UPTIVITY SPEECH ANALYTICS ADMINISTRATION GUIDE, V5.5.1

February 2015

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Version:	5.5.1
Revision:	February 2015
About inContact:	inContact (NASDAQ: **SAAS**) is the cloud contact center software leader, helping organizations around the globe create high quality customer experiences with a complete workforce optimization portfolio (WFO). Key portfolio offerings are **inContact Discover WFO** (tightly integrated with the core platform and completely available in the cloud) and **Uptivity Discover WFO** (comprehensive, premise-based WFO that integrates with a wide variety of telephony and contact center solutions). The portfolio also includes the WFO Suite powered by Verint®, ECHO ™ Customer Feedback Survey, inView ™ Performance Dashboard. inContact is the only provider to combine cloud software with an enterprise-class telecommunications network for a complete customer interaction solution. Winner of Frost & Sullivan 2012 North American Cloud Company of the Year in Cloud Contact Center Solutions, inContact has deployed over 1,300 cloud contact center instances. To learn more, visit **www.inContact.com**.
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Table of Contents

Introduction

Audience

This document is written for system administrators, managers, supervisors, analysts, and others who will use Uptivity Speech Analytics on behalf of their organizations. Readers should have a basic level of familiarity with general networking, usage of a PC and its peripherals, the Windows operating system, the Uptivity Discover WFO Software Suite, and speech analytics theory.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to configure and use Uptivity Speech Analytics. Information is presented in the following order:

- Overview of Uptivity Speech Analytics

- Configuration of Uptivity Speech Analytics for the user organization

- Uptivity Speech Analytics Reporting

This document is NOT intended as a specific system or network design document, nor does it provide guidance or best practices for implementing speech analytics (for the latter, see the inContact document *Developing an Analytics Program*).

Assumptions

This document assumes that Uptivity Discover has already been installed and configured, and calls are being recorded correctly in your environment.

Need-to-Knows

Uptivity Speech Analytics uses the Discover database and Web Portal. You may find it helpful to refer to the *Uptivity Discover Web Player Manual* if you have questions about Web Portal usage.

Custom Terminology settings may affect may cause screen examples and field names used in this manual to differ from those seen in your implementation.

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

Uptivity Speech Analytics Overview

Uptivity Speech Analytics is a phonetics-based speech analytics solution that identifies phonemes (i.e., the smallest unit of sound) in call recordings. United States English speech consists of 40 phonemes. United Kingdom English speech consists of 44 phonemes. The five phonemes "g r ei d ei" sound like "Grade A" or "Grey Day". Speech analytics compares the phonemes to search key words and phrases and generates reports based on the search results.

These diagrams illustrate the product's components and their interactions. The table following the diagram provides additional detail on each component. Speech analytics must be installed on a dedicated server separate from the call recording and web portal. This diagram shows it installed on a single server.
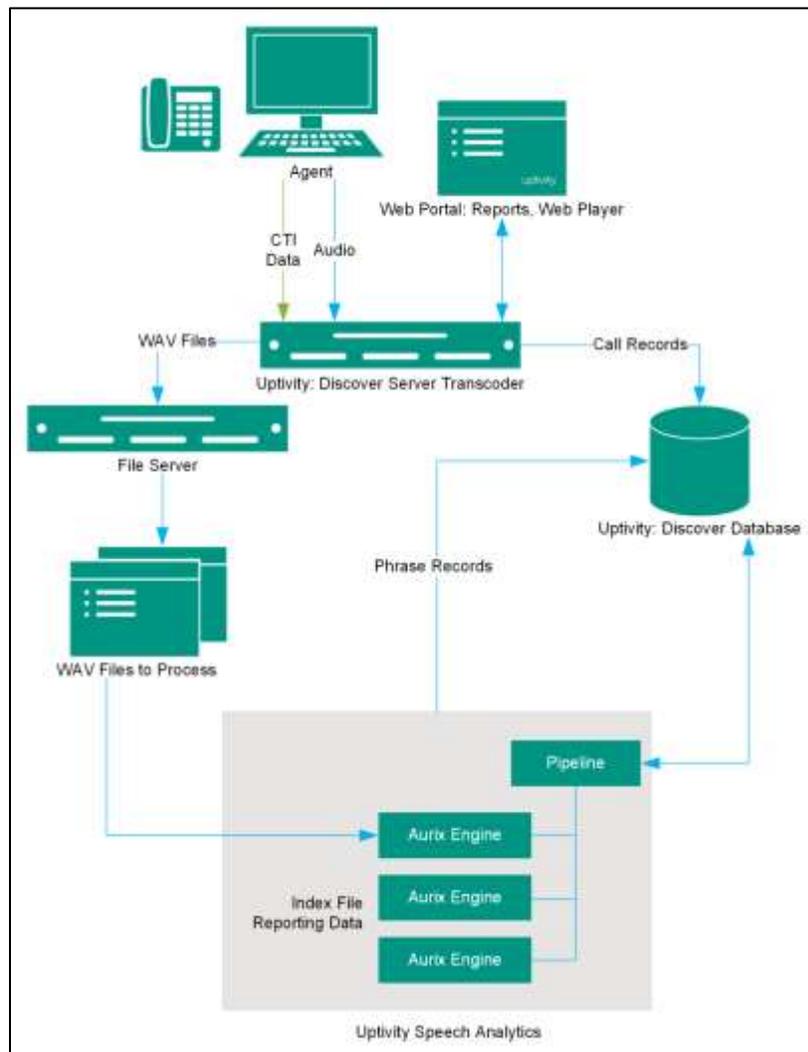
Uptivity Speech Analytics Overview

This diagram shows two speech analytics servers performing specific tasks: creating index files from audio and searching for tags in index files. A server can also be dedicated to call classification. Dedicating servers to specific tasks may increase performance.

