



5 Enmore Gardens  
London  
SW14 8RF

[www.iteloffice.com](http://www.iteloffice.com)  
e: [support@iteloffice.com](mailto:support@iteloffice.com)

Tel: +44 (0) 20 8878 7367  
Fax: +44 (0) 20 8876 7257

---

# **Cuba for Remedy – TSAPI Manual Cuba Version 1.3**

**Document Number: 0403-00284**

**Revision: H**

**Date: 10<sup>th</sup> July 2010**

## **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**

© Itel Office Software Ltd 2002 - 2010

This document is the copyright of Itel Office Software Limited and the information therein may be the subject of a pending or granted patent. It may not be reproduced or used for any other purpose than that for which it is supplied without the written permission of Itel Office Software Limited.

### **0.3 DOCUMENT HISTORY**

Issued @ revision H, on 2010-07-10, by A. Comber

### **0.4 BIBLIOGRAPHY**

#### **0.4.1 Referenced Documents**

[1] TSAPI, <http://support.avaya.com/css/P8/documents/100069252>

## Table of contents

<b>0. PRELIMINARIES</b>	<b>2</b>
<b>0.1 PUBLISHED BY</b>	<b>2</b>
<b>0.2 COPYRIGHT</b>	<b>2</b>
<b>0.3 DOCUMENT HISTORY</b>	<b>2</b>
<b>0.4 BIBLIOGRAPHY</b>	<b>2</b>
0.4.1 Referenced Documents	2
<b>1. INTRODUCTION</b>	<b>5</b>
<b>2. OVERVIEW</b>	<b>5</b>
<b>2.1 USER DATA</b>	<b>5</b>
<b>3. PREPARATION</b>	<b>6</b>
<b>3.1 OPERATING SYSTEM REQUIREMENTS</b>	<b>6</b>
<b>3.2 CONFIGURING TELEPHONY INTERFACE</b>	<b>6</b>
3.2.1 Special Requirement for screenpopping entered digits	7
3.2.2 Enabling Avaya Universal Call ID	7
<b>3.3 CONFIGURING BMC REMEDY</b>	<b>8</b>
<b>3.4 NETWORK CONFIGURATION</b>	<b>8</b>
<b>3.5 CUBA CLIENT</b>	<b>9</b>
<b>4. INSTALLATION</b>	<b>9</b>
<b>4.1 TRIAL PERIOD &amp; LICENCING</b>	<b>9</b>
<b>4.2 DOWNLOADING CUBA</b>	<b>9</b>
<b>4.3 INSTALLING CUBA SERVER</b>	<b>10</b>
<b>4.4 INSTALLING THE CUBA CLIENT</b>	<b>11</b>
<b>4.5 INSTALLING CUBA CLIENT ON A TARGET WORKSTATION</b>	<b>11</b>
<b>4.6 THE CUBA WEB ADMINISTRATOR</b>	<b>12</b>
4.6.1 NAVIGATING TO THE WEB ADMINISTRATOR	12
4.6.2 PASSWORD PROTECTION	12
<b>5. CUBA CONFIGURATION</b>	<b>13</b>
<b>5.1 REMEDY SETTINGS</b>	<b>13</b>
<b>5.2 CONFIGURING FOR SCREENPOP</b>	<b>19</b>
<b>5.3 REMEDY THIN CLIENT SCREENPOP</b>	<b>20</b>
<b>5.4 CUBA LOGS</b>	<b>22</b>
<b>5.5 DEVICES</b>	<b>22</b>
<b>5.6 CTI LINK</b>	<b>22</b>
<b>5.7 SERVER SETTINGS</b>	<b>22</b>
<b>5.8 HELP</b>	<b>23</b>
<b>5.9 UNLOCK TRIAL</b>	<b>23</b>
<b>5.10 REGISTER</b>	<b>23</b>
<b>5.11 CREATING A SOFTPHONE</b>	<b>23</b>
5.11.1 The commands	23
5.11.2 Creating a 'Dial' Button	26
5.11.3 Creating a 'Hold' Button	27
5.11.4 Creating a 'Hang Up' Button	28
5.11.5 Creating an 'Answer' Button	29
5.11.6 Creating an 'Initiate Transfer' Button	29

---

<b>6. TROUBLESHOOTING</b>	<b>31</b>
<b>6.1 LOGGING</b>	<b>31</b>
<b>7. SIMULATING CALLS</b>	<b>32</b>
<b>8. SOLUTION EXAMPLE</b>	<b>32</b>
<b>8.1 CTI FORM</b>	<b>33</b>
<b>8.2 IVR CONFIGURATION – (AVAYA SPECIFIC)</b>	<b>34</b>
<b>8.3 DEDICATED HELPDESK NUMBERS FOR MAJOR ACCOUNTS</b>	<b>36</b>
<b>8.4 AVOIDING CALLER HAVING TO EXPLAIN PROBLEM EACH TIME THEY     ARE TRANSFERRED TO A NEW AGENT</b>	<b>38</b>
<b>8.5 SCREENPOP ON CALLERID FOR EVERYTHING ELSE</b>	<b>39</b>

## 1. INTRODUCTION

This manual provides a complete guide to preparing, installing and configuring your telephone system, Cuba and BMC Remedy for computer telephony integration. For best results follow the manual in chronological order. No specific skills are required but some knowledge of IT can be useful. This manual attempts to make all the necessary steps as painless as possible.

