NICE UPTIVITY SURVEY FOR SIP ENVIRONMENTS

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Version:	This guide should be used with NICE Uptivity (formerly inContact WFO Premise) v5.6 and higher.
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Table of Contents

Introduction

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Audience

This document is written for supervisors, managers, and administrators at organizations that use inContact Survey in a premises-based, VoIP/SIP environment. It is also written for installation and support engineers at both inContact and our partner organizations who install Uptivity Survey. Readers should have a basic level of familiarity with general networking, usage of a PC and its peripherals, the Windows operating system, their telephony environment, NICE Uptivity, and survey theory.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary for you to manage and use Uptivity Survey.

This document is NOT intended as a specific system or network design document. The guide also does not cover the NICE Uptivity services and components necessary for recording, PBX integration (such as CTI Core and Voice Boards), quality management, and so forth.

Assumptions

This document assumes that if your organization is using NICE Uptivity for recording, QM, and so forth, you and your Uptivity team have deployed and confirmed that the software is working correctly.

Need-to-Knows

> ⓘ NICE Uptivity Survey is managed from the Uptivity Web Portal.

NICE Uptivity allows administrators to customize field names and terminology in the Web Portal to fit your unique environment. Therefore, screen examples and field names used in this manual may differ from those seen in your implementation.

Tasks described in this manual may be limited by permissions. If you need to perform a task and are unable to do so, see your supervisor or NICE Uptivity administrator.

Introduction

Several NICE Uptivity features use menus and other windows that may be considered as "pop-ups" by some browsers. inContact recommends that you configure your browser to allow pop-ups for the Web Portal.

NICE Uptivity supports standard Windows methods for selecting multiple items in a list: press and hold the **[Shift]** key while clicking to select consecutive items or press and hold the **[Ctrl]** key while clicking to select non-consecutive items.

In some cases, NICE Uptivity provides more than one way to accomplish a task or access a feature. The procedures in this manual explain the primary method, but also note the **Alternative** where applicable.

Product Technical Overview

This diagram illustrates the NICE Uptivity Survey components and interactions. The accompanying table provides additional information about the components.

Component	Function
Callers via PSTN or Agents	Uptivity Survey can be configured to handle calls two ways: • A telephone number can be set up and provided to the public. Callers dial the number, and the PBX directs the call to the survey engine. • If supported by your PBX, agents can transfer callers directly to the survey engine.
PBX	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. For each call, the PBX can send the survey engine the: • DNIS • Caller number or Agent/Extension number as an ANI
Uptivity Survey Server	Uptivity Survey executes the survey forms and audio files, writes respondent input and call information to the database, and records respondent voice comments to WAV files. The directories for the survey forms, audio prompts, and verbal response files are located on this server in most installations, although this is not a requirement.
Uptivity Web Portal	Survey administrators, system administrators, and managers use the Web Portal to: • Create and manage survey forms • Configure and manage the Survey application, settings, and permissions • Review survey results, reports, and respondents' audio responses
Uptivity Database	Call information and respondent input and responses are recorded in this database as survey records. Reports are generated from these records.

Requirements

PBX

VoIP/SIP-Supported PBXs

Uptivity Survey requires that calls be directed to the application via a SIP trunk. These PBXs are supported:

- Cisco Unified Communications Manager (UCM) 9.1

- Avaya Communication Manager (CM) 5.2 - 7

- Asterisk 11.5

- ShoreTel ShoreWare 14.1

- Avaya Session Manager 6.x - 7

Earlier versions of these PBX environments may be supported. Consult your NICE Uptivity Sales Engineer for more information.

Regardless of the PBX, SIP signaling must be configured to use out-of-band DTMF, in which the DTMF tones are sent in a separate stream from the audio and not subjected to the same compression (codec). Different vendors use different terminology in this regard. For example, in Asterisk, the setting is "dtmfmode = rfc2833" (RFC 2833 refers to the internet standard for out-of-band functionality). In Avaya, the setting, which appears on the Signaling Group page in GEDI, is "DTMF over IP" and must be set to "rtp-payload" to specify out-of-band. If you use another supported PBX, check your documentation for the appropriate setting.

Hardware, Software, and Licensing

Hardware and software requirements vary by PBX. Some PBXs require licensing for SIP endpoints. Work with your PBX vendor representative and NICE Uptivity Sales Engineer to determine licensing needs.

NICE Uptivity Survey

Uptivity Survey can be deployed with NICE Uptivity on the same server, on a separate server, or as a standalone product (in other words, without call recording). Standalone Uptivity Survey requires installation of the Uptivity Web Portal. You can find customer site requirements in the online help for NICE Uptivity (search keyword *site requirements*).

Requirements

Hardware

Hardware specifications vary depending on system configuration and usage requirements. Hardware is specified by the NICE Uptivity Sales Engineering team during the sales process.

Software

This software is required:

- NICE Uptivity Survey v5.6 or later

- NICE Uptivity v5.6 or later

- Licensing

Contact your NICE Uptivity representative for licensing information.

Performance Considerations

Performance Guidelines

The following are general performance guidelines for this product. For more information, see Survey Call Linking.

- Multiple locations or PBXs can use the same survey server, just as multiple locations can use the same recording server. A SIP link will need to be configured for each location or PBX. For details, see Configure VoIP/SIP Endpoints, Appendix: PBX Configuration Examples, or both.

- A dedicated survey server can safely handle 250 SIP channels.

- One survey channel should be considered the same as one concurrent recording channel when calculating server performance and capacity needs. The number of survey channels needed varies based on length of survey, acceptance rate, caller engagement, whether callers leave audio messages, and other factors.

Beep Tone

In SIP deployments of Uptivity Survey, the software does not play a beep tone at the end of audio prompt files. Questions should include verbal instructions to indicate when the caller should begin speaking. For example: "…Press the pound sign to end the recording. Begin speaking now."

> ⓘ Uptivity Survey for TDM trunks *does* play a beep tone at the end of *Collect Customer Information* questions and before the caller starts speaking. If you move from TDM to SIP Surveys, you will need to review your existing surveys. Any *Collect Customer Information* and *Collect Digits* questions that mention the beep tone will require new audio files that provide verbal instructions. Replacing the audio files assures that the survey forms can continue to be used and that reporting is not affected.

Survey Call Linking

This feature allows you to link completed surveys to interactions recorded in NICE Uptivity, and is only supported with:

- Cisco UCM and a SIP trunk (inContact recommends this option rather than TAPI for greater reliability)
- Cisco UCM with TAPI for CTI data and a SIP trunk
- Avaya CM and a SIP trunk

The Uptivity Survey server and the recording server must be in the same time zone in order for call linking to work. If multiple locations or PBXs transfer calls to one Survey server, call linking:

- Will work with Avaya SIP, Cisco SIP, and Cisco TAPI SIP
- Will NOT work if call recording is being done on two different NICE Uptivity servers and Uptivity Survey is running on only one of those servers.

Survey call linking typically involves matching the ANI (CallerID) of the call recording with the ANI for the completed survey. In some telephony environments and configurations, the ANI in the call recording database table can be four digits, and the ANI in the surveys database table can be one of several different values.

For example, this behavior is known to occur with some Avaya configurations. Avaya Communication Manager's Public Unknown Numbering setting can affect how the survey record ANI appears:

- If the setting is not configured, the ANI shows up as "anonymous" (see Figure 1).

Requirements

- If the setting is configured without a CPN Prefix, the ANI in the recordings table shows as a four-digit extension number. This is the same way it appears in the recordings table (see Figure 2).

