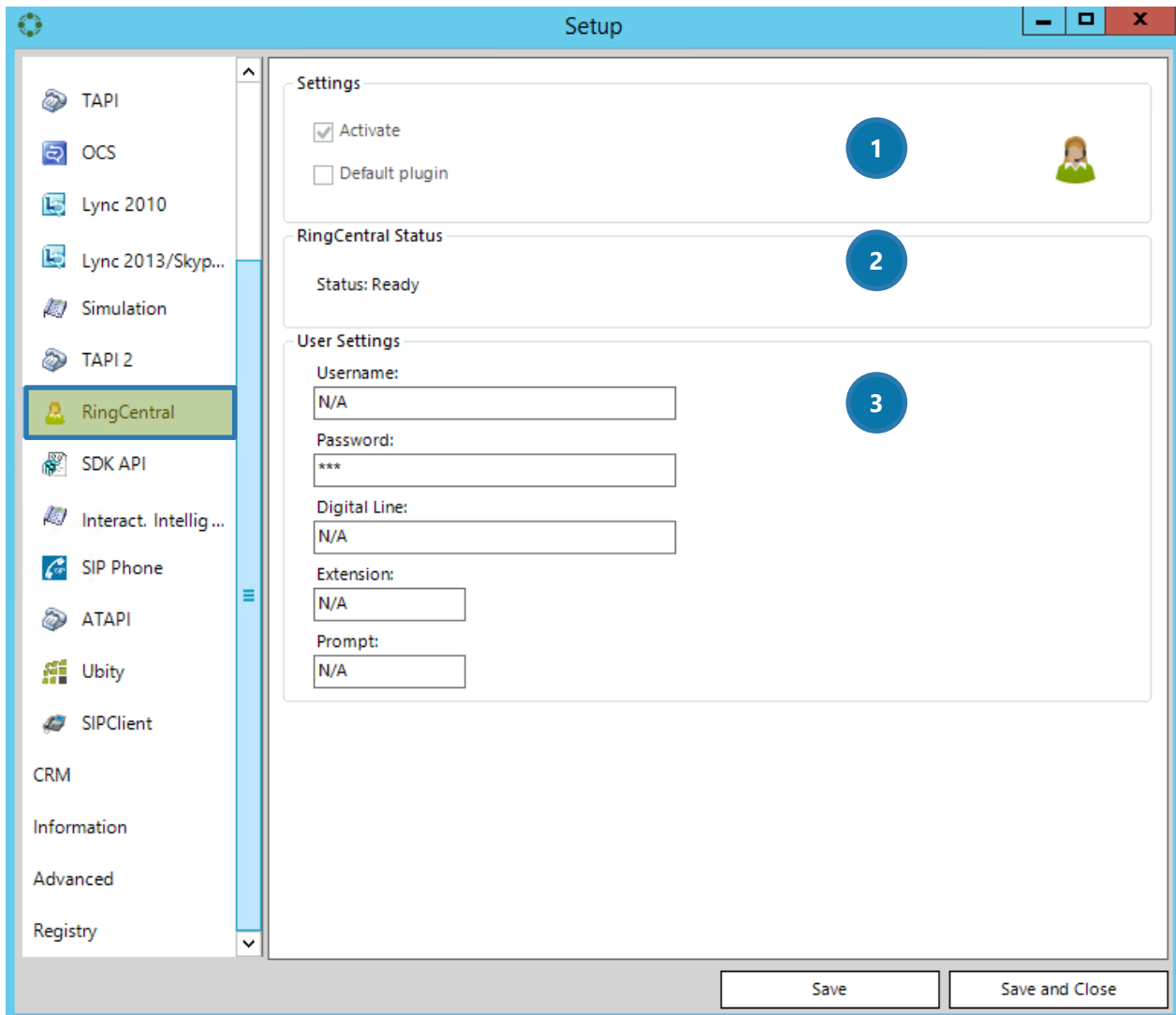


Figure 43: TelephoneIntegration Phone – Ring Central

1 SETTINGS

Check the *Activate* – option in order to activate RingCentral. If unchecked, RingCentral is not activated. Check the *Default plugin* – option in order to set RingCentral as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 RINGCENTRAL STATUS

This section displays the status of the RingCentral plugin. It can be ready or not ready.

3 USER SETTINGS

Please enter your RingCentral credentials here. They are provided by your RingCentral provider.



There exist a few restrictions for RingCentral when it is used in combination with TelephoneIntegration Client. But there are as well a few RingCentral specific functionalities. Please find them below listed.

RING CENTRAL - SPECIFIC FUNCTIONALITIES

Ring Central can initiate outgoing calls via the TelephoneIntegration Balloon.

It can, as well, end outgoing calls that were made via the TelephoneIntegration Balloon.

RING CENTRAL - RESTRICTIONS

RingCentral cannot track outgoing calls that were NOT initiated via the TelephoneIntegration Balloon. It cannot end outgoing calls that were not made via the TelephoneIntegration Balloon.

4.4.7.1 The activation of RingCentral for incoming calls

To activate this mechanism, please navigate to the RingCentral local settings and set the path to your SoftphoneApi.exe with proper arguments.

RingCentral provides a way for 3rd Party tools to control the TelephoneIntegration Client behavior of incoming calls. The control is proceeding by calling the *SoftPhoneAPI.exe* with the proper parameters. The *SoftPhoneAPI.exe* is a part of our TelephoneIntegration Client solution and is placed in the installation path of TelephoneIntegration Client.

By 3rd Party tool, we refer to a phone specific softphone that has direct access to the users' phone system and can monitor the calling state (offering, connected, disconnected) and fetch the caller number. The 3rd party controller can be a softphone with an extended configuration that can call external applications based on certain parameters.

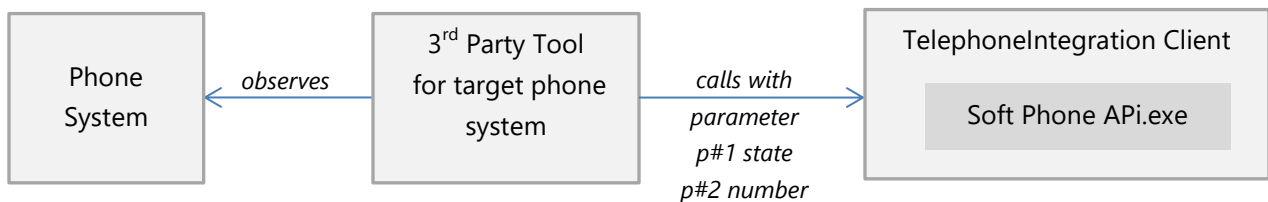


Figure 44: TelephoneIntegration Phone – Ring Central explanation



mscrm-addons.com does not offer 3rd party controller for your phone system. We only provide you with a possibility to connect your phone system with TelephoneIntegration Client. Our RingCentral plugin is suitable for phone systems that offer no suitable TAPI driver, but a customizable softphone that can call external applications.

4.4.7.2 *How to trigger outgoing and incoming calls with RingCentral*

To trigger an external call, you have to set the following parameters in RingCentral:

SoftPhoneApi.exe [paramValue1] [paramValue2]

paramValue1 presents the state of the call

paramValue2 the phone number.

All states are represented by numbers. Please find their meaning below:

0 ... disconnected

1 ... connected

6 ... offering

Based on these simple values, the following combinations are as well possible:

60 ... an offered call that was disconnected right after

61 ... an offered call that was connected immediately after

610 ... an offered call that was connected and disconnected right after.

This is how it technically works:

Let us assume that you receive an incoming call with the telephone number 123456.

Your softphone application will recognize the incoming state of the number 123456.

At his point, it will call the SoftPhoneApi.exe transferring the parameter 6 and the parameter 123456.

TelephoneIntegration Client will then try to resolve the number 123456.

If the user accepts the call, the phone controller will transfer the SoftPhoneApi.exe parameter 1, which indicates that the call has been connected.

TelephoneIntegration Client will show the call as a connected one as well.

If the user ends the call, the phone controller should supply the SoftPhoneApi.exe with the parameter 0.

That indicates the disconnected state; TelephoneIntegration Client will show the 123456 call as disconnected.

4.4.7.3 The TelephoneIntegration – RingCentral environment Overview

This overview provides you with a quick look at the general functionalities of RingCentral in the TelephoneIntegration environment.

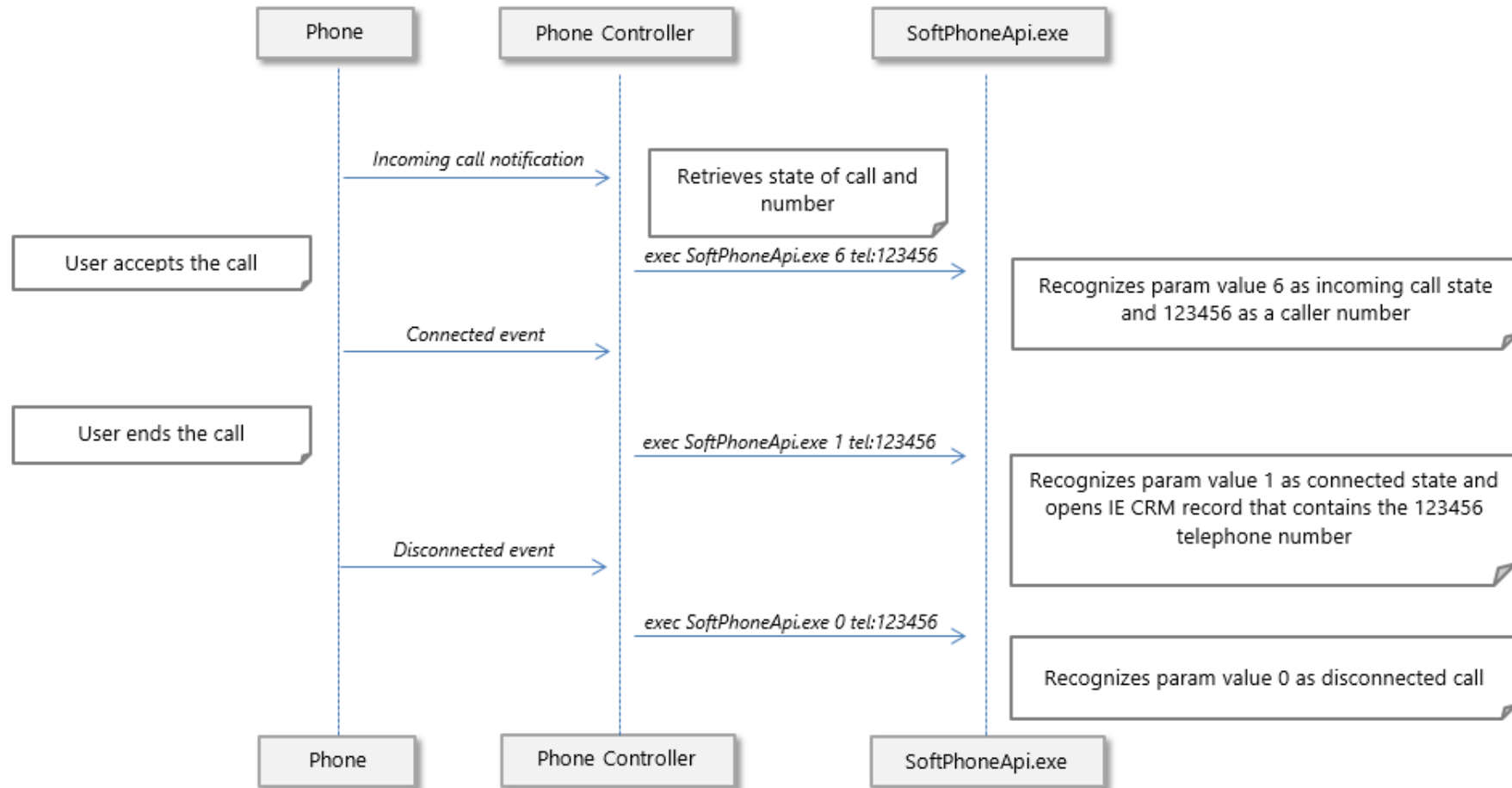


Figure 45: TelephoneIntegration Phone – Ring Central environment

4.4.8 SDK API

An API is an **A**pplication **P**rogramming **I**nterface. It is a source code based specification intended to be used as an interface, which has the purpose to establish communication between software components.

Speaking of TelephoneIntegration Client, the SDK API plugin enables the communication between TelephoneIntegration Client and a .NET application that can communicate with a specific phone device based on a certain SDK that supports basic phone commands, such as dialing a number, as well as answering or ending a call. Furthermore, it allows 3rd party agents to interact with TelephoneIntegration Client.

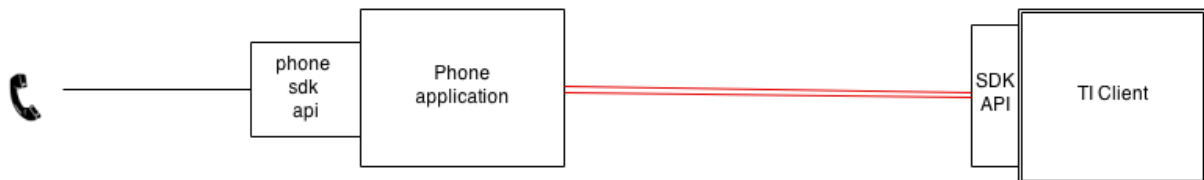


Figure 46: Functionality of SDK API

For further information on how and when to connect your phone system with SDK API, please have a look at [CHAPTER 7.8 HOW TO CONNECT YOUR PHONE SYSTEM WITH SDK API ON PAGE 93](#).

4.4.8.1 The SDK API settings

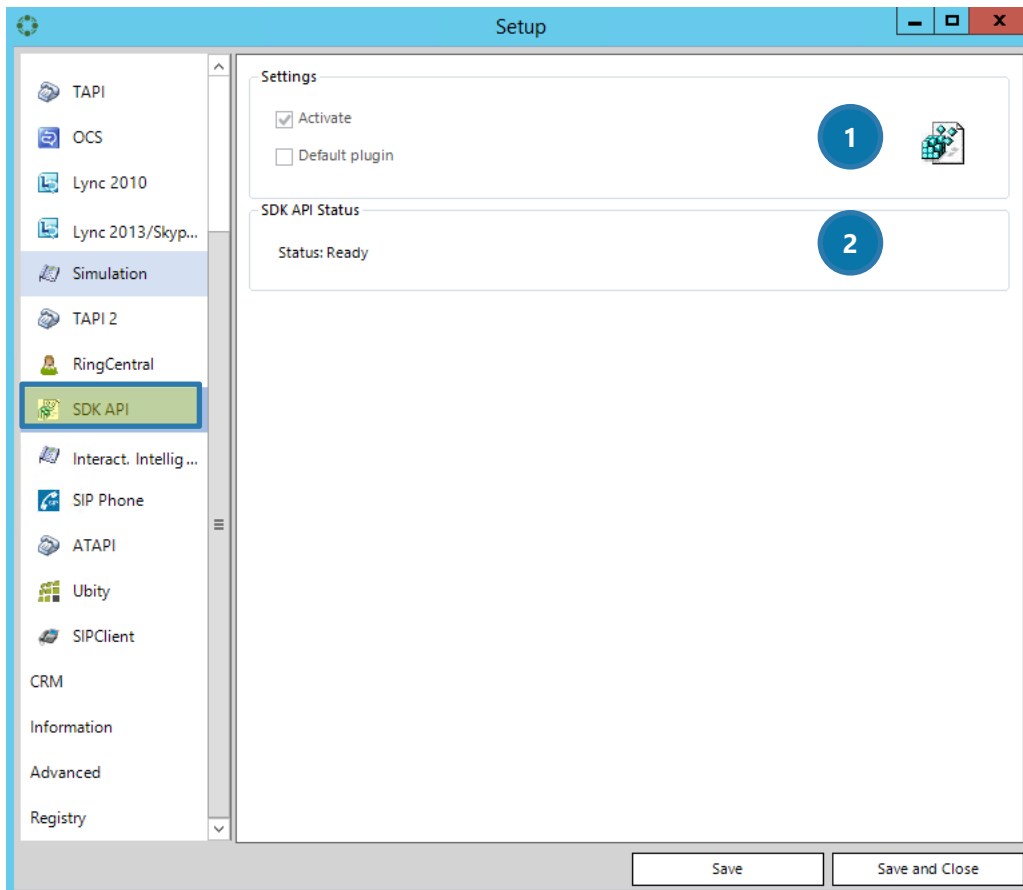


Figure 47: TelephoneIntegration Phone – SDK Api

1 SETTINGS

Check the *Activate* – option in order to activate the SDK API. If unchecked, the SDK API is not activated. Check the *Default plugin* – option in order to set SDK API as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 SDK API STATUS

This section displays the status of the SDK API plugin. It can be ready or not ready.