## 2. OVERVIEW

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

The Cuba software consists of two components; the Cuba Server and the Cuba Client. The Cuba Server communicates with your telephone system via a TSAPI interface. The Cuba Client communicates with your BMC Remedy application.

The diagram below illustrates a typical installation.



The Avaya TSAPI Server provides an application programming interface which allows Cuba Server to control your telephone system and receive events. This interaction is two-way. For example, the Cuba client can make a call on a selected extension which is a message essentially from Cuba to the telephone switch. However, some telephony data is initiated on the telephone system. An example would be an incoming call. The TSAPI Server presents this 'delivered' event to Cuba Server and Cuba client can screenpop this information at a BMC Remedy users form.

The TSAPI component above is a software product sourced from Avaya. The TSAPI Server connects to Definity G3, Avaya 8xxx Media servers with Communication Manager with either Avaya Application Enablement Services, Avaya Computer Telephony 1.2 or 1.3 or Avaya CentreVu CT.

### 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'.

This ability means that if the first recipient of a customer call adds the caller details to Remedy but later realises that a different person should handle this call, then that user can attach the Remedy request ID (unique form reference) to the call and transfer to another agent. Processing on the end recipient can check for user data and if found use the data to screenpop the Remedy form instance previously worked on by the first call recipient. This means that the caller does not have to re-iterate everything just explained to the last agent they talked to and can dramatically improve customer service as a result.

### 3. PREPARATION

#### 3.1 OPERATING SYSTEM REQUIREMENTS

The Cuba Server should be installed 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. Your web browser must support Java Script.

#### 3.2 CONFIGURING TELEPHONY INTERFACE

The Cuba Server communicates with the Avaya telephone system via a TSAPI Server, which must be fully installed and configured.

Avaya sites typically use the following components:

**Media Gateway.** Essentially a 'gateway' to telephone hardware such as telephones, trunks, etc.

**Media Server.** A server component which is available to the computing function – eg Cuba.

The media gateway is traditionally what people consider as a telephone system. The media server is a component which opens up telephony for CTI applications. The interface component, TSAPI Server, lets Cuba access the telephone hardware, Media Gateway, via the Media Server.

Legacy Avaya Definity or G3 systems can be configured with a MAPD card which provides a network interface.

Whatever Avaya hardware is used, the TSAPI Server must be installed and configured. On the TSAPI Server configuration create a user account which has full control over all the devices which you would like to control via Cuba. Email [support@iteloffice.com](mailto:support@iteloffice.com) should you require assistance.

The following information is required:

IP address of TSAPI Server.

Advertised name of TSAPI Server. (Advertised TSAPI name is of the form AVAYA#CSTASERV#CSTA#TSAPISERV where TSAPISERV is the hostname of the TSAPI Server).

TSAPI Server username. User account configured in TSAPI Server assigned to control selected extensions.

TSAPI Server password.

This information is required to configure Cuba Server via the web administrator discussed later in this document.

### **3.2.1 Special Requirement for screenpopping entered digits**

Administer a VDN and a vector on Communication Manager with a collect digits step and route command to a second VDN. The purpose of this VDN is to collect UEC, but it will not report the UEC to the TSAPI Service, even if the VDN is monitored. The route command must redirect the call to a second VDN. The first VDN doesn't have to be monitored by any client application.

Administer a second VDN and vector to receive the redirected call from the first VDN. The purpose of this second VDN is to report the UEC to the TSAPI Service which is used by Cuba TSAPI Server. This VDN must be monitored by Cuba. In Cuba web administrator add this second VDN as a queue in the queues section. This VDN should redirect the call to its destination. The destination can be a station extension, an ACD split, or another VDN. Typically the destination will be a station. Provided the station is monitored by Cuba client and a collected digits field is specified and either alerting or answered actions checked in Cuba web administrator, the collected digits will be available in the alerting and/or answered events for the client.

### **3.2.2 Enabling Avaya Universal Call ID**

Some switches provide a call identifier which is unique across two or more switches. This identifier will be referred to as a network call id. This feature usually requires the switches to be linked via a private trunk line. Generally this identifier can be useful to track calls transferred from one switch to another. The Avaya term for this identifier is Universal Call ID or UCID. The Avaya call

management system labels calls with a Universal Call ID so the Cuba provided network call id can be cross-referenced with the Avaya Universal Call ID.

The Avaya CTI interface must enable the supply of the UCID to be made available to Cuba. Perform these following steps to enable UCID:

1. Log onto Avaya Communication manager.
2. Enter the change system-parameters features command.
3. Go to Page 5 and set Create Universal Call ID (UCID) to y.
4. Go to Page 13 and set Send UCID to ASAI to y.