- If the setting is configured with a CPN Prefix, the ANI in the surveys table shows as the prefix plus the four-digit extension number.
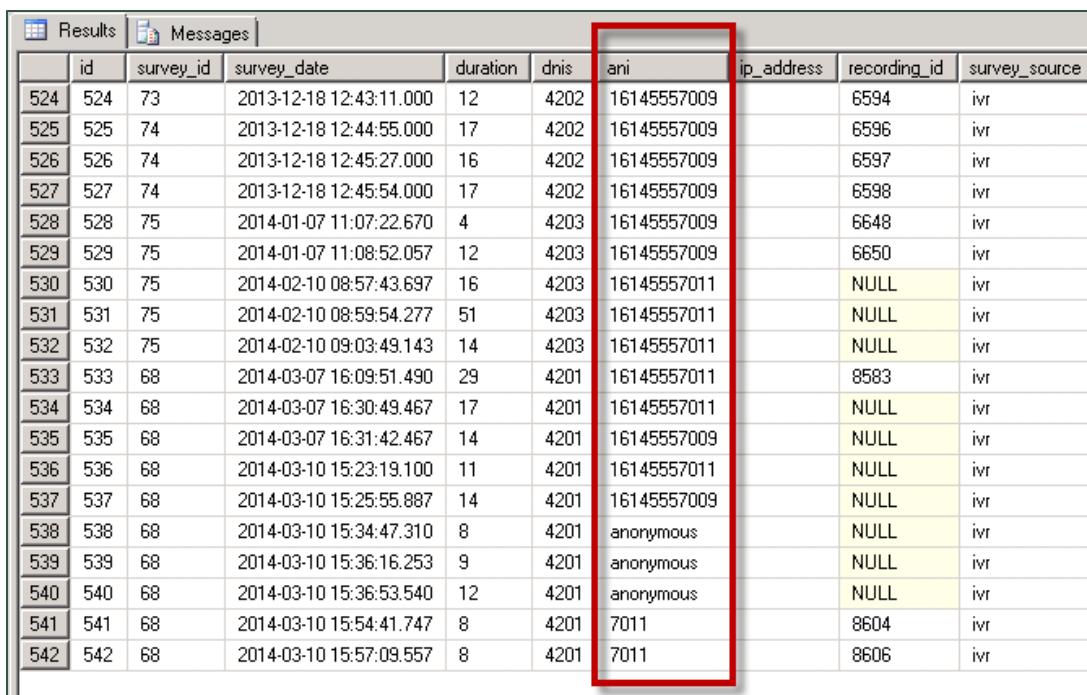
	id	survey_id	survey_date	duration	dnis	ani	ip_address	recording_id	survey_source
524	524	73	2013-12-18 12:43:11.000	12	4202	16145557009		6594	ivr
525	525	74	2013-12-18 12:44:55.000	17	4202	16145557009		6596	ivr
526	526	74	2013-12-18 12:45:27.000	16	4202	16145557009		6597	ivr
527	527	74	2013-12-18 12:45:54.000	17	4202	16145557009		6598	ivr
528	528	75	2014-01-07 11:07:22.670	4	4203	16145557009		6648	ivr
529	529	75	2014-01-07 11:08:52.057	12	4203	16145557009		6650	ivr
530	530	75	2014-02-10 08:57:43.697	16	4203	16145557011		NULL	ivr
531	531	75	2014-02-10 08:59:54.277	51	4203	16145557011		NULL	ivr
532	532	75	2014-02-10 09:03:49.143	14	4203	16145557011		NULL	ivr
533	533	68	2014-03-07 16:09:51.490	29	4201	16145557011		8583	ivr
534	534	68	2014-03-07 16:30:49.467	17	4201	16145557011		NULL	ivr
535	535	68	2014-03-07 16:31:42.467	14	4201	16145557009		NULL	ivr
536	536	68	2014-03-10 15:23:19.100	11	4201	16145557011		NULL	ivr
537	537	68	2014-03-10 15:25:55.887	14	4201	16145557009		NULL	ivr
538	538	68	2014-03-10 15:34:47.310	8	4201	anonymous		NULL	ivr
539	539	68	2014-03-10 15:36:16.253	9	4201	anonymous		NULL	ivr
540	540	68	2014-03-10 15:36:53.540	12	4201	anonymous		NULL	ivr
541	541	68	2014-03-10 15:54:41.747	8	4201	7011		8604	ivr
542	542	68	2014-03-10 15:57:09.557	8	4201	7011		8606	ivr

Figure 1

	ident	recording_time	device_id	filename	recording_type	ani	dnis	user
1...	8585	1394209800	7009	F:\CallCopy\Archive\20140307\7009\7009-16-30-00.csa	S	7009	7011	
1...	8586	1394209800	7011	F:\CallCopy\Archive\20140307\7011\7011-16-30-00.csa	S	7009	7011	
1...	8587	1394209842	7011	F:\CallCopy\Archive\20140307\7011\7011-16-30-42.csa	S	7009	7011	
1...	8588	1394209842	7009	F:\CallCopy\Archive\20140307\7009\7009-16-30-42.csa	S	7009	7011	
1...	8589	1394209895	7009	F:\CallCopy\Archive\20140307\7009\7009-16-31-35.csa	S	7011	7009	
1...	8590	1394209895	7011	F:\CallCopy\Archive\20140307\7011\7011-16-31-35.csa	S	7011	7009	
1...	8591	1394464909	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7009	7011	
1...	8592	1394464909	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7009	7011	
1...	8593	1394464981	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7009	7011	
1...	8594	1394464981	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7009	7011	
1...	8595	1394465150	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	6145555003	7009	
1...	8596	1394465600	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	6145555003	7009	
1...	8597	1394465650	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7009	7011	
1...	8598	1394465650	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7009	7011	
1...	8599	1394465678	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7009	7011	
1...	8600	1394465678	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7009	7011	
1...	8601	1394465773	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7011	7009	
1...	8602	1394465773	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7011	7009	
1...	8603	1394465807	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	6145555003	7009	
1...	8604	1394466878	7011	F:\CallCopy\Recordings\TSAPI\20140310\7011\7011-...	S	7009	7011	
1...	8605	1394466878	7009	F:\CallCopy\Recordings\TSAPI\20140310\7009\7009-...	S	7009	7011	

Figure 2

Differences in ANI formatting can affect both standard call-survey linking and post-survey call-survey linking (see).

PBX Configuration

See your PBX documentation, Appendix: PBX Configuration Examples, or both for specific steps to perform the tasks mentioned in this section.

Configure VoIP/SIP Endpoints

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

> ⯑ Some of the customer guides to NICE Uptivity call recording integrations may contain useful information on SIP trunk configuration.

Configure DNIS and ANI

PBX configuration must include:

- A unique DNIS for each survey
- Call routing to send both direct calls (that is, toll-free calls from customers) and forwarded calls to Uptivity Survey
- A dial plan to pass the DNIS and the ANI (that is, the originating caller or the transferring agent's PBX number, either the agent or the extension) to Uptivity Survey

Configure Vectors

For most PBX types, vectors are used to direct calls. Vector programming requirements for Uptivity Survey differ depending on whether the agent transfers the caller to the survey or the caller is automatically transferred when the agent disconnects the call.

If callers are automatically transferred to the survey when the agent disconnects, the vector programming should include a variable to count transfers and cause the call to disconnect after the survey ends. Otherwise, a looping scenario can occur in which the call is redirected to the ACD, which then redirects it to the survey, causing a new survey to begin.

For an example of vector programming in an Avaya environment, see Program Vectors for Automatic Transfer.

Install and Configure Uptivity Survey

This section explains the tasks for the Uptivity team installing Uptivity Survey, which can be installed:

- On the same server as NICE Uptivity – Only the instructions in this section are needed

- On a separate server from NICE Uptivity –

  - Complete the instructions in this section

  - Install the NICE Uptivity **Logger** service (Logger.exe) and **CometDaemon**

  - On the server hosting the **Web Portal**, create a new server node and **CometDaemon** entry for the Uptivity Survey server

  - Add the Uptivity Survey server and both the **Logger** and **SurveyIVRFx** services to the **Service Manager** in the **Web Portal**.

- Without call recording – Complete the NICE Uptivity installation, skipping tasks for call recording

For related information, see the *NICE Uptivity Installation Guide* and online help.

Windows Server Tasks

Perform these tasks on the Windows server hosting Uptivity Survey.

Install the Survey Server Software

Uptivity Survey is included with the base NICE Uptivity installation package, but requires proper licensing. Run the installation wizard and select **Base Installation**. For more information, see the appropriate *NICE Uptivity Installation Guide*.

Register Survey as a Windows Service

The Uptivity Survey service is named cc_SurveyIvrFx.exe. It should be registered as a service on the Windows server. Open a Command Prompt window on the Windows server, change to the Recorder\SurveyIvrFx directory and run the following command:

```
cc_SurveyIvrFx.exe –svcinst –autostart
```

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

Configure the Survey INI File

The Survey INI file (cc_SurveyIvrFx.ini) should reside in the same folder as the executable, which is typically located in the Recorder\SurveyIvrFx directory. If the file is not present after installation, you will need to create it. The INI filename should always match the name of the executable it configures.

Survey INI settings and their default values (if applicable) are shown on the left in this table, with additional explanation of the settings detailed on the right.

[settings]	
ipaddress=127.0.0.1	IP address of the server running the SurveyIvrFX process.
audiopromptdirectory=	Path to audio prompt recordings. For details, see Specify Survey Audio Directory Settings.
audiorecordingdirectory=	Path to audio response recordings. For details, see Specify Survey Audio Directory Settings.
modules=	Comma-separated list of modules the IVR will load. This is used with survey linking. For Cisco TAPI, enter CiscoTapi. For Avaya or Cisco SIP trunk, this value should be blank. To configure a module, add the corresponding section shown below.