4.4.9 Interactive Intelligence

This plugin enables you to dial out for Interactive Intelligence phone systems.

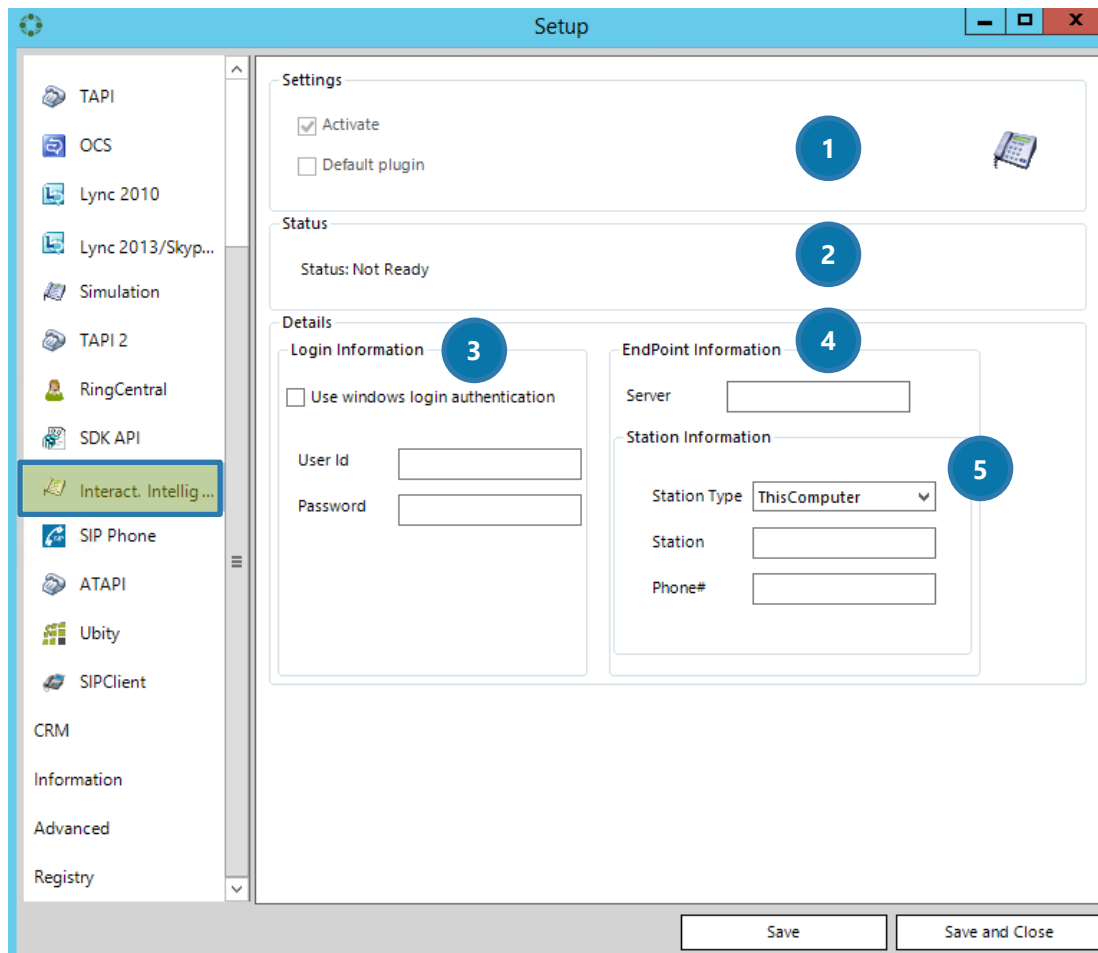


Figure 48: TelephoneIntegration Phone – Interact. Intelligence

1 SETTINGS

Check the *Activate* – option in order to activate the Interactive Intelligence plugin. If unchecked, the Interactive Intelligence is not activated. Check the *Default plugin* – option in order to set Interactive Intelligence as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 INTERACTIVE INTELLIGENCE STATUS

This section displays the status of the Interactive Intelligence plugin. It can be ready or not ready.

3 DETAILS – LOGIN INFORMATION

The Interactive Intelligence profile has to be configured by the user. The so created login credentials have to be entered. Please enter User ID and Password into these two fields.

4 DETAILS – ENDPOINT INFORMATION

The Interactive Intelligence profile has to be configured by the user. The so created login credentials have to be entered. Please enter your server name into this field.

5 DETAILS – STATION INFORMATION

The Interactive Intelligence profile has to be configured by the user. The so created login credentials have to be entered. Please enter your station type (selectable via the drop-down menu), your station and your phone number extension here.

4.4.10 SIP Phone

SIP phones are phones that work with Voice over IP. To guarantee a smooth connection, I. Our tool supports the communication between IP Phones and the TelephonyIntegration Client via HTTP protocol.

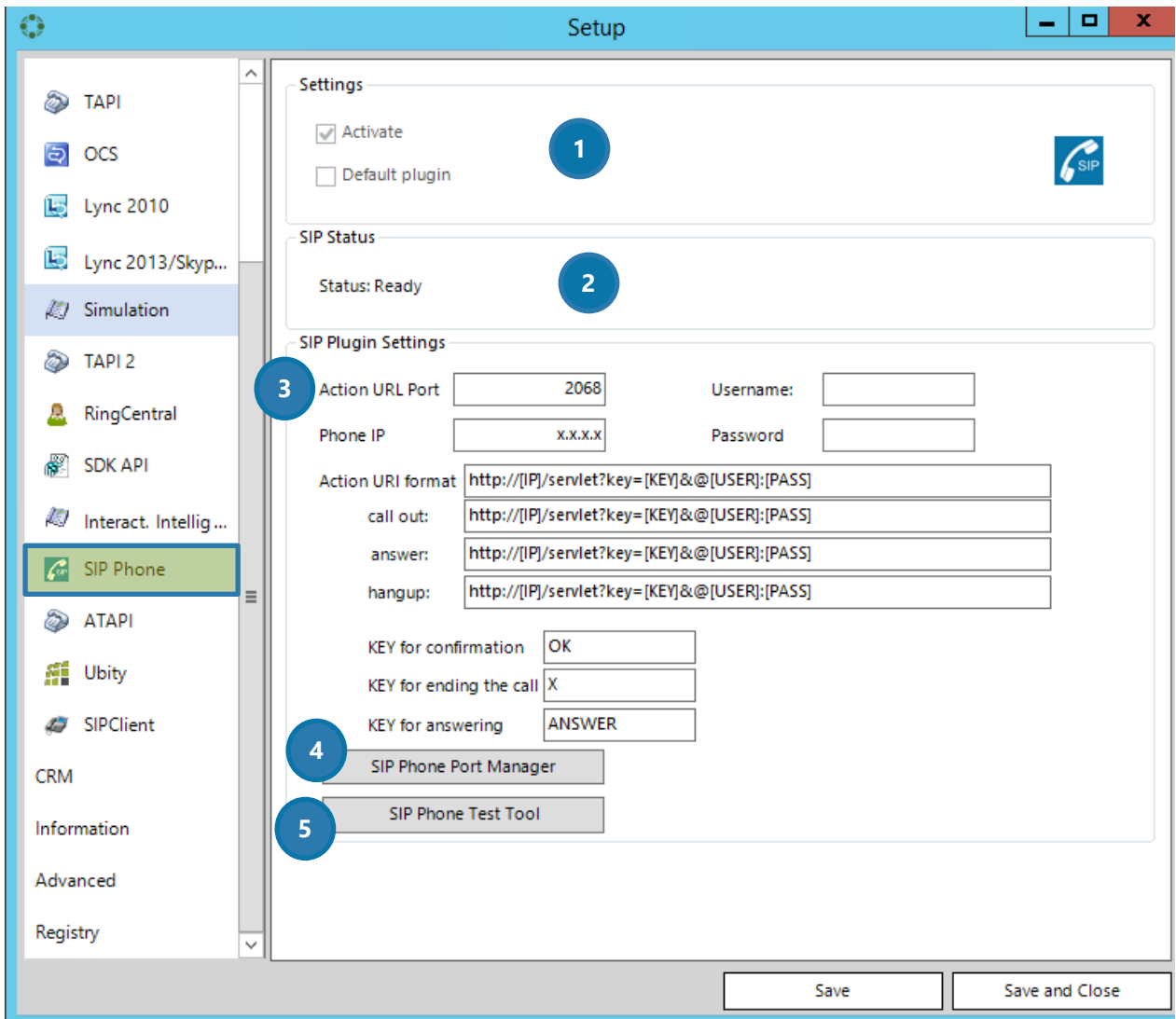


Figure 49: TelephonyIntegration Phone – SIP Phone

1 SETTINGS

Check the *Activate* – option in order to activate the SIP Phone plugin. If unchecked, the SIP Phone is not activated. Check the *Default plugin* – option in order to set Interactive Intelligence as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 INTERACTIVE INTELLIGENCE STATUS

This section displays the status of the SIP Phone plugin. It can be ready or not ready.

3 SIP PLUGIN SETTINGS

ACTION URL PORT & PHONE IP

The SIP Phone Action URL settings must be configured in order to send HTTP requests with the corresponding call parameters to the TelephonyIntegration Client. The TelephonyIntegration Client hosts a HTTP listener that receives HTTP requests from the SIP Phone. Thus, it reacts to the phone's current state. TelephonyIntegration Client passes commands to the SIP phone via the Action URI http request using key commands.

Action URL is a HTTP GET request allowing the IP phone to interact with random web server applications. An administrator can specify a URL that triggers a GET when certain events occur. A HTTP GET request may contain variable names and variable values, which are separated by `—=||`. Each variable value starts with `$` in the query part of the URL.

The URL format is:

<http://IPserveraddress/help.xml?variable name=variable value>

For example:

`http://192.168.200.161:2068/Api/connected=$remote&callid=$call_id&displayremote=$display_remo
te&local=$local&displaylocal=$display_local&local=$local`



Action URLs can be only triggered by predefined events, which must be configured on the SIP Phone endpoint. Please find some examples below.

INCOMING CALL

This message will be sent when there is an incoming call:

`http://192.168.200.161:2068/Api/incoming=$remote&callid=$call_id&displayremote=$display_remo
&local=$local`

OUTGOING CALL

This message will be sent when there is an outgoing call:

`http://192.168.200.161:2068/Api/outgoing=$remote&callid=$call_id&displayremote=$display_remo
&local=$local`

CONNECTED CALL

This message will be sent when a call has been connected:

`http://192.168.200.161:2068/Api/connected=$remote&callid=$call_id&displayremote=$display_remo
te&local=$local&displaylocal=$display_local&local=$local`

DISCONNECTED CALL

This message will be sent when a call has been disconnected:

`http://192.168.200.161:2068/Api/disconnected=$remote&callid=$call_id&displayremote=$display_remote`

MISSED CALL

This message will be sent when there is a new missed call (even if the missed call log has been disabled):

`http://192.168.200.161:2068/Api/missedCall=$remote&callid=$call_id`

USERNAME & PASSWORD

The SIP Phone profile has to be configured by the user. The so created login credentials have to be entered. Please enter your Username and Password into these two fields.

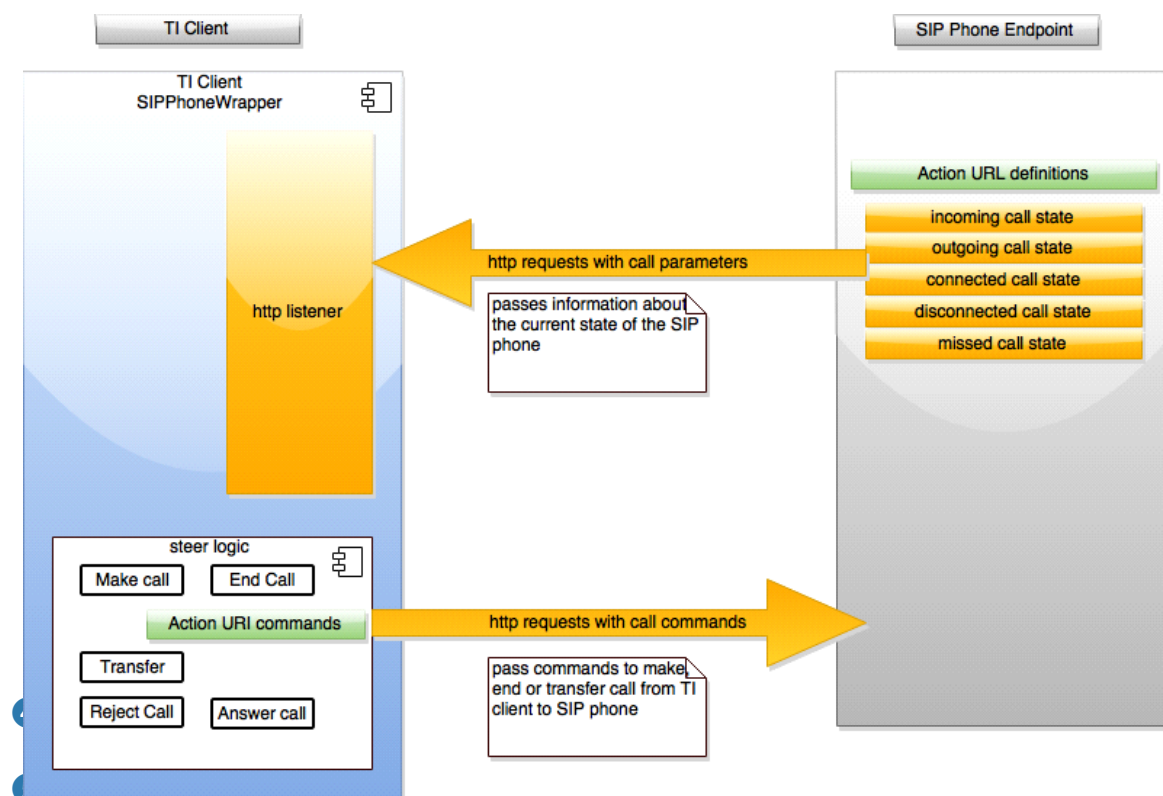


Figure 50: The functionalities of URI format and URL port

ACTION URI FORMAT

Being the opposite of Action URL, Action URI enables the IP phone to interact with web server applications by receiving and handling HTTP GET requests.

When receiving a URI, the IP phone will perform the specified action and response a 200 OK message.

The HTTP GET request may contain variable names, keys and variable values, which are separated by `==||`.

The URI format is: `http://IP address of phone/cgi-bin/ConfigManApp.com?key= variable value`

For example:

THE KEY TO ANSWER A CALL:

<http://192.168.1.5/cgi-bin/ConfigManApp.com?key=ANSWER>

THE KEY TO DIAL A NUMBER:

<http://192.168.1.5/cgi-bin/ConfigManApp.com?key=DIAL&nummer=31668080>

Entering the URI in the web browser triggers the IP phone to perform the predefined event (for example, answer the call or dial out a number).

