



CallCopy[®]

Innovations in Call Recording
and Contact Center Solutions

cc: Survey SIP Administration Guide, v5.1 R1

March 2013

Reference Guide

www.callcopy.com

Security Classification: CallCopy Confidential.

Distribution: Approved internal CallCopy staff only and licensed CallCopy customers.

Note: Applicable non-disclosure agreements must be in force for authorization.

Revision History			
Revision	Change Description	Author	Effective Date
0	Initial release.	MBuckingham	2013-02-15
1	Explained that INI file names should match those of the module executables they configure. Added content for Avaya SIP survey linking. Explained max record length is only limited by disk space.	MBuckingham	2013-03-27

© Copyright 2013, CallCopy, Inc. All rights reserved.

No part of this document may be transmitted or distributed, or copied, photocopied, scanned, reproduced, translated, microfilmed, or otherwise duplicated on any medium without written consent of CallCopy. If written consent is given, the same confidential, proprietary, and copyright notices must be affixed to any permitted copies as were affixed to the original. The information contained in this document does not constitute legal advice, and should not be considered a replacement for sound legal counsel. CallCopy shall be in no way liable for any use or misuse of the information presented herein.

Table of Contents

Introduction	6
Product Technical Overview	7
Requirements	9
PBX.....	9
VoIP/SIP Supported PBXs	9
Hardware, Software, and Licensing.....	9
CallCopy.....	9
Hardware.....	9
Software	9
Licensing.....	9
Survey Call Linking.....	9
PBX Configuration	10
Configure VoIP/SIP Endpoints	10
Configure DNIS and ANI.....	10
Install and Configure cc: Survey	11
Windows Server Tasks	11
Install the Server.....	11
Register Service	11
Add the Application to the cc: Discover Service Manager	11
Add Survey Controller as an Allowed Application	12
Security	13
Permissions.....	13
Encryption	13
Archiving	13
Configure Survey.....	13
Configure INI	13
Configure Survey Linking.....	15
Install the Survey Script.....	15
Configure INI.....	15

Enable Survey Score Column in Call Lists	17
Survey Administration.....	18
Manage DNIS Values	18
Add/Edit/Delete Values	18
Import Multiple Values	18
Specify Survey Audio Directory Settings	19
Survey Forms	20
Specify Survey Information	20
Add a Section	20
Create a Question.....	21
Type: Present Question and Wait for Result.....	22
Type: Collect Customer Information	22
Type: Collect Digits.....	22
Type: End Survey	22
Type: Threshold Branch.....	23
Save/Export/Delete Survey Forms	24
Survey Forms Management	25
Reports	26
Reporting Criteria.....	26
Survey Detail	27
Survey Detail Summary	28
Survey Overview	28
Survey Summary	29
Survey Summary by Agent	30
Survey Summary by Question.....	31
Survey Summary by Response	32
Example PBX Configurations	34
Cisco	34
Set Route Pattern	34
Set SIP Trunk Security Profile.....	36
Configure SIP Profile	38

Configure Trunk.....	38
Avaya SIP	39
Create Node	39
Create Signaling Group	40
Create Trunk Group.....	41
Create Route Pattern.....	42
Set ARS Digits.....	43
Disable Mask CPN/Name	44
Nortel	45
About CallCopy	46

Introduction

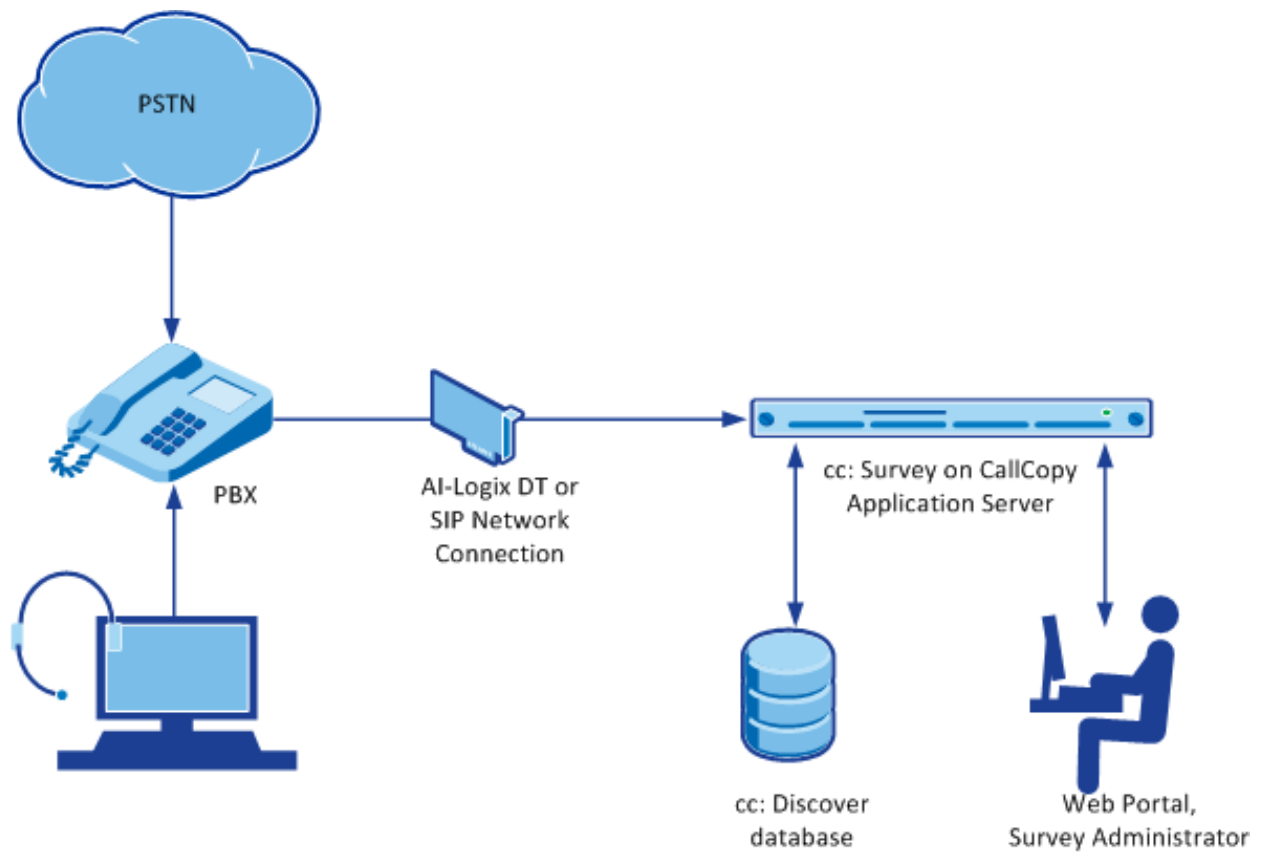
This document explains the customer-premise based version of CallCopy's cc: Survey module. The document is for system administrators, survey administrators, and report users. It covers

- Survey engine administration
- Survey form design and creation
- Reporting

Note For information on CallCopy's cc: Survey service, contact your CallCopy representative. That service provides all the functionality of the customer-premise based version, but CallCopy hosts and manages the equipment and data. Users are provided access to the surveys and reporting.

Product Technical Overview

This diagram illustrates the cc: Survey components and interactions.



Component	Function
Callers via PSTN or Agents	<p>cc: Survey can be set up to handle calls two ways:</p> <ul style="list-style-type: none"> • A telephone number can be setup and provided to the public. Callers dial the number, and the PBX directs the call to the survey engine. • Agents can transfer callers to the survey engine via the PBX.
PBX	<p>A unique DNIS is created on the PBX for each survey. The PBX transfers calls from agents or toll-free numbers to the appropriate DNIS and survey.</p> <p>For each call, the PBX can send the survey engine the</p> <ul style="list-style-type: none"> • DNIS • Caller number or Agent/Extension number as an ANI
AI-Logix SIP	<p>For a VoIP network, cc: Survey supports SIP communications.</p>
cc: Survey	<p>cc: Survey consists of the survey engine that executes the survey forms and audio files, records respondent's input and call information to the database, and records respondents' voice comments to WAV files.</p> <p>The directories for the survey form, audio prompt, and verbal response files are located on this machine in most installations, although they can be located on a different machine.</p> <p>Survey and cc: Discover can be hosted by the same machine or separate machines. Survey can also be deployed without cc: Discover.</p>
cc: Discover Web Portal	<p>Administrators, system administrators, and managers use the Web Portal to</p> <ul style="list-style-type: none"> • Create and manage survey forms. • Configure and manage the server and users' permissions. • Review survey results, reports, and respondents' audio responses.
cc: Discover Database	<p>Call information and respondents' input and responses are recorded in this database as survey records. Reports are generated from these records.</p>

Requirements

PBX

VoIP/SIP Supported PBXs

These PBXs are supported:

- Cisco
- Avaya
- Asterisk

Hardware, Software, and Licensing

Hardware and software requirements vary by PBX. Some PBXs do require licensing for SIP endpoints.