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 setting, used when you want to be able to have answers that are more than one digit.
repeatquestionafterinvalid=N	Used to repeat the question when an invalid digit is pressed. Requires an Invalid_Response file. Possible values: *Y* or *N*.

digittimeout=3000	Specifies the length of time (in milliseconds) Uptivity Survey waits if the respondent has to enter digits. This is an optional setting.
maxpromptbeforetimeout=3	Number of times the prompt will repeat before timing out. Default setting is *3*. Values of *0* or *1* both result in the prompt being played once.
temprecordinglocation=c:\temp_recordings	Temporary storage location while recordings wait to be transcoded.
invalidresponseprompt=	File location for the recorded prompt to be played when caller enters an invalid response, for example C:\Prompts\invalidresponse.wav.
seriouserrorprompt=	File location for the recorded prompt to be played when a serious error occurs, for example C:\Prompts\error.wav. The respondent hears the message but administrators are not informed of this error. Serious errors can occur for the following reasons: • There is no valid next question • Uptivity Survey can't determine what the last question played was • Uptivity Survey is trying to play a TTS (text to speech) message and can't get the TTS audio to play • Uptivity Survey encounters an error trying to record a customer response to a file • There is an error determining which survey to use (for example, the DNIS used to call the survey is not associated to any surveys)
repeatquestiondigit=	Digit or key that should be pressed by the customer to repeat a question.

[trunk]	
channels=0	Number of SIP channels.
localPort=5060	Local SIP port. The default value is *5060*; however, the NICE Uptivity **CTI Core** service also uses port *5060*. If Uptivity Survey and call recording are on the same server, Uptivity Survey must be configured to use a different port.
remotePort=5060	PBX port for SIP. The default value is *5060*; however, the NICE Uptivity CTI Core service also uses port *5060* for some integrations, such as Cisco TAPI. Check the SIP trunks on the PBX for port usage.
basertpport=36000	Initial RTP port for audio.
localaddr=	Resolving IP address for the server running Uptivity Survey (cannot be 127.0.0.1).
remoteaddr=	IP address(es) of the PBX(s) from which SIP traffic is coming. For multiple PBXs, enter each address separated by a comma. For Avaya Session Manager, enter the IP address of the Session Manager followed by the IP of the PBX (separated by a comma).
transporttype=UDP	Required setting that varies depending on the PBX. • Cisco can use either UDP or TCP • Avaya SIP requires TCP • ShoreTel and Asterisk use UDP • Avaya Session Manager requires TcpSharedPort
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.

Install and Configure Uptivity Survey

filechunksize=160	Setting for audio prompt playback. Leave at default value.
filechunkduration=20	Setting for audio prompt playback. Leave at default value.

Web Portal Tasks

Add the Application to the NICE Uptivity Service Manager

To add the service to the Service Manager:

1. Click **Administration** > **Tools** > **Service Manager**.

2. Expand the Server Node and click **Add Application**.

3. Under **Application**, enter the name of the service: **cc_SurveyIvrFx.exe**.

4. Select **Yes** from the drop-down list under **Auto-Restart** and then click **Save**.

Enable Survey Score Column in Call Lists

This task can be performed as part of the Uptivity Survey installation or by each user according to their preferences.

1. Click **Recorded Interactions** > **Call List** (or **Interactions List** if you use the HTML5 playback).

2. Click **Settings** in the upper-right corner.

3. Under **Other Columns**, select the box for **Survey Score.**

4. Click **Save**.

Uptivity Survey Call Linking (Optional)

This functionality is available only in specific environments. For details, see Survey Call Linking. You must obtain the correct script for the customer's environment from NICE Uptivity Survey Development prior to configuring this feature.

Install the Survey Linking 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. Copy the provided script into the folder.

Configure the Survey INI File for Survey Call Linking

These settings are required for all environments that use survey call linking. Browse to "\Program Files (x86)\CallCopy\Recorder\SurveyIvrFx" and open cc_surveyIvrFx.ini. For more information on this file, see Configure the Survey INI File.

Survey INI settings for survey call linking and their default values (if applicable) are shown on the left in this table, with additional explanation of the settings detailed on the right.

[scripting]	
folder=scripts	The folder local to the executable in which the script(s) are located.
eventfilter=	Comma separated list of events to filter out. <list> := <item>, <item>, <item>, ..., <item> <item> := <type> | <type>-<reason> <type> := numeric type code <reason> := numeric reason code specific to integrations The below example would filter out all events of type 1, and events that have type 2 with a reason of 8: **eventfilter=1,2-8**
maxprocesslength=60000	The maximum amount of time the event process thread is allowed to run before it is terminated.
recordingmatchcolumn=	This value must match the value from the script. When scripts match completed surveys to a recording via a match column, this is how the match column is configured. Possible values could include UCID (such as **user8**) or Agent ID (that is, **agent_number**). For **Avaya SIP**, to use the agent's number and not the caller's ANI to link surveys to calls, **device_id** is the preferred value.

Install and Configure Uptivity Survey

Only use the following settings when you are configuring survey call linking 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) before Uptivity Survey considers a line to have timed out.
probelinefrequency=0	How frequently (in seconds) Uptivity Survey probes the line caps to see if lines are valid.
tapieventtimeout=0	Determines whether or not Uptivity Survey hard fails 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 Uptivity Survey checks for closed lines (in seconds).
reopenattempt=0	How often Uptivity Survey allows 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).

Post-Survey Linker

Post-Survey Linker (PSL) is an additional means of linking call records and surveys. Linking is done after the call is recorded and the survey is completed. It can be used if:

- Linking was not performed when the Survey service was first used

- The Survey service could not complete the linking because the process was interrupted while the survey was being done

- The call recording record was not written to the database when the survey was completed. Uptivity Survey has to link the agent to the survey as it always adds the agent to the survey record. If the recording is not yet written to the database, Uptivity Survey cannot link the records.

PSL will attempt to link all surveys in the database that have the required data values. The time for this initial processing depends on the number of surveys in the database. The performance impact is minimal and can be controlled by INI file settings. Once PSL has checked a survey, it will not check the survey again.

PSL should be used as a supplemental, not primary, means of linking. The Survey service uses CTI data that assures most surveys/calls will be linked accurately. That CTI data is not available to the PSL service. The PSL service is also slower than the Survey service. Actual performance is system dependent.

No conflicts will occur if both Survey Call Linking and PSL are run on the same server. PSL does not try to link surveys that are already linked to a recording.

For PSL to work:

- Customers must understand the CTI data their ACD/PBX provides for the call and survey records. Not all CTI integrations provide the necessary data.

- The call recording script must be updated to remove all hyphens from the ANI values.

- PSL does not have to run on the same server as the Survey engine but should for ease of administration.

Talk to your inContact Survey deployment team if you are interested in Post-Survey Linker.

Configure the Post-Survey Linker INI File

PSL initialization settings are stored in the PostSurveyLinker.ini file. These settings **must** be configured for the proper operation of the service. The file should be located in C:\Program Files (x86)\CallCopy\Recorder\PostSurveyLinker.

> ⚏ If the PostSurveyLinker folder is not present after you run the NICE Uptivity installation wizard, you may need to obtain it from NICE Uptivity Support and copy it to the Recorder directory.

You must configure at least one linking method. You can use all methods, and you can use multiple instances of a method. PSL uses the first method that matches a survey/call records' data. Therefore, methods should be entered in the INI file from most preferred to least preferred.

These methods can be used:

- **SurveyStartTimeAndMatchColumnToSurveyANI —** Matches survey start time/call record end time and a configured match column from the Recordings table. It must match both settings to link. For example, if the survey starts five seconds after the call end and the threshold is set to 10, but the matchColumn value doesn't produce a match, the survey and call are not linked. The opposite is also true: if the column matches but the time threshold is not valid, no linking occurs. The settings required for this method are:
  - recordingTimeTolerance=10
  - matchColumn=

- **SurveyStartTimeAndAgentID —** Matches survey start time/call record end time and Agent ID. The setting required for this method is:
  - recordingTimeTolerance=10

The suggested time tolerance is 10 seconds. PSL will search plus-or-minus by this value. For example, if the tolerance is set to 10 seconds, PSL will search for surveys to link that have start times within ten seconds before or ten seconds after the end of the call. The wider the range, the less accurate the results may be. Also, if the server running Uptivity Survey is not time-synched to the server running NICE Uptivity, or is in another time zone entirely, linking will be difficult if not impossible. The match column can be any column from the call recordings table. The suggested column is Device ID or ANI.

Post-Survey Linker INI settings and their default values (if applicable) are shown on the left in this table, with additional explanation of the settings detailed on the right.

[postSurveyLinker]	
maxSurveysReturned=	Limits the number of records queried from the database. Looks for oldest records first and tracks the last record checked. This check persists through any shutdowns. Value is stored in a local file which can be deleted if you want to re-run PSL.
Period=	Frequency (in minutes) that PSL checks for survey records.
linkMethods=	Number of link method entries in the ini file. If this value is less than the number of configured methods, some methods will not be used. For example, if this value is two and three methods are configured, only the first two will be used.
[linkMethod_0] (additional, numbered linkMethod sections can be included, such as linkMethod_1, and so forth)	
type=	Possible value: one of the linking methods (SurveyStartTimeAndMatchColumnToSurveyANI or SurveyStartTimeAndAgentID).
recordingTimeTolerance=	Required for either linking method. Defines (in seconds) a length of time between the end of a recorded call and the start of a survey. See the introduction to this section for details.
matchColumn=	Required when type=SurveyStartTimeAndMatchColumntoSurveyANI. Defines a field in the recordings table to evaluate for possible matches between a recorded call and a survey. See the introduction to this section for details.