### **3.3 CONFIGURING BMC REMEDY**

Cuba for Remedy can screenpop Remedy Windows client or the thin client using Internet Explorer. The Windows (thick) client provides the most powerful functionality and is the recommended choice. This requires BMC Remedy user to be installed on each Cuba user's workstation. Version v4.5 and higher Windows User Tool is supported.

Cuba for Remedy can pass a caller or called number to a Remedy search form and automatically perform the search. Or telephone data can be passed to Remedy client for Remedy workflow to process.

In addition, softphone functionality can be provided within a Remedy form. Active links linked to Remedy controls such as buttons invoke telephony services such as makecall, transfer, hold and answer. In essence, Cuba provides the interface between Remedy and the telephone system so users need not learn new software.

For handling telephony events such as inbound call for screenpop, a mapping between the telephony 'data' and a Remedy field is configured in the Cuba web administrator. The mapping is straightforward. Simply select a telephony data item, for example a Caller ID, and map to a Remedy field.

For handling telephony softphone functions create an active link.

Performing these configurations is explained in detail in the following sections.

### **3.4 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 ports 6090 and 8080.

### 3.5 CUBA CLIENT

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

\* 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. The Web Administrator is covered in depth in Section 4.6.

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.

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](mailto:support@iteloffice.com)

### 4.2 DOWNLOADING CUBA

Download your Cuba Software at: [www.iteloffice.com](http://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

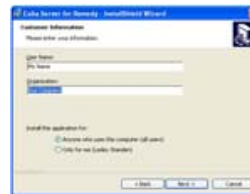
Then the InstallShield Wizard will launch - this will first install the Cuba Server. In this section we will first install the Cuba Server then return to install the Cuba Client.



Click Next >>



accept licence >>



enter name >>



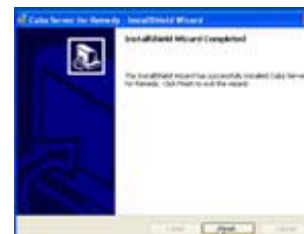
click Next >>



Click Next >>

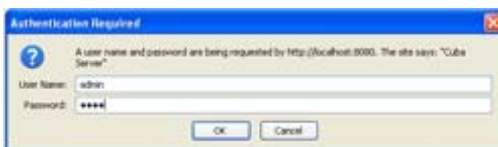


installs >>



click finish >>

A dialog 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.

The Cuba Server installation copies a file, TSLIB.INI to the install folder. The default install folder is **C:\Program Files\office\CubaTSAPI**. Edit this file by entering the IP address of the TSAPI Server. If Cuba server is installed on the same computer as the TSAPI server you can enter 127.0.0.1 as the IP address.

Example where IP address of TSAPI Server is 192.168.0.50:

[Telephony Servers]  
192.168.0.50=450

After editing, copy this file to the computers Windows directory. This is usually C:\Windows. On some computers it may be C:\WINNT or a custom location. If in doubt type echo %WINDIR% <ENTER> at a command prompt.

#### 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 dialog 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 to indicate you have successfully connected Cuba to your telephone extension.



#### 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\office\Cuba4Remedy>.

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.

## 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 configuration details.

### 4.6.1 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.

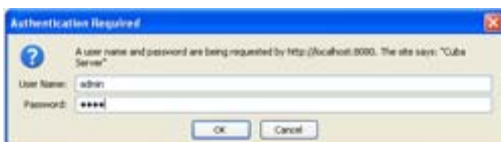
If your Cuba Server is installed elsewhere on your network, launch your web browser and navigate to the hostname or IP address of the computer where your Cuba Server is installed.

Append : 8080 to the hostname, for example: <http://MyComputerName: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.

### 4.6.2 PASSWORD PROTECTION

Each time you open it a dialogue box will appear...



As before enter:

User Name: **admin**

Password: **cuba**

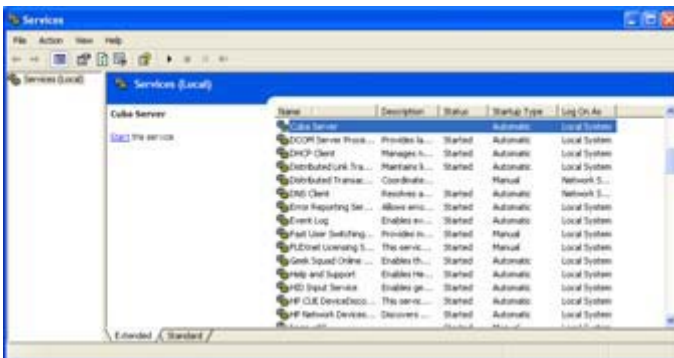
Click 'OK' and the Cuba Web Administrator launches automatically on the 'Settings' page.

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

The operation of the Cuba Server can be controlled via the Cuba web administrator. This is a web interface which can be accessed by loading any web browser and navigating to the host on which you have installed Cuba server and appending :8080 to the hostname. If for example, you installed the Cuba Server on 192.168.0.45 or mycubahost or telserver.mydomain.com you would enter 192.168.0.45:8080 or mycubahost:8080 or telserver.mydomain.com:8080 respectively. Login using user: admin, password: cuba. Refer to section 4.6.1 for further details.