CallCopy

cc: Survey can be deployed with CallCopy's cc: Discover on the same machine, on a separate machine, or as a standalone product (i.e., no call recording). See the *cc: Discover Requirements* for additional requirements information.

Hardware

Hardware requirements vary depending on system configurations and usage requirements. Specifications are determined by the CallCopy Sales Engineering team during the sales process.

Software

This software is required:

- CallCopy cc: Discover Web Portal and database, v5.1 and higher

Licensing

Contact your CallCopy representative for licensing information.

Survey Call Linking

This feature currently works with:

- Cisco SIP
- Avaya SIP

PBX Configuration

See your PBX documentation for specific steps to perform the tasks mentioned in this section.

Configure VoIP/SIP Endpoints

This section is only for customers who are using VoIP networks and SIP to communicate with the cc: Survey server.

SIP trunk endpoints must be configured on the PBX to direct calls to the Survey server.

Below are sample SIP station configurations from an Asterisk PBX:

- type = peer
- host = (server IP address)
- username = (extension)
- secret = (password)
- dtmfmode = rfc2833
- insecure = very
- context = from-sip

Note Some of the CallCopy integration documents may contain useful information on SIP trunk configuration.

Configure DNIS and ANI

The following PBX configurations must be set:

- A unique DNIS for each survey.
- Call routing to direct both direct calls (i.e., 1-800 calls from customers) and forwarded calls to the cc: Survey engine.
- A dial plan to pass the DNIS and the ANI (i.e., the originating caller or the transferring agent's PBX number -- either the Agent or the Extension) to the Survey engine.

Install and Configure cc: Survey

This section explains the tasks for installing cc: Survey. Survey can be deployed

- On the same machine as cc: Discover – Only the instructions in this section are needed.
- On a separate machine from cc: Discover –
 - Complete the instructions in this section.
 - Install the cc: Discover Logger service (Logger.exe) and Comet Daemon.
 - On the cc: Discover Web Portal machine, create a new server node and Comet Daemon entry for the Survey machine.
 - Add the Survey machine and both the Logger and Survey to the Service Manager in the Web Portal.
- Without call recording – Complete the cc: Discover installation, skipping tasks for call recording.

Check the *cc: Discover Installation Guide* and *cc: Discover Administration Manual* for instructions on the above tasks.

Windows Server Tasks

Perform these tasks on the Windows server hosting cc: Survey.

Install the Server

The cc: Survey server is included with the base cc: Discover install package. Run the installer and select Survey as a feature to be installed. For more information, see the *cc: Discover Installation Guide*.

Register Service

To ensure normal survey operations, the survey engine should be registered as a service on the Windows server:

Open a Command Prompt window on the Windows server. Change to the CallCopy Recorder\SurveyIvrFx directory. From the directory, run the following command:

```
cc_SurveyIvrFx.exe -svcinat -autostart
```

If successful, the Command Prompt will display the message "Service Installed."

Add the Application to the cc: Discover Service Manager

To add the service to the Service Manager, follow the listed steps.

1. Click the cc: Discover Administration tab > Tools > Service Manager.
2. Locate and expand the node created earlier.
3. Click **Add Application**.
4. In the new line, enter the following information:
 - **Application Name:** Enter **CallCopySurveyControllerService**

Install and Configure cc: Survey

- **Auto-Restart:** Select Yes to have the service restarted automatically if it is stopped.

5. Click **Save**.

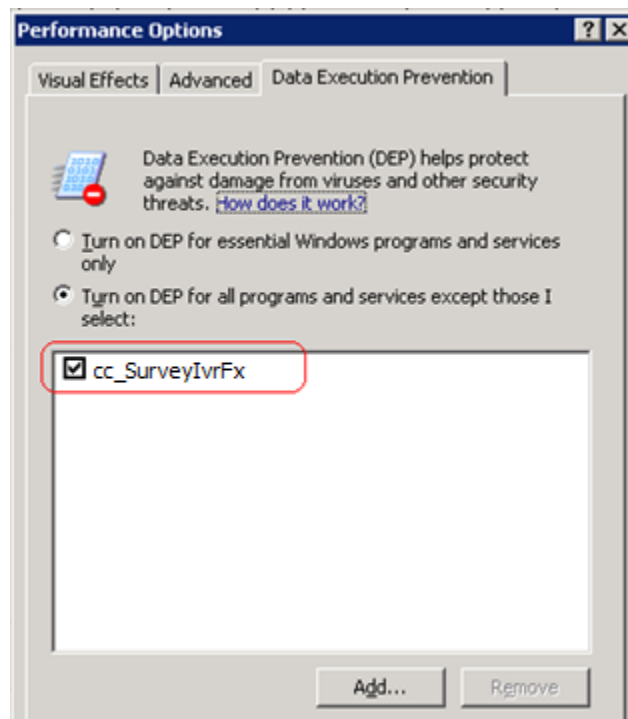
Add Survey Controller as an Allowed Application

Windows' Data Execution Prevention (DEP) setting helps protect against viruses and other security threats. The Survey Controller (cc_SurveyIvrFx.exe) must be added to the DEP setting in order to perform remote data execution.

If this setting is NOT set, the IVR will respond with an "Access Violation" message on the respondent's phone, and the violation will also be logged in the CCSurvey-*.log files where * is the channel number.

Perform these steps on the Windows server:

1. Go to Control Panel > System > Advanced > Performance – Settings > Data Execution Prevention.
2. Click **Add**.
3. Navigate to the folder where the survey software was installed and select cc_SurveyIvrFx.exe. Click **OK**. (If you are prompted to insert a disk, click **Cancel** and continue with this step.)



Security

Permissions

Users must be granted the permissions to view, edit, and administer surveys. See the *cc: Discover Administration Manual* for further information.

These components need these permissions setup:

- IIS account running cc: Discover Web Portal – Read/Write permissions to the Audio Prompt Upload Directory and the Audio Recording Directory. If Survey is installed on a **separate machine** from Web Portal, the IIS account must be a service account with explicit read/write access to the prompts and recordings directories on the Survey server.
- Survey Module – Read permission to the Audio Prompt Upload Directory. Write permission to the Audio Recording Directory.
- Reporting server – Read permission to the Audio Recording Directory if respondents are allowed to leave audio responses to questions.

The install program set permissions needed for the database and other CallCopy modules.

Encryption

The audio prompt and audio response recordings are not encrypted. Typically, surveys should not provide respondents sensitive information or ask them to provide sensitive information.

Archiving

cc: Survey's audio files are not archived.

Configure Survey

Configure INI

These settings are used to configure cc_SurveyIvrFX.exe. Browse to "\Program Files (x86)\CallCopy\Recorder\SurveyIvrFX" and if cc_surveyIvrFX.ini is not present, create it. The INI filename should always match the name of the executable it configures. Supply the following information using default values unless otherwise specified.

[settings]	
ipaddress=127.0.0.1	IP address of the server running the SurveyIvrFX process
audiopromptdirectory=	Path to audio prompt recordings. See the " Specify Survey Audio Directory Settings " section of this document for more information.

Install and Configure cc: Survey

audiorecordingdirectory=	Path to audio response recordings. See the " Specify Survey Audio Directory Settings " section of this document for more information.
modules=	<p>Comma-separated list of modules the ivr will load. This is used with survey linking.</p> <ul style="list-style-type: none"> For Cisco TAPI, enter CiscoTapi. For Avaya SIP trunk, this value should be blank. <p>To configure a module, add the corresponding section seen below.</p>

The following settings are required for **any** configuration.

