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# Cuba for Remedy TAPI

# Installation Guide

# Cuba Version 1.3

**Document Number:**    0403-00288

**Revision:**          D

**Date:**              20<sup>th</sup> Dec 2009

# 0. PRELIMINARIES

## 0.1 PUBLISHED BY

Itel Office Software Limited, 5 Enmore Gardens, London, SW14 8RF  Tel: +44(0)20 8878 7367, Fax: +44(0)20 8876 7257

## 0.2 COPYRIGHT

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## 0.3 DOCUMENT HISTORY

First issued @ revision A, on 2008-09-28, by A. Comber

Issued @ revision B, on 2008-11-28, by A. Comber

Issued @ revision C, on 2009-01-22, by A. Comber

Issued @ revision D, on 2009-12-20, by A. Comber

## BIBLIOGRAPHY

### 0.3.1 Referenced Documents

[1]     TAPI, http://msdn.microsoft.com/en-us/library/ms737218(VS.85).aspx

# TABLE OF CONTENTS

# 1. INTRODUCTION

This installation guide is designed to give you an in depth understanding of installing and integrating Cuba  with your Remedy Application and your Telecom System.

If you've already read our Quick Start Guide you'll recognise some of the information - particularly in the early pages. But further on you'll discover everything you need to know to implement more sophisticated CTI functionality.

Unlike our Quick Start Guide – which is more focused on getting you up and running with your trial software – this is to give you step-by-step instructions for everything from downloading your software to implementing Advanced Settings and Remedy Workflow.

# 2. OVERVIEW

Cuba for Remedy software enables Computer Telephony Integration (CTI) between most business grade telecom systems, PBX's, and BMC's Remedy AR System Application.

The Cuba software consists of two components; the Cuba Server and the Cuba Client. The Cuba Server communicates with your telephone system via a TAPI (Telephony Application Programming Interface) interface. The Cuba Client communicates with your Remedy application.

The diagram below illustrates a typical installation.

Remedy Server    User Workstation/Cuba Client        Cuba Server            PBX



The Remedy Server is shown above for clarity.  Note that interaction between Cuba and Remedy is via the client. Cuba client communicates with Remedy client to search or submit data to a Remedy database.  Cuba client can be configured to communicate with Remedy thick (Windows User) or thin (web based) clients.

The PBX component above may be hardware or a software based server.  The software server will ultimately communicate with telephone hardware.  For example, Cuba Server connects directly via a network connection to an Avaya IP Office but via a CCT Server to a Nortel Meridian system.  The common part is a 3rd party TAPI driver. This component is generally installed on the same machine which hosts Cuba Server.

The TAPI driver must be installed and configured before Cuba Server can communicate with your telephony hardware.  Email us on support@iteloffice.com if you require assistance in selecting, installing or configuring the TAPI driver. Generally, the TAPI driver is provided by your telephone system maintainer.

The TAPI driver provides an application programming interface which allows Cuba Server to control your telephone system and receive events.  This interaction is two-way.

A telephony request is initiated by Cuba and is sent to the telephone switch.  A telephony event is received by Cuba from the telephone switch.

An example of a telephony request would be a dial request initiated by right clicking on the Cuba client systemtray icon, selecting the Softphone menu, entering a number and clicking on the dial button.

An example of a telephony event would be an alerting event on a phone causing the TAPI interface to send alerting call information to Cuba which could result in Cuba client screen popping your application.

## 2.1  USER DATA

Cuba version 1.3 introduces the capability to associate custom data to a call.  In this way custom data can be transported with a call.  The custom data could for example be a database record ID so that a user answering a call can lookup or create a record, attach the record ID to the call and have the information transferred to an agent with the necessary skills to resolve the call.  This application of attaching user data is sometimes referred to as 'screen passing'.

# 3.  PREPARATION

## 3.1  OPERATING SYSTEM REQUIREMENTS

The Cuba Server should reside on an 'always on' PC on the network.

System Requirements are:

512MB RAM

1.2GHz CPU

Ethernet Port

Operating System – Microsoft Windows: Vista, XP, 2000, 2003, NT

Cuba client can run on any Microsoft Windows platform from Windows 95+.

**Administering Cuba Settings**
Cuba's settings are configured in the Cuba Web Administrator - a web interface to Cuba Server configuration. Your web browser must support Javascript.

## 3.2  CONFIGURING TELEPHONY INTERFACE

Configuring the telephony interface is very specific to the manufacturer of your telephone system.  Essentially, you will require all the components necessary to install a third party TAPI driver for your equipment.  On some systems, all that is required is

installation of the TAPI driver software.  On some systems extra hardware may be involved.  The TAPI driver must be able to operate in third party mode.  In other words, provide the capability to control multiple devices.  First party TAPI drivers, used to control a single telephone are not suitable.  Some TAPI drivers work in both modes and it is necessary to select a 'third party mode'.

Contact your manufacturer or your supplier for further details.  Alternatively, feel free to email us on support@iteloffice.com with any questions.