The Cuba web administrator uses a left hand navigation bar menu. These menu headings are described in turn in the following sections.

### 5.1 REMEDY SETTINGS

This section is used to configure screenpop for Remedy Windows user tool aka thick client users. Configure screenpop for Remedy thin client users in the remedy thin client menu.

Configuration Item	Description
Remedy Server	This is the name of the Remedy Server your users

name	connect to.
Remedy form	This is the name of the Remedy form to be screenpopped. Only one form can be selected. If screenpop of multiple forms is required, then an intermediate form should be designated as the form here and workflow in this form can then screenpop alternative forms based on some criterion set. For example, in a serviced environment where Remedy users service a number of different clients who dial different numbers, then workflow in the screenpopped form can evaluate the called number and present varying forms to the user based on number dialed.
AutoSearch	AutoSearch is a Cuba4Remedy feature to simplify screenpop. If AutoSearch is specified, a user can select this option and then specify a telephony data item to be used in the search and an event to screenpop and Cuba client will automatically search for a Remedy form instance based on the telephony data passed. The simplest example would be screenpop using Caller ID on a ringing call. If the callers number was present in the Remedy database then this caller can be automatically searched and presented to the user without any user intervention.
Save form on screenpop	Select this option to make Cuba client save the Remedy form after screenpop. If the form is saved then Cuba will save a copy of the Remedy form RequestID and so on subsequent screenpop events can ensure that the correct form instance is loaded. For example, if a ringing call saves the Caller ID and a timestamp, then the cleared call event can be used to set a cleared call timestamp on the same form. By saving the form on the ringing screenpop event, Cuba can ensure this same form record is used for stamping the cleared timestamp.
Close form on Cleared	If Remedy form processing is set on a cleared event (end of call) then the screenpopped form is closed.
Update Remedy status field on Cleared	If Remedy form processing is set on a cleared event (end of call) then the screenpopped form status is updated to the specified enumerated value. If for example, the Remedy form has status New, Progressing and Closed then selecting enumerated value 2 means that status is set to Closed.
On Alerting event close any open instances of form	If set, this option closes any open instances of the screenpop form specified above as the first action. This option is to prevent a multitude of Remedy screenpop forms being open on a users workstation.
Open form Mode	On a screenpop, a Remedy form can be opened in either Search or Submit mode. The default used by Cuba is

	Search so be sure to change here if Submit (or modify) mode is preferred.
Screenpop outbound calls	Typically, screenpop is only used for calls where the user is the destination of the call. However, it is also possible to perform a screenpop on an outbound call so select this option to enable this feature.
Telephony data mapping fields	
This Device	<p>This device refers to the actual phone which receives the telephony event. The this device may or may not be the called number. If a call is originated from a caller who dials a distribution device then the called number will be the distribution device and the distribution device will divert the call to the this device. In telephony speak the called number would be the distribution device number and this device would be the user station (their telephone extension).</p> <p>Enter the name of the Remedy field which should receive the this device information.</p>
Caller ID	Enter the name of the Remedy field which should receive the Caller ID information. This is the callers number also known as the ANI.
Called ID	Enter the name of the Remedy field which should receive the Called ID information. This is the called number also known as the DNIS.
Call ID	Enter the name of the Remedy field which should receive the Call ID information. The Call ID is the telephone switch identifier for the call in question. This identifier can be tracked for reporting purposes or cross reference to switch vendor supplied call logging information.
Connection ID	Enter the name of the Remedy field which should receive the Connection ID information. Connection ID is a Cuba concept and is a Cuba identifier for a call. A Connection ID is similar to a Call ID but remains the same across transfers. Most Call ID's change when a call is transferred. Cuba uses Connection ID to track a call lifecycle from start to end. Generally this information is not required for screenpop but can be passed to Remedy if required.
User data	Enter the name of the Remedy field which should receive the User data information. Refer to the Userdata section for further details on this feature.
Agent ID	Enter the name of the Remedy field which should receive the Agent ID information. If the Agent ID of the agent processing the call can be obtained, then this agent id can

	be passed to Remedy.
Collected Digits	Enter the name of the Remedy field which should receive the collected digits information. Some telephone switches provide a facility to prompt callers for a string of digits or at least some choice. This information, if available on the call, can be passed to Remedy. For example, an IVR system, Interactive voice response system, can prompt for a callers customer id.
Ringling Timestamp	Enter the name of the Remedy field which should receive the ringing timestamp information. 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. The Ringing Timestamp is a date time stamp taken from the Cuba Server's time clock when the incoming call presents to your telephone switch. Enter a Remedy field name here if you want to post the alerting event timestamp data to your Remedy database. Cuba string date timestamps use the UK presentation style - DD/MM/YYYY HH:MM:SS. 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. Note also that the timestamp is the local time on the cuba Server.
Answered Timestamp	Enter the name of the Remedy field which should receive the answered timestamp information. Answered timestamp is the time that the call was answered.
Dropped Timestamp	Enter the name of the Remedy field which should receive the dropped timestamp information. The dropped timestamp is the time that the call ended for the This Device party.
Diverted Timestamp	Enter the name of the Remedy field which should receive the diverted timestamp information. A divert event occurs if a call is deflected to another device. An example is if forwarding is set on the ringing station. Alternatively, if voicemail is set, then the call might be diverted to voicemail if not answered within a set time period.
Transferred Timestamp	Enter the name of the Remedy field which should receive the transferred timestamp information. The timestamp is the time that a call is transferred to another device.
Initiated timestamp	Enter the name of the Remedy field which should receive the initiated timestamp information. The initiated event occurs when an originated call connects to its destination and hears ringback. The call has not yet been answered but the destination ringing tone has been detected by the