Uptivity Speech Analytics Administration Guide, v5.5.1

Component	Function
Uptivity Discover Server	Records the audio and creates the raw call audio files. Manages the writing of files to the file server. Creates call record files in the database. In this scenario, the Discover Transcoder module creates two call audio WAV files from the raw files. One file is used for QM and reporting; the other file is used for Speech Analytics.
Discover Database	Stores call records associated with call audio WAV files. Tracks which call audio files are ready for processing by the speech search engine and which ones have been processed. Stores phrase records created by the speech search engine and associated with a call record. Phrase records contain: • Call recording ID • Tag ID • Phrase matched • Confidence of match • Start time of phrase in call record • End time of phrase in call record • Whether call audio file search/indexing has been started or completed
File Server	Location of call audio WAV files with content that is analyzed. WAV files can be copied to the Speech Analytics server for indexing. This approach improves performance and reduces issues that may occur when reading large audio files over the network. Index files can be stored on the file server or on the Speech Analytics server. If they are stored with the call audio on the file server, an archive action can be created to archive or delete them. If they are located on the Speech Analytics server, a configuration setting controls how long they are retained.

Component	Function
Uptivity Speech Analytics Server	Polls the database for new call audio files for processing. Selects the new call audio files to be indexed. Calls are checked only once to determine if they should be indexed. If the call selection criteria changes, older calls that were already checked will not be rechecked. The call selection, indexing, and searching processes are continuous. During periods of heavier call traffic, there will be more audio files waiting to be indexed and searched, and they will be processed during periods of lower call traffic. Manages workloads of speech search engines. If a process is shut down or interrupted, the module will do the following upon restart: query jobs that were queued prior to the interruption, clear any incomplete tags, and then start processing calls in its queue.
Aurix Speech Search Engine	Indexes (i.e., translates) call audio WAV files' speech into phonemes and writes the phonemes to an index file. One index file is created for each audio file per language. For example, if calls include both US English and Mexican Spanish, the engine can be configured to generate an index file for each language. Searches index files for analytic phrase tags and creates phrase records in the database. Call audio files are translated and indexed only once. If the phrase analytic tags are changed after the first search, the search engine searches the index files, not the call audio files. If the indexing/searching process is interrupted, the engine starts over on the audio file on which it was working when the interruption occurred.
Web Portal	Speech Analytics is administered via the Discover Web Portal. The Portal is also used for analytics reporting and for viewing speech tags while playing calls in the Web Player. See the next two items for details.
Reports	Reports are generated from phrase records. Reports are managed and viewed through the Discover Web Portal. The Analytics server is also managed through the portal.

Component	Function
Web Player	Analytics data can be viewed by supervisors and managers when they play call recordings through the Discover Web Player. Call recordings can be sorted using an Analytics Tag Cloud. Tags, confidence levels, and phrases appear with call recordings when they are replayed.

Languages Supported

The appropriate language packs and audio models are installed during the installation process. Valid language codes are:

- 1033 – U.S. English

- 2057 – U.K. English

- 2058 – Mexico Spanish

- 3084 – Canadian French

Index files using US English are named as *audiofilename*.idx. All other index files are named as *audiofilename.countrycode*.idx.

Archiving and Purging

An index file is a phonemic transcript of the call audio and is approximately one-third the size of the original WAV file. InContact recommends archiving index files so that they can be searched again whenever new tag phrases are added. If desired, the WAV files created for the Speech Analytics engine can be purged after the index files are created.

The Speech Analytics index files (and optionally, the WAV files) can be archived using the Archiver functionality in Uptivity Discover. If index files are archived and moved, they will not be analyzed for speech tag phrases because the search engine will no longer have access to them. If you have concerns about archiving policies and your speech analytics program, see your supervisor or Uptivity Discover WFO administrator.

Encryption

Speech Analytics stereo WAV and index files are encrypted along with other Discover files if there is an active encryption key. Encryption for stereo WAV files can be turned off using a transcoder setting.

User Permission Settings

Many of the tasks related to Uptivity Speech Analytics are limited by permissions. Depending on the tasks they will perform, Discover users must be granted these permissions:

- **Allow Analytics View:** Allows the user to view Speech Analytics data for calls played in the Web Player.

- **Allow Analytics Management:** Allows the user to manage Speech Analytics configuration

- **Allow Viewing Analytics Reports:** Allows the user to run and view reports on Speech Analytics.

If you need to perform a task and are unable to do so, see your supervisor or Uptivity Discover WFO administrator.

Auditing

Auditing is managed through the Discover Audit Report. See the *Uptivity Discover Reporting Manual* for additional information.

Stereo Audio Recordings

Stereo audio recordings greatly improve the performance of the analytics engine, as crosstalk (parties talking at the same time) can be isolated. Within a stereo audio recording, the caller's audio is recorded on one discreet channel for the audio file, and the PBX audio is stored on the other channel. This allows the recording engine to separate the crosstalk.

Stereo recordings are available on all Uptivity Discover recording integrations with the exception of:

- Avaya DMCC including Single Step Conference, Multiple Registration, and Service Observe

- ShoreTel TAPI WAV

- eOn Service Observe

- Any recording method using a service observe code via T1

- inContact PBX/ACD

Exception Reporting

Speech Analytics can identify what is said and, through exception reports, what is not said. Exception reporting can generate a lot of data depending on the number of speech tags and phrases used and whether agents do or do not use the tags. An accurate estimate of the potential size of the data collected is impossible. Therefore, exception reporting is not enabled by default and should be enabled only after consulting with an Uptivity Solution Engineer.

This scenario illustrates the difference in data collected. A customer has 1,000 calls per day. The customer uses 30 tags.

- 3 tags are found in each call

- 27 tags are not found in any calls.

- Without exception reporting 3,000 tag records are created. With exception reporting an additional 27,000 tag records are created for exceptions.

Requirements

Hardware

Hardware requirements vary depending on the number of calls processed and data storage and retention needs. Hardware specifications are determined by the Uptivity Sales Engineering team during the sales process. General hardware guidelines include:

- Speech Analytics *must* be installed on its own server. This requirement is due to the CPU usage required to index and analyze.

- A separate file server is usually needed for storing the call audio files and index files.

- Discover is installed on a different server; the database, Web Portal, reporting, and other services are installed and operate from that server.

- For optimal data transfer rates, Speech Analytics should be placed on the same network switch where the Discover audio files are stored.

Software

Uptivity Speech Analytics requires the following software:

- Windows Server 2008/2008 R2. This requirement is only for the Speech Analytics server. Discover can run in the same environment on a Windows 2012 R2 server.

- Microsoft SQL Server 2008 with SQL Server Reporting Services. R2 requires SP1. Microsoft SQL Server 2012 SP1. Speech Analytics does not support SQL Express.