[ivr]	
trunktype=SIP	cc_surveyivrFx currently only accepts SIP for the trunk type.
maximumdigitlengthforaprompt=1	Maximum number of digits the survey will expect to collect. Optional for Both, used when you want to be able to have answers that are more than digit.
repeatquestionafterinvalid=f	Used if there is an Invalid_Response file setup and the question must be repeated. Possible values: Y or N. Optional for Both, used when you want to repeat the question when an invalid digit is pressed.
digittimeout=3000	Length of time Survey waits if the respondent has to enter digits. Possible values: an integer representing milliseconds (i.e., 3000 is 3 seconds). Optional for Both, used when you want to increase the time the survey waits to collect digits on the collect digit survey type.
maxpromptbeforetimeout=0	Number of times the listener will be prompted before timing out.
temprecordinglocation=c:\temp_recordings	Temporary storage location while recordings wait to be transcoded.
[trunk]	
channels=0	Number of SIP channels.

localPort=5060	Local SIP port.
remotePort=5060	Remote port for SIP.
basertpport=36000	Initial RTP port for audio.
localaddr=	Survey server local address.
remoteaddr=	PBX's address.
transporttype=UDP	Required setting for SIP. <ul style="list-style-type: none"> • Cisco can use either UDP or TCP • Avaya SIP requires TCP
ttscodec=0	Text-to-Speech setting. Leave at default value.
ttschunksize=160	Text-to-Speech setting. Leave at default value.
ttschunkduration=20	Text-to-Speech setting. Leave at default value.
filecodec=0	Setting for audio prompt playback. Leave at default value.
filechunksize=160	Setting for audio prompt playback. Leave at default value.
filechunkduration=20	Setting for audio prompt playback. Leave at default value.

Configure Survey Linking

Install the Survey Script

1. Browse to the directory containing **cc_SurveyivrFx.exe**, typically **C:\Program Files (x86)\CallCopy\Recorder\SurveyivrFx**.
2. Create a **Scripts** folder in that directory.
3. Check with Development to determine which script file needs to be copied to the Scripts folder.

Configure INI

These settings are required for all scripting environments. Browse to "\Program Files (x86)\CallCopy\Recorder\SurveyivrFX" and open cc_surveyivrFX.ini. The INI filename should always match the name of the executable it configures. There is no INI configuration section specific to Avaya SIP survey linking.

Install and Configure cc: Survey

[scripting]	
folder=scripts	The folder local to the executable the script(s) are located in.
eventfilter=	<p>Comma separated list of events to filter out.</p> <p><list> := <item>, <item>, <item>, ..., <item></p> <p><item> := <type> <type>-<reason></p> <p><type> := numeric type code</p> <p><reason> := numeric reason code specific to integrations</p> <p>The below example would filter out all events of type 1, and events that have type 2 with a reason of 8:</p> <p>eventfilter=1,2-8</p>
maxprocesslength=60000	The maximum amount of time the event process thread is allowed to hang before it is terminated.
recordingmatchcolumn=	<p>When the scripts are matching completed surveys to recording via a match column, this is how the match column is configured. Possible values could include UCID (e.g., user8) or Agent ID (e.g., agent_number).</p> <p>For Avaya SIP, to use the ANI to link surveys to calls, device_id is the preferred value.</p>

Only use the following settings in a **Cisco TAPI** environment.

[CiscoTapi]	
initialLineMessageDelay=15	Amount of time (in seconds) to delay before processing line messages from TAPI.
lineMonitorFrequency=0	How frequently (in seconds) to run the line monitor job.
lineTimeout=900	Amount of time that passes (in seconds) when we consider a line to have timed out.
probelinefrequency=0	How frequently (in seconds) we probe the line caps to see if we have valid lines.
tapieventtimeout=0	Determines whether or not we hard fail on timeout rather than just resetting TAPI. 0 to disable, 1 to enable.

dumpLinestates=F	Determines whether or not to retain the line states during a line monitor call. T to remove, F to retain.
closedLineCheck=30	How often we check for closed lines (in seconds).
reopenattempt=0	How often we allow between line re-open attempts (in seconds).
alertonlineopenfailure=F	Alerts when there is a failure to open a line. T to alert, F to ignore.
lineopendelay=0	Delay after opening a line (in seconds).

Enable Survey Score Column in Call Lists

This task can be performed by an administrator or each user.

1. Log into cc: Discover.
2. Go to Web Player tab > Call Lists.
3. Click **Settings** in the upper-right corner.
4. Under **Other Columns**, select the box for **Survey Score**.
5. Click **Save**.

Survey Administration

Manage DNIS Values

A DNIS is a unique identifier that the phone system (PBX) sends to the survey application. The DNIS allows specific surveys to be associated with specific dialed numbers (DNIS). Using this methodology one survey engine can support an infinite number of unique surveys, each playing their own messages and asking for their own responses.

Add/Edit/Delete Values

Follow these steps to add DNIS values:

1. Log into the cc: Discover Web Portal and click Administration > Add-Ons > Surveys > DNIS List.
2. Click **Add**.
3. Enter a DNIS value and Comment value. The comment can be a client name or some explanation of how the DNIS will be used in the survey work.
4. Click the floppy disk icon to save the record.

Values can be edited or deleted by clicking the pencil and red X icons.

Import Multiple Values

Multiple DNIS values can be added at one time using a CSV file. For example, all the DNIS values used by your phones can be entered. This action avoids the repetitive work of entering values each time one or more is needed for a survey. Surveys are not applied to calls received through a DNIS until that DNIS is assigned to a survey form.

Entries in the CSV file must fit this format: DNIS, Comment. Each entry should be on a separate line. A CSV can also be created in an Excel spreadsheet. Some equipment export DNIS data as a file.

After creating the CSV file, follow these steps to import the DNIS values:

1. Log into the cc: Discover Web Portal and click Administration > Add-Ons > Surveys > DNIS List.
2. Click **Import**.
3. Browse to the location of the CSV file. Select it and click **OK**.
4. If the first row in the CSV file is NOT a header (i.e., it is a DNIS/Comment value), clear the File contains a header row option.
5. Click **Upload File**. Review the records that are ready for importing. If any of the records are not correct, click **Cancel**. Edit the file and repeat the import. Otherwise, go to the next step.
6. If the records are correct, click **Import**. The DNIS values appear as records in the list.

Specify Survey Audio Directory Settings

cc: Survey requires these two directories:

- Audio Prompt Upload Directory – This is where messages and prompts are stored on the server's hard drive.
- Audio Recording Directory – This is the location on the server's hard drive array where customer feedback recordings are stored.

Follow these steps to specify the directories:

1. Create the directories in the file system. cc: Discover does not require that they be specific names. Example: c:\SurveyPrompts.
2. Log into the cc: Discover Web Portal and click Administration > Add-Ons > Surveys > Survey Settings.
3. Enter full path names for both directories.
4. Set the Survey Audio Format for output, based on the type of surveys (T1 or SIP).
5. Click **Save**. The settings will be saved if the directory paths are correct, the directories exist, and the application has Create/Write permission for both directories.

Survey Forms

The Survey Editor enables you to create new surveys and edit existing ones.

To create a survey form, you must perform the tasks explained in this section.

Tip CallCopy recommends creating survey questions, responses, and actions on paper before trying to create the form.

Specify Survey Information

1. Log into the cc: Discover Web Portal and click Surveys > Create Survey.
2. Enter a Survey Name. This name appears in reports. For ease of use, form names should be unique and describe the survey.
3. Enter a Description.
4. Enter Min/Max Percentage Thresholds. Any survey whose score is below the minimum percentage is defined as “Negative.” Any survey whose score is above the maximum percentage is defined as “Positive.” Any score between the minimum and maximum thresholds is reported as “Neutral.” These values appear on the Survey Summary and Survey Overview Reports.
5. Select a Recording Format. This is the format of customer feedback messages that are recorded by the customer when completing a survey. The only supported format is GSM, which is a highly compressed WAV format.

Note The Recording Path (Audio Recording Directory) and Upload Path (Audio Prompt Upload Directory) are specified on the Administration > Add-Ons > Survey Settings page. cc: Survey automatically creates a new folder for each survey. The folder is numbered according to the number of survey forms created (i.e., the tenth survey is placed in a folder number ‘10’).


6. In the Available DNIS field, select the number whose calls will be directed to this survey. Click the top arrow to move the number to the Attached DNIS field.

Add a Section

The survey form is divided into sections consisting of one or more questions. A survey has to have at least one section, and all questions can be placed in that section. Sections can be an easy way to organize longer surveys. Sections do not affect how respondents experience the survey or the reporting of survey answers.