	switch.
Set Focus	Enter the name of the Remedy field which should receive the focus. Set focus can invoke Remedy workflow so this option can be used for this purpose or simply to set focus to a particular field for user convenience.
Call Direction	Enter the name of the Remedy field which should receive the call party direction information. Call direction can be origination, destination or unknown. A user making an call to a customer would have origination direction.
Network Call ID	Enter the name of the Remedy field which should receive the network call id information. The network call id allows tracking of a call transferred between switches. Note that the trunk link between switches must be configured appropriately to support this feature across switches.
Call logging information	<p>Enter the name of the Remedy field which should receive the call logging information when the call ends on this party/this device. Call logging information provides:</p> <p>Description of the data:  station - users extension.  otherDN - other party on call.  ANI - caller.  DNIS - dialed number.  CallID - call identifier.  ConnectionID - Cuba specific call identifier - connection ID of main call remains throughout lifetime of call  NetworkCallID - a call id which is unique across the network. For the Avaya switch this is a UCID which is used by the Avaya call management system. So using this information allows customers to correlate call information between Remedy and their Avaya CMS database.  party_role - whether party is an originator of a call or destination.  agent_id - agentID if available.  userdata - any userdata on call.  alert/initiated_timestamp - timestamp when call starts ringing or outbound call initiated.  answered_timestamp - timestamp when call answered.  cleared_timestamp - timestamp when call cleared on this station.</p> <p>If two calls end together, then the second call is appended to the end of the existing call info with a ; character as delimiter between existing record and new. This can be the case with a transfer. The transfer scenario works as follows:</p>

	<p>Existing call between party A and party B - call with connection id 1.</p> <p>Party B makes consult call to party C - consult call has connection id 2.</p> <p>Party B transfers the main call (call with party A) to party C. This results in both the main call and the consult call ending on party B. So for party B, two calls will be posted.</p> <p>Cuba handles this situation by checking the contents of the call info field before posting. If the field contains some data, this data is copied to a buffer, a semi-colon (;) delimiter appended and then the new call info data.</p>
Screenpop Rules (What happens, when)	
Ringing Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the ringing event. Minipop only means that there will be no screenpop of remedy initially on a ringing event but instead a small minipop window will appear. The user can click on the minipop window to perform the remedy screenpop.
Answered Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the call answered event.
Dropped Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the call dropped/cleared event.
Diverted Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the diverted event.
Transferred Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the transferred event.
Initiated Call Actions	Set here the telephony information to be passed to the Remedy fields specified above on the initiated event.
Other Options	
Revert focus	This option can be used to save the Remedy MDI client window handle of the active window before screenpop and after screenpop revert focus to this saved previous Window. This is a convenience for the user and prevents a screenpopped window overlaying itself on the Remedy ofrm instance that the user might have been working on at the point of the screenpop.

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.

## 5.2 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 TSAPI configured and installed and the Cuba (Client) will need to be running on the extension that you are phoning.

Double click on the grey telephone icon in the Windows system tray area 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.

### 5.3 REMEDY THIN CLIENT SCREENPOP

These settings relates only to Thin Client operation where you are connecting to Remedy via a Web browser.

Note that the Remedy Thick client configuration requires Remedy Field names to be entered but the Remedy Thin client configuration requires Field ID's.

Setting	Description
Remedy Server	The hostname, domain name or IP address of your Remedy Server.
Remedy form name	The Remedy form to screenpop.
Web Server	The Remedy mid-tier web server address.
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:

	<p>http://&lt;WebServerHostname&gt;/arsys/home the arsys is known as the context.</p> <p>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.</p>
Open form mode	Specify whether to post telephony data to a search or submit Remedy form.
Internal calls	Specify whether or not to screenpop internal calls.
Latch on	By selecting this option, Cuba client will latch onto an existing instance of a users web browser if the URL found contains the web server in the URL (only Microsoft Internet Explorer supported) rather than opening a new instance of the web browser on each screenpop.
This device	Enter a Remedy field ID to post the target station information. For example for a screenpop on a ringing call, the station will be the ringing phone.
Caller ID	Enter a Remedy field ID to post the callers number information. The callers number is also referred to as Caller ID or ANI.
Called ID	Enter a Remedy field ID to post the called number information. The called number is also referred to as Called ID or DNIS. The Called number might be different from the 'This Device' identifier if a caller calls a distribution device such as a queue.
CallID	Enter a Remedy field ID to post the telephone switch call identifier information.
User data	Enter a Remedy field ID to post user data attached to a call. User data is a feature whereby custom data can be attached to a call and this information transferred with the call to another user. This information could be a unique database identifier.
Agent ID	Enter a Remedy field ID to post the Agent ID of the user