- Languages require the appropriate language pack and audio models to be installed as part of the installation process.

License

A Speech Analytics license must be purchased in addition to the Discover license to enable the product features. Licensing is per user. Licensing is the same for deployments using one server to perform all analytics work and deployments using multiple servers with tasks distributed to specific servers.

Indexing and Searching Configuration

The indexing and search settings in Speech Analytics control which calls are analyzed, as well as the words and phrases for which the speech engine searches. All of these tasks are performed in the Discover Web Portal.

About Analytics Criteria

The speech search engine uses analytic criteria expressions to identify call audio files for indexing and searching. The list criteria are compared against call records in the Discover database, and the audio files associated with the selected records are translated and indexed. Call records are checked to be indexed only once.

All calls will be indexed and analyzed if no criteria are specified.

Ineffective call selection criteria can fail to identify all calls that should be analyzed or analyze calls that are not relevant to your effort. This situation can cause:

- Inaccurate (too low or too high) numbers reported for compliance, process improvement, and agent assessment.
- Missed opportunities for improvement or discovery.
- Unnecessarily slow indexing and searching of calls and generation of reports.

Call selection criteria can be based on:

- Language.
- Client (if your organization has multiple internal or external clients, some may want information tracked or monitored while others do not).
- Purpose or function such as compliance, security, or quality training.

Call selection criteria and the number of criteria expressions depends on how agents are organized and how calls are directed over your telephony network. For example, all Mexican Spanish calls may be received via one queue or telephone number, or calls for a client that requires a script may be directed to specific agents.

One criteria expression can be created and the expression text edited to select all needed call audio files. This approach can avoid the problem of having to check multiple expressions to see if the desired calls are being analyzed. Some users find it easier to manage multiple expressions based on language, client, or purpose. The number of expressions is one of many factors that affect indexing speed; there is no simple way to determine what effect the number may have on processing.

Available Fields

The fields available to you can vary depending on the data your telephony service passes to Discover when calls are recorded. The following fields are supported for use as identifiers in analytic criterion and criteria expressions:

- **Recordid**: Identifier that represents the call record in the Discover database.

- **Agentid**: Identifier that represents the agent in the Discover database.

- **Agentingroup:** Identifier based on Discover Groups. You must use the ID number assigned to the group by Discover (for example, agentnotingroup(50)), which can be seen on the Groups Administration screen or obtained from your Discover administrator.

- **Agentnotingroup:** Identifier based on Discover Groups. You must use the ID number assigned to the group by Discover (for example, agentnotingroup(50)), which can be seen on the Groups Administration screen or obtained from your Discover administrator.

- **DeviceID:** "Hardware" identifier in your ACD/PBX (for example, Position ID, Phone Port, DN, or Extension).

- **Devicealias:** Agent-associated identifier in your ACD/PBX (for example, extension, agentID, etc.).

- **ANI:** For inbound calls only, this is the number of the calling party as provided from the telecommunications carrier (also known as CallerID).

- **DNIS:** For inbound calls, this would be the number the caller dialed to reach you. For outbound calls, it would be the number your agent dialed.

- **Sgroup:** This identifier is a group setting in your ACD/PBX (for example: Hunt Group, Skill Group, or Labor Group).

- **Gate:** Call gate or queue setting in your ACD/PBX (for example: Application, Split, Gate, etc.).

- **User1-User15:** These identifiers are the custom terms specified on the Terminology page. Values specified on that page do not appear in the identifiers list, so you must know what terms match which user#.

Values should be placed in quotes to create a string comparison rather than a numeric comparison.

When ANI or DNIS are used, the numerical value must be in quotes to make it a string comparison (**dnis=="6207")** instead of an integer comparison (**dnis==6207**). Otherwise, if the DNIS is too long, the analytics engine may stall and generate errors while trying to store the integer.

Conditional Operators

Conditional operators can be used to combine multiple identifiers in analytic criteria expressions. For example, `deviceid!=0` would index all audio files. Similarly, `gate==1` would index all audio files for calls that came through Gate 1. An expression can be no more than 255 characters.

The following table identifies the operators supported in Uptivity Speech Analytics.

Conditional Operators		Boolean Operators	
==	Equal to	&&	Boolean AND operator
!=	Not equal to	||	Boolean OR operator
>	Greater than	( )	Parenthesis used for grouping and precedence
<	Less than		
>=	Greater than or equal to		
<=	Less than or equal to		
' **or** **"**	Both single and double quotes can be used to signify strings in expressions.		

Create an Analytic Criteria Expression
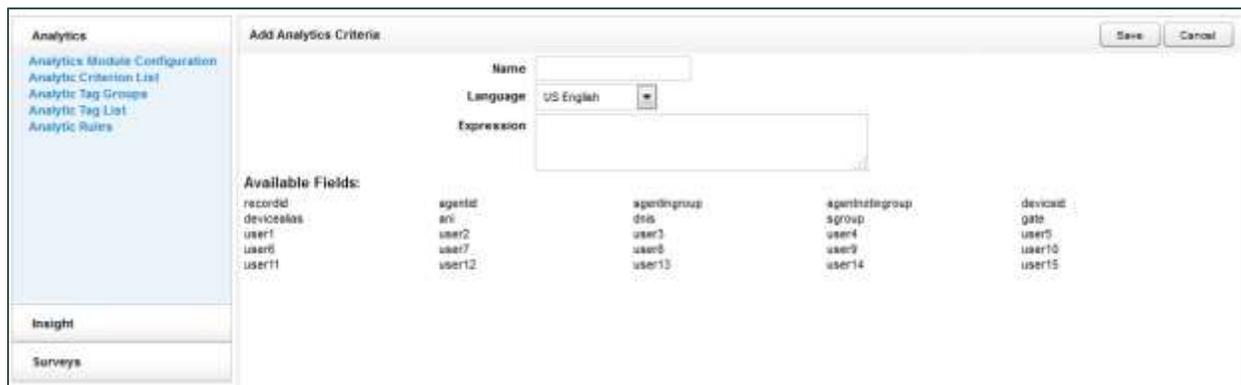
To create an analytic criteria expression:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and click **Analytic Criterion List**.

3. Click **Add**.

4. Enter a meaningful **Name** for the expression (you may have expressions to identify calls for specific clients, products, or languages).