These commands are already built into the SIP phone plugin of TelephoneIntegration.

4 THE **[SIP PHONE PORT MANAGER]**-BUTTON

Use this button in order to get the reports of the SIP phone. A click on this button activates the http listener. Please see the above figure for further information on this topic.

5 THE **[SIP PHONE TEST TOOL]**-BUTTON

A click on this button opens a new window in which you can see which information (plain http link) is sent from your SIP phone.

4.4.11 ATAPI

ATAPI stands for **A**lternative **TAPI**. If the user has a TAPI driver installed, but our TAPI plugin does not deliver satisfying results, then we suggest the activation of the ATAPI plugin.

The ATAPI plugin supports an older TAPI protocol.

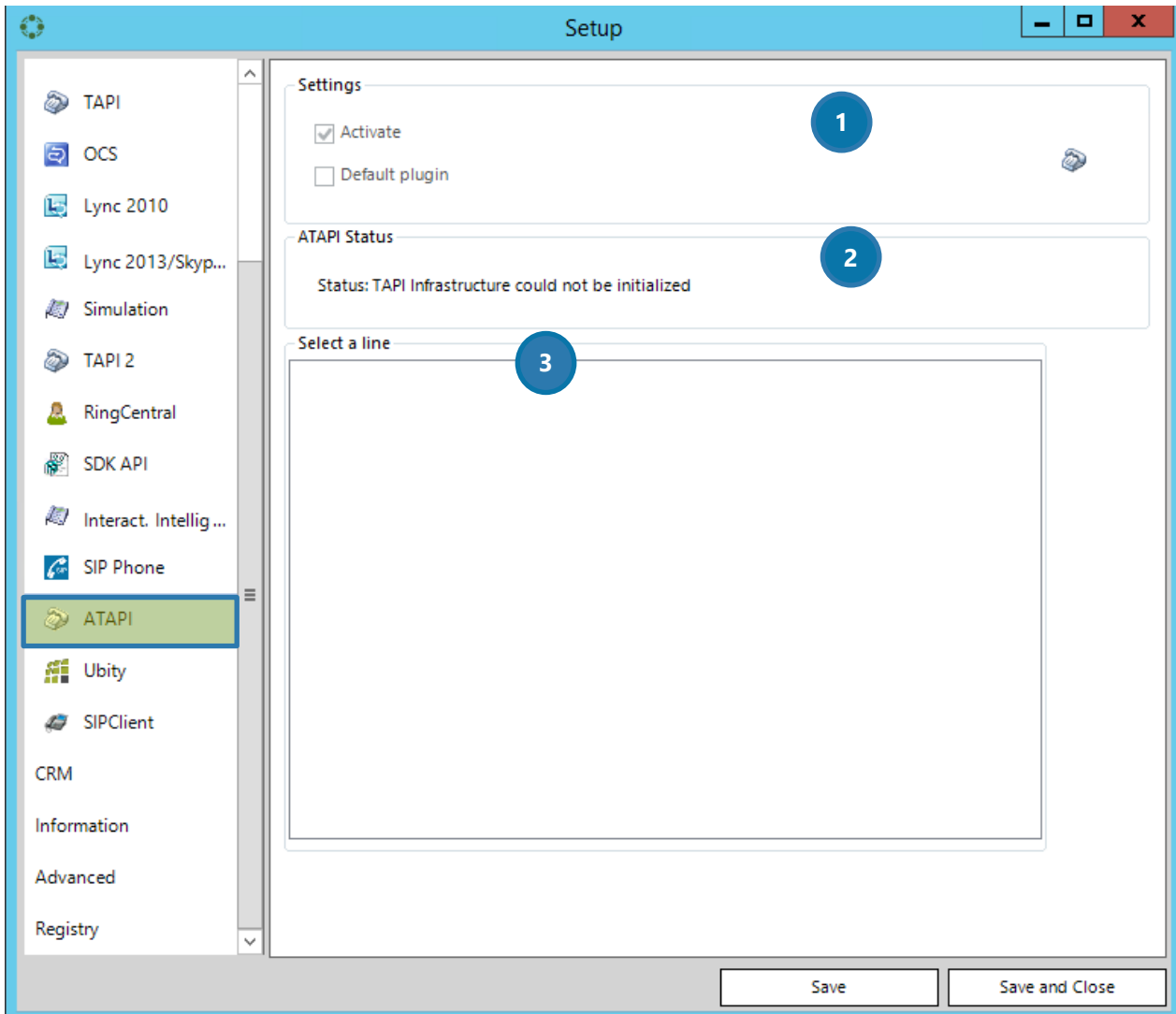


Figure 51: TelephoneIntegration Phone – ATAPI

1 SETTINGS

Check the *Activate* – option in order to activate the ATAPI plugin. If unchecked, ATAPI is not activated. Check the *Default plugin* – option in order to set ATAPI as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 ATAPI STATUS

This section displays the status of the ATAPI plugin. The ATAPI infrastructure can be initialized or not.

3 SELECT A LINE

Select your preferred ATAPI line here.

4.4.12 Ubyty

Ubyty is a Cloud based IP phone system for companies. This plugin can be used by Ubyty users only.

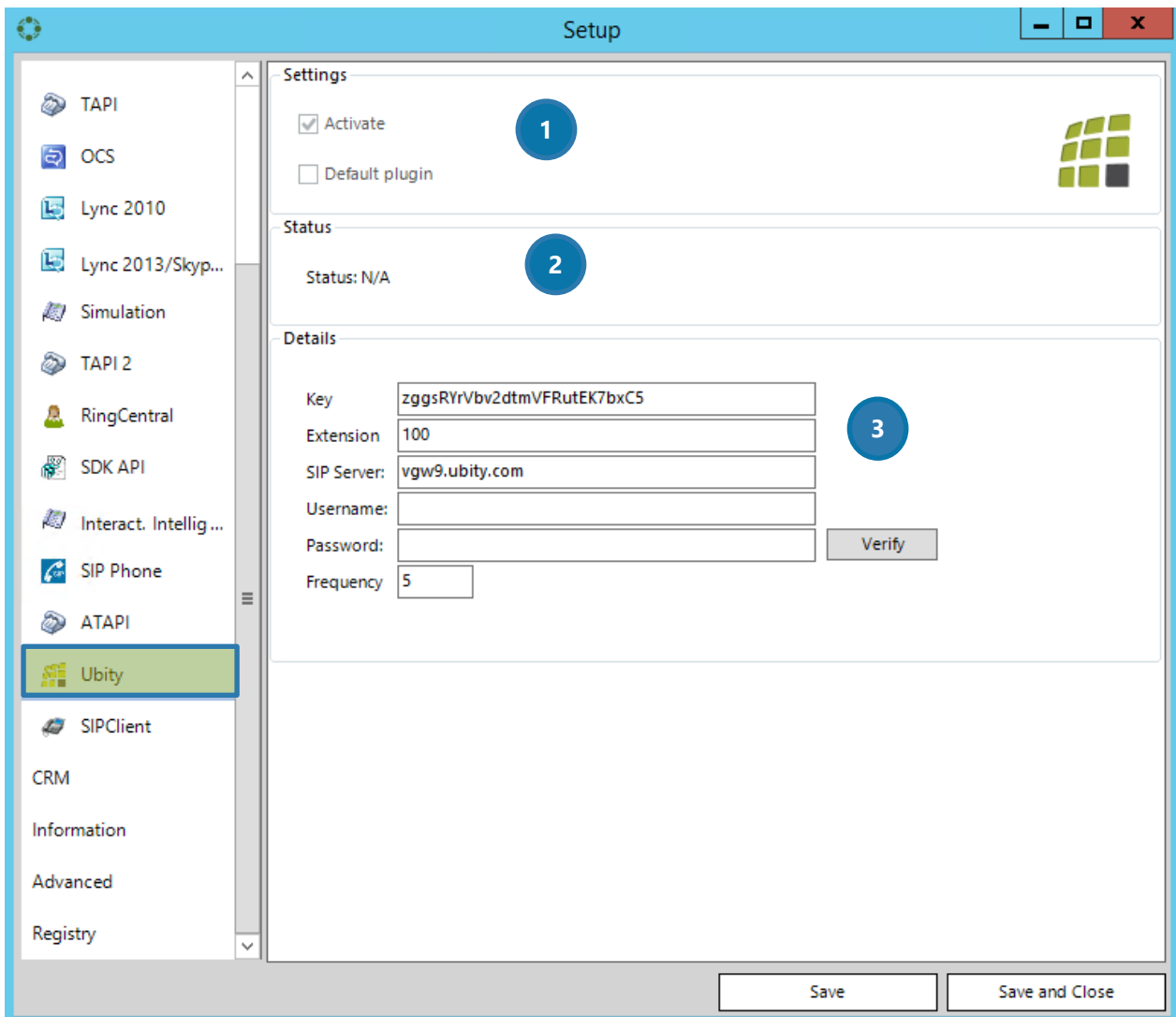


Figure 52: TelephoneIntegration Phone – Ubyty

1 SETTINGS

Check the *Activate* – option in order to activate the Ubyty plugin. If unchecked, Ubyty is not activated. Check the *Default plugin* – option in order to set Ubyty as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 STATUS

This section displays the status of the Ubyty plugin.

3 DETAILS

Please enter your Ubyty credentials in this section. The credentials are provided by Ubyty.

4.4.13 SIP Client

With the SIP phone Client, we offer the possibility to use a SIP softphone directly from within the TelephoneIntegration Client. There is no need for an actual phone set anymore. All you need is a microphone, some headphones and a computer.

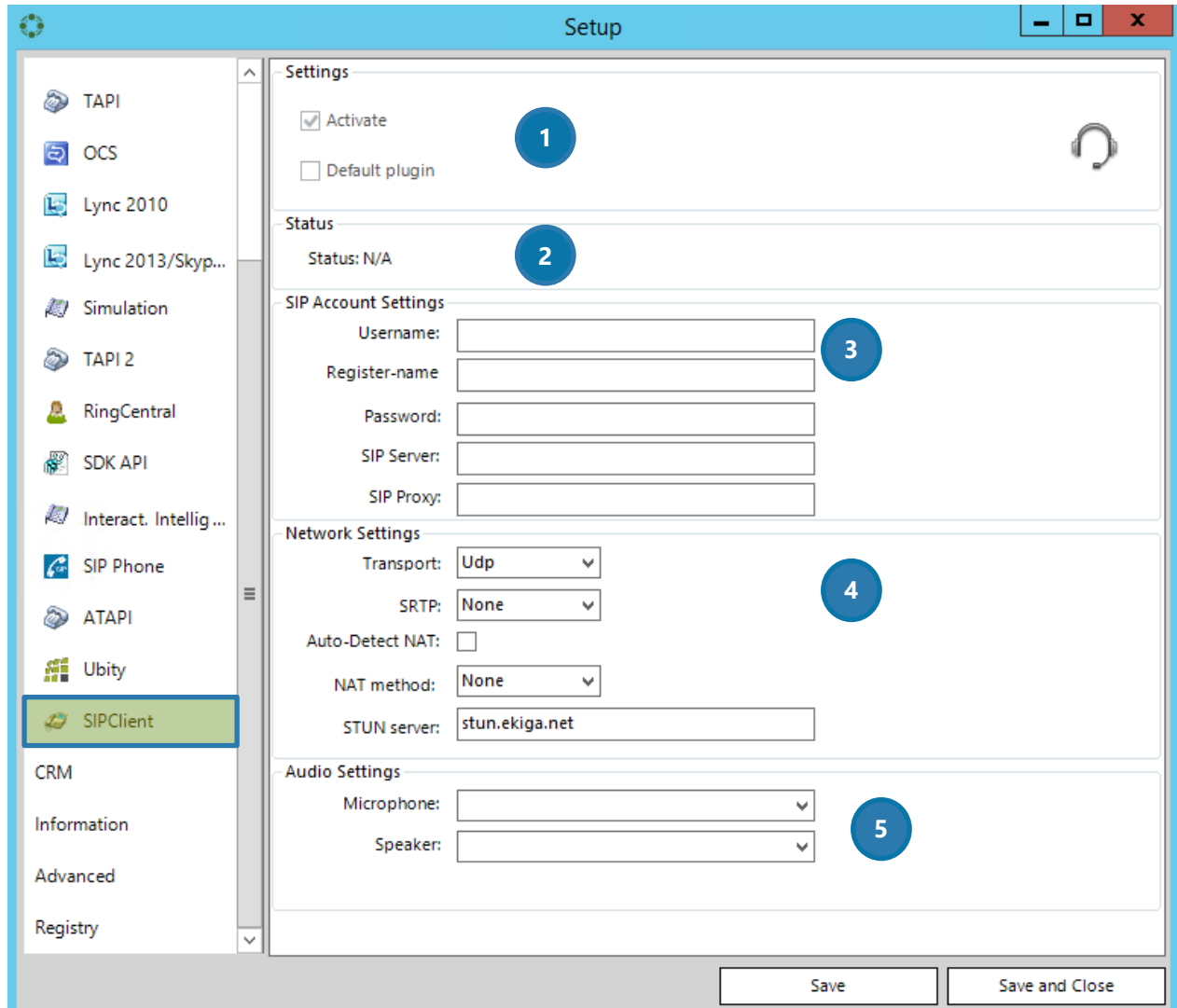


Figure 53: TelephoneIntegration Phone – SIPClient

1 SETTINGS

Check the *Activate* – option in order to activate the SIP plugin. If unchecked, SIP is not activated. Check the *Default plugin* – option in order to set SIP as your default plugin.



The default plugin can also be set in the Phone-tab. Please see [CHAPTER 4.4 THE PHONE TAB ON PAGE 36](#) for further information. You can only have one default plugin.

2 STATUS

This section displays the status of the SIP plugin.

3 SIP ACCOUNT SETTINGS

Please enter your SIP account settings here.

4 NETWORK SETTINGS

Please enter your Network settings here. These are intern settings that should be known by your Network Administrator.

5 AUDIO SETTINGS

Please enter the audio settings of your microphone and speaker here.

For further information on how to connect your phone system with TelephoneIntegration without TAPI driver, please have a look at this [blog article](#).

4.5 The CRM Tab

Using the functionalities of the CRM-tab, you can change the connection to the CRM server with a click on the **[Setup Connection]**-button. When you click on this button, the CRM connection dialog appears. For further information on the Connection dialog, please have a look at the [documentation of the same name](#).