## 3.3  NETWORK CONFIGURATION

Your Cuba Server communicates on ports 6090 and 8080. Port 6090 is used for communication of telephony data and port 8080 is used for web administration. So you should make sure that these ports are not used by other applications.

Also, ensure that any firewalls configured between the Cuba Server and Cuba clients do not block port 6090.

## 3.4  CUBA CLIENT

The Cuba Client communicates with the Cuba Server on port 6090* so this (tcp) port must be open between Cuba client and server.

* This can be edited in the 'Telephony Server Port' field under 'Server Settings' in the Cuba Web Administrator.

# 4.  INSTALLATION

This section covers the basics of downloading and installing your Cuba Software and introduces you to the Cuba Web Administrator - the web administration panel where you can modify your settings.

Download and installation of Cuba is fast and intuitive but we've covered it here anyway in a step-by step guide.

## 4.1  TRIAL PERIOD & LICENCING

During the trial period your Cuba Server software restricts your operation of Cuba for Remedy to three hours of continuous use at a time.  Restart the Cuba Server to resume operation.

You are free to install the Cuba Client on as many workstations as you have available. However, note that the number of simultaneous Cuba clients which can connect may be limited if you purchase a fixed user licence.

You can apply for a licence by filling in the application form under 'Unlock you Trial' in the Cuba **Web Administrator** – or contact us direct: support@iteloffice.com

## 4.2  DOWNLOADING CUBA

Download your Cuba Software at: **www.iteloffice.com**

To get going with Cuba you need to first download the software. The download operates intuitively and takes just a couple of minutes – but just for the record here's a simple visual overview – using Firefox as the web browser…

Log onto the designated Windows NT/2000/XP/Vista/2003 PC as an administrator.



click 'Save File ' >> double click on details >> click 'OK' >>

## 4.3  INSTALLING CUBA SERVER

Then the InstallShield Wizard will launch - this will first install the Cuba Server. In this section we will first install the Cuba (Server) then return to install the Cuba ( Client).
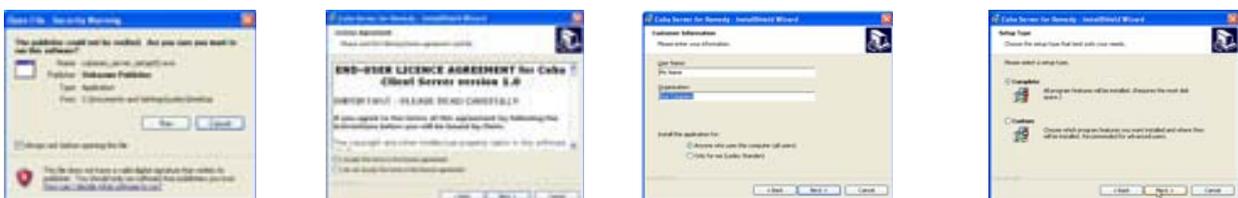


Click Next >>          accept licence >>   enter name >>         click Next >>
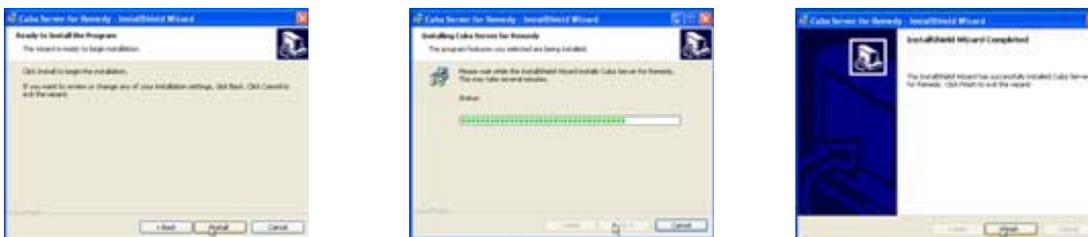


Click Next >>              installs >>                click finish >>

A dialogue box will appear…

Enter:

**User Name: admin**
**Password: cuba**

Click 'OK' and the Cuba Web Administrator launches automatically on the 'Settings' page. You can start entering your settings immediately but for the purpose of this tutorial we'll return to install the Cuba Client and deal with settings in the next Section.

## 4.4  INSTALLING THE CUBA CLIENT

To install your Cuba Client,

**Click: 'Start' > 'All Programs' > 'Cuba' > 'Install Cuba Client' >**

As previously, the InstallShield Wizard will launch… again, work through the wizard until you reach 'Finish'.

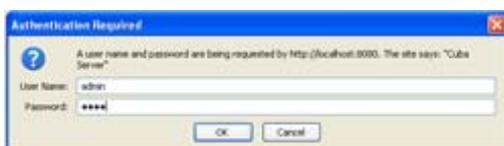Once you have completed the wizard you will notice that the Cuba Telephone Icon…  appears in your System Tray.

Double Click on the Telephone Icon and a dialogue box with a drop down menu will appear - click on the down arrow to reveal a drop down box that displays your extensions.