5. Select a **Language Code** from the drop-down list. This field is required.

6. Using **Available Identifiers**, enter an expression to specify audio file selection criteria and then click **Save**.

Edit or Delete Analytic Criteria Expressions

Once created, expressions appear on the Analytic Criteria list. List items can be edited or deleted as needed, and the changes are applied to the call selection process after the change is made. Calls that were already checked for selection are not rechecked using the new criteria.

Uptivity Speech Analytics Administration Guide, v5.5.1

To edit or delete an analytic criterion or criteria expression:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and click **Analytic Criterion List**.

3. To edit, click the **Edit** button for the desired expression and make the necessary changes, then click **Save**. To delete, click the **Delete** button and then click **OK**.

About Analytic Tag Groups

The Speech Category Summary and Speech Category Trending reports use **Analytic Tag Groups** to search for and organize data. Other reports use analytic tag groups to organize how tags appear on reports. Tag groups are managed from the **Analytic Tag Group List**.

Manage Analytic Tag Groups

To view the **Analytic Tag Group List**:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Tag Groups**.

To create a tag group:

1. Follow the procedure to view tag groups and click **Add**.

2. Enter a **Name** for the new group.

3. Click **Save**.

Indexing and Searching Configuration

To edit or delete an existing tag group:

1. Follow the procedure to view the tag group list.

2. Click the Edit ✎ icon for the desired group, edit the group name, and click Save. To delete a group, click the Delete 🗴 icon.

Deleting a group does not affect the tags in that group. However, if a report is based on a group, then that report will no longer get data.

About Analytic Tags

Analytic tags specify the words and phrases the speech search engine will search for in index files. The search process is continuous as long as new calls and index files are created. Once created, analytic tags can be enabled/disabled and copied.

The total number of tag phrases is one factor that can affect the speed at which the speech engine processes and searches calls. Customers with 3,000 or more phrases have reported slower processing speeds. Speech engine performance depends primarily on the amount of call audio hours processed and the analytics server's CPU.

Analytic tags appear in the Analytic Tag Cloud in the Discover Web Player. If you create a large number of call tags, or one particular tag occurs very frequently, the Tag Cloud may not display correctly. As a best practice, InContact recommends nightly indexing of the SQL tag data tables.

Analytic Tag Settings

- **Name:** Names should reflect the search words or the purpose of the search.

- **Effective Start/End Dates:** Enter Effective Start/End Dates to have the engine search in index files for phrases in calls that occurred during an interval of time. For example, a client may have a timed promotion and wants calls for that promotion analyzed The Start Date can be prior to the current date. It should not be earlier than the oldest retained index file. For example, if today is July 31 and index files are retained for 30 days, then the Start Date should be no earlier than July 1. If no Start Dates is specified, the engine tries to search all index files ever created even if they have been deleted. This behavior can cause delays of days or weeks in indexing and searching. If no End Date is specified, the engine searches future calls for the tags. If you do not know how long your index files are retained, contact Uptivity Support.

- **Enabled:** As an alternative to setting Start/End Dates, you can select the desired status from the drop-down list. If no End Date is entered, the tag can be enabled/disabled forever.

- **Target Confidence:** Confidence level is a numeric percentage that represents the likelihood the phrase identified actually matches the searched-for phrase. The speech search engine assigns a confidence level to every phrase it finds. If a phrase's confidence level is below the target, it is not included in the results. You can enter a number in the field or drag the slider bar.

- **Criteria:** Optional field. If no criteria expression is specified from the drop-down list, the tag will be applied to all calls analyzed. For more information, see About Analytics Criteria.

- **Group:** Optional field. Select a group from the Tag Groups to associate this tag with other tags. If no group is specified, the tag will not appear on some reports. For more information, see About Analytic Tag Groups.

- **Match Position:** Optional field that allows you to specify the part of the call in which a phrase occurs. From a drop-down list, you can choose **Any part of the call**, **Seconds from the beginning**, or **Seconds from the end**. When you select either of the latter two, a field appears in which you can enter a number of seconds.

- **Phrases:** Enter a search phrase. Click **Add** to enter phrases or click the red X to delete a phrase. This field, including all phrases and spaces, is limited to 255 characters. In the screenshot below, there are five phrases with a total of 98 characters (including spaces) that count toward the 255-character field limit. If you need additional phrases, you must create additional tags. You may want to first type your phrases in Microsoft Word, and then use its word count functionality to identify the number of characters.

Indexing and Searching Configuration

Create an Analytic Tag

To create a tag:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Tag List**.

3. Click **Add**.

4. Configure the **Analytic Tag Settings** and then click **Save** (for details, see Analytic Tag Settings).

About the Analytic Tag List

The **Analytic Tag List** allows you to see information about tags in your system and perform a number of routine tag management tasks. In the Enabled column, enabled tags display a green check mark; disabled tags (when displayed) show a gray check mark. You can use the drop-down lists at the top right to filter the list by:

- **Criteria: Any Criteria** is the default view.
- **Tag Group: Any Group** is the default view.
- **Status**: **Enabled**, **Disabled**, or **All**. **Show Enabled** is the default view.

Enable/Disable an Analytic Tag

To change the status of a tag from enabled to disabled (or vice versa):

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Tag List**.

3. Change the Status filter if necessary to see the desired tag.

4. In the **Enabled** column, click the check mark for the desired tag.

Copy an Analytic Tag

Copying enables you to refine tags by changing the confidence level, match position, and phrases. You can retain both the original and the new tag to compare search effectiveness. If one is no longer needed, it can be disabled or deleted. You can also copy tags to apply them to different criteria expressions.

When you copy a tag, Discover opens the Add Analytics Tags page with most settings pre-populated to match the original tag. Effective Start Date is set to the current date, Effective End Date is blank, and tag Status is set to Enabled. You can change these settings if desired.

To copy a tag:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Tag List**.

3. Change the Status filter if necessary to see the desired tag.

4. Click the Copy icon and change any desired settings, then click **Save**.

Delete an Analytic Tag

InContact recommends you do **not** delete tags in most cases. Deleting a tag deletes from the database all the phrase records generated using that tag. This action can drastically affect reporting. Reports that depend on historic information and comparisons will be unreliable. Generally, tags should be disabled rather than deleted.