Follow these steps to add a section:

1. Click **Add New Section**.
2. Enter a section title.

Use the  buttons to move sections and questions up or down or to delete them.

Create a Question

Follow these steps to create a question:

1. Click **Add New Question**.
2. In the Question #X Text box, enter the text of the question. This text is displayed as a label in the reporting engine. This text should correspond to the language within the recorded audio file associated with the question for consistency and future troubleshooting.
3. Select a Question Type. See the specific question types below for additional information.
4. Click **Upload Audio File** and navigate to the file with the question. This is the location of the recording audio file stored on the survey application survey's hard drive structure. These files can be copied to the server locations manually if you have access to the server's drive array. The supported formats are:
 - WAV container encoded in GSM, u-Law or PCM16
 - VOX 8k/6k
 - AU container encoded in u-Law
 - CSA mono/stereo

During upload to the site, they will be converted to one of the following formats:

Survey Type	T1-Based	SIP-Based
Bit rate	128kbps	64kbps
Audio sample size	16-bit (Linear)	8-bit
Channels	1 (mono)	1 (mono)
Audio sample rate	8kHz	8kHz (G.711)
Audio format	PCM	CCITT u-Law

5. (Optional) Select the Mark Survey Complete option. This value marks a survey as being complete. You can require certain questions to be responded to in order for the data to be presented within reporting. For example, if you have a 5 question survey, and completing Question 4 marks the survey as "complete," the customer could hang up and not complete Question 5, yet the survey would still display the data within reporting. Question 5 would be scored as 0 out of the possible points for Question 5, in this example. Any survey not reaching Question 4 would be marked as "incomplete."
6. (Optional) Clear the Show-in-Reporting option. Use this option if you do not want this question included within the reporting values, such as greetings, closings, or transitions without responses. Otherwise, this question will display with no data responses.

Note Response Type is currently not used by audio-based surveys. This is reserved for future use within web browser-based surveys.

Note Possible Points is auto-calculated based on the highest response defined on the list of responses to questions of the type “Present Question and Wait for Result”.

Type: Present Question and Wait for Result

This type can present

- A question and wait for touch-tone input. In this use, the audio file must state each possible response and corresponding touch-tone input value. Questions of this type usually need at least two responses.
- Information, such as instructions or a greeting, and advance automatically after a wait period configured in the server.

The following values are available for defining specific responses:

- Text -- Label of the response as it appears on reports.
- Point Value -- Value of the specific response selected. (Optional)
- DTMF -- This is the touch-tone input value for the response. Each DTMF field for a question must have a unique value.
- Next Question – After you have created other questions, you can return to set this option. You can select the next question presented in the survey based on the particular response.

Type: Collect Customer Information

This type allows the customer to leave detailed feedback in the form of a voice recording. There is no preset or configurable limit for the length of these recordings, and are only bound by available disk space.

If you wish the customer to continue on with other survey questions after leaving verbal feedback, specify within the question audio file to press the “Pound or hash” sign to end the recording (#). This tone instructs the survey engine to continue processing the survey.

The survey recorder will continue recording until the respondent either hangs up or pushes the pound sign (#).

You have to set a Default Next Question. To do so, you have to create additional questions and then return to setting this option.

The voice recordings can be listened to from reports. The files can be accessed from the Audio Recording Directory.

Type: Collect Digits

This type is used to collect a specific digit string to be stored within the database. This is useful for collecting a customer ID or transaction number. The survey recorder advances when the respondent pushes the pound sign (#) or the wait period is reached.

Type: End Survey

Include this question/item at the end of a survey. After the audio file has executed, the survey session is ended, and the call is automatically disconnected.

Type: Threshold Branch

A Threshold Branch is not a question. It enables you to direct respondents to specific questions based on the cumulative score of earlier responses. Respondents do not know that they are being directed based on their responses, and no audio file has to be loaded for this type. Typically, you don't include a Mark Survey Complete option here unless you want to end the survey.

For this question type, these fields are available:

- Question Text – Enter a description of the branch criteria.
- Negative Percentage Threshold – Surveys with a current percentage (current accumulated points/current total possible points) below this value are considered negative.
- Positive Percentage Threshold – Surveys with a current percentage above this value are considered positive.
- Negative Next Question – Next question for surveys that are currently negative.
- Neutral Next Question – Next question for surveys that are between the Negative and Positive Thresholds.
- Positive Next Question – Next question for surveys that are currently positive.

Save/Export/Delete Survey Forms

The Survey Form Editor allows you to

- Save – This option saves and closes the form. After it is saved, the form appears in the Form Manager list.
- Save Draft – The form is saved and appears in the Form Manager list as 'In Progress'.
- Delete – Do not delete forms. If they are not needed, disable them on the Form Manager page.
- Export – This option exports the form as an XML file. It can be imported on the Form Manager page.

cc: Survey auto-saves the form while you work with it. The Save Draft and Save options identify any missing required field data.

Survey Forms Management

To see all existing forms in the Web Portal, click Surveys > Manage Surveys.

Select one of the options from the Filter By Status menu:

- All
- Active – Surveys that are currently used.
- Disabled – Surveys that are not currently used but can be made active.
- In Progress – Surveys that have been saved as drafts and require additional editing before they can be used.

From the Survey Form Listing, you can

- Click **Edit** to open the survey form in the editor.
- Change a form's status by selecting or clearing its Active/Disabled option.

Survey Forms Listing								
<input type="button" value="Import"/> Filter By Status: All								
	Name	Status	DNIS	Attempted Count	Created By	Created On	Last Modified By	Last Modified On
<input type="button" value="Edit"/>	Agent Satisfaction Survey	<input type="checkbox"/> Disabled		0	Administrator	9/20/2011 2:38:17 PM	Administrator	9/20/2011 3:50:00 PM
<input type="button" value="Edit"/>	CallCopy 1	In Progress		0	Administrator	9/20/2011 3:59:52 PM	Administrator	9/20/2011 4:00:25 PM
<input type="button" value="Edit"/>	Charity Service	<input checked="" type="checkbox"/> Active	4177	0	Administrator	9/20/2011 10:18:59 AM	Administrator	9/20/2011 3:50:48 PM
<input type="button" value="Edit"/>	Customer ABC	<input checked="" type="checkbox"/> Active	4520	0	Administrator	9/16/2011 4:37:27 PM	Administrator	9/20/2011 3:57:43 PM
<input type="button" value="Edit"/>	Customer XZY	<input checked="" type="checkbox"/> Active	4521	0	Administrator	9/20/2011 1:37:46 PM	Administrator	9/20/2011 3:52:28 PM

Pages : Go To Page : of 1

The Attempted Count value indicates the number of respondents who have started the survey form.

The Import button can be used to load XML files and use them as Survey Forms. The files must be formatted exactly as those created using the Form Editor. Custom forms are not supported.

Reports

(See the *cc: Discover Reporting Manual* for additional information about the Reporting tab's functions.)

Survey reports can be accessed through the cc: Discover Web Portal. On the Reporting tab, click Printable Reports > Survey Reporting.

The Survey Reporting page lists the types of reports that can be created. The Date Created column shows the date that the template for the report type was created in the system.

Reporting Criteria

You can use these criteria to specify the data included in a report. The criteria available vary by report.


- Start/End Date – Searched calls will have occurred during this date range.
- Agent – One or all agents can be selected.
- Record ID – This is the survey database record ID.
- Surveys/Form ID – One, multiple, or all survey forms can be selected.
- Survey Complete – Surveys are either Complete or Incomplete based on whether the respondent reached a question that had the Mark Survey Complete option selected.
- ANI – This is the respondent's telephone number.

Note If the respondent was manually redirected to the survey by an agent, this number may not be accurate, depending on telephony equipment.)

- DNIS – This is the number associated with the survey.

Survey Detail

This report shows one or more survey taker's complete responses.



Survey Detail

For period beginning 1/27/2011 and ending 9/27/2011

Form:	CallCopy Customer Survey	Record:	53190
DNIS:	7533 ANI: 5010 Survey	Date:	4/1/2011 9:38 AM
Survey Complete:	Yes	IP Address:	
Satisfaction		Score: 10 of 10 (100%)	
<p>On a scale of one to five, five being the highest, how satisfied are you with the CallCopy software solution overall?</p> <p>Digits Collected: 5</p>			
5		<input checked="" type="checkbox"/>	5pts
4		<input type="checkbox"/>	
3		<input type="checkbox"/>	
2		<input type="checkbox"/>	
1		<input type="checkbox"/>	

If respondents left a voice message for a question, a link to the message file appears in the report.