Install and Configure Uptivity Survey

Post-Survey Linker should be registered as a service on the Windows server as follows:

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

```
PostSurveyLinker\postSurveyLinker.exe –svcinst -autostart
```

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

To add Post-Survey Linker to the **Service Manager**:

1. Click **Administration** > **Tools** > **Service Manager**.
2. Expand the Server Node and click **Add Application**.
3. Under **Application**, enter the name of the service: **postSurveyLinker.exe**.
4. Select **Yes** from the drop-down list under **Auto-Restart** and then click **Save**.

Permissions

You must be granted permissions to work with surveys. If you need to work with Uptivity Survey and are unable to do so, consult your application administrator.

> ⧉ Group permissions are not enforced by Uptivity Survey. A user who has access to Uptivity Survey reports can see survey results for any agent.

The following components need Windows-level permissions:

- **IIS account running NICE Uptivity Web Portal**: Read/Write permissions to the Audio Prompt Upload Directory and the Audio Recording Directory. If Uptivity Survey is installed on a **separate server** from the **Web Portal**, the IIS account must be a service account with explicit read/write access to the prompts and recordings directories on the Uptivity 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 Uptivity Survey installation wizard establishes the needed permissions for the database and other NICE Uptivity modules.

Auditing

Uptivity Survey relies on auditing functions in NICE Uptivity. No specific survey-related actions or data are tracked.

Encryption

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

Archiving

Audio files used and created by Uptivity Survey are not archived.

Uptivity Survey Administration

Manage DNIS Values

A DNIS is a unique identifier that the PBX sends to Uptivity Survey. 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.

Configure DNIS Values

To add DNIS values:

1. Click **Administration** > **Add-Ons** > **Surveys** > **DNIS List**.

2. Click **Add**.

3. On the new line, enter values under **DNIS** and **Comment**. The comment can be a client name or some explanation of how the DNIS will be used in the survey work.

4. Click the Save 💾 icon.

To edit or delete DNIS values, follow the same procedure but click the Edit 🖊 icon or the Delete ✖ icon at step 3.

Import Multiple DNIS 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 DNIS 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 file can be created in Microsoft Excel. Some telephony equipment will export DNIS data as a file.

To import a CSV file of DNIS values:

1. 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 (that is, it is a DNIS/Comment value), clear the **File contains a header row** checkbox.

5. Click **Upload File**. Review the records that are ready for importing.

6. If any of the records are not correct, click **Cancel**, then edit the file and repeat the import. Otherwise, go to step 7.

7. If the records are correct, click **Import**.

Specify Survey Audio Directory Settings

Uptivity Survey requires these two directories, and the application must have Create/Write permission for both:

- **Audio Prompt Upload Directory:** This is the location where messages and prompts are stored. Uptivity Survey does provide some text-to-speech functionality if you do not provide recorded audio prompts. However, best practice is to use recorded human voice prompts for improved understanding and better response rates.

- **Audio Recording Directory:** This is the location where customer feedback recordings are stored.

To specify these directories:

1. Create the directories in the file system (for example, C:\SurveyPrompts). Uptivity Survey does not require specific names for these directories.

2. Click **Administration** > **Add-Ons** > **Surveys** > **Survey Settings**.

3. Enter full path names for both directories.

4. Set the **Survey Audio Format** value to *SIP*.

5. Click **Save**.

Survey Forms Listing

The **Survey Forms Listing** screen displays when you click **Surveys** > **Manage Surveys**. It provides a list of surveys in your system, as shown above, and enables you to do the following tasks.

- The default view shows all active surveys in the system. You can alter this view by using the **Filter by Status** drop-down. The choices available are *All*, *Active*, *Disabled*, and *In Progress*.

- Clicking the **Edit** button to the left of the survey name will launch the **Survey Editor**. For details, see Create Survey.

- To quickly change the status of a survey from *Disabled* to *Active* (or vice versa), select/clear the check box in the **Status** column. Uptivity Survey status can also be changed in the **Survey Editor**.

- 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 **Survey Editor**. Custom forms are not supported.

Create Survey

> ⬚ Uptivity Survey auto-saves forms while you are working on them. The **Save Draft** and **Save** options identify any missing required field data.

inContact recommends creating survey questions, responses, and actions on paper before trying to create the survey in Uptivity Survey. Each survey you create should have a unique, descriptive name. inContact recommends that the name also incorporate a version number.

Uptivity Survey content is organized by section, question, and response. A survey must have at least one section, and all questions can be placed in that section. Using multiple sections can help you organize longer surveys. This image shows the section, question, and response portion of the **Survey Editor**.
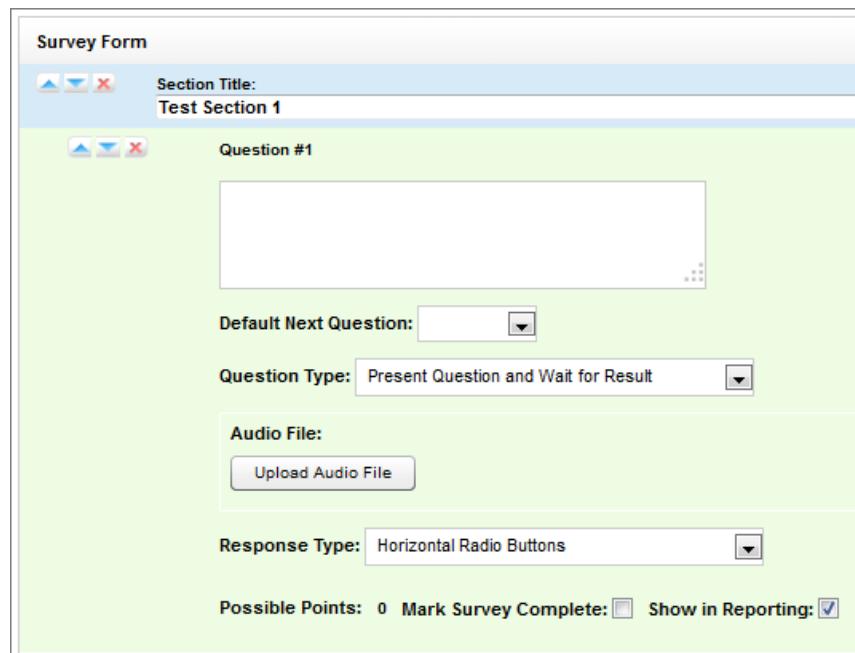
You can use the ▲▼✕ buttons to reorder or delete sections and questions.

You may need to allow for these special circumstances:

- **Invalid Responses** — You can record a WAV file called Invalid_Response and place it in the Prompts folder in the same directory as the Uptivity Survey executable. When Uptivity Surveys is configured with the **Repeat Question After Invalid** setting as **Yes**, this file will play and the question will repeat whenever the caller enters a digit that is not in your list of valid responses. For related information, see Configure the Survey INI File.

- **Question Repeats** — Sometimes callers may want to have a question repeated. You can accomplish this by instructing them to enter a digit that is not on your list of valid responses, which will force them into the Invalid Response protocol. Be sure that your recorded Invalid_Response message takes both scenarios into account so that callers are not confused.

To build your survey in Uptivity Survey:

1. Click **Surveys** > **Create Survey**.

2. Enter a **Survey Name.**

3. **Optional:** Enter a **Description**.

4. Enter the **Min Percentage Threshold** and **Max Percentage Threshold**. 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. For **Recording Format**, select *GSM* from the drop-down list. This specifies the format of files produced when the customer records a verbal answer. GSM (a highly-compressed WAV format) is the only supported format is GSM.

   > ⬚ For more information on where these recordings are stored, see Specify Survey Audio Directory Settings. A new folder is automatically created for each survey and numbered according to the number of survey forms created (that is, the tenth survey is placed in a folder numbered "10").

6. In the **Available DNIS** field, select the number(s) from which calls will be directed to this survey. Click the right-facing arrow ➡ to move the number to the **Attached DNIS** field or the left-facing arrow ⬅ to remove numbers from the **Attached DNIS** field.

7. Click **Add New Section**.

8. Enter a **Section Title**.

9. Click **Add New Question**.

10. Enter the text of the question in the text box. Enter the text of the question in the text box. If an audio file for the question cannot be found, Uptivity Survey will use text-to-speech functionality to deliver the question to the caller. For example, say your question is, "Were you satisfied with our service?" but you enter "Question Four" in this field and forget to upload an audio file. When a caller takes the survey, they would hear a computer-generated voice say, "Question Four".