Choose your extension and Click 'Select'. You'll see that the Cuba Telephone Icon has turned green… You are now connected to your Remedy Application.



## 4.5  INSTALLING CUBA CLIENT ON A TARGET WORKSTATION

You'll find the Cuba Client Installation Program in your Cuba Server installation folder - which by default is: **C:\Program Files\Ioffice\Cuba.**

The Cuba (Client) Installation file is: **cubarem_client_setup.exe.**

If you want to install the Cuba client on other workstations, copy the **cubarem_client_setup.exe** file to a shared network location - accessible from other workstations - then run the Setup Program on as many workstations as you require.

**Note:** You can install the Cuba Clients on as many workstations as you like. Your licence will determine how many concurrent Cuba Clients can connect to a Cuba Server.

Our free trial allows unlimited concurrent Cuba Clients but the Cuba Server shuts down after 3 hours operation.  Restart the Cuba Server to resume operation.  Unlock your trial to remove this limitation.

## 4.6  THE CUBA WEB ADMINISTRATOR

You can control Cuba 's Application Settings in the Cuba Web Administrator.

This is a web front end that allows quick and easy configuration of your Cuba Server.

The Web Administrator launches automatically during initial installation and opens on the 'Settings' tab. This gives you a series of simple form fields where you can enter data.

## 4.7  NAVIGATING TO THE WEB ADMINISTRATOR

You'll be able to return here to review and edit all of your settings whenever you need to. You'll find the Cuba Web Administrator alongside the Cuba Software Files in your Program File - simply click on:

**Start > All Programs > Cuba > Cuba Web Administrator >** **or**

If your Cuba Server is installed on your local machine you can use the address 127.0.0.1.

If your Cuba Server is installed elsewhere on your network, launch your web browser and navigate to the hostname or IP address of the computer where your Cuba Server is installed.

Append : 8080 to the hostname, for example: **http://CubaServerHostname:8080**

This is because the Cuba web server uses the non standard port 8080 so as not to conflict with alternative web servers which may be configured on the Cuba Server computer.

## 4.8  PASSWORD PROTECTION

Each time you open it a dialogue box will appear…
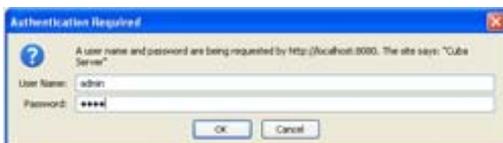


As before enter:

**User Name:** **admin**

**Password:** **cuba**

Click 'OK' and the Cuba Web Administrator launches automatically on the 'Settings' page.

If you get a Page Load Error then either the Cuba Server is not hosted on your machine or your trial version needs to be restarted.

Go to:

**Start > Control Panel > Administrative Tools > Services >**

**Scroll Down to 'Cuba Server' > Click 'Start'**



The Cuba Server will restart. You may need to restart your browser in order to access the Cuba Web Administrator.


# 5.  CUBA CONFIGURATION

All of Cuba 's Application Settings can be configured using  the Cuba Web Administrator.

## 5.1  REMEDY SETTINGS

You can get going straightaway by simply entering data in the Basic Settings fields.

They will enable Cuba to ScreenPop your selected Remedy Form onto your screen as your contacts call in. Cuba displays your Callers details inside the Remedy Form by matching the telephone no. of the incoming call - the Caller ID – to data within the Caller ID Field in the Remedy Form.  Note that Cuba uses the database name of the field.  Not the field label.

The configurable items in Remedy settings are:

| | |
|---|---|
| Remedy Server Name | this is the Host Name - or IP address – of the computer/server that your Remedy (Server) is located on. |
| Remedy Form Name | this is the name of the Form in Remedy that you want to appear or 'pop' onto the screen with the incoming call. |
| AutoSearch | check this box to configure Cuba client to automatically search configured fields for the data passed.  For example, if Caller ID was to be passed then Cuba client would attempt to find a match in the specified field with the Caller ID passed by the telephone system. |
| Save form on screenpop | Cuba clients saves the Remedy form after receiving any telephony data.  This might be required if you want to post data to Remedy using two or more events.  For example, if posting data on a ringing call and later when the call ends. By saving the form after posting the alerting data, Cuba |