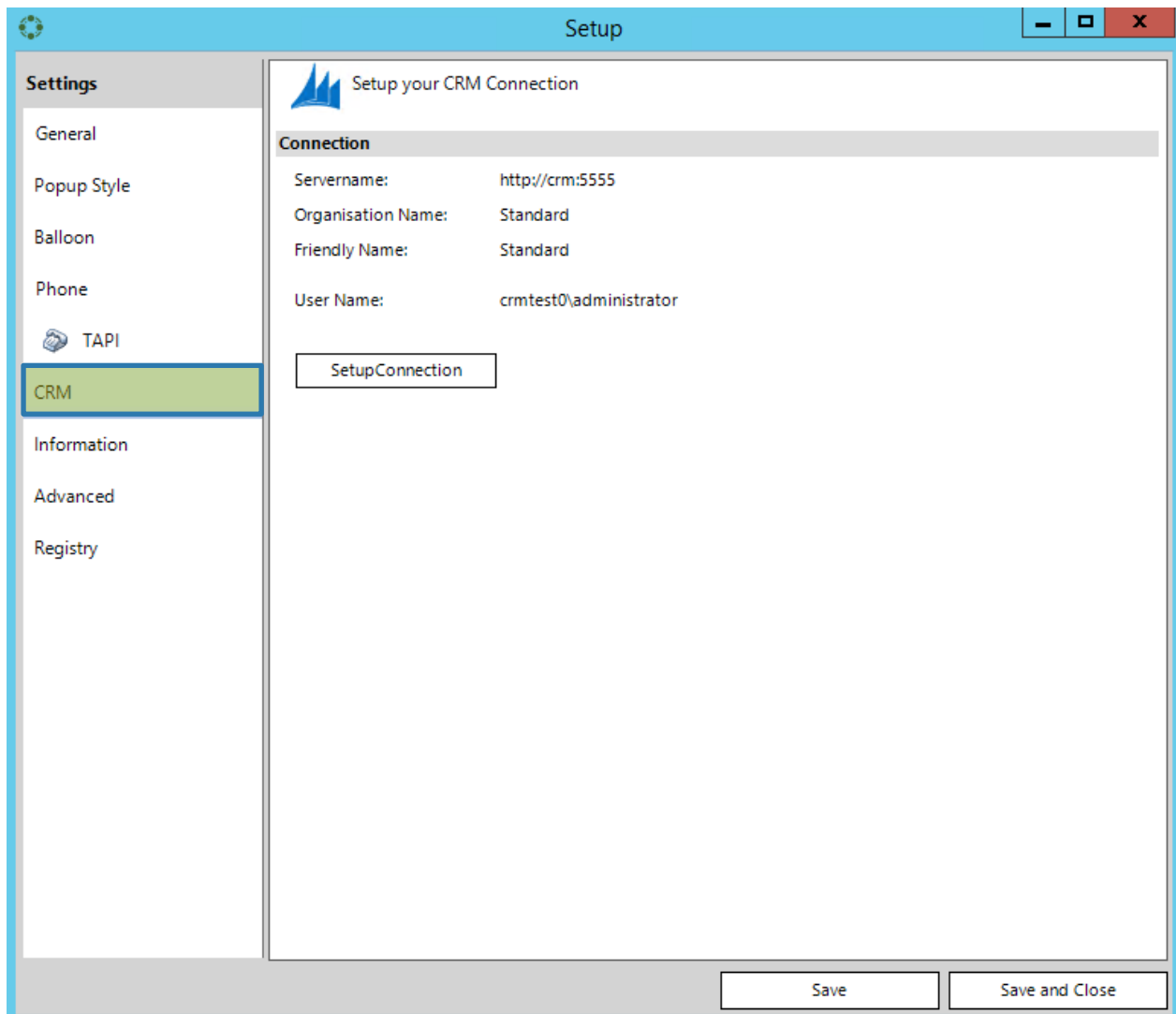


Figure 54: TelephoneIntegration Setup - CRM-tab

4.6 The Information Tab

This tab provides you with information about your license model and status.

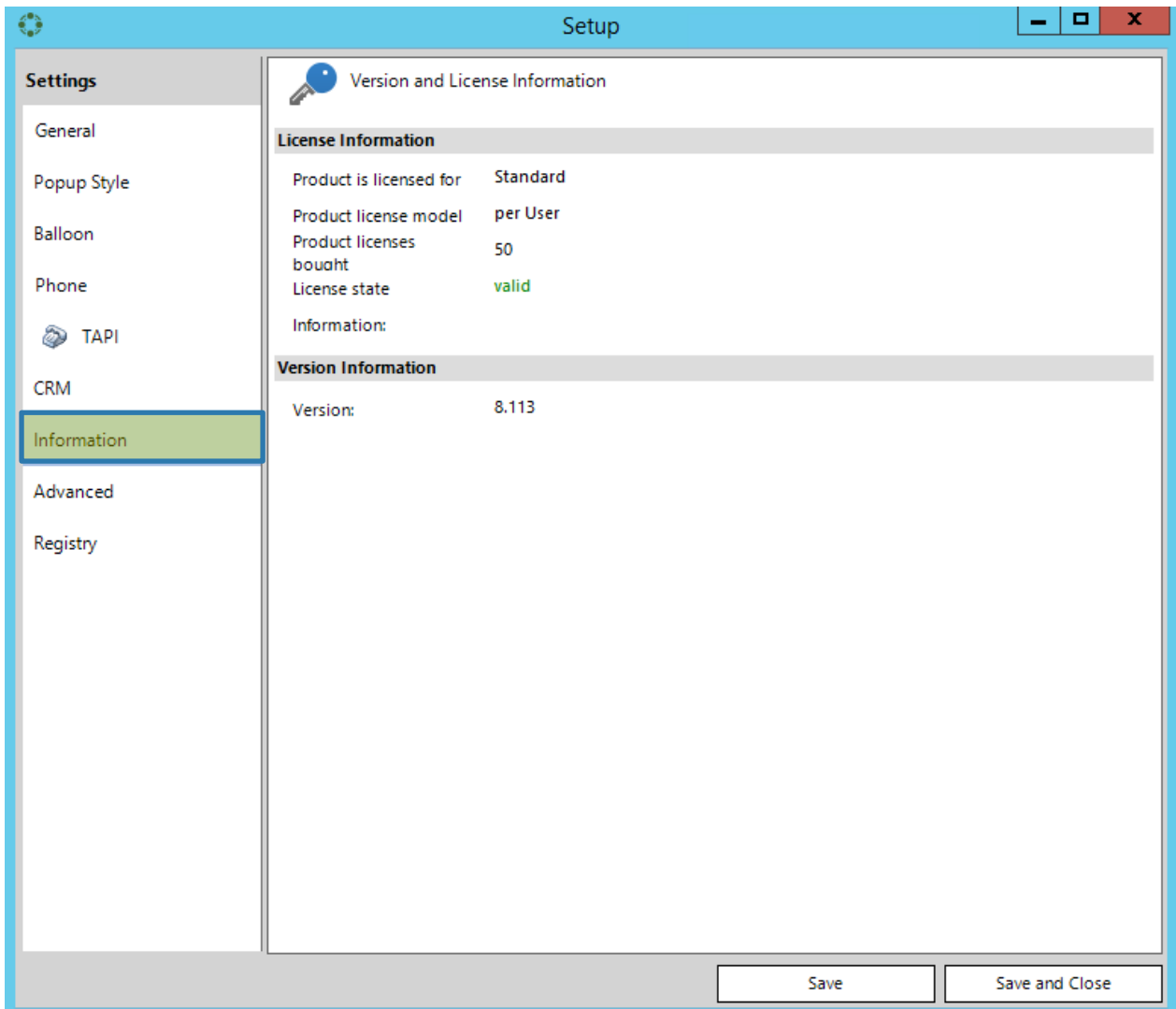


Figure 55: TelephoneIntegration Setup - Information-tab

4.7 The Advanced Tab

Using the functionalities of the Advanced-tab, you can setup the technical details of TelephoneIntegration Client.

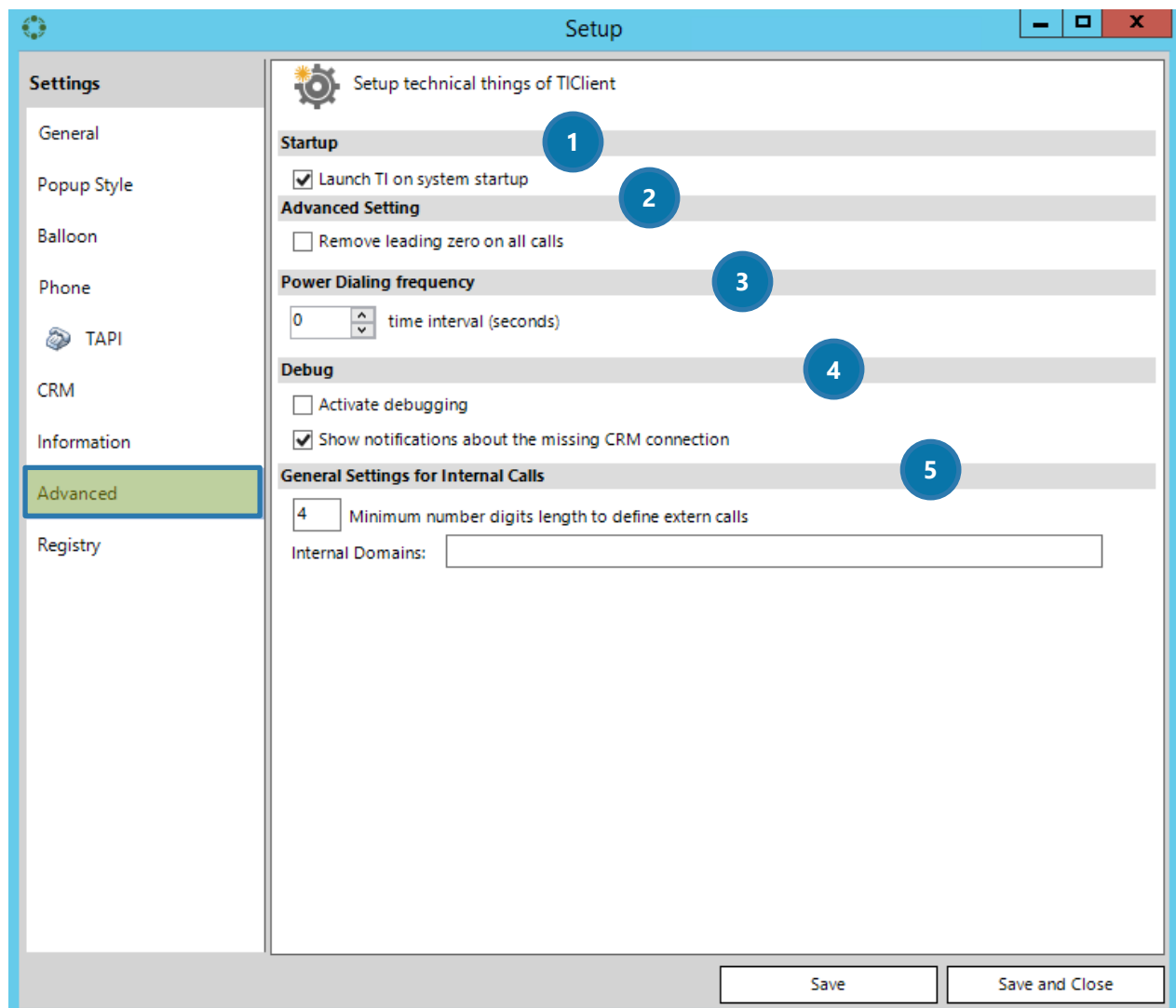


Figure 56: TelephoneIntegration Setup - Advanced-tab

1 STARTUP

Check this box if you would like to start TelephoneIntegration automatically when starting your computer.

2 ADVANCED SETTINGS

Check this box if you want to remove all leading zeros on your calls.

3 POWER DIALING FREQUENCY

Select the time interval in seconds for PowerDialing intervals here.

4 DEBUG

Check the *Activate debugging*-box if you want to activate debugging.

5 GENERAL SETTINGS FOR INTERNAL CALLS

Set the general settings for internal calls here.

4.8 The Registry Tab

This tab provides you with a quick overview of the settings.



Changing the settings here does not affect the system. However, this overview was generated for your convenience. Should there be any problem with TelephoneIntegration Client, simply click on the **[Export]**-button and send the so created file to our support.

Secret Registry Keys ;-)

Key	Value
Active	
ActiveProfile	SOFTWARE\PTM EDV-Systeme\Profiles\1A
AffectLyncAvailability	False
answerBtnEnabled	
applicationStatus	
autoCloseBalloon	False
AutoCloseBalloon	False
BalloonDelay	0
BalloonX	
BalloonY	
BasicPreprocessing	
blockMissedCallPopup	
CallOut	
callOutNumber	
CallThreshold	20
CheckPDLTimeInterval	0
CloseInactiveBalloon	
connectionCheckInterval	
CRM_Server_Name	
debug	false
DefaultProfile	

Buttons: Export, Open log folder, Save, Save and Close

Figure 57: TelephoneIntegration Setup - Registry-tab

5 Reporting and Synchronization

All data for reporting and the synchronization is stored in the entity *MSCRM-ADDONS.com CTI Call History Entry*. The entity can be found in the Advanced Find.



During the installation of TelephoneIntegration Server, a custom decimal field has been added to the phonecall entity. This field is called *ptm_decimalduration* and it is a *hidden field*. Its purpose is to store the actual duration of minutes at the end of each call.

However, there is a lot of data that can be requested by the system: Usually, we differentiate between *standard* and *optional data*.

5.1 Standard Data

PTM_DURATION

Refers to the duration of the phone call in seconds.

PTM_OUTBOUNDCALL

This indicates if a call is outbound or not. It is set on *True* for outbound and *False* for inbound calls.

PTM_PHONENUMBER

Saves the phone number as delivered by the TAPI driver. It might not match the formatting of the number saved in the *ptm_entityid* and *ptm_entitytypecode*.

PTM_STARTDATETIME

This is the UTC time of the start of the call (starting when the call is initiated).

PTM_USERID

CRM User ID of the logged on user on the CTI.

PTM_WASCONNECTED

This indicates if the call was picked up on both ends (key: *true*); the key is on *false* if the call was either denied or not picked up at all.

5.2 Optional Data

PTM_ENTITYID

If a Microsoft Dynamics CRM / Dynamics 365 entity is resolved, this field stores the unique ID for the entity

PTM_ENTITYTYPECODE

If a Microsoft Dynamics CRM / Dynamics 365 entity is resolved, this field stores the type code for the entity, identifying the entity type as defined in MS Dynamics CRM / 365 (for example, 1 for account). *ptm_entityid* and *ptm_entitytypecode* always appear as pair.

[PTM_LINKEDACTIVITYID](#)

This field is holding the uniqueID of the Microsoft Dynamics CRM / Dynamics 365 phone call activity, if the TelephoneIntegration Client is setup to store a phonecall activity.

This field is NOT available if your setup of the CTI Client is done in a manner, that allows a random user to save a phonecall. This is the only definitive link between the phonecall activity and the CTI Call history item.

5.3 Field Templates for internal use

[PTM_LASTSYNCDATETIME](#)

This offers a standardized field for saving timestamps of synchronizing operations you might want to do in your Microsoft Dynamics CRM / Dynamics 365. (Sync between the CTI Call History and the actual phone calls is not part of CTI Product, as it is heavily depending on your own demands and workflows)

In order to synchronize the phone-call duration with the actual duration as recorded in the TelephoneIntegration history, please have a look at [CHAPTER 7.9 HOW TO SYNCHRONIZE TELEPHONEINTEGRATION HISTORY WITH ON PAGE 98](#).

6 The Power Dialer

Basically, the Power Dialer is a tool that enables you to work with semi-automated call queues. Power dialing usually bases on Microsoft Dynamics CRM / Dynamics 365 Campaign Activities or on a custom *power dialer list* entity.