If the tag is needed sometimes but not always, it should be Enabled/Disabled.

If a tag must be deleted, best practice is to disable the tag, wait one day and then delete that tag. The wait will allow the tag to clear the system and not be attributed during the delete process causing a reporting error.

Tag deletion can cause performance issues for both reporting and speech analytics. If the engine is deleting tags, it is not indexing or searching. The number of tags that can be deleted at one time varies depending on the number of tag records generated for reports. If a tag was found 10,000 times, deleting it causes that number of records to be deleted from the database. As a precaution, delete tags when the engine is not processing as many audio files, such as the early morning.

Indexing and Searching Configuration

To delete a tag:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Tag List**.

3. Click the Delete ⬛ icon for the desired tag and then click **OK**.

About Analytic Classification Rules

Analytic Classification Rules add speech tags to user fields in call recording records. Users can then search for these call records in the Discover Web Portal.

Rules can be used to classify calls by:

- Product or service

- Marketing campaign or promotion

- Resolution or non-resolution

- Poor service

- Compliance or non-compliance

Classification rules:

- Can only be applied to new calls; calls that existed prior to a rule's creation cannot be classified.

- Do not indicate when a tag occurred in a call.

- Do not affect the Discover Web Portal's tag cloud.

- Are not used in pre-built reports. Tags placed in user fields can be used in ad hoc call recording reports.

You can use analytic classification rules to insert, replace, or append data to any of the user data fields, the ACD Group field, or the ACD Gate field. Consider the following when deciding what action your rule should take:

- User data fields have varying size limits. For example, the User1 field is limited to 20 characters. When you create the rule, Discover will warn you if your data exceeds the field limit. However, if the rule could append data that would exceed the limit, Discover will not append that new data.

- User data fields can also be updated by other means, such as Discover Fusion desktop analytics, Discover On-Demand, an API call to another application, or manually in the Web Portal. The ACD Gate and ACD Group field are typically populated via your telephony integration. Be sure that the field used in your rule is not already being used for another purpose, especially if you choose to replace existing data.

Analytic Classification Rule Settings

- **Name:** Names should be unique and relevant to the classification.

- **Enabled:** Select whether the rule is enabled or disabled from a drop-down list.

- **Target Confidence:** Confidence level is a numeric percentage that represents the likelihood the phrase identified actually matches the phrase in the rule. The speech search engine assigns a confidence level to every phrase it finds. If a phrase's confidence level is below the target, it is not included in the results. You can enter a number in the field or drag the slider bar.

- **Criteria:** Select a criteria item from the drop-down list. For more information, see About Analytics Criteria.

- **Recording Field:** From the drop-down list, select the field that should be affected by this classification rule. You can choose from any of the user data fields, the ACD gate, or the ACD group. For related information, see Available .

- **Recording Value:** Enter the value that Discover will populate into the selected Recording Field if the conditions of the rule are met.

- **Existing Data Mode:** This setting tells Discover what to do if there is already data in the selected Recording Field. From the drop-down list, select one of these options: **Leave Unchanged**, **Append**, or **Replace**. If you choose Append, and appending the data would exceed the field length, no part of the data will be appended.

- **Match Position:** Optional field that allows you fine-tune matches by specifying the part of the call in which they must occur. From a drop-down list, you can choose **Any part of the call**, **Seconds from the beginning**, or **Seconds from the end**. When you select either of the latter two, a field appears in which you can enter a number of seconds.

- **Phrases:** Enter a search phrase. Click **Add** to enter phrases or click the red X to delete a phrase. This field, including all phrases and spaces, is limited to 255 characters. See Analytic Tag Settings for related information.

Create an Analytic Classification Rule

To create a rule:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Rules**.

3. Click **Add**.

4. Configure the classification rule settings and then click **Save** (for details, see Analytic Classification Rule Settings).

Edit/Delete an Analytic Classification Rule

To edit or delete a rule:

1. Click the **Administration** tab and then click the **Add-Ons** sub-tab.

2. Expand **Analytics** in the left navigation menu and then click **Analytic Rules**.

3. To edit, click the Edit 🖊 icon for the desired rule, change the settings, and click **Save**. To delete, click the Delete 🗙 icon for the desired rule and then click **OK**.

Speech Analytics Reporting

Uptivity Speech Analytics includes a number of Printable Reports and also supports the creation of ad hoc reports. See the *Uptivity Discover Reporting Manual* for additional information. To view available reports:

- Click the **Reporting** tab in the Discover Web Portal and expand **Printable Reports** in the left navigation menu, then click **Analytics Reporting**.

The **Analytics Reporting** screen lists the types of reports you can create. The Date Created column shows when the template for the report type was created.

Reporting Criteria

Reporting criteria specify data for a report; not all criteria apply to all reports.

- **Start/End Date:** Searched calls will have occurred during this date range.

- **Category List, Tag List, Tag Categories:** Tag groups

- **Tag Category, Speech Tag, Speech Tags/Tags:** Speech search tags

- **Tag/Tag Text:** Phrases in analytic tags.

- **Tag Status:** Enabled/Disabled.

- **Agents**

- **Agent Status/Status:** Active/Inactive.

- **Groups:** Discover Groups.

- **Skill Group/Skill Group List**

- **Gates**

- **Caller's Phone#**

- **Dialed Phone#**

- **Reporting Interval:** Daily, Weekly, Monthly or Yearly intervals.

Analytics Speech Tag Frequency Report

This report shows the frequency that speech tag phrases/text occur over a time interval.

- **Tag Count:** Number of times a tag text/phrase was identified. Tag Count may be greater than Number (#) Calls because a tag may occur multiple times in a call.

- **# Calls:** Number of calls in which a tag phrase occurred at least once.

- **Observed Percentage:** Percentage of calls during the specified time frame in which the tag phrase occurred.

- **Daily Occurrence:** Average number of times a tag phrase occurred per day in the specified time frame.

- **Average Confidence:** The speech search engine records a confidence level for each tag it identifies. This number averages the confidence for each tag record.