11. **Optional**: Select a value from the **Default Next Question** drop-down list to specify the next question that will be presented in the survey.

12. Select a **Question Type**. For additional information about question types and corresponding response options, see Question Types.

13. Click **Upload Audio File** and navigate to the file with the question. This is the location of the recording audio file that will be stored in the Audio Prompt Upload Directory.

14. **Response Type** is not used by audio-based surveys.

15. **Optional**: Select the **Mark Survey Complete** checkbox.

> **Example**: You have a five question survey, but the fifth question is optional. You should select this checkbox for the fourth question. Otherwise, if the customer hangs up after Question 4, Question 5 would be scored as 0 out of the possible points. In addition, any survey not reaching Question 4 would be marked as "incomplete" and reporting results will not be accurate.

16. **Optional**: Clear the **Show in Reporting** checkbox if you do not want this question included within the reporting values. Since the system considers greetings, closings, or transitions without responses to be "questions", you may want to clear this checkbox for these items. Otherwise, this question will display with no data responses.

> ⓘ **Possible Points** is auto-calculated where applicable based on the list of responses.

17. Complete work on the survey by doing one of the following:
    a. Click **Export** to export the survey form as an XML file.
    b. Click **Delete** to remove in-progress forms while you're working on them. Do **not** delete forms that have been used; instead, disable them. For related information, see Survey Forms Listing.
    c. Click **Save Draft** to save your form and list it as *In Progress* in the **Survey Forms Listing**.
    d. Click **Save** to save and close the form, after which it will appear in the **Survey Forms Listing**.

Uptivity Survey Administration

Question Type	Used To:	Response Values
Present Question and Wait for Result	1. Convey greeting, closing, instructions, or other information, and automatically advance after a wait period (defined at the time of installation in the settings.ini file) 2. Present a question and wait for touch-tone input	**Response Text:** E:nter the text of the response **Point Value:** (optional) **DTMF:** touch-tone input value for response (for example, 1 for Yes, 2 for No, and so on); each response must have a unique DTMF value **Next Question:** Allows you to direct the survey based on response (for example, Yes leads to Question 3, No to Question 4)
Collect Customer Information	Allow the customer to leave detailed feedback in the form of a recording. Recording length is bound only by available disk space. Recording continues until customer disconnects or presses "#" as instructed in your question audio file. Voice recordings are playable from within reports, can be accessed from the Audio Recording Directory, or both. For related information, see Beep Tone.	
Collect Digits	Allow the customer to leave a string of numeric values (such as transaction number or customer ID) using a touch-tone keypad. Uptivity Survey advances when the caller presses "#" as instructed in your question audio file, or after the wait period (defined at time of installation in the settings.ini file)	
End Survey	Convey closing message. Call automatically disconnects after execution of this audio file.	

Threshold Branch	Direct respondents to specific questions based on cumulative score of earlier responses. Requires no audio file. Transparent to caller. Typically not appropriate for the **Mark Survey Complete** option. An example of this type of question and the associated logic is shown in the next section.	**Negative Percentage Threshold:** Surveys with current percentage below this value are negative (current accumulated points/current total possible points) **Positive Percentage Threshold:** surveys with current percentage above this value are positive (current accumulated points/current total possible points) **Negative Next Question:** Next question for surveys at negative threshold **Neutral Next Question:** Next question for surveys between thresholds **Positive Next Question:** Next question for surveys at positive threshold

Threshold Branch Example

In this example, the survey is designed so that, if the technician's technical skills were not satisfactory, the caller is asked to leave verbal feedback and the survey ends immediately thereafter (see Figure 1). If the technician's technical skills were satisfactory, the caller is presented with another question prior to the survey's conclusion (see Figure 2).

Figure 1

Figure 2

　　　　　　　　　　　　　　　　NICE Uptivity Survey for SIP Environments

Search Attempted Surveys (Form Search)

If you have permission to view surveys, you will also be able to search for surveys which have been offered and wholly or partially completed. You can refine your search based on one or more of the following:

- **Survey** — Name of the survey.

- **Start Date** — Click the calendar icon to set a start date for a search period.

- **End Date —** Click the calendar icon to set an end date for a search period.

- **Record ID** — Each attempted survey is assigned a unique identification number by the system. If you know this number, you can search for a specific survey by entering that ID number here.

- **DNIS** — Enter the number(s) attached to the survey.

- **ANI —** To limit your search to surveys delivered to a specific caller, enter the ANI (CallerID) information here. Availability of ANI information is dependent on your telephony system. If the caller is manually transferred to the survey by an agent, the ANI may not reflect the original CallerID.

- **IP Address** — This field is not used.

- **Agent Name** — To limit your search to surveys associated with a specific agent, enter the agent's name here.

To search for surveys:

1. Click **Surveys** > **Form Search**.

2. Enter search criteria.

3. Click **Search**.

Uptivity Survey Reports

Uptivity Survey includes a number of pre-built reports, called Printable Reports. You can also use ad hoc reporting functionality to build reports using survey data. You must have appropriate permissions for reporting. For more information on permissions, talk to your NICE Uptivity application administrator or search online help for keyword *permissions*.

Reporting functionality, including how to generate printable reports and create ad hoc reports, is covered in online help for NICE Uptivity (select **Reporting** from the top-level menu). This section provides a reference to the reports specific to Uptivity Survey.

The **Survey Reporting** screen lists the available Printable Reports. The **Date Created** column shows the date that the template for the report type was created in the system.

Survey Detail Report

The **Survey Detail** report shows complete responses for one or more survey respondent(s) and also provides information about the respondent, such as DNIS and ANI.

> ⚐ IP Address is not used at this time.

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

Survey Detail Summary Report

The **Survey Detail Summary** 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 Report

The **Survey Overview** report calculates the shown categories for each survey form in a time period. Positive, negative, and neutral ranges are defined on the Uptivity Survey form. 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 Overview - 9/27/2011   CallCopy Recorder Reporting Service   Page 1 of 1

Survey Summary Report

The **Survey Summary** report calculates the shown categories for all surveys in a time period, and displays them on a per-survey basis. If a survey form does not have any responses, it does not appear on the report.

- **Score —** Total score of survey responses and 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 their 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
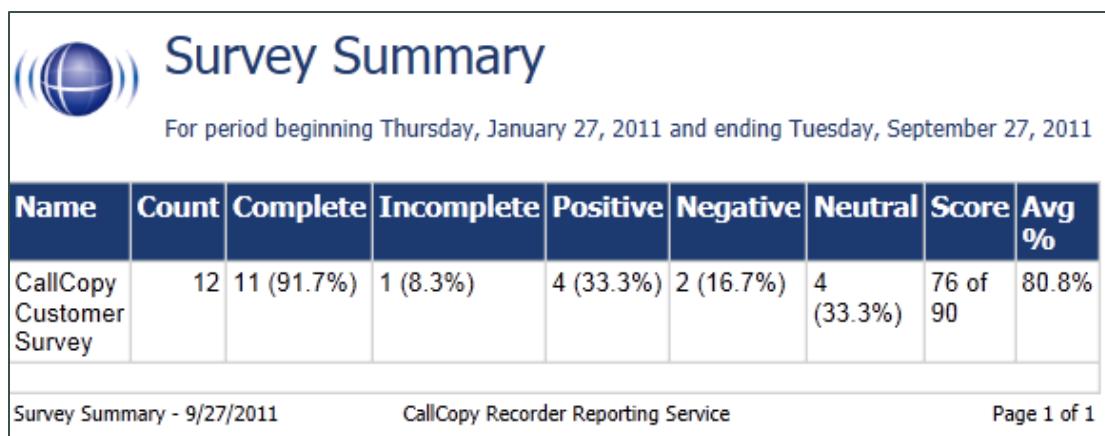
Survey Summary

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 - 9/27/2011   CallCopy Recorder Reporting Service   Page 1 of 1

Survey Summary by Agent Report

Survey Summary by Agent 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** — Total scores for all forms by agent as shown below

- **Form** — Scores by form and total scores for all forms for each agent

- **Section** — Scores for each section on the form

- **Question —** Scores for each question in each section on each form

Survey Summary by Question Report

The **Survey Summary by Question** report provides a count of each given response to each of the questions in a survey form. You can select a date range, the survey form to evaluate, DNIS/ANI numbers, and survey completion status. For each form evaluated, the generated report displays the number of surveys completed and average score, followed by counts and score percentages for each question in the form. The **Survey** field is required.

Survey Summary by Response

Survey Summary by Response helps you 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. This report works well with surveys where one question addresses a respondent's overall opinion of a product or service, and follow-up questions elicit the reasons or factors for that overall opinion.