|  | client knows which form to open if the user closes the form or moves to another Remedy window between the alerting and call dropping events being received. |
|---|---|
| Close form on Idle | Close the specified Remedy form name when a call ends. This can be useful as a tidy up exercise to prevent a large number of Remedy forms being left open. |
| Update Remedy Status field on Idle | If selected, the Remedy Status field will be set to the enumerator selected in the dropdown menu. The standard Remedy Status labels are:<br><br>New (0)<br><br>Assigned (1)<br><br>Fixed (2)<br><br>Rejected (3)<br><br>Closed (4)<br><br>To update the Status field to Closed when the call ends, select (4) in the dropdown menu. |
| On Offering event close any open instances of form | Close any open instances of the specified Remedy form on new alerting calls. |
| Screenpop internal calls | Specifies whether or not internal calls should be screenpopped.  Note that a transfer between agents on same telephone switch is classified as an internal call so this item should usually be selected. |
| Open form mode | Specifies whether Remedy form should be opened in search or Submit/modify mode.  If performing a lookup search or autosearch select Search mode. |
| Caller ID | this is the name of the Remedy Field that Cuba should post Caller ID data to. For simple screenpop of Caller ID this will usually be a telephone number field on your Remedy form.  It may well be 'Caller ID' – but it could be tagged as 'phone no', 'home phone' - or anything else your Remedy developer has decided to call it! |
| Called ID | this is the name of the Remedy Field that Cuba should post Called ID data to. |
| Call ID | this is the name of the Remedy Field that Cuba should post a calls's Call ID data to.  A Call ID is a unique identifier for a call. |
| User data | Cuba provides the capability to attach textual data to a call.  The most common use for this feature is to attach a Remedy record id (Entry ID) to a call so that a specific Remedy record can be screenpopped if userdata is |

|  | attached to a call.  The usual scenario is where a call is answered by an agent who enters the callers details in remedy but is not able to completely satisfy the callers query.  That agent then attaches the saved Remedy record Entry ID to the call in progress and transfers to another agent.  The agent transferred to gets the newly created remedy record screenpopped on their workstation. |
|---|---|
| Agent ID | this is the name of the Remedy Field that Cuba should post Agent  ID data to (if available). |
| Ringing timestamp | Cuba provides the facility to add a timestamp for your Remedy records.  Specify here the name of the Remedy field to post the ringing (alerting) timestamp.  Note that the difference between ringing and answered timestamp could be used to calculate call answer time.<br><br>The Offering Timestamp is a date time stamp taken from the Cuba Server's time clock when the incoming call presents to your PBX.<br><br>Enter a Remedy field name here if you want to post the Offering event timestamp data to your Remedy database.<br><br>Cuba string date timestamps use the UK presentation style -<br><br>DD/MM/YYYY HH:MM:SS.<br><br>Cuba date-timestamps can also be passed to Remedy as 'true' date/time values. In this case locality is not an issue. So for a solution independent of locality, post Cuba timestamps to Remedy date/time fields. |
| Answered timestamp | Specify here the name of the Remedy field to post the answered (connected) timestamp. |
| Dropped timestamp | Specify here the name of the Remedy field to post the dropped (disconnected) timestamp. |
| Rules section |  |
| Ringing Call Actions | Actions to perform (if any) on a ringing call.  Specifies whether Cuba client should interact with Remedy in the case of a ringing call.  Note the inclusion of the minipop option which pops the Cuba client minipop Window on the client but does not interact with Remedy unless the user double clicks on the minipop window – in which case Remedy is screenpopped. |
| Answered Call actions | Specifies whether Cuba client should interact with Remedy in the case of an answered call. |
| Dropped Call Actions | Specifies whether Cuba client should interact with Remedy in the case of a disconnected call. |

**NOTE:** Remember we're dealing with databases here! Any data you enter is case sensitive and spaces count too. If your field name is 'CallerID' - then 'callerid', 'callerID', 'Callerid', or even 'Caller ID', just won't work. If in doubt – copy and paste!

## 5.2  REMEDY THIN CLIENT SETTINGS

These settings enable you to specify settings for clients which have selected Remedy thin client operation.  Note that Cuba client default is to screenpop thick client Remedy.

| | |
|---|---|
| Remedy Server name | Remedy server to connect to for thin client operation |
| Remedy form name | Remedy thin client form to screenpop |
| Web Server | Remedy web server (and optional port) to use |
| WebView | Web View is a custom web only form view. Enter the name of your Web View here if you wish to open Remedy Views over the Web. |
| | Leave this section blank if you don't wish to specify a view. |
| | The Thick and Thin Remedy client view can be different. For example, certain fields can be displayed on the Thin but not the Thick client. |
| Context | Context is a part of the URL string to open Remedy forms. |
| | For example the URL to login to Remedy is usually: |
| | http://<WebServerHostname>/arsys/home the arsys is known as the context. |
| | The default Remedy context is arsys. |
| | However, some installations edit this context to be more meaningful. For example changing to Mid-Tier. To accept the default arsys leave this field blank (or enter arsys). |
| | If your Remedy Web Server Context has been changed from the default Remedy configuration, enter your custom context in this field. |
| | If you are using the New Atlanta ServletExec product on Microsoft Internet Information Server, then log into the New Atlanta management web page and navigate to Web Applications, manage. Click on arsystem and you should see a field called: URL Context Path. This is the context name to enter. |
| Save Checkbox | To save a Remedy Thin client Form, Cuba client requires a checkbox to select to save the form. Workflow which is |