Analytics Speech Tag Frequency
For Monday, July 25, 2011 to Thursday, August 25, 2011

Tag Name	Tag Text	Tag Count	# Calls	Observed Percentage	Daily Occurance	Avg. Confidence
Script Adherence	homeowners association	5497	5497	100.0%	171.78	78.96
Script Adherence	single family dwelling	3349	3349	60.9%	104.66	78.01
Lead source	service magic	2205	2205	40.1%	68.91	80.01
Scheduling	weekend	2192	2192	39.9%	68.50	59.06
Scheduling	morning	1101	1101	20.0%	34.41	53.62
Lead source	coupon	1101	1101	20.0%	34.41	56.83
Product Interest	free insulation upgrade	1101	1101	20.0%	34.41	50.34
Product Interest	save some money	1101	1101	20.0%	34.41	78.70
Geography	pompano beach	1101	1101	20.0%	34.41	59.33
Script Adherence	thank you for calling	1100	1100	20.0%	34.38	67.48
Property information	total square footage	1047	1047	19.0%	32.72	62.36
Scheduling	Saturday	1047	1047	19.0%	32.72	50.29
Lead source	online form	1047	1047	19.0%	32.72	51.29
Product Interest	injection foam	1047	1047	19.0%	32.72	100.00

Speech Category Summary Report

This report shows an overview of the frequency with which a speech tag group or category's speech tags appear in a time interval.

- **Tag Category:** Tag group

- **Tags Observe:** Number of times a tag was identified. Tag Count may be greater than Number (#) Calls because a tag may occur multiple times in a call. In the sample report shown, Script Adherence tag occurred 9946 times. In the Analytics Speech Tag Frequency sample report, Script Adherence tag phrases occurred 5497 ("homeowners association"), 3349 ("single family dwelling"), and 1100 ("thank you for calling") for a total of 9946 occurrences.

- **Calls with Tags:** Number of calls in which a tag phrase occurred at least once.

- **Observed Percentage:** Percentage of total calls selected for indexing during the specified time frame in which the tag occurred.

- **Daily Occurrence:** Average number of times a tag occurred per day in the specified time frame.

- **Average Confidence:** The speech search engine records a confidence level for each tag it identifies. This number averages the confidence for each tag record.
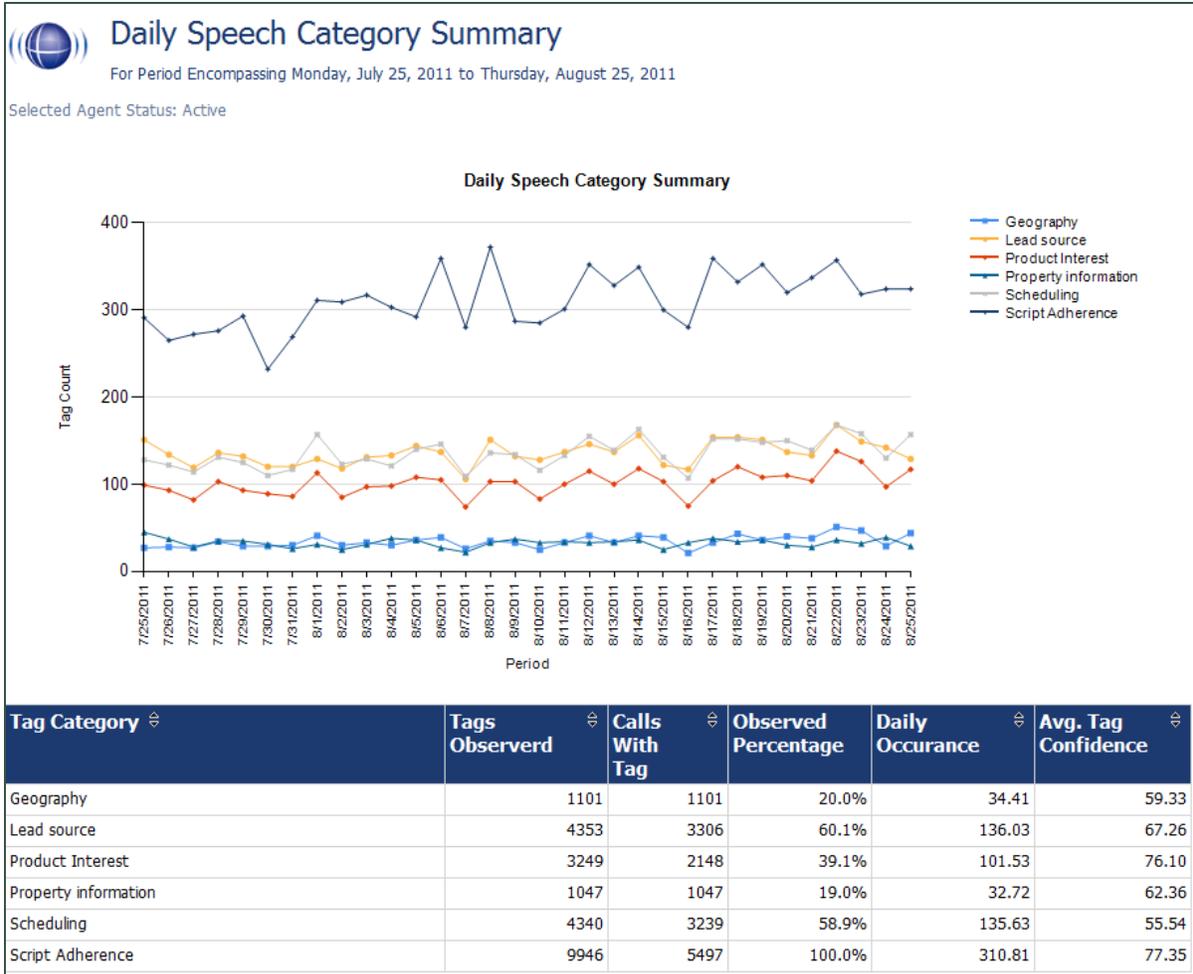
Daily Speech Category Summary