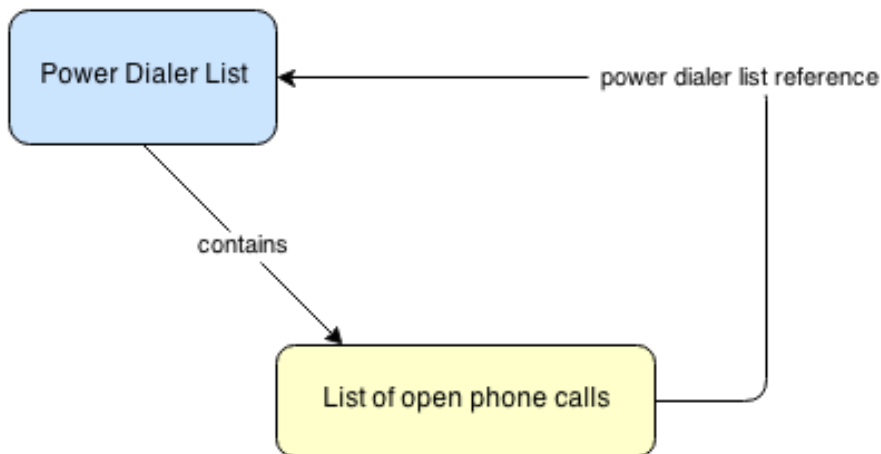


Figure 58: Power Dialing Functionality

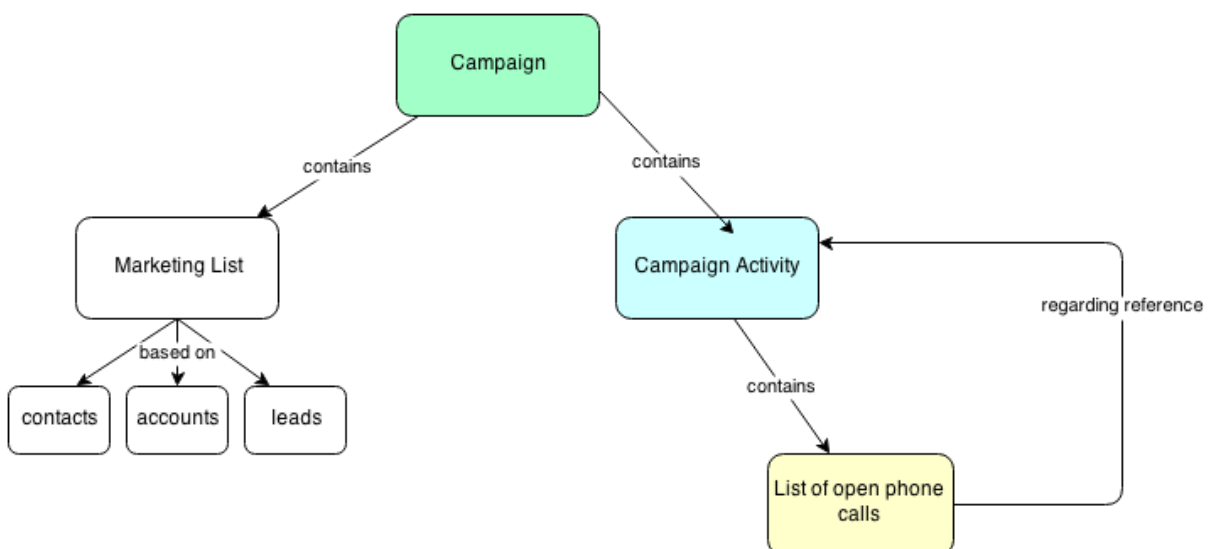


Figure 59: Campaign based activity based on Power Dialing

A server-side integration allows to mark Microsoft Dynamics CRM / Dynamics 365 Campaign/Campaign Activities as *Power Dialer lists*. The TelephoneIntegration Client can attach to it and process the calls saved in these power dialing lists accordingly.

The base for the Power Dialer is the extended CRM Campaign/Campaign Activity entity. The Power Dialer processes the phone calls created in the CRM call-campaign-activity. The term *Power dialing list* refers to a CRM call-campaign-activity, marked as Power Dialing list.

Users participating in the Power Dialer are defined via the ownership of the created phone calls of a CRM call-campaign-activity. This is either a specific user or a team. To assign multiple persons to a Power Dialer, the creation of a team in CRM settings-area is mandatory.

To create a campaign activity based Power dialer list, you have to follow the below steps:

- ① Create a marketing list of selected contacts, leads or accounts.
- ② Create a campaign and add the previously created marketing list.
- ③ Create a campaign activity and distribute it to marketing list members by using the phone channel.

Creating a Power dialer list based on custom power dialer list entity requires a little bit more attention. Please have a look at [CHAPTER 7.10 HOW TO CREATE A POWERDIALER LIST BASED ON THE CUSTOM POWERDIALER LIST ENTITY ON PAGE 100](#) for further information.

6.1 Server-side Requirements

In order to use the whole PowerDialer functionality, it must be enabled in the TelephoneIntegration Server configuration. The entity type of the recipient must be included in the settings of the Telephone Integration Server Configuration. CTI ignores all entity types that are not enabled in the Telephone Server Configuration.



Changing these setting requires a restart of the TelephoneIntegration Client application.

Please have a look at [CHAPTER 6.2 HOW TO CONFIGURE TELEPHONEINTEGRATION SERVER FOR POWERDIALER ON PAGE 79](#) for further information.

6.2 How to configure TelephoneIntegration Server for PowerDialer

The configuration of PowerDialer is a quite easy one. In order to do so, enter the TelephoneIntegration Setup and go to the Advanced Tab. Usually, the TelephoneIntegration Server Config should be done by an administrator. However, because the PowerDialer is a quite important tool, we decided that a short information on its configuration could be of regular users as well. However, if your administrator has already configured PowerDialer, ignore this chapter or simply read it in order to improve your skills.

The screenshot shows a dialog box titled "Standard: Telephone Integration Server Config". Inside, there is a section titled "Welcome to the TelephoneIntegration Setup" with a brief description. Below this are two tabs: "Crm Ribbon" and "Advanced", with "Advanced" selected. The "Advanced" tab contains several sections of configuration options:

- Call History options:** Two radio buttons are present. "Organization owned" is selected, with a sub-description: "All users in the same Organization can view the Call history". "User Owned" is unselected, with a sub-description: "Only the owner can view the Call history in CRM".
- Lync Chat options:** Two dropdown menus. The first is labeled "Account : Save SIP" and the second is "Contact : Save SIP into".
- Power Dialer options:** A checked checkbox labeled "Enable". Below it is a sub-description: "Enabling this feature will enhance the CampaignActivity Entity in CRM with additional fields for the power dialing features of msCRM-addons.com CTI".
- Dialing from Relations:** Three radio buttons. "Enabled for all users" is selected. The other two are "Disable for all users" and "Client side enabled". A sub-description below reads: "Dialing from relations can be enabled or disabled for all users or left to the client installations to decide on a perUser basis".

At the bottom of the dialog, there are five buttons: "Change", "Configure Service", "OK", and "Cancel".

Figure 60: TelephoneIntegration Server Config

When creating a call-campaign-activity, we have to set following settings:



Figure 61: TelephoneIntegration PowerDialer Campaign Settings



The view shown in the above figure is only visible if you use the campaign-activity information form.

1 GENERAL OPTIONS

ACTIVE

The campaign-activity is enabled as Power Dialing list

PD LIST NAME

The name of power dialing list. If none is set, the name of the campaign-activity is taken.

2 CLIENT AUTOMATION OPTIONS

ENABLE AUTOMATIC DIALING

The user gets a predefined amount of time for pre-processing the call. Before the time runs out, the timer blinks red for alerting the user to act. In this preprocessing state, the number is automatically dialing after the predefined time runs out.

DISPLAY CRM FORMS

The user has access to the CRM phone-call activity form inside Power Dialer window.

PREPROCESSING TIME IN SECONDS

Set a span in which the user can prepare for the next phone call. If automatic dialing has been enabled, a call will be started after this time has run out.

POSTPROCESSING TIME IN SECONDS

Set a span in which the user can finish the post-processing of a call.

(Writing a summary, triggering further actions, etc. ...).

The TelephoneIntegration Client periodically checks for changes in the CRM campaign-activities and applies the changes to the CTI Client.

6.2.1 Extended Phone Call Entity

New attributes are added to phone-call entity.

PDSTATE: Collection of state values referring to power dialing.

- Unprocessed
- Claimed
- Successful
- Failed
- Rescheduled

RESCHEDULE: Define a date and time for the rescheduled phone-call.

6.3 The PowerDialer List surface

This chapter provides you with basic information regarding the PowerDialer List surface. When you open the PowerDialer, you are provided with the PowerDialer surface. For further information on how to open PowerDialer and how to work with the tool, please have a look at [CHAPTER 7.11 HOW TO WORK WITH POWERDIALER ON PAGE 102](#).

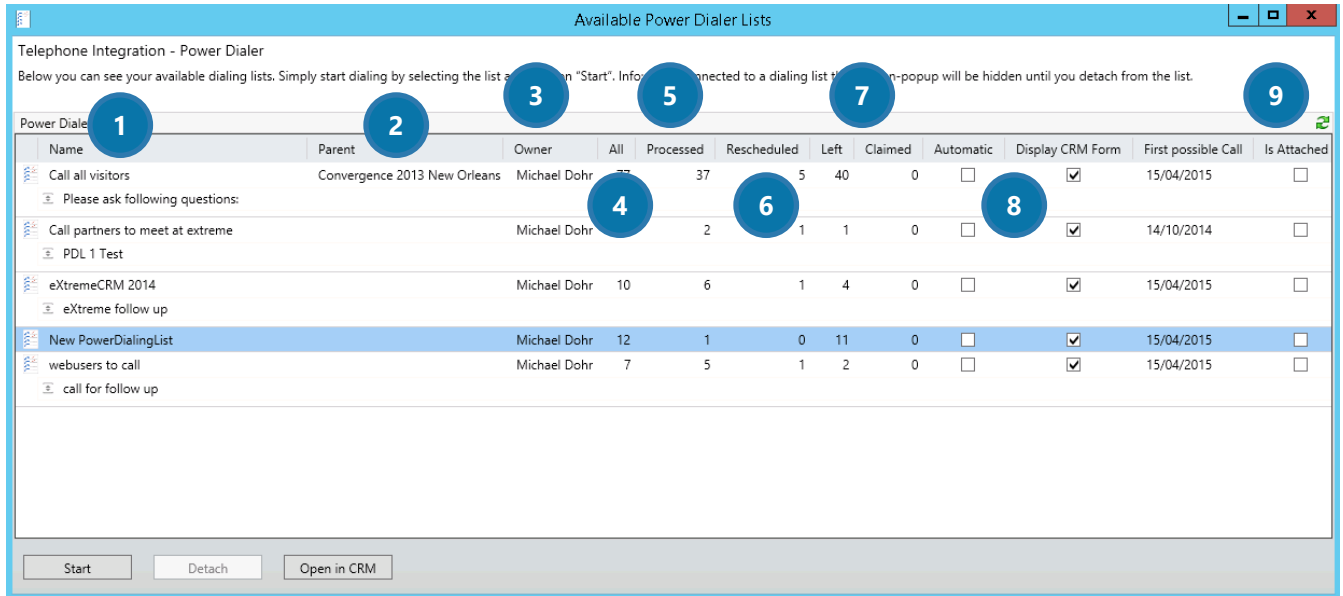


Figure 62: PowerDialer Preview List

1 NAME

The name of the campaign activity

2 PARENT CAMPAIGN

The name of the parent campaign

3 OWNER

The owner of the campaign activity

4 ALL

The number of all planned phone calls that belong to the campaign.

5 PROCESSED

The number of all completed phone calls.

6 RESCHEDULED

The number of all rescheduled phone calls. These phone calls are still open.

7 LEFT & CLAIMED

Left = The number of all phone calls which have not been completed in this campaign-activity.

Claimed = The number of all calls that are processed at the moment.

8 AUTOMATIC & DISPLAY CRM FORM

If automatic dialing is enabled, the presets of preprocessing and postprocessing time are handled via a countdown.

Display CRM Form = If activated, users can directly interact with the planned CRM phone-call activity-form over embedded web controller.

9 FIRST POSSIBLE CALL & IS ATTACHED

First possible Call = The date of first possible call within a PowerDialer list.

Is Attached = Is the user executing this campaign-activity at the moment?

7 Tutorials (“How To’s”)

This chapter provides you with helpful tutorials that show you how to work with TelephoneIntegration Client efficiently.

7.1 How to start an outgoing call from MS Dynamics CRM/Dynamics 365

To start an outgoing call from Microsoft Dynamics CRM/Dynamics 365, simply open an account and then click on the **[Call number]**-button in the command bar.

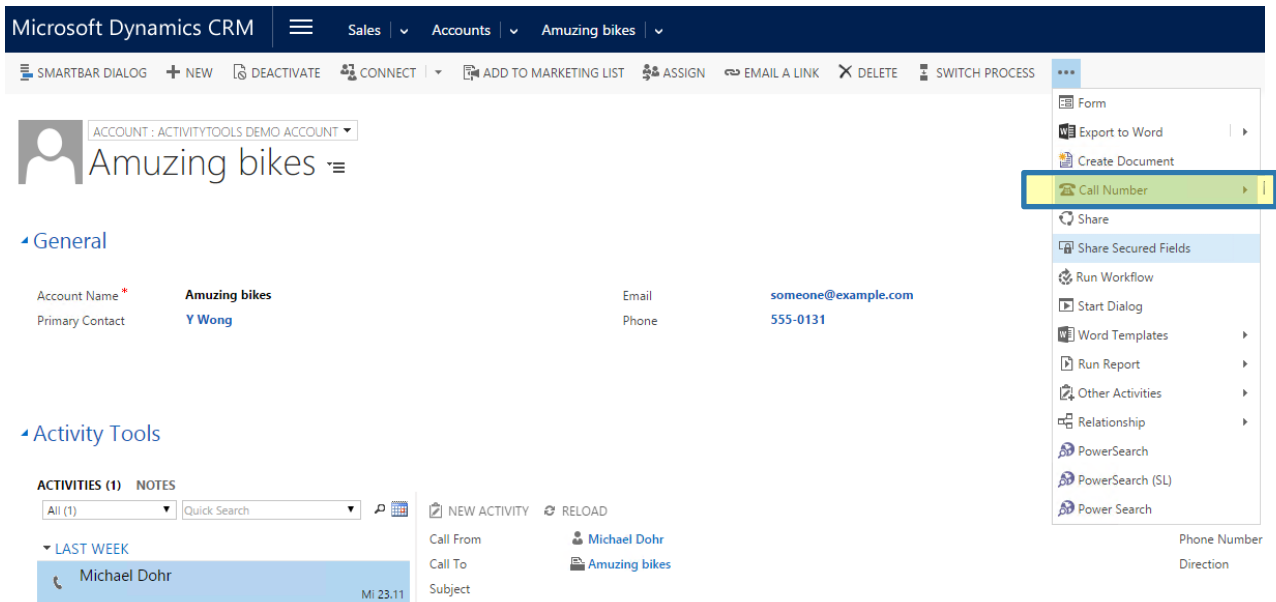


Figure 63: Call number directly from Microsoft Dynamics CRM / Dynamics 365

As soon as you have clicked on this button, the TelephoneIntegration Client balloon appears with all available phone numbers of the originated CRM/Dynamics 365 data record, as well as with the phone numbers of all related data records.

If no related records are found and the originated CRM/Dynamics 365 record has only one phone number, this number will be immediately called.

Per default, TelephoneIntegration Client always searches for related CRM/Dynamics 365 records. You can disable the search for related CRM/Dynamics 365 records on the Server side or on the Client side. The search for related CRM/Dynamics 365 records is per default always enabled for all users. However, there are possibilities to completely enable or disable this feature on both sides.

No matter, which possibility you use, you will always have to create a new TelephoneIntegration settingskey. Please have a look at our blog and read [this article](#) in order to get an overview on how to create a settingskey manually.

7.1.1 Server-side UseDFR settings

Once you have created a new settingskey, you have to set it on true or false.

If you set this setting on *false*, then none of your TelephoneIntegration users will be allowed to use this feature. In contrary, if you set this setting on *true*, then all of your TelephoneIntegration users will be allowed to use this feature.

If you did not set this setting on server-side layer, then per default every TelephoneIntegration user will use it, except those who will disable it locally. Server side settings are overruling the Client side settings.

7.1.2 Client-side UseDFR setting in the local registry

Once you have created a new settingskey, you have to set it on true or false.

HKEY_CURRENT_USER\Software\PTM EDV-Systeme\TelephoneIntegrationclient2013

If you set this setting on *false*, then none of your TelephoneIntegration users will be allowed to use this feature. In contrary, if you set this setting on *true*, then only the local TelephoneIntegration users will be allowed to use this feature.

Not setting the feature has the same impact as if you had set it on *true*.