|  | invoked when the checkbox is checked should save the form. |
|---|---|
|  | The 'Save' checkbox could for example run a 'Commit Change' active link to save all form data to the Remedy database. |
| Close Checkbox | To close the Remedy CTI form, Cuba Client requires a 'Form Close' checkbox. Similar to the 'Save' checkbox this is a Remedy checkbox which will need underlying Remedy workflow to close the form. |
|  | **For example**: Run Process active link to SET-CHANGE-FLAG 0 – this does not actually close the form but means that when Cuba attempts to close the form, warning dialogs prompting the user to re-save the form are not displayed. |
|  | The 'Close'checkbox is not actually required because the Cuba client will close any warning dialogs generated. It does however potentially make the process of closing the form more robust. |
| Caller ID | Enter the thin client field to post Caller ID telephony data to.  Note should be specified as a Remedy field ID. |
| Called ID | Enter the thin client field to post Called ID telephony data to.  Note should be specified as a Remedy field ID. |
| Call ID | Enter the thin client field to post Call ID telephony data to. Note should be specified as a Remedy field ID. |
| Ringing Userdata | Enter the thin client field to post call userdata to.  Note should be specified as a Remedy field ID. |
| Ringing AgentID | Enter the thin client field to post the Agent ID on this call (if available).  Note should be specified as a Remedy field ID. |
| Ringing Timestamp | Enter the thin client field to post ringing timestamp data. Note should be specified as a Remedy field ID. |
| Connected Timestamp | Enter the thin client field to post answered timestamp data.  Note should be specified as a Remedy field ID. The Answered Event Timestamp is provided at the point the user picks up the call (call connect). |
| Disconnected Timestamp | The Idle Event Timestamp is provided at the point the call ends . Enter a Remedy field name if you want to post the Idle timestamp data to your Remedy database. |
| AutoSearch | Specifies autosearch mode for thin client operation.  Check this box to configure Cuba client to automatically search configured fields for the data passed.  For example, if Caller ID was to be passed then Cuba client would attempt to find a match in the specified field with the Caller ID |

passed by the telephone system.

Screnpop on alerting          Specify whether or not to screenpop thin client on an alerting call.

Screnpop on connected         Specify whether or not to screenpop thin client on an answered call.

Screnpop on                   Specify whether or not to screenpop thin client on a
disconnected                  disconnected call.

Screnpop internal calls       Specify whether or not to screenpop thin client for internal calls.

Don't forget to click the save button to commit any changes made to your configuration.

## 5.3 SERVER SETTINGS

Web Server Port               This is the port that the Cuba web server listens on and is 8080 by default. If you wish to communicate on another port enter the port no. here. Remember to restart the Cuba (Server) after editing this value.

Telephone Server Port         This is the port that the Cuba telephony server listens on and is 6090 by default. If you wish to communicate on another port enter the port no. here. Remember to restart Cuba (Server) after editing this value.

## 5.4 CUBA LOGS

Select the Logs section to view or delete Cuba Server logs. The log file provides a history of what is happening on the Cuba Server.

## 5.5 DEVICES

In this section you need to enter all the call centre agents extension numbers.  Not the agent ID, the actual telephone hardware/handset extension number.  The Cuba client extension logon dialog is populated with the contents of the list defined here.

## 5.6 QUEUES

In this section you need to enter the queues into which call centre agents login to. Cuba monitors the queues specified in this section at startup.  So if this setting is changed it is necessary to restart Cuba Server for the changes to take effect.  As agents login and logout of these queues, Cuba intercepts the logon and logoff events and retains an internal mapping between devices (agent phone) and AgentID.

## 5.7 CTI LINK

Configuring a CTI link is not required for a TAPI connection.

## 5.8 HELP

Help on configuring Cuba Server.

## 5.9 UNLOCK TRIAL

To get a full user licence you will need to purchase an Activation Key. Enter your contact details here and click 'Send Registration Request'. We will contact you to discuss payment options and the registration process.

## 5.10 REGISTER

Once you have received your Activation Key copy and paste it here and click 'Save'. You will then get unrestricted use of Cuba for the number of seats that you have purchased.

# 6. CONFIGURING YOUR REMEDY APPLICATION

For simple inbound call handling it's very simple - configuration is achieved directly within the Cuba Web Administrator. Simply enter the data relating to the Form Fields – Caller ID or Called ID - that you want Cuba to search when the phone rings and Cuba will Screenpop your form.

There's no need to configure your Remedy Form, unless you decide to create a new form -or add a new field to an existing form - to post your telephony data to.

Simply put, if you have an existing Remedy Form that you'd like Cuba to ScreenPop by recognising, say, the CallerID (the callers phone number), and the Caller ID field is already on the form then you get started straight away by entering your data in the Basic Settings section of the Cuba Web Administrator.

However, for onscreen telephony functionality - like a 'Dial', 'HangUp', 'Answer' or 'Transfer' button – there's a little bit more to it. You'll need to add a button and create an Active Link to create a Command File.

## 6.1 CONFIGURING FOR SCREENPOP

Cuba can only ScreenPop one form. So the first step is to select an existing Remedy form - or create a new one – that you want Cuba to display when it recognises your caller.

You can ScreenPop your Remedy Form by requesting Cuba to recognise either the Caller ID or the Called ID –i.e. the phone no the caller is calling from, or has called.