For Period Encompassing Monday, July 25, 2011 to Thursday, August 25, 2011

Selected Agent Status: Active

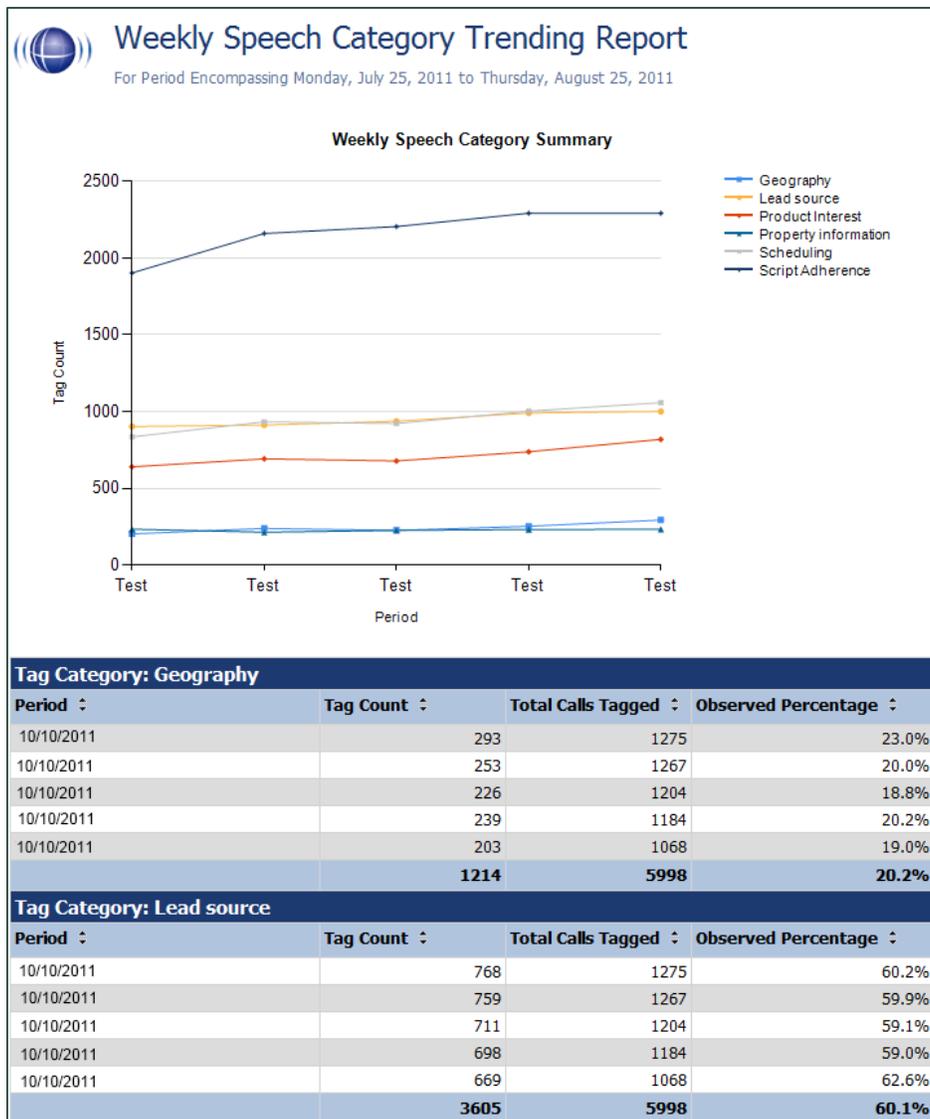| Tag Category	Tags Observerd	Calls With Tag	Observed Percentage	Daily Occurance	Avg. Tag Confidence
Geography	1101	1101	20.0%	34.41	59.33
Lead source	4353	3306	60.1%	136.03	67.26
Product Interest	3249	2148	39.1%	101.53	76.10
Property information	1047	1047	19.0%	32.72	62.36
Scheduling	4340	3239	58.9%	135.63	55.54
Script Adherence	9946	5497	100.0%	310.81	77.35

Speech Category Trending Report

This report shows, by category and by time period, the frequency with which speech tags occur.

- **Period:** A day, week, month or other period.

- **Tag Count:** Number of times a speech tag occurred in analyzed calls for that period.

- **Total Calls Tagged:** Number of calls selected for speech analytics indexing for a time period.

- **Observed Percentage:** Percentage of total calls selected for indexing during the specified time frame in which the tag occurred.

Weekly Speech Category Trending Report
For Period Encompassing Monday, July 25, 2011 to Thursday, August 25, 2011

Tag Category: Geography

Period ⇕	Tag Count ⇕	Total Calls Tagged ⇕	Observed Percentage ⇕
10/10/2011	293	1275	23.0%
10/10/2011	253	1267	20.0%
10/10/2011	226	1204	18.8%
10/10/2011	239	1184	20.2%
10/10/2011	203	1068	19.0%
	1214	**5998**	**20.2%**

Tag Category: Lead source

Period ⇕	Tag Count ⇕	Total Calls Tagged ⇕	Observed Percentage ⇕
10/10/2011	768	1275	60.2%
10/10/2011	759	1267	59.9%
10/10/2011	711	1204	59.1%
10/10/2011	698	1184	59.0%
10/10/2011	669	1068	62.6%
	3605	**5998**	**60.1%**

Speech Tag Detail Report

This report shows details of the calls in which particular speech tags appear.

Speech Tag Exception Detail Report

This report shows a list of calls in which specific speech tags did **not** occur, and can be useful for script adherence or policy compliance.

Speech Tag Exception Summary Report

This report summarizes the number of calls that did and did not have specified speech tags. This report is useful with other exception reports for tracking script adherence or policy compliance.

- The blue bar represents the number of calls with the speech tag.

- The amber bar represents the number of call without the speech tag.

- The red bar represents the percentage of calls with the speech tag.

Speech Tag Name ⇕	Number of Calls Tagged ⇕	Number of Calls Untagged ⇕	Percent of Calls Tagged ⇕
Geography	1101	4396.00	20.0%
Lead source	3306	2191.00	60.1%
Product Interest	2148	3349.00	39.1%
Property information	1047	4450.00	19.0%
Scheduling	3239	2258.00	58.9%
Script Adherence	5497	0.00	100.0%

Speech Tag Frequency Summary Report

This report shows the frequency with which speech tags appear over a time interval.

- **Tag Category:** Tag group

- **Speech Tag:** Speech tag

- **Tags Observed:** Number of times a tag was identified. Tag Count may be greater than Number (#) Calls because a tag may occur multiple times in a call.

- **Calls with Tag:** Number of calls in which a tag phrase occurred at least once.