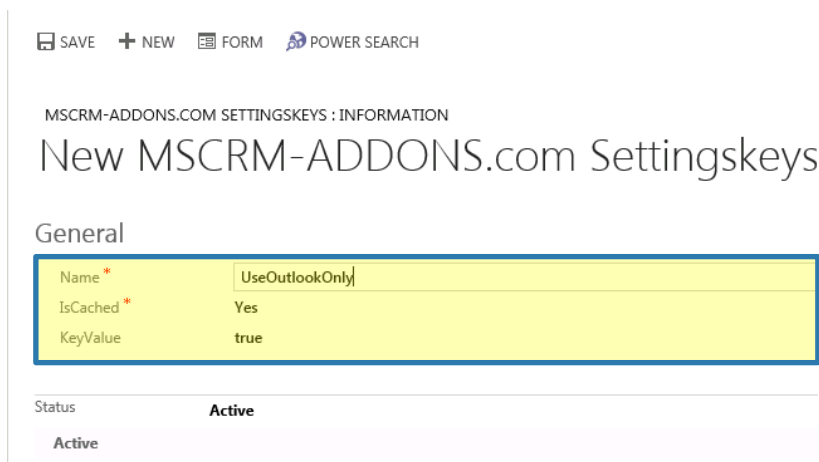
If a TelephoneIntegration user is using a DFR feature, also additional restrictions for the Server side can be set. For further information on this topic, please have a look at our blog and [read this article](#).

7.2 How use TelephoneIntegration with Microsoft Outlook only

Users have the possibility to use TelephoneIntegration with a browser or with Outlook only, meaning that TelephoneIntegration will open all windows (e.g. the CRM-call-activity, etc.) in Outlook and not in a Browser window. In order to use TelephoneIntegration with Outlook only, TelephoneIntegration Client v.5.54 or higher must be installed. Please follow the below instructions if you wish to use TelephoneIntegration Client with Microsoft Outlook only.

However, should any problems occur, please have a look at this [blog article](#) or [this one](#).

- 1) Please create a new TelephoneIntegration settingskey. Please have a look at our blog and read [this article](#) in order to get an overview on how to create a settingskey manually.
- 2) Please name the Settingskey *UseOutlookOnly*, set the KeyValue on *true* and set IsCached on *Yes*.



SAVE + NEW FORM POWER SEARCH

MSCRM-ADDONS.COM SETTINGSKEYS : INFORMATION

New MSCRMS-ADDONS.com Settingskeys

General

Name *	UseOutlookOnly
IsCached *	Yes
KeyValue	true

Status **Active**

Active

Figure 64: Create a new settingskey

Now that is it! From now on, you are enabled to use TelephoneIntegration with Outlook only.

7.3 How to search for an item

Searching in the TelephoneIntegration Client balloon is quite easy. In order to find an item, simply open the balloon and switch to the *CRM* tab **1**.

Next, type in your search term into the search box **2** and click on the **[Find]**-button **3** in order to get your results. The results appear in this area **4** of the balloon.

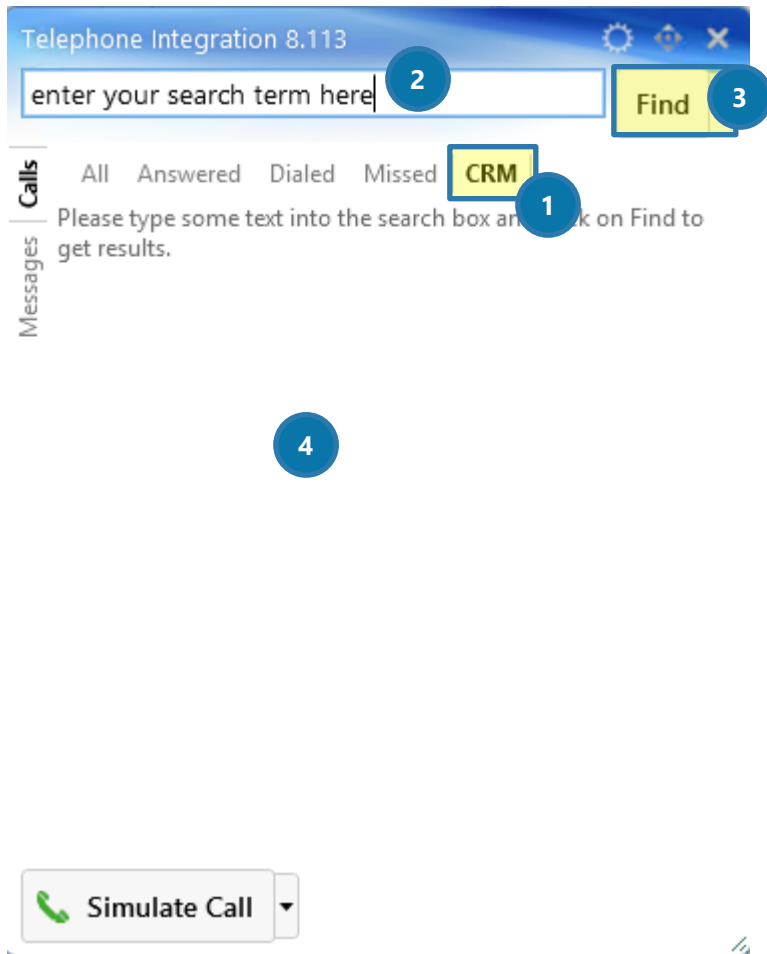


Figure 65: Search an item

7.4 How to localize/custom language packs

In order to select another language pack, navigate to your installation path and look for the *Localization*-folder.

You can install language files (XML-documents) here or change already existing language files. To change values inside of the file, open the XML-file and change the following values. Once closed, the file will be saved automatically.



It is recommended to make a backup-file of the file you are editing. Furthermore, it is very important to never change the key attributes!

```

<Value key="noResults">no results</Value>
<Value key="PleaseTypeSomeText">Please type some text into the search box and click on Find to get results.</Value>
<Value key="INCOMINGCALL">INCOMING CALL</Value>
<Value key="RESOLVEOUTGOINGCALL">RESOLVE OUTGOING CALL</Value>
<Value key="SELECTNUMBERTOCALL">SELECT THE NUMBER TO CALL</Value>
<!-- region History Window -->
<Value key="Filter">Filter:</Value>
<Value key="Last30Days">Last 30 Days</Value>
<Value key="Last3Months">Last 3 Months</Value>
<Value key="LastYear">Last Year</Value>
<Value key="Last3Years">Last 3 Years</Value>
<Value key="NoFilter">No Filter (max. 5000)</Value>
<!-- region Unexpected Error Form -->
<Value key="AnUnexpectedErrorOccurred">An unexpected error occurred</Value>
<Value key="PleaseContact">Please contact</Value>
<Value key="ForSupport">for support.</Value>
<!-- region Expected Error Form -->
<Value key="NoAccessToSkype">No access to Skype</Value>
<Value key="NoAccessToSkypeDetail">Please go to the Skype Options -> Advanced -> 'Manage other programs access to Skype' and allow Telephone Integration to use Skype.</Value>
<Value key="IncorrectInputFormat">Incorrect input Format</Value>
<Value key="IncorrectInputFormatDetail">If you try to call a number, please be sure the phone number is in a correct format.</Value>
<Value key="EntityNotExist">This entity does not exist in your MS-CRM</Value>
<Value key="EntityNotExistDetail">If you have selected this Entity in the Browser, are you sure you work in the current Organization like the TI is configured?</Value>
<Value key="ConnectionFailedToCrm">Connection failed, can't find the CRM Server</Value>
<Value key="ConnectionFailedToCrmDetail">Please make sure your connection is working.</Value>
<!-- region History Form -->
<Value key="CrmData">Crm Data</Value>
<Value key="Date">Date</Value>
<Value key="Time">Time</Value>
<Value key="Direction">Direction</Value>
<Value key="PhoneNumber">Phone Number</Value>
<Value key="CallerName">Caller Name</Value>
<Value key="Duration">Duration</Value>
<!-- region Plugins -->
<Value key="SkypeWrapper">Skype Call</Value>
<Value key="TAPI">TAPI Call</Value>
<Value key="OCSWrapper">OCS Call</Value>
<!-- region Messages -->
<Value key="ThereIsActiveCall">There is a active Call running, please drop this first.</Value>
<Value key="NoPhoneNumberCommittedOpenInCrm">No phone number committed! Open this entity in CRM?</Value>
<Value key="NoPhoneNumberCommitted">No phone number committed!</Value>
<Value key="ConnectionProblems">Connection Problems, can't Connect to MS-CRM</Value>
<Value key="TelephoneIntegrationProblem">Telephone Integration Problem</Value>
<Value key="PhoneModemOptionsWarning">Your Phone and Modem Options are not configured. TI does not run correctly without these settings!</Value>
</Value>
</LanguageValues>
    
```

Figure 66: Search an item

7.5 How to create custom activities

Next to the standard activities, you can also create custom activities in the TelephoneIntegration Context Menu. For further information on standard activities, please have a look at [CHAPTER 3.2 THE CONTEXT MENU ON PAGE 18](#).

However, to create a custom activity, please follow the below steps.

- 1) First of all, please create a new TelephoneIntegration settingskey. Please have a look at our blog and read [this article](#) in order to get an overview on how to create a settingskey manually.
- 2) Please name the Settingskey *customactivities.xml*, set IsCached on Yes and enter the following KeyValue.

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<customactivities>
```

```
<ptm_chatactivity>
```

```
  <displayname>Create Lync Chat</displayname>
```

```
  <phonefield>description</phonefield>
```

```
  <durationfield></durationfield>
```

```
...<datetimefield></datetimefield>
```

```
...<directionfield></directionfield>
```

```
</ptm_chatactivity>
```

```
<campaignresponse>
```

```
  <displayname>Create Campaign Response</displayname>
```

```
  <phonefield>telephone</phonefield>
```

```
...<datetimefield>actualstart</datetimefield>
```

```
...<directionfield>new outgoing</directionfield>
```

```
</new_customactivity01>
```

```
</campaignresponse>
```

- 3) After you have saved the new settingskey, you have two new custom activities in your Context Menu (Create Lync Chat and Create Campaign Response), but of course, you can customize any other activity.

7.6 How to create custom entities

Next to the standard entities, you can also create custom entities in the TelephoneIntegration Context Menu. For further information on standard entities, please have a look at [CHAPTER 3.2 THE CONTEXT MENU ON PAGE 18](#).

However, to create a custom entity, please follow the below steps.

- 1) First of all, please create a new TelephoneIntegration settingskey. Please have a look at our blog and read [this article](#) in order to get an overview on how to create a settingskey manually.
- 2) Please name the Settingskey *customentities.xml*, set IsCached on Yes and enter the following KeyValue.

```
<?xml version="1.0" encoding="utf-8"?>
<customentities>

  <transactioncurrency>
    <displayname>Currency</displayname>
    <phonefield>currencyname</phonefield>
  </transactioncurrency>

  <goal>
    <displayname>Goal</displayname>
    <phonefield>title</phonefield>
  </goal>
</customentities>
```

- 3) After you have saved the new settingskey, you have two new custom entities in your Context Menu (Goal and Currency), but of course, you can customize any other entity.

7.7 How to simulate incoming and outgoing calls

TelephoneIntegration Client provides you with the possibility to simulate incoming, as well as outgoing calls.

7.7.1 How to simulate incoming calls

In order to simulate an incoming call, you must open the so called Simulator. The tool simulates an incoming call. To do so, please navigate to the TelephoneIntegration Client Configuration and open the Simulator Tab. Please have a look at [CHAPTER 4 THE TELEPHONEINTEGRATION CLIENT CONFIGURATION ON PAGE 26](#) for further information on how to open the Simulator tab. In the tab itself, click on the **[Simulator]**-button in order to open the Simulator. For further information, please have a look at [CHAPTER 4.4.5 SIMULATION ON PAGE 49](#).

The simulator opens. Now enter a random telephone number and click on the **[Call In]**-button. The so triggered call will be visible as incoming call in your TelephoneIntegration Client.

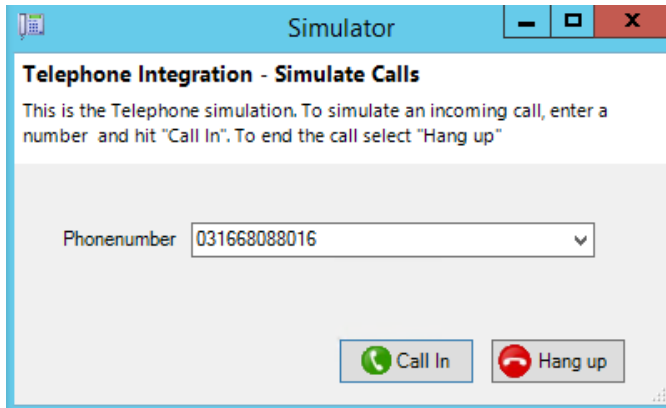


Figure 67: The Simulator

7.7.2 How to simulate outgoing calls

You can also simulate outgoing calls through using the TelephoneIntegration balloon. To do so, simply select the **[Simulation]**-call button in the TelephoneIntegration balloon instead of the **[TAPI]**-button or else. For further information, please have a look at [CHAPTER 2.2 HOW TO INITIATE AN OUTGOING CALL FROM THE BALLOON ON PAGE 17](#).

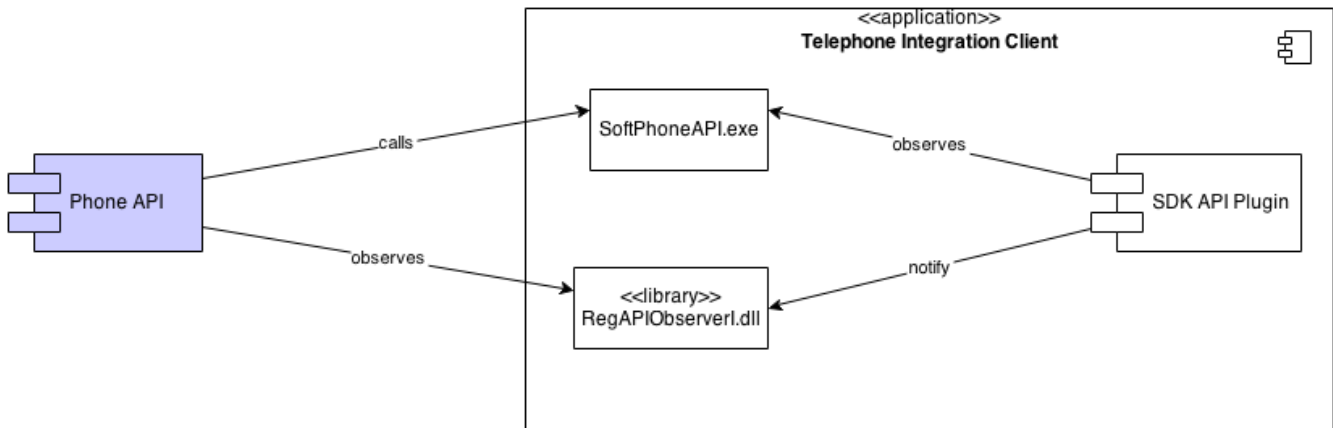
7.8 How to connect your phone system with SDK API

This section addresses the following question from users:

"I have a phone system for which there are no TAPI drivers, but I have a SDK .net API that enables me to connect to my phone device and control it. Is there a way that I can connect it to your TelephoneIntegration Client?"

And the answer is yes, but a small amount of programming skills is required.

Page 67



The Phone API (left) component is not a part of TelephoneIntegration Client. It is phone specific application that must be able of two things:

- to control state of phone calls on the specific phone and pass it to TI client.
 - Over SoftPhoneAPI.exe with proper parameters
- to observe which commands the user triggers over the TI client and pass those to the specific phones
 - Over .net RegAPIObserver.dll library

Whatever happens on the phone device (ringing, dialing, connected or disconnected state), the Phone API recognizes it and pass this information through *SoftPhoneAPI.exe* to TelephoneIntegration client. Whatever command (dial, answer or hang up) the user presses on the TelephoneIntegration Clients surface, Phone API can observe over the RegAPIObserver.dll library. The RegAPIObserver.dll library contains *CTICommandEvent* that hold information about a command that was executed on the TI client.

Below is a code sample that needs to be integrated into Phone API application to observe commands on TI client side. This is addressed also as a direction from TI client to the specific phone.

First a reference to RegAPIObserver.dll needs to be added. This DLL library remains in the INSTALLATION path of TI client.

Then we can register to CTICommandEvents.