For example, a car satisfaction survey may be designed where customers who purchased any new car within the last year are surveyed. One question asks 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

In both cases, the car had to be repaired. However, the results suggest that satisfaction with the purchase was influenced 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, if 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** value would be *6*.

- **Possible Score** — Number of response options multiplied by the point value for a response

- **Percentage** — Score / Possible Score

This report can be run for all questions except *Collect Customer Information* questions. Because this question type allows customers to leave a recorded voice message as a response, Uptivity Survey cannot include the response in any type of calculation. If you inadvertently include a question of this type as you build this report, Uptivity Survey will not populate the **Response** field and attempting to run the report generates the error message, "Response value must be selected."

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 for 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%

Survey Summary by Response - 8/8/2012   CallCopy Recorder Reporting Service   Page 1 of 2

NICE Uptivity Survey for SIP Environments

Appendix: PBX Configuration Examples

This section provides screen images of PBX configuration examples for SIP trunks used with Uptivity Survey. This is **not** an all-inclusive list and inContact makes no guarantees that these configurations will work in your scenario. You should always use documentation from your PBX manufacturer to configure PBX settings. Consult your PBX support or vendor for specific questions regarding your installation.

Cisco

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

Appendix: PBX Configuration Examples

Set Route Pattern
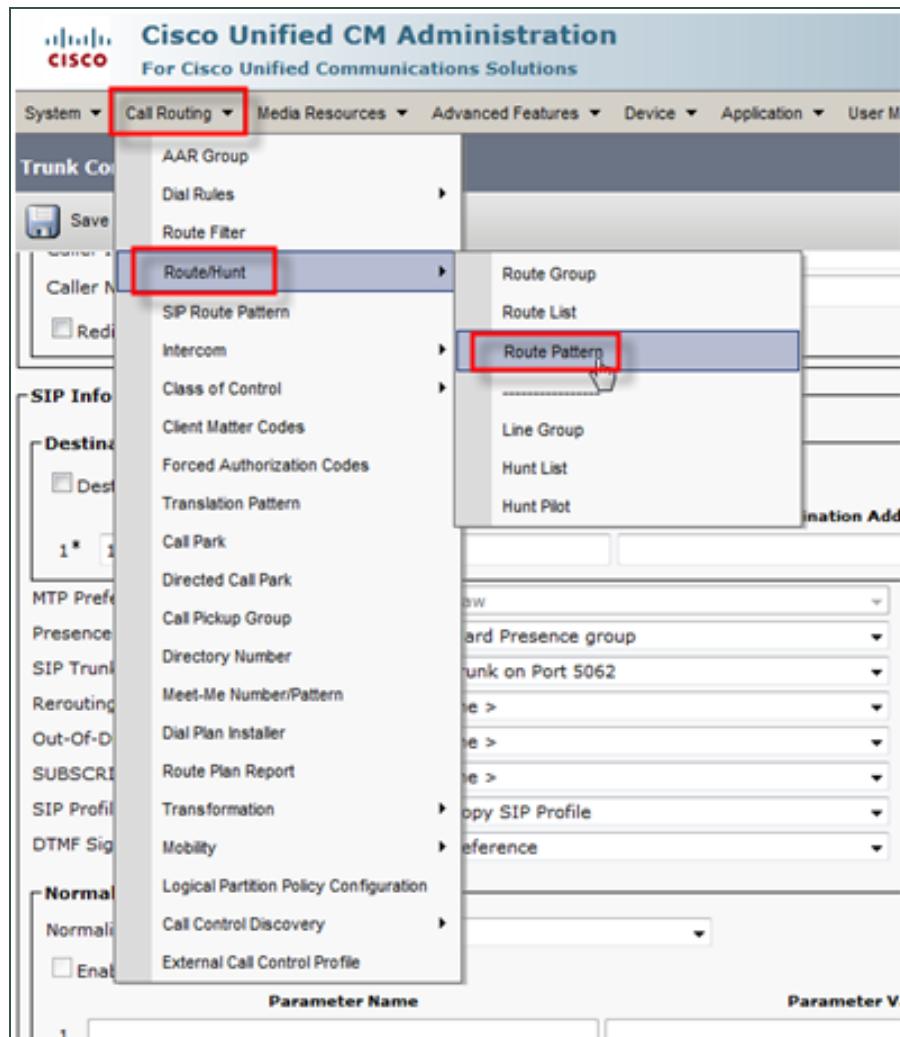
NICE Uptivity Survey for SIP Environments

Status

(i) 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

Appendix: PBX Configuration Examples

Set SIP Trunk Security Profile

NICE Uptivity Survey for SIP Environments
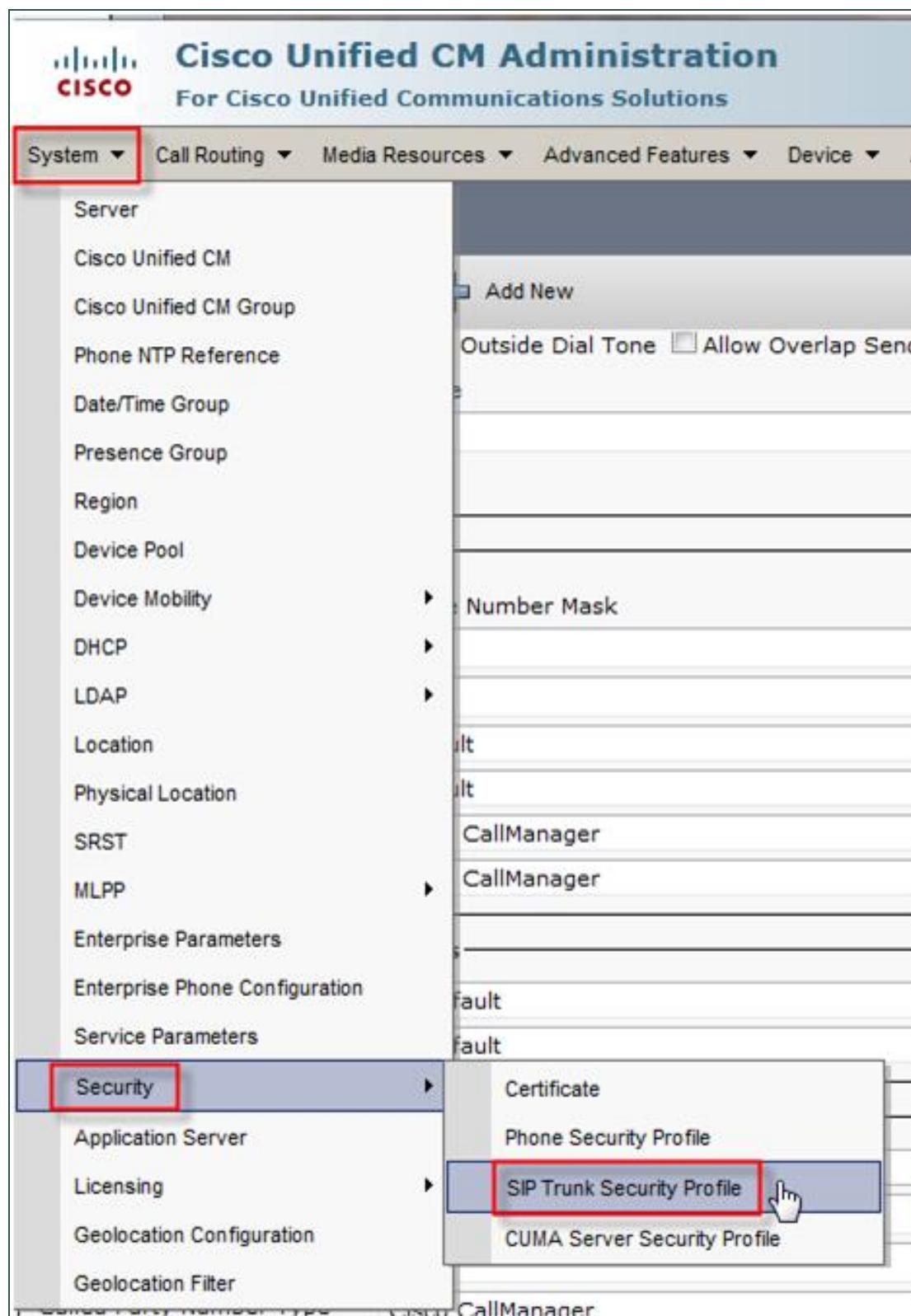
The default TCP port for Uptivity Survey is 5060. In the following image, an alternate TCP port (5062) is used. Alternate ports are sometimes required to avoid port conflicts. Ask your deployment team if this applies to you.