	receiving the call. This information can be useful for reporting purposes.
Collected Digits	Enter a Remedy field ID to post any DTMF digits attached to the call. Some telephone switches use IVRs, interactive voice response units, to gather information from a caller. In this way, this information can be made available to a call centre agent.
Ringing timestamp	Enter the name of the Remedy field which should receive the alerting timestamp information. Alerting timestamp is the time that the call started ringing.
Answered Timestamp	Enter the name of the Remedy field which should receive the answered timestamp information. Answered timestamp is the time that the call was answered.
Tick Checkbox	In Remedy thick client it is possible to invoke active link workflow by setting focus to a field. This is not possible with remedy thin client so instead this tick/checkbox option must be used instead. In Remedy create a checkbox. An activelink linked to this checkbox can perform workflow actions. Specify here the field ID of the checkbox used if any, to invoke workflow.
Screenpop Rules	In this section, select the telephony data to be posted to Remedy for the alerting and/or answered telephony events.

## 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 CTI LINK

Enter the TSAPI Server name, TSAPI User name and TSAPI password as discussed in the telephony section.

## 5.7 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.

## 5.8 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.

## 5.11 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.

### 5.11.1 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.

### 5.11.2 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.

### 5.11.3 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.

#### **5.11.4 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.

### 5.11.5 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.

### 5.11.6 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 which access the local file system. 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.

## 6. TROUBLESHOOTING

### 6.1 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.

## 7. SIMULATING CALLS

You 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, user data, agent id or collected digits which can be used to screenpop a Remedy form.

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

## 8. SOLUTION EXAMPLE

To demonstrate the power and flexibility available to Remedy developers, an advanced configuration is demonstrated providing sufficient information for implementers to deploy a similar system.

The example requirement is to screenpop different Remedy forms based on Caller ID, called number, collected digits and user data.

The combination of Cuba and Remedy's advanced workflow capabilities can enable sophisticated call processing capabilities. This example, demonstrates how the contents of the telephony data can be used to screenpop different forms.

Scenario: Ajax Systems is a manufacturer of components for the airline industry. Ajax provides a single helpdesk for internal users and customers. The helpdesk manager would like to use Cuba for screenpop to improve customer service. Before Cuba was introduced, considerable time was taken to identify the caller. In addition, due to the complexity of the products, customers very often had to communicate their problem to a number of helpdesk agents before reaching the most appropriate person to handle the call.

Proposed Solution: Cuba was proposed to provide a solution for the following two problems:

- A) Faster identification and processing of caller.
- A) Reduction in time taken for customer to explain problem when passed between agents.

Low level detailed Solution: The two high level problems above were solved using the following Cuba, telephone switch and Remedy features.

1. Use an IVR, interactive voice response, system to prompt internal users to enter employee ID to identify themselves.
2. Major account customers were provided with dedicated helpdesk numbers to assist in identifying these callers and routing their call to the right agents.
3. In situations where agents must transfer a caller onto another agent, the agents were trained to enter customer details directly into Remedy and where a transfer was required, the agent attached the Remedy record ID to the call when transferring. The destination agent would then be provided with the information collected by the other agent therefore saving the time required to obtain the information and dramatically improving customer satisfaction. The Cuba userdata feature was used to facilitate this.
4. All other callers could be identified by Caller ID.
5. Remedy workflow was used to analyse the telephony information provided by Cuba and intelligently screenpop the most appropriate helpdesk forms.

This five point solution will be demonstrated for both Remedy thick and thin client.

It is assumed that all your agent telephone extensions are already added to the devices section and the CTI link section is already completed.

## 8.1 CTI FORM

The first step is to configure a form to receive all the telephony data from Cuba on specified telephone system events. A telephone system will generate a number of events. For the purposes of this example, the call related events are only considered. The call events are events which relate to a party to a call. For example an alerting event is the event which occurs when a phone starts ringing on a telephone extension. If the call is answered, then Cuba will generate a connected event.

Cuba supports a range of events including alerting, connected, cleared, offhook, onhook, initiated, diverted, transferred. To simplify implementation, offhook and onhook are not passed to Remedy. So if a user picks up the telephone and decides not to make a call and puts immediately goes onhook again, no events are passed to Remedy.

For the purposes of this example, the only event which will be used is the connected event. So a screenpop will only occur if a call is answered where the answering party is the destination for the call. In other words, no screenpop will occur for originated calls.

Follow these steps for Cuba configuration for Remedy thick client.

1. Create a new Remedy form called cuba:events. Create the following character fields: this dn, caller id, called id, userdata, agent id, digits, setfocus. Create a

checkbox called thininvoke (checkbox required for Remedy thin client operation).