```
PTM.RegAPIObserver.Observer.SingelInstance.CTICommandEvent += CTICommandEventHandler;
```

And the handler method that should contain proper actions based on the command info.

```
static void CTICommandEventHandler(object sender, TICommandEvent data)
{
    System.Console.WriteLine(sender.ToString() + ": command: "
        + data.RequestedCommand.ToString() + " " + data.RequestedData);

    switch(data.RequestedCommand)
    {
        case EnumCommand.Answer:
            // happens when user wants to answer incomiong call over TI client
            // call Answer command your specific phone device

            // .....
            break;

        case EnumCommand.Dial:
            string number = data.RequestedData;
            // happens when user wants to dial out over TI client
            // dial number on your specific phone device

            // .....
            break;

        case EnumCommand.Drop:
            // happens when user wants to drop or cancel the call over TI client

            // call Drop call command on your specific phone device

            // .....
            break;

        case EnumCommand.None:
            break;
    }
}
```

This covers the direction from TelephoneIntegration client to the specific phone device.

Now the sample of code for the direction from specific phone device to TI client.

Phone API should import the phone specific DLL that enables the application to work with the specific phone device. After it connects to the phone device, the Phone API application should be able to catch the following state events:

- Dialing
- Offering
- Connected
- Disconnected

Based on the state of the phone device, the Phone API should pass this information on by executing the SoftPhoneAPI.exe with following 3 parameters:

```
SoftPhoneAPI.exe /reg /state:state /tel:number
```

The parameter */reg* is indicating that the ThirdPartyReg plugin is working with this call and not with the RingCentral plugin.

The parameter *number* is the number that is being dialed or offered. It is mandatory

The parameter *state* can be:

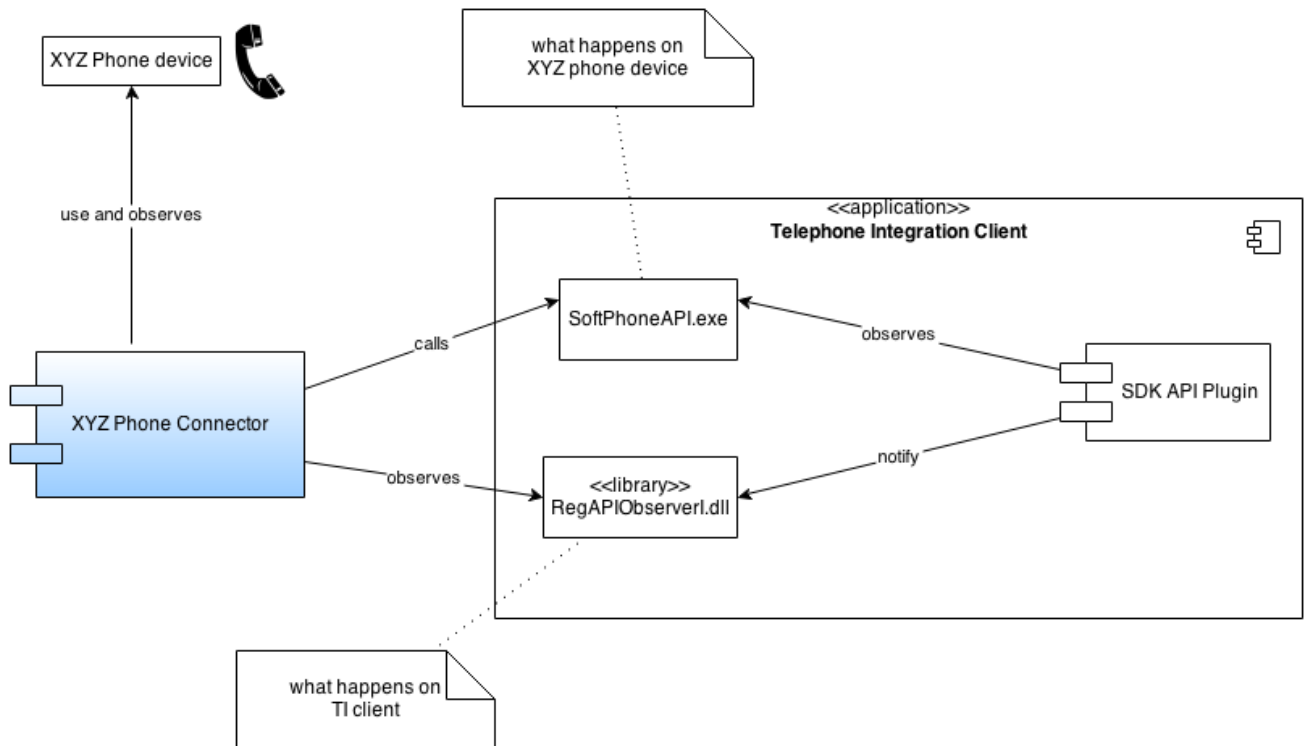
- 0 - for disconnected state
- 1 - for connected state
- 6 - for offering state
- 3 - for dialing state

Also can there be combinations of it like:

- 61 – for offered call that is immediately accepted
- 60 – for offered call that is immediately rejected
- 610 - for offered calls that is immediately accepted and ended.
- 31 – for dialed call that is immediately answered
- 30 – for dialed call that is immediately rejected
- 310 – for dialed call that is immediately answered and dropped.

Let assume we have a XYZ phone system and a XYZ SDK API that enables us to write a XYZ Phone Connector.

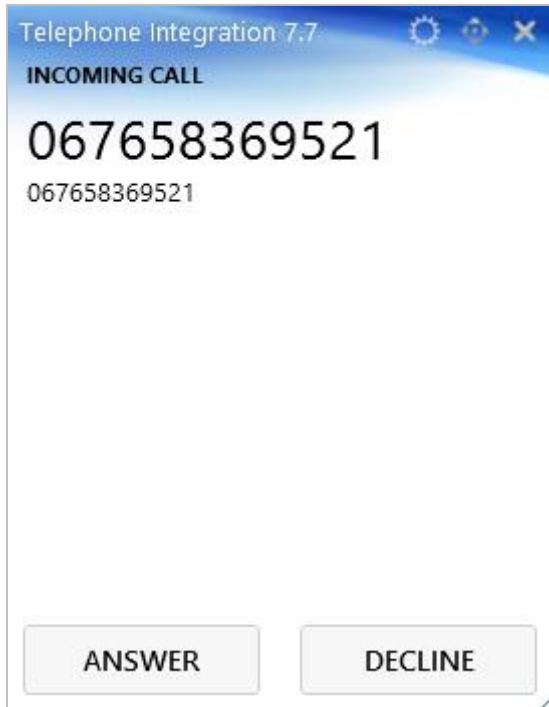
TelephoneIntegration Client for Microsoft Dynamics CRM 2015/2016 and Dynamics 365



In case XYZ phone device rings and the caller number is +43.316.680880-28, the XYZ Phone Connector application should execute the SoftPhoneAPI.exe as