When you create a new Field in Remedy remember that all data is alphanumeric - so Remedy Character fields should be used.

You only need to create fields for the telephony information you wish to post to Remedy. For example, if only CallerID is required then only this one field will be required on the form.

The next step is to enter the designated form name and field names in the Cuba Web Administrator.

Creating a ScreenPop

This example will configure a Remedy form to ScreenPop the Caller ID of an incoming call.

Launch the Cuba Web Administrator by clicking:

'Start'> 'All Programs' > 'Cuba' > 'Cuba Web Administrator'

You will be prompted for a username and password. The defaults are:

user: admin

password: cuba

**Note:** these are all lowercase.

If the **Web Administrator** fails to launch - either the Cuba (Server) is not hosted on your machine or your trial version needs to be restarted. For more details see section 4.6.


In the 'Remedy Settings' Section enter the following information:

| | |
|---|---|
| Remedy Server Name | Enter the Host Name - or IP address – of the computer/server that your Remedy (Server) is located on. |
| Remedy Form Name | Enter the name of the Remedy Form that you want to ScreenPop. |
| Caller ID | Enter the name of the Caller ID field that you want Cuba to ScreenPop. |
| AutoSearch | check this box then click the 'Save' button. |


Testing

To test this your will need to have TAPI configured and installed and the Cuba (Client) will need to be running on the extension that you are phoning.

Double click on the White Telephone Icon in your System Tray and select an extension. Call this extension and your selected Remedy form will appear with the selected Caller ID field populated with the extension (or number) you dialled from.

## 6.2  CREATING A SOFTPHONE

To enable a telephony request from your Remedy Form – e.g. 'Dial', 'Answer', 'Hold' or 'End Call' - you'll need to create a control - typically a button - that runs an active link sending a command to the Cuba (Client) to perform an action.

Outbound actions are not restricted to a particular Remedy Form. You are free to create any number of SoftPhone buttons on any - or all - of your Remedy Forms.

The following tutorials explain in detail how to create a form and add 'Dial', 'Hold', 'End Call' and 'Answer' buttons.

### 6.2.1  The commands

Optional parameters are in italics.

| Command | Parameters | Notes |
|---------|-----------|-------|
| DIAL | <Number> <Userdata> | Make a call.  <Number> is destination number to dial.  <Userdata> is string data which can be attached to the call. |
| ANSR | | Answer a call. |
| HGUP | | Hangup a call. |
| HOLD | | Hold current active call. |
| RETR | | Retrieve held call. |
| ITFR | <Number> <Userdata> | Initiate transfer. Creates consult call so caller can consult with other called party.  <Number> is destination number to dial.  <Userdata> is string data which can be attached to the call. |
| CTFR | | Complete transfer. Connects parties and disconnects transferor. |
| ICFR | <Number> <Userdata> | Initiate conference. Creates consult call so caller can consult with other called party.   <Number> is destination number to dial.  <Userdata> is string data which can be attached to the call. |
| CCFR | | Complete conference. Connects new party to |

| | | |
|---|---|---|
| | | conference. |
| FWDA | <Number> | Forward all calls.  Only forward ALL calls is supported. <Number> is destination number to forward to. |
| CFWD | | Cancel forwarding. |
| UDAT | <UserData> | Attach user data. <Userdata> is string data which can be attached to the currently active call. |
| SSTF | <Number> <Userdata> | Single step transfer.  Also known as blind transfer. Transfers call without consultation with destination party. <Number> is destination number to dial. <Userdata> is string data which can be attached to the call. |
| REDR | <Number> | Redirect call.  Redirect an alerting call to another destination (without answering).  <Number> is destination number to dial. |
| RCON | | Reconnect Call.  Drop active consult call and retrieve previously held (main) call. Used in conjunction with initiate transfer or initiate conference.  If an initiate is not answered, reconnect reverts to previous state. |

Many of the functions above require no parameters.  For example the Answer function just answers an alerting call.  Required parameters must be passed otherwise the function will fail.  Optionally information such as user data to attach to a call can be passed for some functions.

No notification of function failure is provided to the user.  However, the failure is logged to the Cuba client log file.


To use these functions Remedy fires an active link which creates a text file (Cuba command file) in a location on the users workstation that the Cuba client periodically

polls.  The command files are intercepted by Cuba client and actioned against the currently registered extension.

The command used should be of this format:

%ComSpec% /c Echo <Function> <Parameters> >

"%APPDATA%\Itel\cubacmd%date:/=% %time::=% %RANDOM%.cub"


Here is a DIAL example where $Work Phone$ is a Remedy character field:

%ComSpec% /c Echo DIAL $Work Phone$ >

"%APPDATA%\Itel\cubacmd%date:/=% %time::=% %RANDOM%.cub"


Some examples follow.

### 6.2.2  Creating a 'Dial' Button

The following gives an example of how to set up a new test form and add a dial button to dial a Caller ID field on a Remedy Form.