2. Using any web browser navigate to the host running Cuba Server. If, for example, the Cuba host was remcuba then navigate to <http://remcuba:8080>. Login with username admin and password: cuba.
3. Click on the remedy settings menu in the left hand menu bar. Enter the Remedy server name.
4. In the Remedy form name field enter cubaevents.
5. Tick the Screenpop internal calls checkbox.
6. In the Cuba telephony data section enter the following: This Device=this dn, Caller ID=caller id, Called ID=called id, Userdata=userdata, AgentID=agent id, SetFocus=setfocus.
7. In the screenpop rules section, Answered call actions section, tick the following: Target dn, Set focus, CallerID, CalledID, Userdata, Digits, AgentID.
8. Click the Save button to commit these changes.

Follow these steps for Cuba configuration for Remedy thin client:

1. Click on the remedythin menu in the left hand menu bar.
2. Enter the Remedy server name.
3. In the Remedy form name field enter cubaevents.
4. Enter the web server. In the case of Ajax, the Remedy mid-tier runs on the same host as the Remedy server so this entry is the same as for Remedy server name.
5. Tick the screenpop internal calls checkbox.
6. In the Cuba telephony data section enter the Field ID's of the equivalent Remedy field names for Caller ID, Called ID, Userdata, AgentID, Digits.
7. Enter the Field ID of the thininvoke checkbox in the Tick/check checkbox field.
8. In the screenpop rules section, Answered call actions section, tick the following: Target dn, Set focus, CallerID, CalledID, Userdata, Digits, AgentID.
9. Click the save button to commit these changes.

## **8.2 IVR CONFIGURATION – (AVAYA SPECIFIC)**

This IVR related section is made up of two part: Telephony followed by Remedy configuration.

The IVR is used for employees only. Employees call a designated helpdesk number which prompts each user to enter their employee number. Each employee number is five digits. Note that it is advisable that a trained Avaya engineer actually perform the following steps.

Using the Avaya Configuration Manager program, setup a VDN and a vector with a collect digits step and a route command to another VDN. The digit length to collect should be 5. The first VDN will be the number that users call. This VDN should not be monitored by Cuba.

Now configure the second VDN and vector which will receive the redirected call from the first VDN. This second VDN must be monitored by Cuba. For the sake of illustration the first VDN, which is the VDN dialed by employees is 1000. The second VDN is 1001.

This specific configuration is required on Avaya because Cuba is not able to detect the collected digits from this first VDN.

Using any web browser navigate to the host running Cuba Server as described above. Click on the queues menu in the left hand menu bar. In the queue list enter 1001, click Add button. Click the Save button to save this configuration. Restart Cuba Server.

The next step is to configure Remedy workflow to screenpop the Ajax internal user helpdesk form.

1. Create a Remedy form called cuba:employeehelp. This form should contain the following character fields: this dn, caller id, called id, userdata, agent id, digits.
2. Create an active link called cuba:loademployeehelp. Link to the cubaevents form. In the Run If section enter the following condition: 'user data' != "".
3. Tick the Gain focus checkbox and in the field dropdown select the field named setfocus.
4. Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:aa.
5. In the Fields in section map create the following mappings:

<b>Fields in Search Form</b>	<b>Value</b>
agentid	\$agentid\$
Calledid	\$calledid\$
Callerid	\$callerid\$
Digits	\$digits\$
This dn	\$this dn\$

The steps above are required to process Remedy thick client processing. For Remedy thin client operation, the active links are slightly different. Note that Cuba4Remedy clients default to thick client operation. This is because the Cuba thick client control is more powerful for Remedy thick client. However, clients can select thin client operation to screenpop Remedy forms via a web browser interface. In Cuba client right click on the Cuba4Remedy icon in the systemtray, select Open... menu. Select Thin in the Remedy client type dropdown. Click Close to commit this change. Restart Cuba4Remedy client.

Perform these steps to configure for Remedy thin client:

1. Create an active link called cuba:thinemployeehelp. Link to the cubaevents form. In the Run If section enter the following condition: 'user data' != "".
2. Tick the Return/Table or Level Dbl-Clk checkbox and in the field dropdown select the field named thininvoke.
3. Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:aa.
4. In the Fields in section map create the following mappings:

Fields in Search Form	Value
agentid	\$agentid\$
Calledid	\$calledid\$
Callerid	\$callerid\$
Digits	\$digits\$
This dn	\$this dn\$

### 8.3 DEDICATED HELPDESK NUMBERS FOR MAJOR ACCOUNTS

Ajax systems have two major accounts, AA and BA. Two numbers ending in 2001 and 2002 were configured in Avaya Communication Manager. In Avaya terms these would be VDN's but it is not necessary to monitor these VDN's. In Avaya Communication Manager, configure these VDN's to divert to available agents based on whichever rules are most appropriate.

To process calls to these two VDN's, a Remedy active link will be configured to screenpop an AA form for calls to 2001 and a BA form for calls to 2002.

These are the steps:

Create two Remedy forms called cuba:aa and cuba:ba. These form should contain the following character fields: this dn, caller id, called id, userdata, agent id.

1. Create an active link called cuba:loadaa. Link to the cubaevents form. In the Run If section enter the following condition: 'called id' = "2001".