```
>SoftPhoneAPI.exe /reg /state:6 /tel:+4331668088028
```

The TI client will show the offering state



When pressing the [ANSWER] button, the TelephoneIntegration Client would trigger the event CTICommandEvent of class Observer in RegAPIObserver.dll which XYZ Phone connector can catch and pass the ANSWER command to the XZY phone device.

If the user would press the [DECLINE] button, the TelephoneIntegration Client would trigger another CTICommandEvent with command "DROP" and the XYZ Phone connector would catch this and pass it on to XYZ phone device.

If the user wants to dial over 3rd Reg plugin, the TelephoneIntegration Client would trigger the CTICommandEvent of class Observer in RegAPIObserver.dll, which the XYZ Phone connector can catch and pass the DIAL command with the number to the XYZ phone device.

7.9 How to synchronize TelephoneIntegration History with phone calls



This will only work for calls, that are created with the *always store*-option enabled in the TelephoneIntegration Client. During the installation of TelephoneIntegration Server, a custom decimal field has been added to the phonecall entity. This field is called *ptm_decimalduration* and it is a *hidden field*. Its purpose is to store the actual duration of minutes at the end of each call.

- 1) Please start with the creation of a new workflow (*CRM > Settings > Processes*) and attach it to the entity *MSCRM-Addons.com CTI Call History*
- 2) In case you have not created a workflow in Microsoft Dynamics CRM yet, get some advice how to do this in [CRM Online here](#) and in CRM on premise in our [documentation](#).
- 3) Next, create a new workflow.
- 4) Make sure that the *start when*-option is set to *Record is Created*.
- 5) Add a *Check Condition*-step that will check if the history record has the phone call activity GUID info. Edit it like below shown.

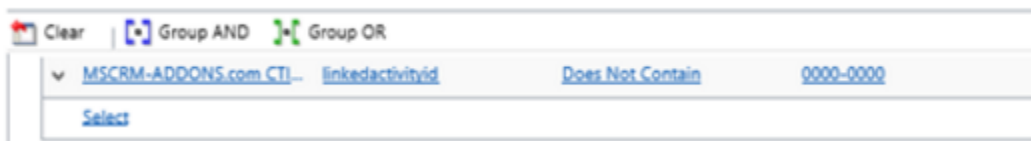


Figure 68: Edit Check Condition Step

- 6) Add a *Wait Condition* that will start 5 minutes after the record is created. The record is created at the end of the call. Users can adjust the time (5 minutes) to their needs. It should be edited as shown in Figure 4.

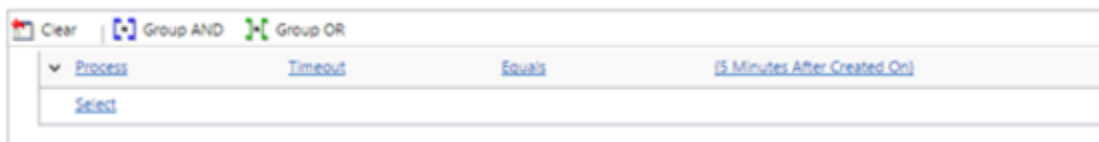


Figure 69: Edit Wait Condition Step

- 7) Add an *Update Record*-step as substep to your *Wait Condition*. It will update the *lastsync* field.
- 8) Now please save your workflow and activate it.
- 9) Now start your *CRM Plugin Registration Tool*, connect to your CRM organization(s) and under *Registered Plugins* look for *PTM.Plugins*. Next, expand it.
- 10) Right click on *PTM.Plugins.SyncNumberPlugin*. Then select *Register New Step*.
- 11) When the TelephoneIntegration Client marks the call as *finished*, the information is stored in the *history table*.

The first step checks if the *linkedactivityid* contains a phone call guid.

If yes, it waits for 5 minutes.

Within the 5 minutes, the user has to finish the modification of the open phone call by saving it (but not completing it).

5 minutes after the call has been finished, the *lastsyncdate* will be updated.

This behaviour triggers the *SyncNumberPlugin*.

If the phone call was not read only, then the *duration* field will be updated.

7.10 How to create a PowerDialer list based on the custom PowerDialer list entity

Creating a Power Dialer list based on custom power dialer list entity consists of following steps:

- 1) Select some contacts/accounts/leads in CRM view and click on the **[Create Dialing List]**-button in the ribbon. For this example, we decided to use the entity *Contact*.

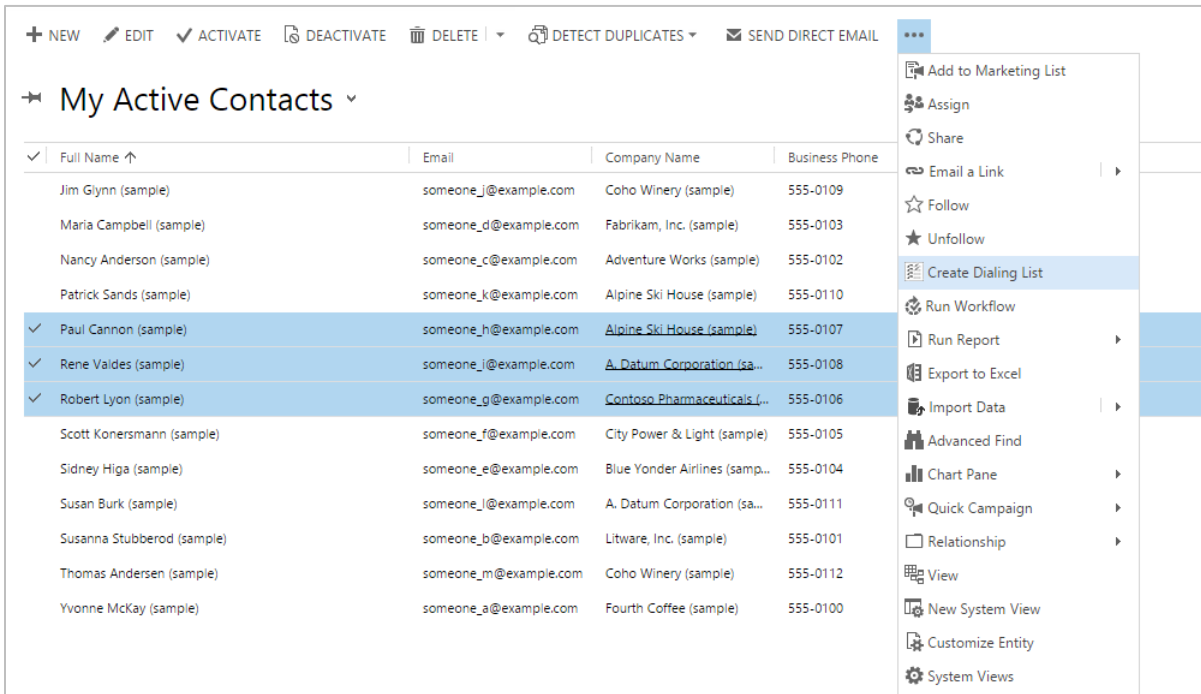


Figure 70: Create Dialing List

- 2) Fill out the form and press the **[Create New]**-button or the **[Add to existing]**-button and give it a pretty name.

The screenshot shows a dialog box titled 'TI PowerDialingList'. It contains the following text and fields:

- Title: TI PowerDialingList
- Instruction: Use this dialog to create a new PowerDialingList, or add new phone calls to an existing.
- Subject field: asking for purchase
- Description field: foo bar

Figure 71: Create New Power List entry

3) Next, a new *Power Dialer List* record is created.

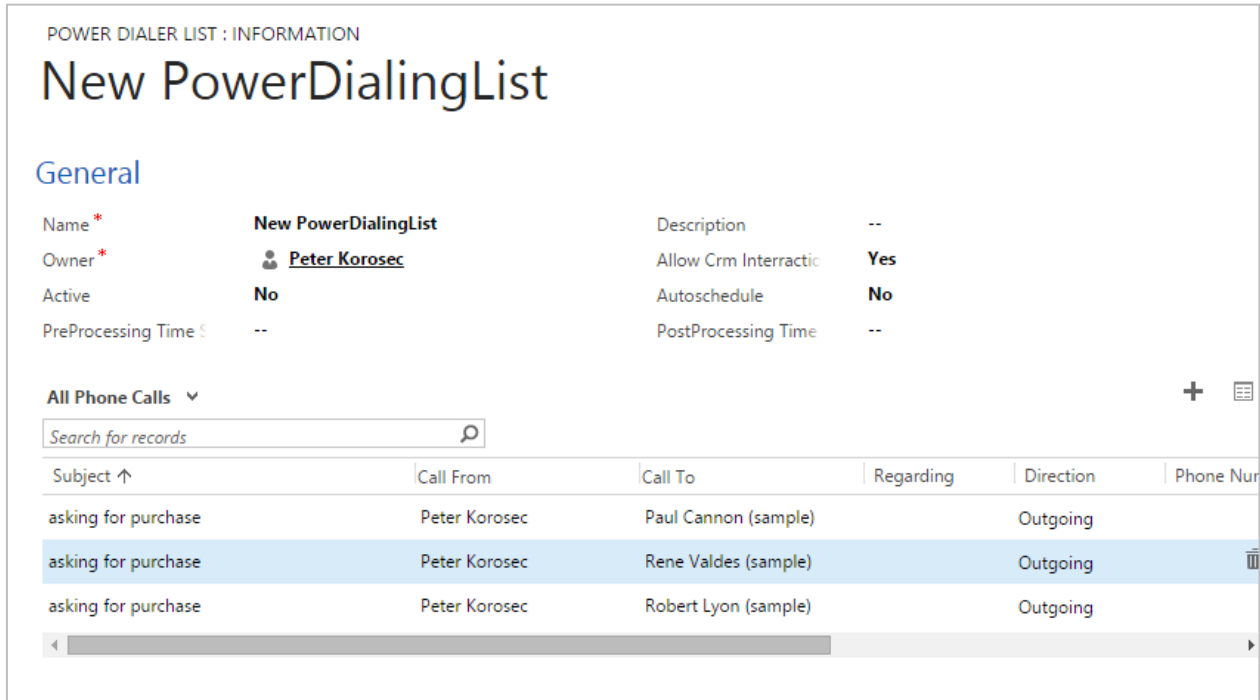


Figure 72: Newly created PowerDialer List

- 4) Next, change the fields according to your needs and then save the changes. The Power Dialer List record is now ready to use.
- 5) In the next step, the Power Dialing functionality must be enabled in the TelephoneIntegration Server Configuration. Please watch [this video](#) for further information.
- 6) TelephoneIntegration Client retrieves the server-side setting *UsePowerDialing* when it starts. If Power Dialing is enabled, the Client checks for updates every minute. If any updates apply to the logged-on user, a notification window is displayed.

7.11 How to work with PowerDialer

The handling of PowerDialer is very intuitive. In the course of the next chapters, you will receive an overview on how to work with PowerDialer.

7.11.1 How to open PowerDialer

The Power Dialer can be opened by selecting *Power Dialer* in the Application Menu.

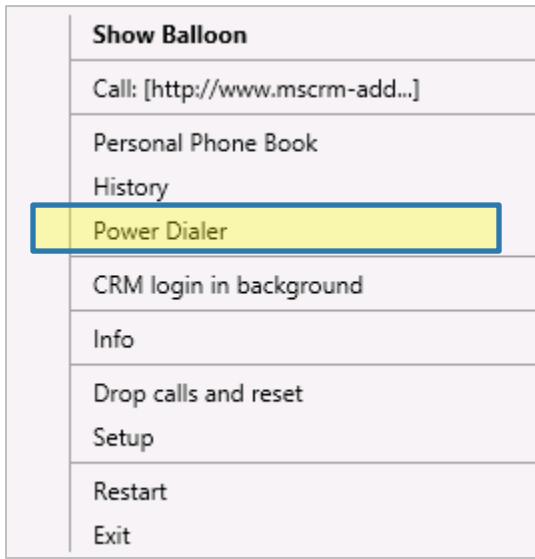


Figure 73: Open the PowerDialer functionality

A new window with a list of active campaign-activities appears with details for each campaign-activity. This window is referred to as *Available Dialer Preview List*.

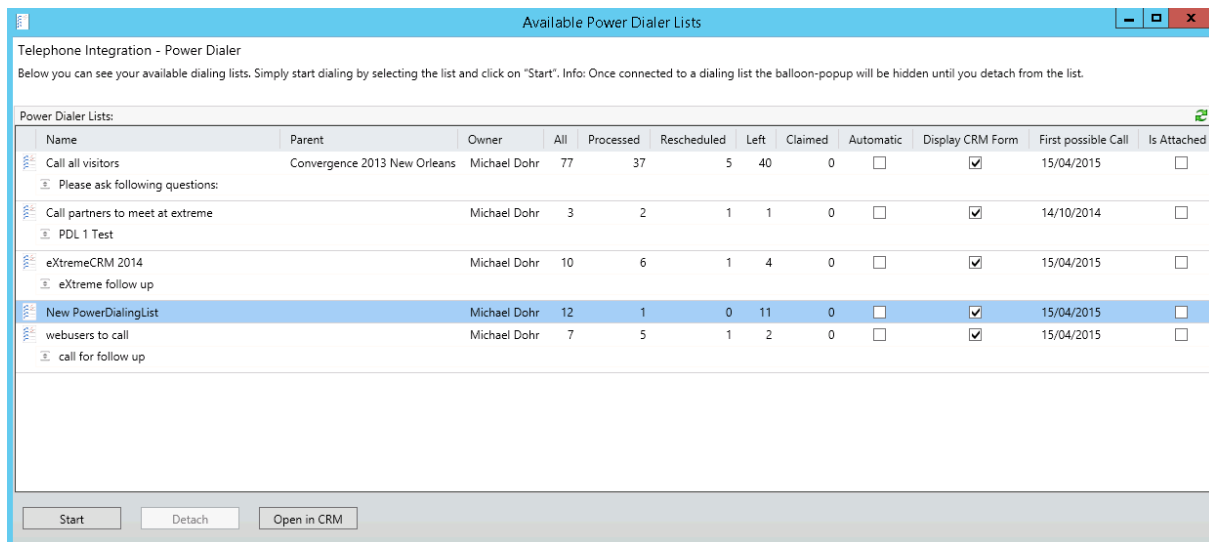


Figure 74: Available Dialer Preview List

Users can start (attach) to execute only one PowerDialing-List at time with a double click on it.

7.11.2 How to work with PowerDialer

Users can execute only one PowerDialing list at a time. During that time, the default TelephoneIntegration balloon is disabled. The calls of a PowerDialer list are processed in a separate window, known as *Power Dialer Workplace*.

The window is divided into 4 sections.



Detaching is only possible, if the Power Dialing List Client is in pause mode. The pause mode can only be activated in the preprocessing ② state.

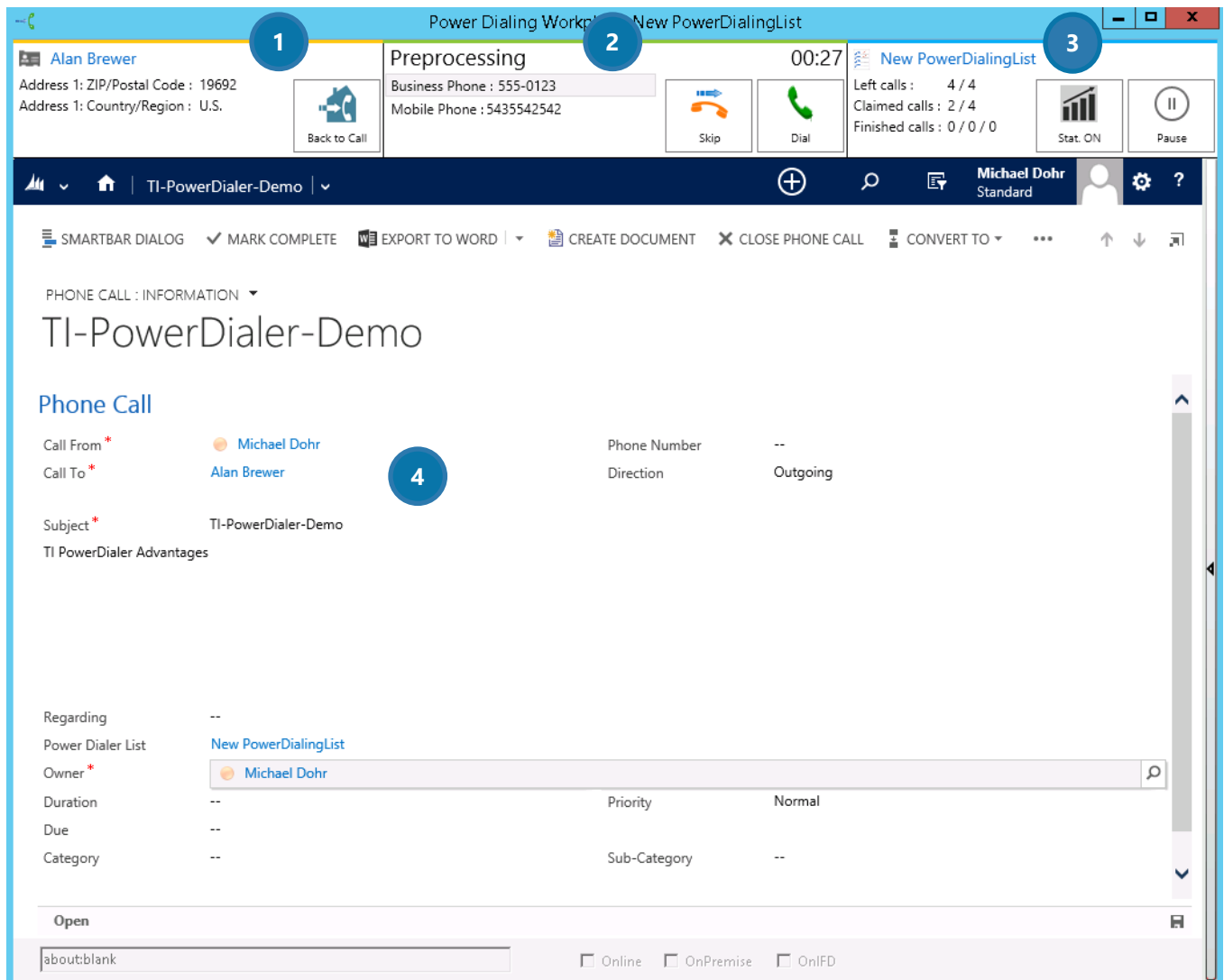


Figure 75: Power Dialer Surface

1 RECIPIENT INFORMATION - SECTION

In this section, you will find all the information about the recipient of the planned phone call activity. A click on the **[Back to Call]**-button allows users to switch back to the current call form.

2 THE PREPROCESSING -SECTION

In this section, you will find all the information regarding the preprocessing of the phone call. Possible states are:

- A) **PRE-PROCESSING** (user prepares for the call)
- B) **ACTIVE CONVERSATION** (user dials or is calling at the moment)
- C) **POST-PROCESSING** (after the user ends the call)

A) The preprocessing state represents the state before the recipient is called. This time span is used to prepare for a call. The preprocessing state can be attached to a timer. Users can select between different CRM-phone numbers of the call-recipient. Furthermore, the current claimed call can also be skipped.

B) Active Conversation state represents the timespan from dialing to finishing the call.

C) Postprocessing state represents the state when the call is summarized. Setting the call as successful or failed, marks the call as completed.

The time required that a user needs for pre-and post-processing phase of a call will be stored in *Actual preparation time* or *Actual work time*.

3 THE NEW POWERDIALING LIST STATISTICS -SECTION

In this section, you are provided with a statistic about the PowerDialing List, containing the following information:

- name of the power dialing list
- how many calls of total calls are still left
- how many left calls are claimed
- how many finished calls are rescheduled / successful / failed

Furthermore, the call statistic can be switched to *ON* or *OFF*. Once activated, the state of the CRM/Dynamics 365 server will be checked by running calculations in the background. This occupies the local processor with additional workload.

4 CURRENT CALL -SECTION

shows the current call or a feedback option. If "Display CRM Forms" is disabled, the CRM call-form will be replaced by a text-editor, which can be filled in by the users and which is saved as the description of the phone-call activity associated with the actual call.

7.11.3 How to close the PowerDialer workplace

To close the Power Dialer Workplace window, the Power Dialer needs to be in preprocessing state. Closing the window during an active conversation or postprocessing phase is not possible.

After closing the window, the TelephoneIntegration balloon is enabled again.

8 Frequently Asked Questions

This chapter provides you with a list of frequently asked questions regarding TelephoneIntegration Client. The answers are displayed as links to blog articles. Please follow them in order to get the answer to the corresponding question.

8.1 How do I generate a debug log file?

<http://blogs.mscrm-addons.com/post/2011/04/04/How-to-enable-debugging-for-TelephoneIntegration.aspx>

8.2 Why does the TAPI plugin make no outgoing/incoming calls?

<http://blogs.mscrm-addons.com/post/2011/11/28/The-TAPI-wrapper-is-not-working-properly.aspx>

8.3 Why does the Lync/OCS wrapper stop making outgoing calls?

<http://blogs.mscrm-addons.com/post/2011/11/25/The-Lync-OCS-wrapper-stop-making-outgoing-calls.aspx>

8.4 How do I open the fields.xml settings?

<http://blogs.mscrm-addons.com/post/2011/11/25/How-to-find-the-fieldsxml-settings.aspx>

8.5 Why does the phone call activity/entity not open?

<http://blogs.mscrm-addons.com/post/2011/11/28/By-outgoing-calls-the-Entity-or-PhoneCall-activity-will-not-open-sometimes.aspx>

8.6 Why does the TelephoneIntegration Client not resolve the incoming/outgoing numbers correctly?

<http://blogs.mscrm-addons.com/post/2012/03/02/CTI-does-not-resolve-phone-number.aspx>

8.7 Why does the Call number button not react when I try to call out?

<http://blogs.mscrm-addons.com/post/2011/11/28/Calling-out-from-CRM-Entity-by-pressing-Call-Number-button-triggers-no-reaction.aspx>

8.8 How do I use the TAPI Test Tool?

<http://blogs.mscrm-addons.com/post/2012/03/12/TAPI-Test-Tool.aspx>

8.9 How do I dial from a related CRM/Dynamics 365 record?

<http://blogs.mscrm-addons.com/post/2013/03/25/Setting-restrictions-by-dialing-from-relationships.aspx>

8.10 How do I set restrictions for dialing from a related CRM/Dynamics 365 record?

<http://blogs.mscrm-addons.com/post/2013/03/27/How-to-set-restrictions-for-dialing-from-a-related-CRM-record.aspx>

8.11 How do I rebuild the phone number index table?

<http://blogs.mscrm-addons.com/post/2013/07/03/How-to-rebuild-phone-number-index-table.aspx>

8.12 How do I synchronize the phone call duration?

<http://blogs.mscrm-addons.com/post/2013/09/19/Synchronizing-Telephone-Integration-history-with-actual-phonecalls.aspx>

8.13 How do I customize the context menu to create new activities and/or entities?

<http://blogs.mscrm-addons.com/post/2015/01/05/TI-Client-How-to-create-customized-activities-andor-entities.aspx>

8.14 How do I add a call number Flyout button to MS CRM 2013/2015 or Dynamics 365?

<http://blogs.mscrm-addons.com/post/2015/02/16/TI-Add-Call-Number-Flyout-Button-for-MS-CRM-2013-2015.aspx>

8.15 How do I manually stop a TIUpdateService service?

<http://blogs.mscrm-addons.com/post/2015/01/22/TIUpdateService-is-still-processing-data!.aspx>

8.16 Why is my Skype desktop Client not working?

<http://blogs.mscrm-addons.com/post/2015/04/14/TelephoneIntegration-Skype-plugin-is-not-showing-call-info.aspx>

9 Contact

For further technical questions, please visit our blog <http://blogs.mscrm-addons.com> or contact support@mscrm-addons.com.

For sales and licensing questions please contact office@mscrm-addons.com, or the corresponding contact information below.



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