Note IP Address is not used at this time.

Close	Score: 0 of 0 (N/A)
<p>Finally, one last question. If you could have one product enhancement, what would it be?</p>	
<p>2-101411.wav</p>	<input type="checkbox"/>

Survey Detail Summary

This report lists all survey responses that match the search criteria. Click a survey to open the Survey Detail report for that survey. The Recordings column shows the number, if any, of respondent voice recordings.



Survey Detail Summary

For period beginning Tuesday, May 08, 2012 and ending Friday, June 08, 2012

Selected Surveys: surveyFor5090

Survey Complete: Complete

Name	Date	DNIS	ANI	Score	RecordID	Recordings	Agent Name
surveyFor5090	5/9/2012	1001	1234	46.67%	5	0	agent9_first58 agent9_last58
surveyFor5090	5/9/2012	1001	1234	46.67%	6	0	Clifton Guiran
surveyFor5090	5/9/2012	1001	1234	60.00%	7	0	agent10_first58 agent10_last58
surveyFor5090	5/9/2012	1001	1234	53.33%	8	0	Alan Crow
surveyFor5090	5/9/2012	1001	1234	80.00%	9	0	Myron Galliano
surveyFor5090	5/9/2012	1001	1234	0.00%	10	0	Connie Francis
surveyFor5090	5/9/2012	1001	1234	40.00%	11	0	Connie Francis
surveyFor5090	5/9/2012	1001	1234	60.00%	12	0	agent10_first58 agent10_last58

Survey Overview

For each survey form in a time period, the report calculates the shown categories. Positive, Negative, and Neutral ranges are defined on the Survey Form specific information. If a survey form does not have any responses, it does not appear on the report.



Survey Overview

For period beginning Thursday, January 27, 2011 and ending Tuesday, September 27, 2011

Name	Count	Complete	Incomplete	Positive	Negative	Neutral
CallCopy Customer Survey	12	11 (91.7%)	1 (8.3%)	4 (33.3%)	2 (16.7%)	4 (33.3%)

Survey Summary

For each survey form in a time period, calculates these categories. If a survey form does not have any responses, it does not appear on the report.

- **Score** – Total score of the survey responses and the total maximum possible score of a survey. The maximum possible score on a survey can vary based on the questions that a respondent is asked to answer. For example, one respondent may be asked to answer five questions with a total of 50 points. Another respondent, based on his/her answers, will be directed through seven questions with a total of 70 points. This fact must be considered when designing surveys.
- **Average Percentage (%)** – (Sum of each response’s score)/((Sum of the possible score for each form)/Number of responses)



Survey Summary

For period beginning Thursday, January 27, 2011 and ending Tuesday, September 27, 2011

Name	Count	Complete	Incomplete	Positive	Negative	Neutral	Score	Avg %
CallCopy Customer Survey	12	11 (91.7%)	1 (8.3%)	4 (33.3%)	2 (16.7%)	4 (33.3%)	76 of 90	80.8%

Survey Summary by Agent

This report allows you to select a set of agents over a specific date range, and displays the number of surveys completed for each agent, given survey score, total possible points, percentage overall score, and totals for each column.

The Report Type option determines how results are broken down and displayed:

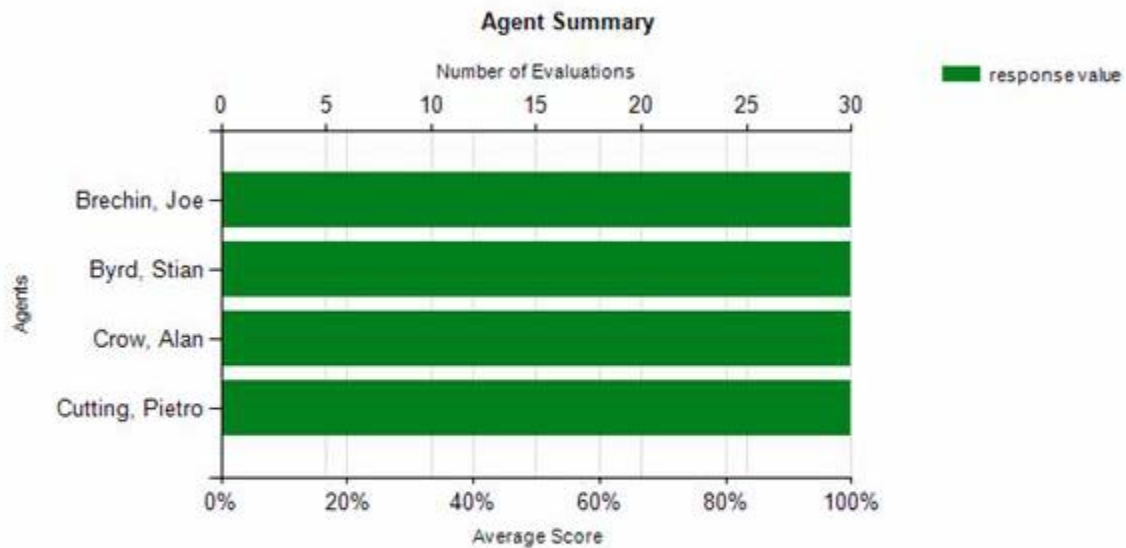
- Agent – Lists total scores for all forms by agent as shown below.
- Form – For each agent, shows scores by form and the total scores for all forms.
- Section – Shows scores for each section on the form.
- Question – Shows scores for each question in each section on each form.



Survey Summary by Agent

For Saturday, January 01, 2011 to Wednesday, August 08, 2012

Selected Agents: Orlando de Boer, Matt Borghetti, Jenny Bouclier, Joe Brechin, Anders Brooker, Keith Burke, James Busker, Stian Byrd, Jeremy Carrozza, Dimitri Carstensen, Renato Chassagne, Boozoo Chavis, Roy Chenier, Lemony Cicierega, Anthony Condon, Jean-Pierre Conlee, Sheryl Coscia, Gianni Croissonier, Alan Crow, Richard Cunningham, Pietro Cutting, Rolf Deiro, Wolfgang DiGrolamo, Kevin Dimetrik, Gary Doktorski, Stuart Dwyer



Agent	# Surveys	Score	Possible	Percentage
Joe Brechin	2	4	5	80%
Stian Byrd	4	7	15	46%
Alan Crow	12	25	40	62%
Pietro Cutting	4	11	15	73%
Total:	22	47	75	63%

Survey Summary by Question

This report provides a count of each given response to each of the questions in a survey form. Users can select a date range, the survey form to evaluate, DNIS/ANI numbers, and whether the survey completion status. The generated report displays how many of the chosen survey have been completed, average score, then counts and score percentages of each question in the form. The Survey field is required.

Start Date: End Date: Survey:
 DNIS: ANI: Survey Complete:

1 of 1 Find | Next

Survey Summary by Question

For period beginning Thursday, January 01, 2009 and ending Wednesday, August 08, 2012

Selected Form: surveyFor5090

Survey	Number of Surveys	Average Score
surveyFor5090	0	0 of 0 (N/A)

Question	Response	Count	Percentage
Q1 On a scale of 1 to 5 - 5 is the best			
	1	0	0.0%
	2	0	0.0%
	3	0	0.0%
	4	0	0.0%
	5	0	0.0%
Q2 On a scale of 1 to 5 - 5 is the best			
	1	0	0.0%
	2	0	0.0%
	3	0	0.0%
	4	0	0.0%
	5	0	0.0%
Q3 On a scale of 1 to 5 - 5 is the best			
	1	0	0.0%
	2	0	0.0%
	3	0	0.0%
	4	0	0.0%
	5	0	0.0%
Thank you for your time			

Survey Summary by Question - 8/8/2012 CallCopy Recorder Reporting Service Page 1 of 1

Survey Summary by Response

This report allows users to identify the relationship between a response to one question and the responses to other questions. This allows you to see how different segments of the surveyed population have answered questions. For this report, one question can address a respondent's overall opinion of a product or service. Follow-up questions elicit the reasons or factors that cause that overall opinion.