- **Observed Percentage:** Percentage of total calls selected for indexing during the specified time frame in which the tag occurred.

- **Daily Occurrence:** Average number of times a tag occurred per day in the specified time frame.

- **Average Confidence:** The speech search engine records a confidence level for each tag it identifies. This number averages the confidence for each tag record.

Daily Speech Tag Frequency Summary

For Period Encompassing Monday, July 25, 2011 to Thursday, August 25, 2011

Selected Agent Status: Active
Selected Tag Status: Active

Daily Speech Tag Frequency Summary

Tag Category	Speech Tag	Tags Observed	Calls with Tag	Observed Percentage	Daily Occurance	Avg. Tag Confidence
Geography	Geography	1101	1101	20.0%	34.41	59.33
Lead source	Lead source	4353	4353	79.2%	136.03	62.70
Product Interest	Product Interest	3249	3249	59.1%	101.53	76.35
Property information	Property information	1047	1047	19.0%	32.72	62.36
Scheduling	Scheduling	4340	4340	79.0%	135.63	54.32
Script Adherence	Script Adherence	9946	9946	180.9%	310.81	74.80
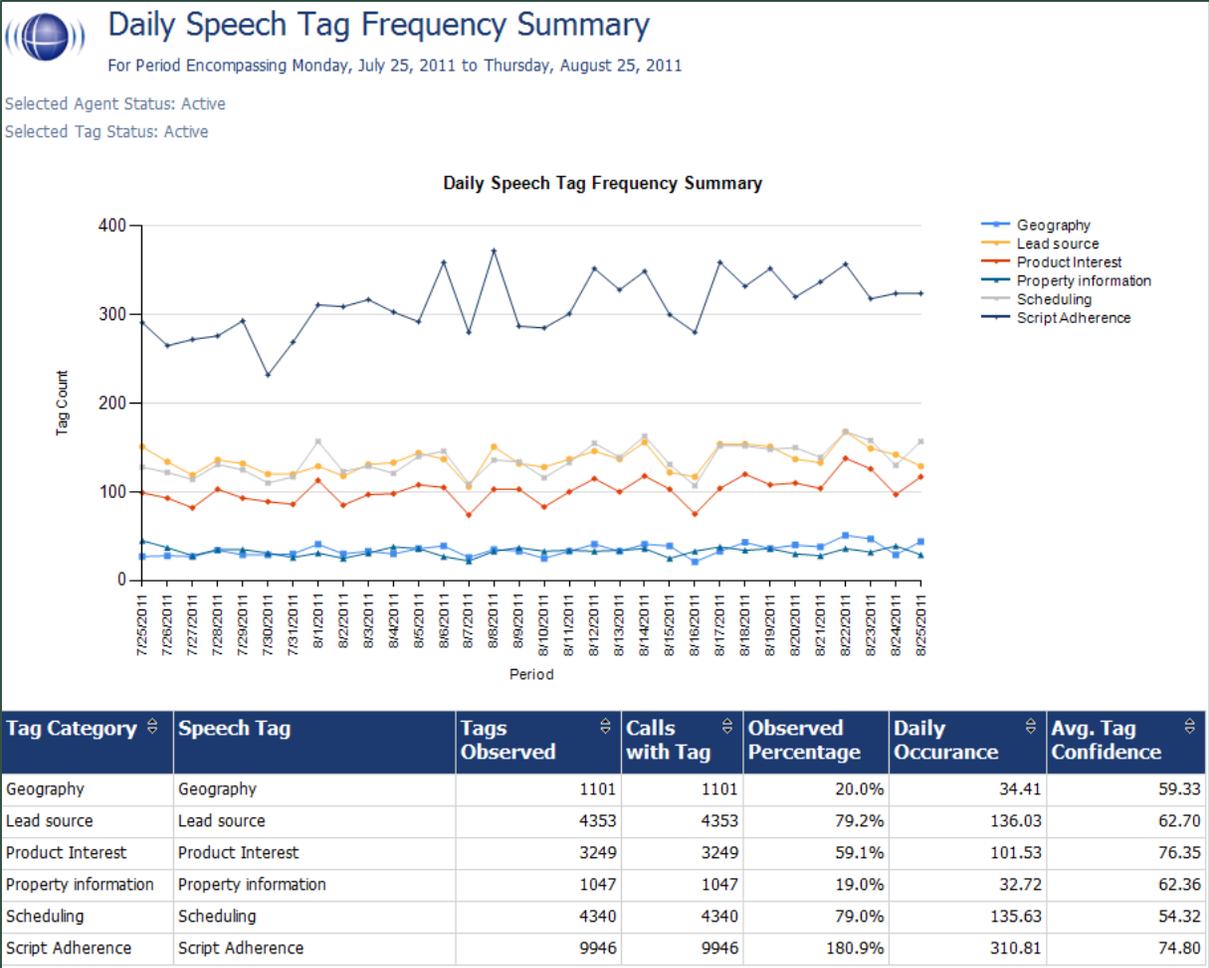
Speech Tag Trending Report

This report shows the speech tag counts for a selected category and how they change over a time interval.

- **Period:** A day, week, month time period.

- **Tag Text:** Text/phrases specified for a tag.

- **Calls Tagged:** Number of calls with the specified speech tag phrase/text.

- **Total Calls:** Number of calls selected for speech analytics.

- **Observed Percentage:** Number of calls tagged/Total Calls

Weekly Speech Tag Trending Report
For Period Encompassing Monday, July 25, 2011 to Thursday, August 25, 2011

Category:	Geography			
Tag Name:	**Geography**			
Period	Tag Text	Calls Tagged	Total Calls	Observed Percentage
Test	Geography	55	283	19.4%
Test	Geography	51	291	17.5%
Test	Geography	59	301	19.6%
Test	Geography	55	299	18.4%
Test	Geography	68	323	21.1%
		Total: 288	**1497**	**19.2%**

Category:	Lead source			
Tag Name:	**Lead source**			
Period	Tag Text	Calls Tagged	Total Calls	Observed Percentage
Test	Lead source	167	283	59.0%
Test	Lead source	168	291	57.7%

Speech Tag Trending Report - 8/25/2011 · CallCopy Recorder Reporting Service · Page 1 of 3

Document Revision History

Revision	Change Description	Effective Date
0	Initial release for this version	2015-02-13