You can use this guide to create a dial button on an existing form - simply open the form you want to ScreenPop and substitute the details of your existing form and/or CallerID field where appropriate.

**Create a Form**
Launch your Remedy Administrator and locate – or create - the form that you want to ScreenPop. For the purpose of this exercise we'll call this form 'MyFormName'.

Go to 'File' > 'Save Form As' > then enter the Form Name of 'MyFormName'. Click 'OK'.

Double click on the Form and a 'Form Properties' dialog box will appear. Select the 'Permissions' tab and add 'Public'. This allows any user access to the form. Click 'OK'.

**Creating a Caller ID/telephone no Field**
Right click on the Form and create a Character Field. Double click on the Character Field and change the label to 'Work Phone'. Select the 'Permissions' tab and add 'Public'. Click 'OK'.

**Building your 'Dial' Button**
Right click on the Form next to the Telephone Number Field and create a Button.

Double click on the Button and in the 'Button Label' field that appears, change the label to Dial.

Select the 'Permissions' Tab and add 'Public'. Click 'OK'.

Select the 'Database' Tab and in the Name Field change the name to 'WorkDial'

Save and close the form.

**Creating an Active Link**
You now need to create a new Active Link.

Click on 'Active Links' in the left hand navigation in your Remedy Administrator.

Scroll down until you find the name of your button - in this case it would be 'WorkDial'

A 'Modify Active Link' dialogue box will open.

Name the Active Link 'WorkDialActiveLink'.

Under 'Form Name' tick 'MyFormName'.

Tick the 'Button/Menu Item' and in the Field Dropdown Menu select 'WorkDial'.

Under 'Run If" enter: '**Work Phone' != $NULL$**

Select the 'If Actions' tab.

In the 'New Action' select 'Run Process'.

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo DIAL $Work Phone$ >

"%APPDATA%\Itel\cubacmd%date:/=% %time::=% %RANDOM%.cub"

[ The data highlighted in pink must be changed to your Caller ID Field Name - you can access this by clicking the arrow button and selecting 'Fields' ]


Alternative to send user data with dial request:

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo DIAL $Work Phone$ $Request ID$ >

"%APPDATA%\Itel\cubacmd%date:/=% %time::=% %RANDOM%.cub"

The above example sends the Request ID of the current form with the dial request.  If the dial request is successful the Request ID will be attached as userdata to the call.  The userdata will be present in call events for the call.  For example, the ringing (alerting) and connected (call established) events.  In this way the current Remedy record can be 'passed' with the call to the recipient of the call.


Select the 'Permissions' tab and add 'Public'.

Save the Active Link.

### 6.2.3  Creating a 'Hold' Button

**Building your Hold Button**
Right click on the Form and create a Button. Double click on the Button and in the 'Button Label' field that appears, change the label to 'Hold'.

Select the 'Permissions' Tab and add 'Public'. Click 'OK'.

Save and close the form.

**Creating an Active Link**
You now need to create a new Active Link.

Click on 'Active Links' in the left hand navigation in your Remedy Administrator.

Scroll down until you find the name of your button - in this case it would be 'Hold'

A 'Modify Active Link' dialogue box will open.

Name the Active Link 'HoldActiveLink'.

Under 'Form Name' tick 'MyFormName'.

Tick the 'Button/Menu Item' and in the Field Dropdown Menu select 'Hold'.

Select the 'If Actions' tab.

In the 'New Action' select 'Run Process'.

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo HOLD > "%APPDATA%\Itel\cubacmd%date:/=%

%time::=% %RANDOM%.cub"

Select the 'Permissions' tab and add 'Public'.

Save the Active Link.


### 6.2.4  Creating a 'Hang Up' Button

**Building your 'End Call' Button**
Right click on the Form and create a Button. Double click on the Button and in the 'Button Label' field that appears, change the label to 'Hang Up'.

Select the 'Permissions' Tab and add 'Public'. Click 'OK'.

Save and close the form.


**Creating an Active Link**
You now need to create a new Active Link.

Click on 'Active Links' in the left hand navigation in your Remedy Administrator.

Scroll down until you find the name of your button - in this case it would be 'Call'

A 'Modify Active Link' dialogue box will open.

Name the Active Link 'HangUpActiveLink'.

Under 'Form Name' tick 'MyFormName'.

Tick the 'Button/Menu Item' and in the Field Dropdown Menu select 'HangUp'.

Select the 'If Actions' tab.

In the 'New Action' select 'Run Process'.

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo HGUP > "%APPDATA%\Itel\cubacmd%date:/=%

%time::=% %RANDOM%.cub"

Select the 'Permissions' tab and add 'Public'.

Save the Active Link.


### 6.2.5  Creating an 'Answer' Button

**Building your 'Answer' Button**
Right click on the Form and create a Button. Double click on the Button and in the 'Button Label' field that appears, change the label to 'Answer'.

Select the 'Permissions' Tab and add 'Public'. Click 'OK'.

Save and close the form.

**Creating an Active Link**
You now need to create a new Active Link.

Click on 'Active Links' in the left hand navigation in your Remedy Administrator.