Example: Car Satisfaction Survey – Customers who purchased any new car within the last year are surveyed. One question asked them to rate their overall satisfaction with their car on a scale of 1 to 5, with 5 being the highest satisfaction. Additional questions ask how many times they have taken the car for repairs, the price of the car, the size of the car, the car's miles-per-gallon rate, and whether the car was the customer's first choice. Assume that these are the results:

Report 1: Question 1: Satisfaction rating: 1

- Question 2 -- Number of times cars repaired: 1
- Question 3 – Was this car your first choice?: No

Report 1: Question 1: Satisfaction rating: 5

- Question 2 -- Number of times cars repaired: 1
- Question 3 – Was this car your first choice?: Yes

Given these results, it appears that satisfaction with a car purchase is determined by whether or not the customer was able to purchase their first choice. A customer may have wanted a \$35,000 car but had to settle for a \$20,000 car, which affected the satisfaction rating.

Multiple versions of this report may need to be created in order to identify the relationships between a question's responses and the responses on the other questions. In other words, Question 1 has four possible responses, and that question is used as the overall or control question, then a report should be run for each response.

Survey, Question ID, and Response are required fields. The result fields are

- Count – Number of respondents who selected a response.
- Score – Actual total points for a response. If a response was worth two points and three respondents selected it, the Score would be six.
- Possible Score – Multiplies the number of response options by the point value for a response.
- Percentage – $\text{Score} / \text{Possible Score}$

If no respondents selected a response to a question, the response option does not appear on the report. For example, if no respondents selected response 2 to a question, the report shows numbers for responses 1, 3, 4, and 5.

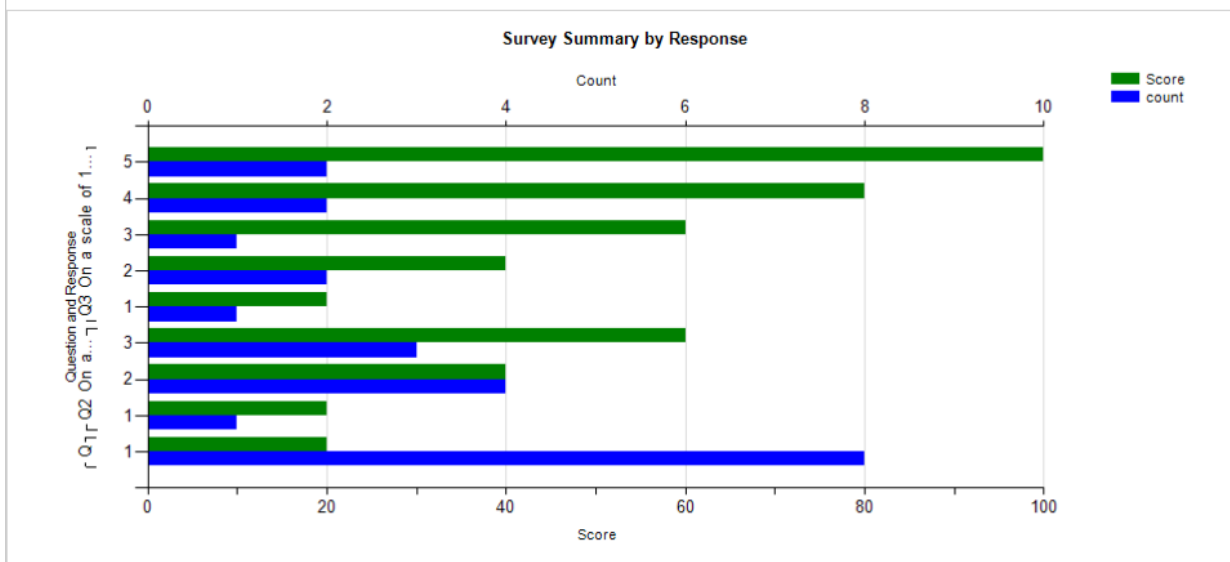


Survey Summary by Response

For period beginning Tuesday, May 08, 2012 and ending Friday, June 08, 2012

This report summarizes the responses made by people who answered the question 'Q1 On a scale of 1 to 5 - 5 is the best' with the response: '1'.

Survey Complete: Yes



Survey:		surveyFor5090			
Question	Response	Count	Score	Possible Score	Percentage
Q1 On a scale of 1 to 5 - 5 is the best					
	1	8	8	40	20.00%
		8	8	40	20.00%
Q2 On a scale of 1 to 5 - 5 is the best					
	1	1	1	5	20.00%
	2	4	8	20	40.00%
	3	3	9	15	60.00%
		8	18	40	45.00%
Q3 On a scale of 1 to 5 - 5 is the best					
	1	1	1	5	20.00%

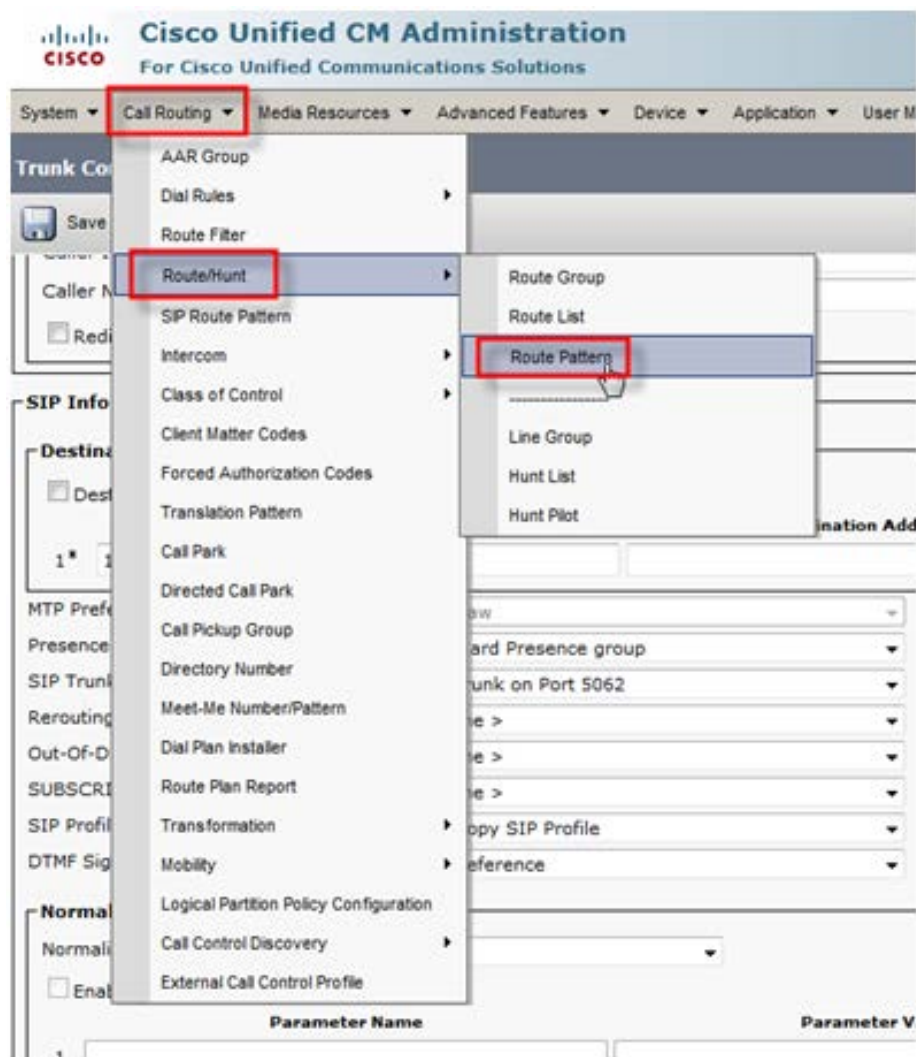
Example PBX Configurations

This section outlines **example** PBX configurations for T1s and trunk groups. This is not an inclusive list and CallCopy makes no guarantees that these configurations will work in your scenario. Please consult your PBX support or vendor for specific questions regarding your installation.


Cisco

The following screenshots identify which fields need to be configured for Surveys to function properly. Specific values will vary from one environment to another.