2. Tick the Gain focus checkbox and in the field dropdown select the field named setfocus.
3. Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:aa.
4. In the Fields in section map create the following mappings:

<b>Fields in Search Form</b>	<b>Value</b>
agentid	\$agentid\$
Calledid	\$calledid\$
Callerid	\$callerid\$
Userdata	\$userdata\$
This dn	\$this dn\$

Perform steps 2-5 again but this time naming the active link cuba:loadba and the condition should be 'called id' = "2002"

The steps above are required to process Remedy thick client processing. For Remedy thin client operation, the active links are slightly different.

Perform these steps to configure for Remedy thin client:

Create an active link called cuba:thinloadaa. Link to the cubaevents form. In the Run If section enter the following condition: 'called id' = "2001".

Tick the Return/Table or Level Dbl-Clk checkbox and in the field dropdown select the field named thininvoke.

Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:aa.

In the Fields in section map create the following mappings:

<b>Fields in Search Form</b>	<b>Value</b>
agentid	\$agentid\$
Calledid	\$calledid\$
Callerid	\$callerid\$
Userdata	\$userdata\$
This dn	\$this dn\$

## 8.4 AVOIDING CALLER HAVING TO EXPLAIN PROBLEM EACH TIME THEY ARE TRANSFERRED TO A NEW AGENT

This problem is solved by using the Cuba user data feature. Implementation on Remedy thick client only is demonstrated.

For screenpop, Cuba is configured to pass telephony data to one Remedy form. However to implement softphone functionality, any number of Remedy forms can be used. Ajax decided to add dial, transfer and attach user data functionality to all forms containing contact information. But for this example, we will create just one form to demonstrate softphone features. Implementing a softphone for thin client is more complex so only thick client will be considered here.

Create a new Remedy form called cuba:ontacts. On this form create a button called Transfer and attach. Create a character field called destinationagent.

Also create the following character fields: firstname, lastname, telephone, notes.

Create an active link as follows:

Name the active link cuba:xferandattach, link to cuba:events form.

Tick the Button/Menu item check box and in the field dropdown select Transfer and attach.

In the Run If section enter the condition: 'destinationagent' != ""

Click the If Action tab and in Current Actions select Run Process. In the command line field enter:

```
%ComSpec% /c Echo ITFR $destinationagent$ $Request ID$ >
"%APPDATA%\Intel\cubacmd%date:/% %time::=% %RANDOM%.cub"
```

Save the active link.

Note that this command writes a file to the local machine. This operation is not possible from within a web browser so can only be supported for Remedy thick clients.

The next stage in configuring userdata processing is to create Remedy workflow to handle the userdata on the destination agent.

Follw these steps:

Perform these steps to configure for Remedy thick client:

Create an active link called cuba:processudata. Link to the cubaevents form. In the Run If section enter the following condition: 'userdata' != "".

Tick the Gain focus checkbox and in the field dropdown select the field named setfocus.

Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:contacts.

In the Fields in section map create the following mappings:

Fields in Search Form	Value
Userdata	\$Request ID\$

The user will need to press enter on the form for the search to be performed.

Perform these steps to configure for Remedy thin client:

Create an active link called cuba:thinloadaa. Link to the cubaevents form. In the Run If section enter the following condition: `userdata` != "".

Tick the Return/Table or Level Dbl-Clk checkbox and in the field dropdown select the field named thininvoke.

Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:contacts.

In the Fields in section map create the following mappings:

Fields in Search Form	Value
Userdata	\$Request ID\$

The user will need to press enter on the form for the search to be performed.

## 8.5 SCREENPOP ON CALLERID FOR EVERYTHING ELSE

This is now the last step, the catch-all processing where none of the above conditions are met. To prevent this processing to happen it is not required it is necessary to set a condition to not run if any of the conditions for the above outcomes are valid.

Create a Remedy forms called cuba:popcallerid. This form should contain the following character fields: this dn, caller id, called id, agent id. Note that userdata or digits are not added because this form will only be screenpopped if no digits or userdata is available.

Create an active link called cuba:loadpopcallerid. Link to the cubaevents form. In the Run If section enter the following condition:

`called id` != "2001" AND `called id` != "2002" AND `digits` = "" AND `userdata` = ""

Tick the Gain focus checkbox and in the field dropdown select the field named setfocus.

Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:popcallerid.

In the Fields in section map create the following mappings:

Fields in Search Form	Value
Callerid	\$callerid\$

The user will need to press enter to invoke the search.

The steps above are required to process Remedy thick client processing. For Remedy thin client operation, the active links are slightly different.

Perform these steps to configure for Remedy thin client:

Create an active link called cuba:thinloadpopcallerid. Link to the cubaevents form. In the Run If section enter the following condition: `called id' != "2001" AND `called id' != "2002" AND `digits' = "" AND `userdata' = ""

Tick the Return/Table or Level Dbl-Clk checkbox and in the field dropdown select the field named thininvoke.

Now click on the If action tab and for New Action select Open Window. For Window type select Search. In the Form details section select form name: cuba:popcallerid.

In the Fields in section map create the following mappings:

<b>Fields in Search Form</b>	<b>Value</b>
Callerid	\$callerid\$

For further information contact [support@iteloffice.com](mailto:support@iteloffice.com)