Status

ⓘ Status: Ready

SIP Trunk Security Profile Information

Name*	Sip Trunk on Port 5062
Description	
Device Security Mode	Non Secure ▾
Incoming Transport Type*	TCP+UDP ▾
Outgoing Transport Type	UDP ▾
☐ Enable Digest Authentication	
Nonce Validity Time (mins)*	600
X.509 Subject Name	
Incoming Port*	5062

☐ Enable Application Level Authorization
☐ Accept Presence Subscription
☑ Accept Out-of-Dialog REFER**
☐ Accept Unsolicited Notification
☐ Accept Replaces Header
☐ Transmit Security Status

[Save] [Delete] [Copy] [Reset] [Apply Config] [Add New]

ⓘ *- indicates required item.

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

Appendix: PBX Configuration Examples

Configure SIP Profile

Configure Trunk

Avaya SIP

Create Node

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

Appendix: PBX Configuration Examples
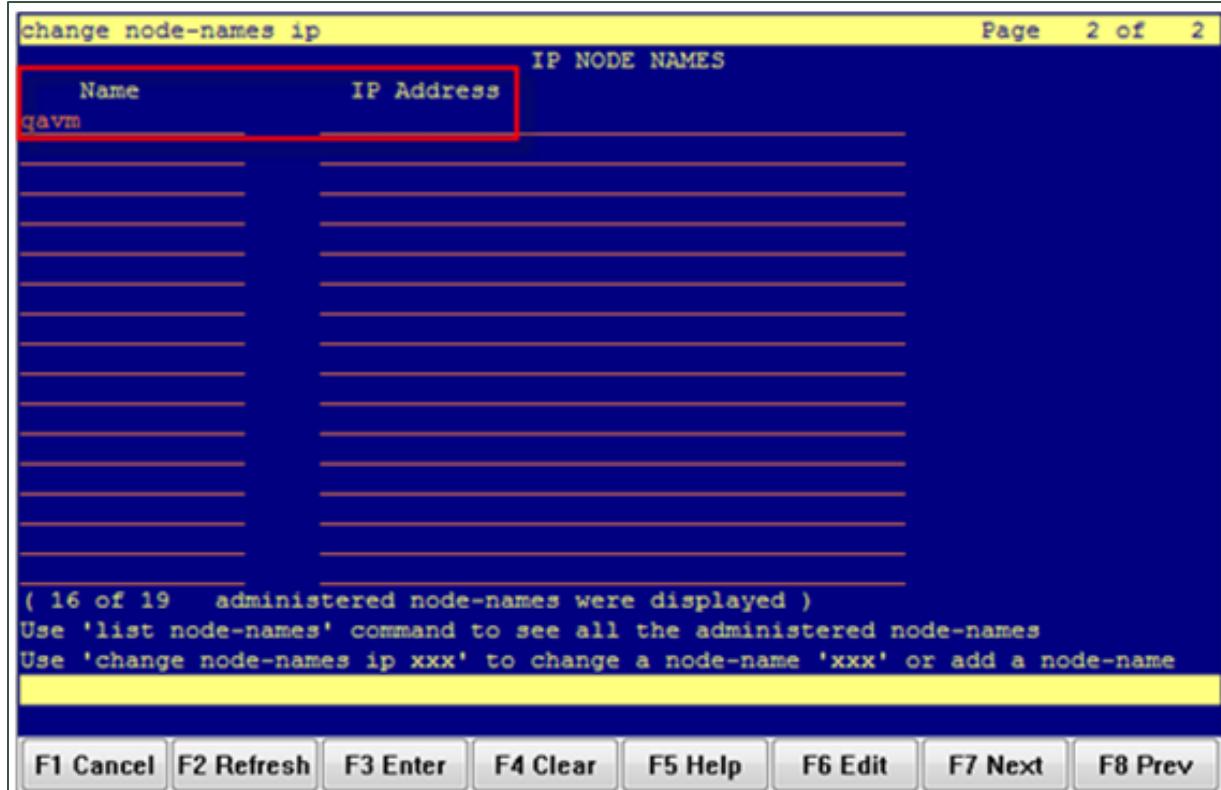
Create Signaling Group

Transport Method — TCP

Near-end Node Name — procr

Far-end Node Name —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.

> ⊡ If your organization deploys Uptivity Survey and NICE Uptivity Call Recording on the same server, an alternate port may have been used to avoid port conflicts. Ask your deployment team if this applies to you.

```
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:


                                       Bypass If IP Threshold Exceeded? n
 Incoming Dialog Loopbacks: eliminate               RFC 3389 Comfort Noise? n
          DTMF over IP: rtp-payload        Direct IP-IP Audio Connections? y
 Session Establishment Timer(min): 3            IP Audio Hairpinning? n
          Enable Layer 3 Test? n            Direct IP-IP Early Media? n
 H.323 Station Outgoing Direct 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 your 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 |

Appendix: PBX Configuration Examples

Create Route Pattern

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

FRL — 0

NPA — Local area code

Set ARS Digits

Dialed String — DNIS numbers associated with surveys. You can represent a range (42xx means 4200 through 4299) or list individual DNIS numbers on this page.

Total Min/Max — Number of accepted digits for dialed string.

Route Pattern — Same as Pattern Number from previous screenshot.

Call Type — locl (allows dialing just an extension to forward to survey rather than a full 11-digit number)

ANI Reqd — Yes

Appendix: PBX Configuration Examples

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
```

Program Vectors for Automatic Transfer

This screen provides values for creating a vector variable to ensure the caller is disconnected when the survey ends (instead of redirected to the ACD).

```
display variables                                        Page  39 of  39
                         VARIABLES FOR VECTORS

Var Description                Type    Scope Length Start Assignment     VAC
ZI
ZJ
ZK
ZL
ZM
ZN
ZO
ZP
ZQ
ZR
ZS
ZT
ZU
ZV
ZW
ZX
ZY
ZZ   uptivity repeat issue       collect P      1       1
```

This example shows a vector used to transfer an incoming call to an agent. When the caller is to be transferred to the survey automatically upon agent disconnection, the **Variables** field must be set to **y** and the **VDN Return Destination** must be set to the vector or number that forwards the caller to the survey (not shown in this screen capture).

```
display vector 984                                       Page   1 of   6
                            CALL VECTOR

    Number: 984                 Name: Test CC Queue
Multimedia? n       Attendant Vectoring? n    Meet-me Conf? n         Lock? n
    Basic? y    EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y   ASAI Routing? y
 Prompting? y    LAI? y   G3V4 Adv Route? y   CINFO? y    BSR? y   Holidays? y
 Variables? y    3.0 Enhanced? y
01 #     Test Call Copy and Survey
02 set           ZZ      = none    ADD    1
03 queue-to      skill 12    pri l
04 wait-time     60   secs hearing music
05 announcement  01221
06 wait-time     90   secs hearing music
07 goto step     4               if unconditionally
08 stop
09
10
11
12
```

Appendix: PBX Configuration Examples

This example shows a vector that routes the caller to the survey and increments the variable. If the variable is greater than one (in other words, the user has been directed to the survey before), the caller is disconnected.

```
display vector 99                                              Page   1 of   6
                             CALL VECTOR

        Number: 99                 Name: Survey Return
Multimedia? n        Attendant Vectoring? n      Meet-me Conf? n           Lock? n
        Basic? y    EAS? y    G3V4 Enhanced? y    ANI/II-Digits? y    ASAI Routing? y
    Prompting? y    LAI? y  G3V4 Adv Route? y    CINFO? y    BSR? y    Holidays? y
    Variables? y    3.0 Enhanced? y
01 #     Return Destination For Appointment Center Survey
02 wait-time    1    secs hearing silence
03 goto step    6              if ZZ              >      1
04 set          ZZ     = ZZ      ADD    1
05 route-to     number 09650            with cov n if unconditionally
06 disconnect   after announcement none
07 stop
08
09
10
11
12
```

Avaya Session Manager

Screenshots in this section are taken from the web interface for Session Manager v6.3 on an Avaya Aura PBX. Uptivity Survey must be v5.6 or later. The integration has been tested with Session Manager and Communication Manager v6.3.