Set Route Pattern



Status

 Status: Ready

Pattern Definition

Route Pattern* 93XXXX

Route Partition < None >

Description

Numbering Plan -- Not Selected --

Route Filter < None >

MLPP Precedence* Default

Resource Priority Namespace Network Domain < None >

Route Class* Default

Gateway/Route List* CCSurveyTest [\(Edit\)](#)

Route Option

Route this pattern

Block this pattern No Error

Call Classification* OffNet

Allow Device Override Provide Outside Dial Tone Allow Overlap Sending Urgent Priority

Called Party Transformations

Discard Digits < None >

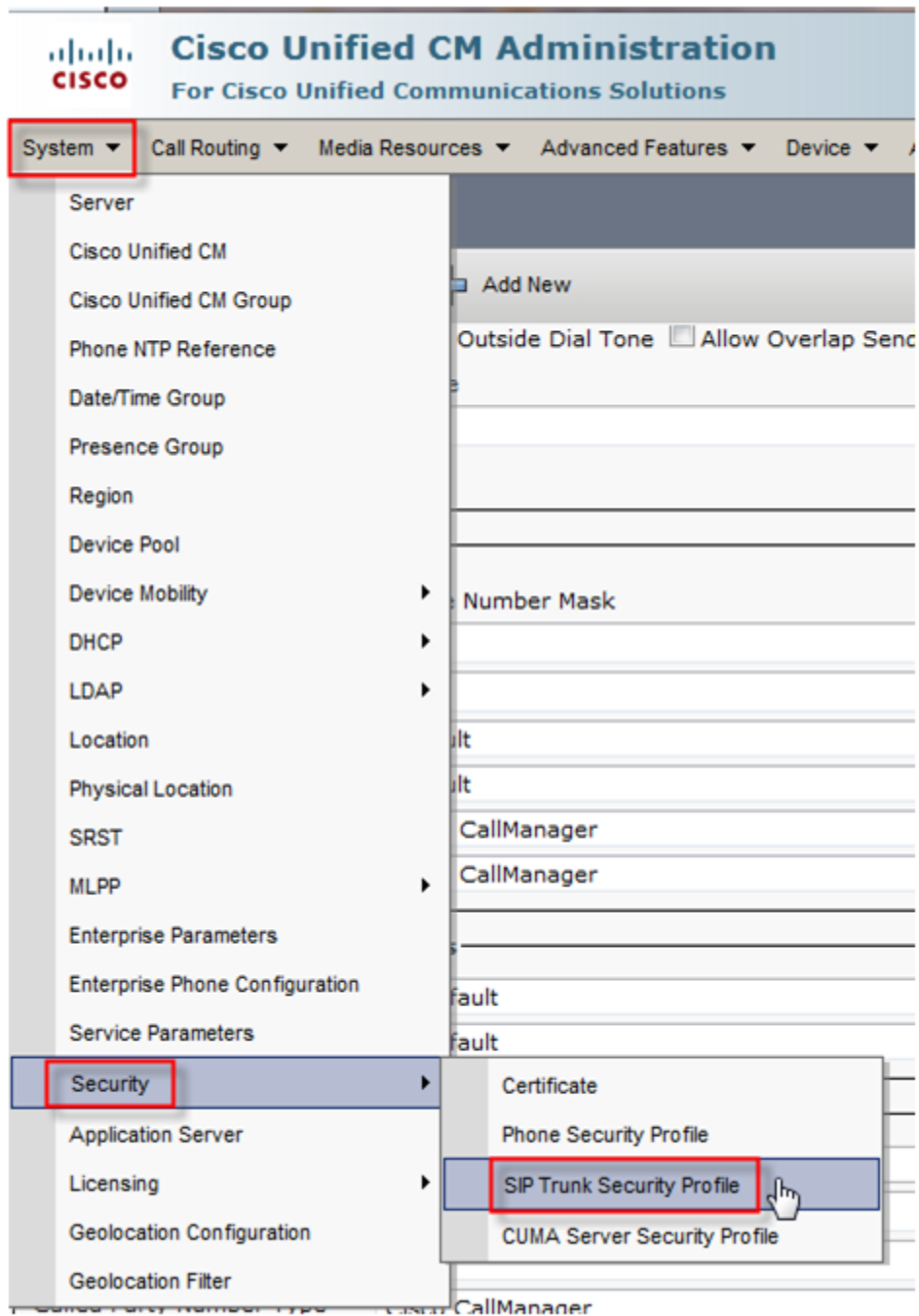
Called Party Transform Mask XXXX

Prefix Digits (Outgoing Calls) 93


Called Party Number Type* Cisco CallManager

Called Party Numbering Plan* Cisco CallManager

Set SIP Trunk Security Profile



Status

 Status: Ready

SIP Trunk Security Profile Information

Name*

Description

Device Security Mode

Incoming Transport Type*

Outgoing Transport Type

Enable Digest Authentication

Nonce Validity Time (mins)*

X.509 Subject Name

Incoming Port*

Enable Application Level Authorization


Accept Presence Subscription


Accept Out-of-Dialog REFER**

Accept Unsolicited Notification

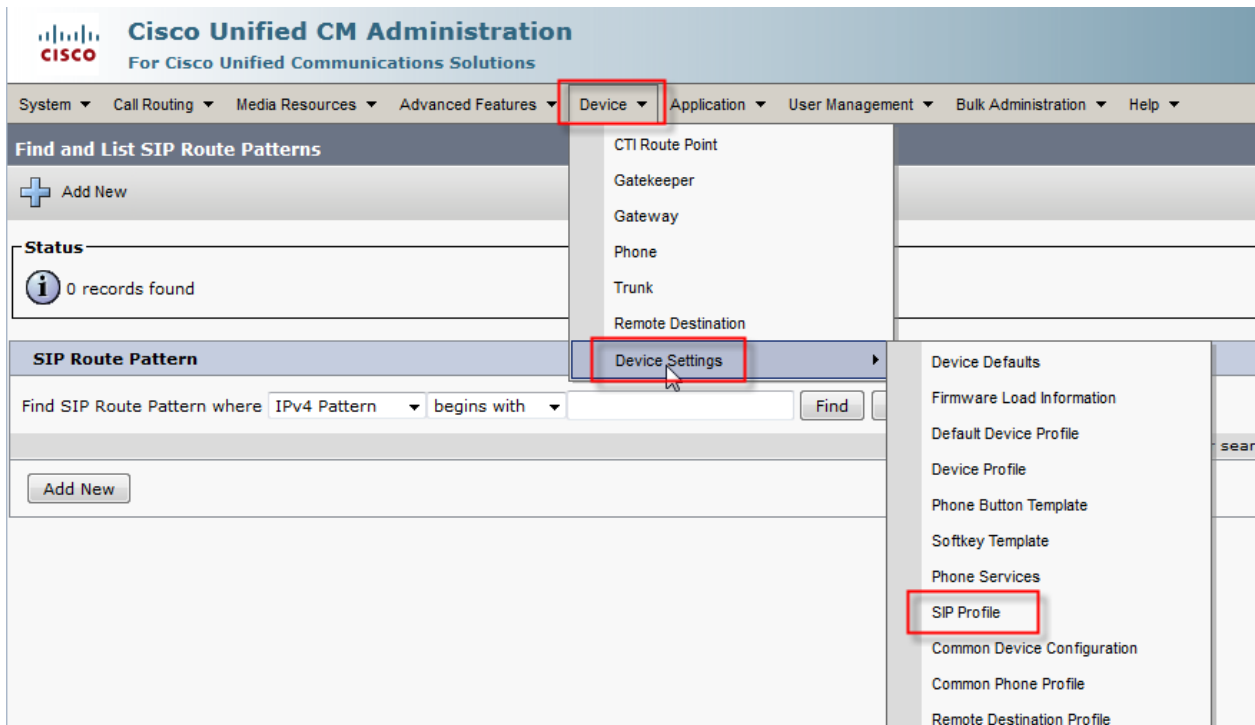
Accept Replaces Header

Transmit Security Status

 *- indicates required item.