Scroll down until you find the name of your button - in this case it would be 'Answer'

A 'Modify Active Link' dialogue box will open.

Name the Active Link 'AnswerActiveLink'.

Under 'Form Name' tick 'MyFormName'.

Tick the 'Button/Menu Item' and in the Field Dropdown Menu select 'Answer'.

Select the 'If Actions' tab.

In the 'New Action' select 'Run Process'.

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo ANSR > "%APPDATA%\Itel\cubacmd%date:/=%

%time::=% %RANDOM%.cub"

Select the 'Permissions' tab and add 'Public'.

Save the Active Link.

### 6.2.6  Creating an 'Initiate Transfer' Button

Initiate transfer is the first part of transferring the call.  A consult call is made to a designated destination and the caller can talk to the destination.  To actually transfer the call a complete transfer operation is required.

**Building your 'Initiate Transfer' Button**
Right click on the Form and create a Button. Double click on the Button and in the 'Button Label' field that appears, change the label to 'Initiate Transfer'.

Select the 'Permissions' Tab and add 'Public'. Click 'OK'.

Create a new character field called XferTo.  Make Permissions public as above.  Click OK.  User enters the number to transfer to in this field.

Save and close the form.

**Creating an Active Link**
You now need to create a new Active Link.

Click on 'Active Links' in the left hand navigation in your Remedy Administrator.

Scroll down until you find the name of your button - in this case it would be 'Initiate Transfer'

A 'Modify Active Link' dialogue box will open.

Name the Active Link 'InitXferActiveLink'.

Under 'Form Name' tick 'MyFormName'.

Tick the 'Button/Menu Item' and in the Field Dropdown Menu select 'Initiate Transfer'.

Select the 'If Actions' tab.

In the 'New Action' select 'Run Process'.

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo ITFR $XferTo$ > "%APPDATA%\Itel\cubacmd%date:/=%

%time::=% %RANDOM%.cub"

Alternative to send user data with dial request:

In the 'Command Line' field enter the following text:

%ComSpec% /c Echo ITRF $XferTo$ $Request ID$ >

"%APPDATA%\Itel\cubacmd%date:/=% %time::=% %RANDOM%.cub"

The above example sends the Request ID of the current form with the initiate transfer request.  If the request is successful the Request ID will be attached as userdata to the call.  The userdata will be present in call events for the call.  For example, the ringing (alerting) and connected (call established) events.  In this way the current Remedy record can be 'passed' with the call to the recipient of the call.

Select the 'Permissions' tab and add 'Public'.

Save the Active Link.

**Technical Notes:** It's not really necessary to understand what the 'Run Process' command is doing.

However some explanation might help troubleshooting if you experience problems.

When the active link is invoked, Remedy uses the Windows command interpreter to echo the text - DIAL <contents of Telephone Number Field> to a text file.

%COMSPEC% is the path variable for the Command Interpreter.

On Windows XP this path is usually C:\WINDOWS\system32\cmd.exe but will depend on the Windows operating system and how Windows has been installed.

APPDATA is the Windows Application Data path and on Windows XP for example might be: C:\Documents and Settings\John\Application Data if the currently logged on user logged into Windows as username John.

Itel is the hard-coded Itel subdirectory of this APPDATA path.

The date time and RANDOM processing are used to ensure that each command will create a unique file name. The Cuba (Client) will pick up these commands in the APPDATA file.

This configuration only works for the Remedy Thick Client because the Remedy Thin Client does not support active links. To reproduce this functionality in the Thin Client, some glue software is required to create the same command text file. Usually this can be achieved by invoking a Java function.

For further information contact support@iteloffice.com

# 7. TROUBLESHOOTING

## 7.1 LOGGING

Cuba Server writes logging information to a log file, cubasvr.txt, in the Itel subdirectory of the common application data folder.  The location of this folder varies dependent on Windows version.  On Windows XP this folder is likely to be C:\Documents and Settings\All Users\Application Data\Itel.  Type ECHO %ALLUSERSPROFILE% <ENTER> at a command prompt to find this folder on your system.  Prepend \Application Data\Itel to the returned string.

To enable full logging select Full in the Logging level dropdown in the server section of Cuba web administrator.

Now debug level errors and informational messages will be logged to cubasvr.txt which can provide very useful troubleshooting information.

# 8. SIMULATING CALLS

A Remedy developer can use the Cuba simulator to test a configuration without requiring a connection to a real telephone system.  Therefore, CTI development and basic testing can be performed on a laptop.  Customer testing can then be performed at a later stage when a CTI link is available.

To use the simulator, install the Cuba client program and follow these steps:

1. Right click on Cuba client systemtray icon and select Open menu.

2. Click Settings button.

3. Click Simulator button.

4. The Cuba Simulator screen allows you to enter a caller ID, called number, call ID or user data which can be posted to a Remedy form.

Note that the behaviour will be dependent on the rules configured in the Cuba web administrator.  Complete the Remedy configuration first.