1. Log into Session Manager with an appropriately-permissioned account.

2. In the Elements section, click **Routing**.
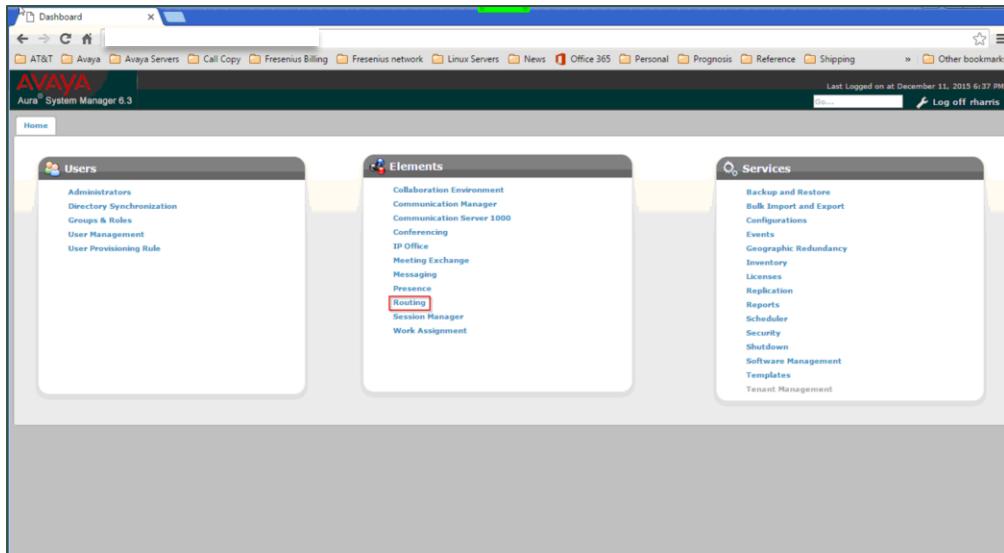
3. Click **SIP Entities**.
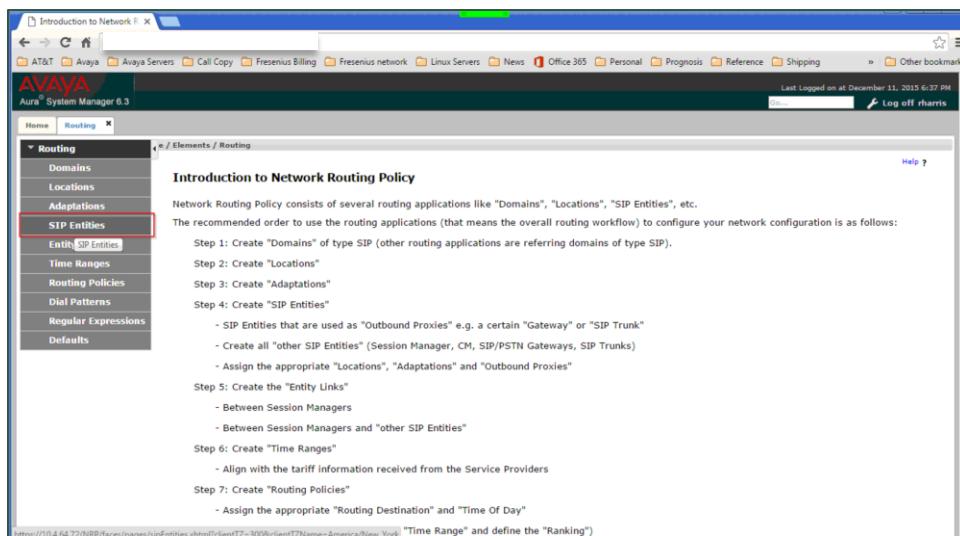
4. Click **New**.
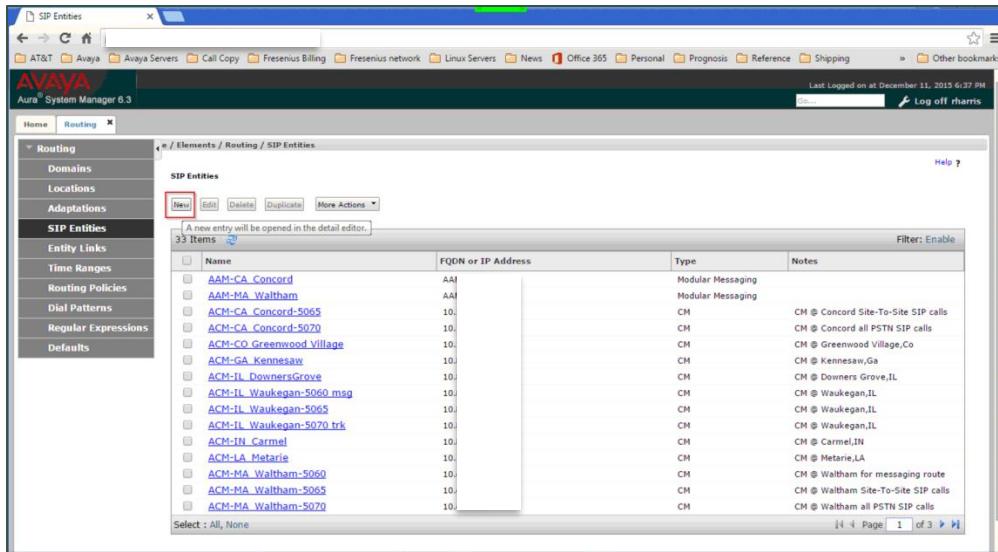
5. Complete the fields as indicated in this image. The fields framed in red will vary for each customer.
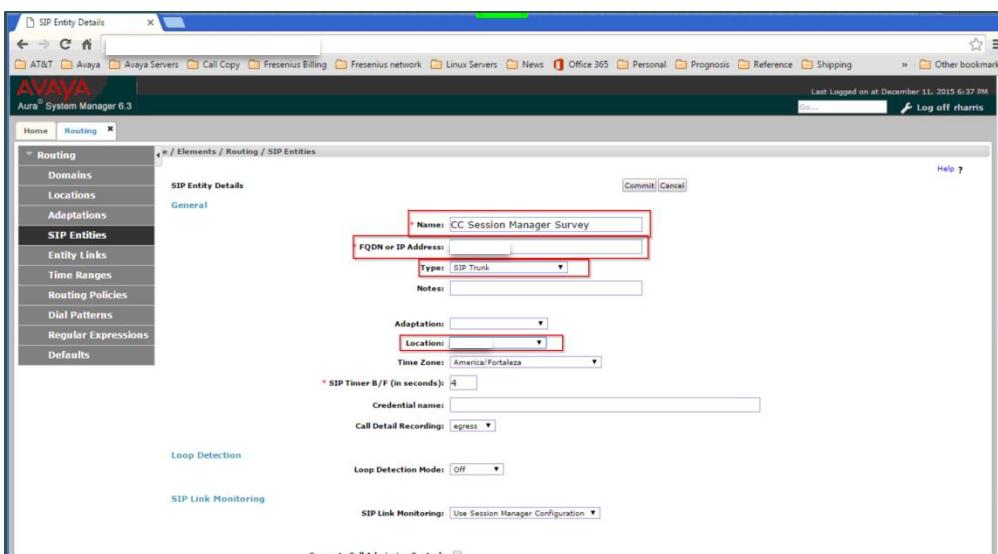
6. Click **Commit**.

7. Click **Entity Links** and complete the fields as indicated in this image. The fields framed in red will vary for each customer.
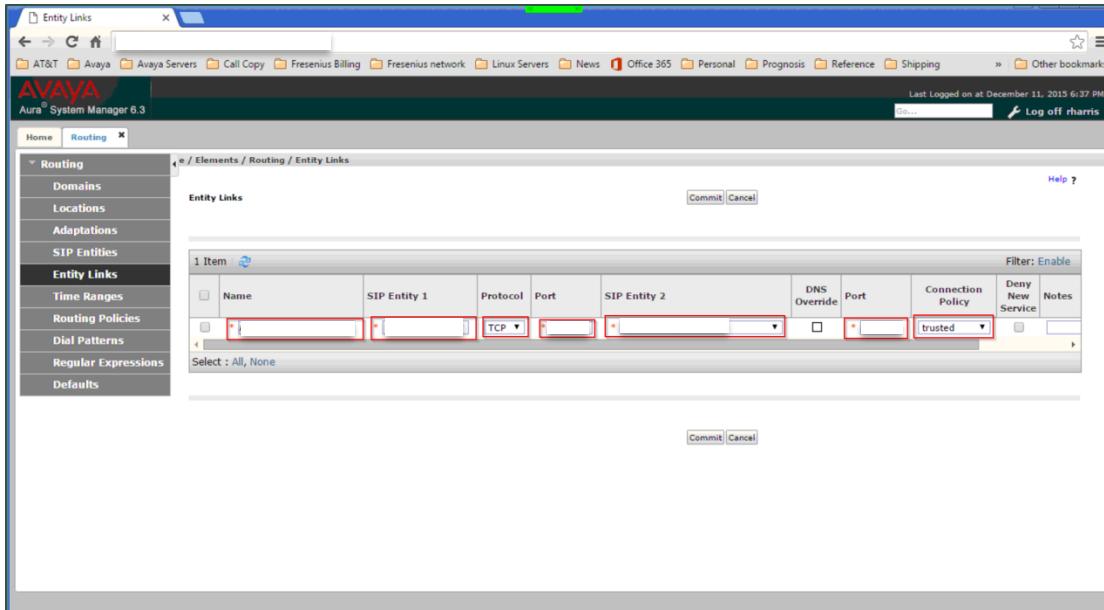
8. Click **Commit**.

9. Expand **System Status** and click **SIP Entity Monitoring** to verify that the link between Session Manager and the Survey server is present.

You can confirm that Session Manager has been configured correctly by running a trace and viewing the traffic between Session Manager and the Uptivity Survey server. The following image shows an example of successful communication.