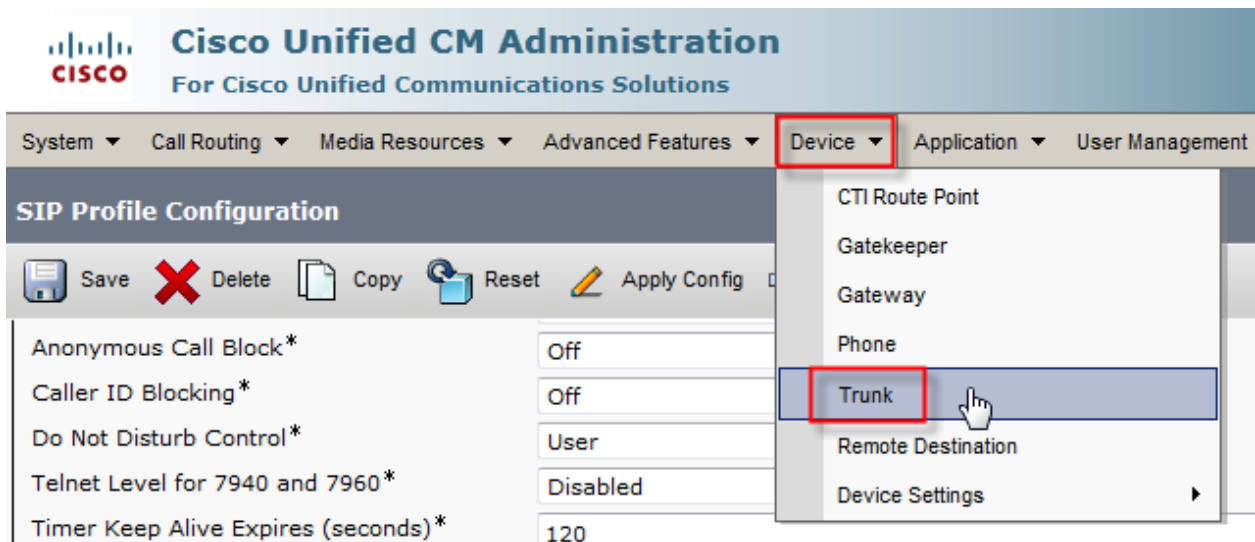
 **If this profile is associated with an EMCC SIP trunk, Accept Out-of-Dialog REFER is enabled regardless of the

Configure SIP Profile



Please refer to your Cisco documentation for information on configuring this section.

Configure Trunk



SIP Information

Destination

Destination Address is an SRV

Destination Address 1* 10.100.10.55 **Destination Address IPv6** **Destination Port** 5062

MTP Preferred Originating Codec* 711ulaw

Presence Group* Standard Presence group

SIP Trunk Security Profile* Sip Trunk on Port 5062

Rerouting Calling Search Space < None >

Out-Of-Dialog Refer Calling Search Space < None >

SUBSCRIBE Calling Search Space < None >

SIP Profile* CallCopy SIP Profile

DTMF Signaling Method* No Preference

Avaya SIP

Create Node

Create a node with a unique name and the IP of the system running cc: Survey.

```
change node-names ip Page 2 of 2
IP NODE NAMES
Name      IP Address
gavm     10.100.10.55

```

(16 of 19 administered node-names were displayed)
 Use 'list node-names' command to see all the administered node-names
 Use 'change node-names ip xxx' to change a node-name 'xxx' or add a node-name

F1 Cancel F2 Refresh F3 Enter F4 Clear F5 Help F6 Edit F7 Next F8 Prev

Create Signaling Group

Transport Method : TCP

Near-end Node Name: procr

Far-end Node Name: The name of the node created in the previous step.

Near-end and Far-end Listen Ports should be 5060 by default when the Transport Method is set to TCP. Port 5061 is reserved for encryption, but cc: Survey does not support encryption.

```
change signaling-group 70                                     Page 1 of 1
SIGNALING GROUP
Group Number: 70      Group Type: sip
Transport Method: tcp
IMS Enabled? n
Near-end Node Name: procr      Far-end Node Name: qavm
Near-end Listen Port: 5060     Far-end Listen Port: 5060
Far-end Network Region: 1
Far-end Domain:
Incoming Dialog Loopbacks: eliminate      Bypass If IP Threshold Exceeded? n
DTMF over IP: rtp-payload                 RFC 3389 Comfort Noise? n
Session Establishment Timer(min): 3       Direct IP-IP Audio Connections? y
Enable Layer 3 Test? n                   IP Audio Hairpinning? n
H.323 Station Outgoing Direct Media? n   Direct IP-IP Early Media? n
Alternate Route Timer(sec): 6
```

F1 Cancel	F2 Refresh	F3 Enter	F4 Clear	F5 Help	F6 Edit	F7 Next	F8 Prev
-----------	------------	----------	----------	---------	---------	---------	---------

Create Trunk Group

Group Type: SIP

TAC: Select a unique value not already in use.

Service Type: Tie

Number of Members: Number of individual trunks. This will be determined by the customer's configuration.

```

add trunk-group 70                                     Page 1 of 21
                                     TRUNK GROUP
Group Number: 70                                     Group Type: sip   CDR Reports: y
Group Name: * SIP to qavm                         COR: 1           TN: 1           TAC: 270
Direction: two-way                               Outgoing Display? n
Dial Access? n                                    Night Service:
Queue Length: 0
Service Type: tie                                  Auth Code? n
                                               Signaling Group: 70
                                               Number of Members: 10
    
```

F1 Cancel	F2 Refresh	F3 Enter	F4 Clear	F5 Help	F6 Edit	F7 Next	F8 Prev
-----------	------------	----------	----------	---------	---------	---------	---------

Create Route Pattern

Group Number: Trunk group number (see top-left of previous screenshot)

FRL: 0

NPA: Local area code

change route-pattern 70 Page 1 of 3

Pattern Number: 70 Pattern Name: * Survey qavm

SCCAN? n Secure SIP? n

Grp No	FRL	NPA	Pfx Mrk	Hop Lmt	Toll List	No. Del	Inserted Digits	DCS/ QSIG Intw	IXC
1: 70	0	614	-	-	-	-	-	n	user
2:	-	-	-	-	-	-	-	n	user
3:	-	-	-	-	-	-	-	n	user
4:	-	-	-	-	-	-	-	n	user
5:	-	-	-	-	-	-	-	n	user
6:	-	-	-	-	-	-	-	n	user

	BCC VALUE					TSC	CA-TSC Request	ITC	BCIE	Service/Feature	PARM	No. Dgts	Numbering Format	LAR
	0	1	2	M	4									
1:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none
2:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none
3:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none
4:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none
5:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none
6:	y	y	y	y	y	n	n	rest	-	-	-	-	-	none

Subaddress

F1 Cancel
F2 Refresh
F3 Enter
F4 Clear
F5 Help
F6 Edit
F7 Next
F8 Prev

Disable Mask CPN/Name

Under the Class of Restriction that applies to agents directing callers to surveys, set "Mask CPN/NAME for Internal Calls?" to **N**.

```
change cor 1 Page 2 of 23
CLASS OF RESTRICTION

MF Incoming Call Trace? n
Brazil Collect Call Blocking? n
Block Transfer Display? n
Block Enhanced Conference/Transfer Displays? y
Remote Logout of Agent? n

Station Lock COR: 1      TODSL Release Interval (hours):

Station-Button Display of UUI IE Data? n
Service Observing by Recording Device? n
ERASE 24XX USER DATA UPON
Dissociate or unmerge this phone: none
EMU login or logoff at this phone: none
Mask CPN/NAME for Internal Calls? n
```

F1 Cancel	F2 Refresh	F3 Enter	F4 Clear	F5 Help	F6 Edit	F7 Next	F8 Prev
-----------	------------	----------	----------	---------	---------	---------	---------

Nortel

The following are sample configurations from a Nortel Option 11, LD screen 22:

```
CTYP MSDL
DNUM 8
PORT 1
DES CC_SVY
USR PRI
DCHL 19
OTBF 32
PARM RS422 DTE
DRAT 64KC
CLOK EXT
IFC NI2
    ISDN_MCNT 300
CLID OPT0
CO_TYPE STD
SIDE NET
CNEG 1
RLS ID 25
RCAP COLP NDS
T310 120
T200 3
T203 10
N200 3
N201 260
K 7
BSERV NO
```

About CallCopy

CallCopy, a leading provider of innovative call recording and contact center solutions, is dedicated to ensuring the highest standards of customer and employee satisfaction. The award-winning, enterprise-proven cc: Discover suite delivers advanced call recording, screen capture, quality management, speech analytics, performance management, customer survey and workforce management capabilities to organizations of all sizes and industries across the globe.

CallCopy empowers these organizations to gather business intelligence, which is leveraged to maximize operational performance, reduce liability, achieve regulatory compliance and increase customer satisfaction.

For more information, visit www.callcopy.com.