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Amazon Connect Integration

WEEK 8 – QA RECORDINGS PART 3

PROPRIETARY & CONFIDENTIAL

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Amazon Connect – Contact Lens

Analyze conversations using Contact Lens for Amazon Connect

Contact Lens for Amazon Connect enables you to analyze conversations between customer and agents, by using speech transcription, natural language processing, and intelligent search capabilities. It performs sentiment analysis, detects issues, and enables you to automatically categorize contacts.

Contact Lens for Amazon Connect provides both real-time and post-call analytics of customer-agent conversations.

Real-time analytics: Use to detect and resolve customer issues more proactively while the call is progress. For example, it can analyze and alert you when a customer is getting frustrated because the agent is unable to resolve a complicated problem. This allows you to provide assistance proactively.

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Analyze conversations using Contact Lens for Amazon Connect

Post-call analytics: Use to understand trends of customer conversations, and agent compliance. This helps you identify opportunities to coach an agent after the call.

To protect your customer's privacy, sensitive data such as name, address, and credit card information, can be redacted from transcripts and audio recordings.

The results of the sentiment analysis appear in the customer's contact record. The following image shows a sample contact record.

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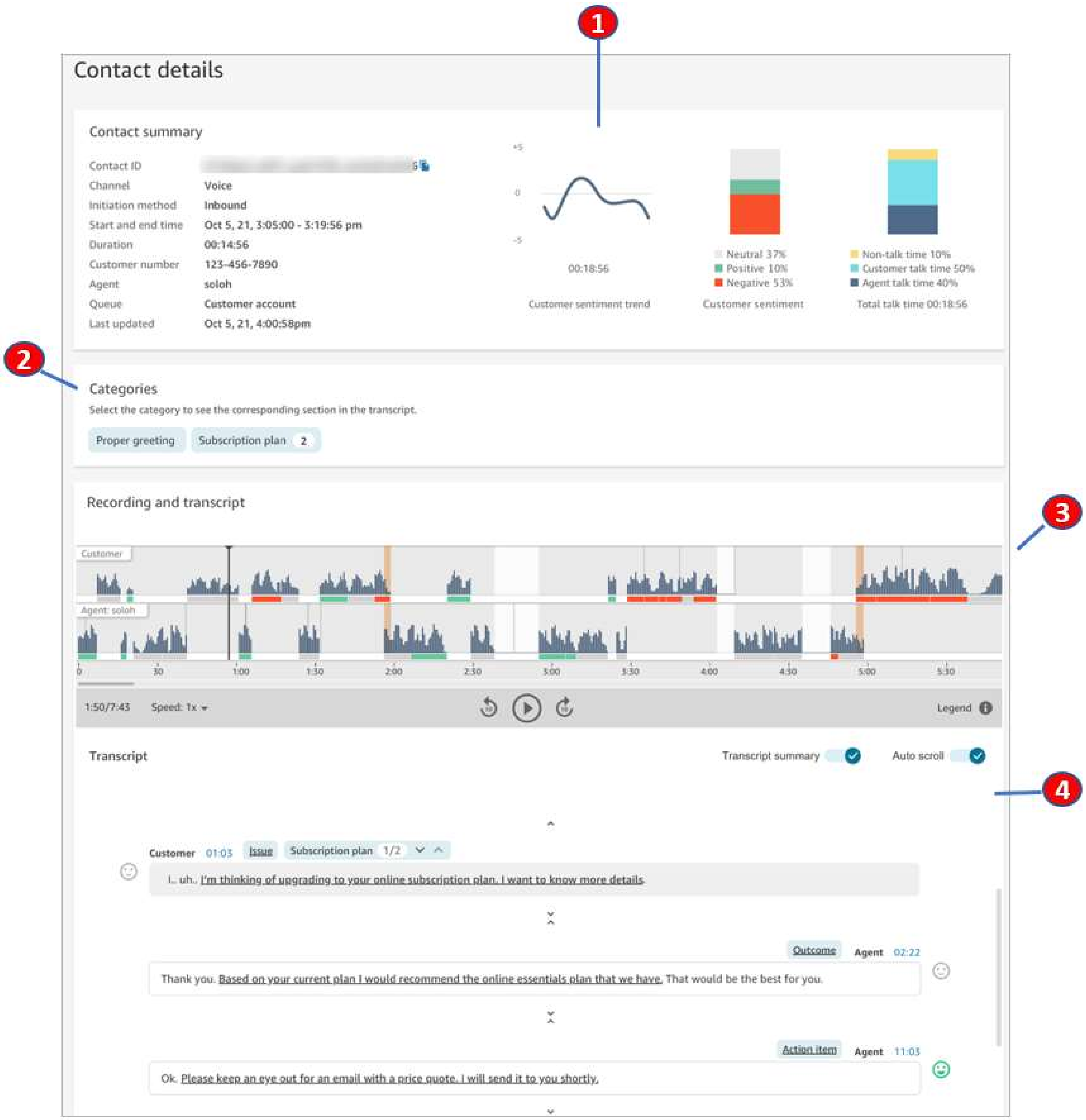

1. This section displays a summary of speech analytics.
2. The Categories section list the categories that have been set up.
3. The Recording section provides controls you can use to listen to an audio recording of the contact.
4. The Transcript section enables you to review a summary of the transcript with the issue, action, and outcome highlighted.

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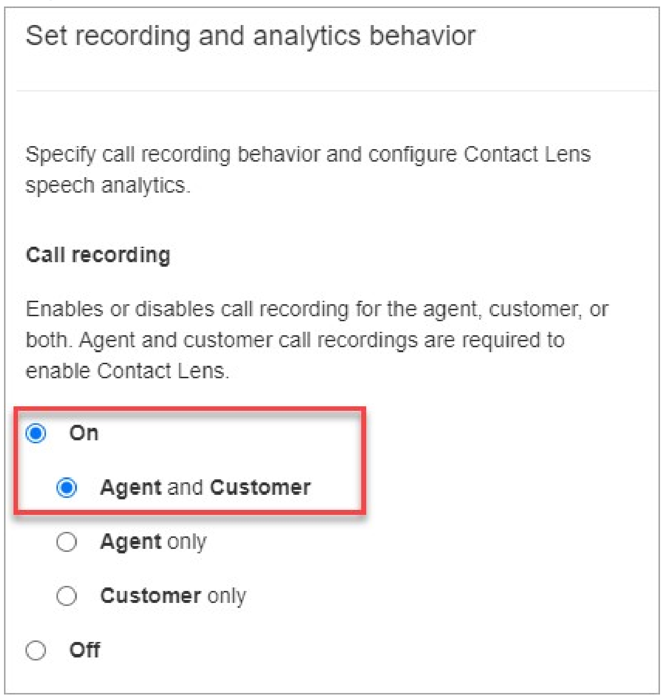
Enable Contact Lens for Amazon Connect

You can enable Contact Lens for Amazon Connect in just a few steps. Just add a Set recording and analytics behavior block to a flow, and configure it for Contact Lens.

To enable Contact Lens in a flow

1. Add the Set recording and analytics behavior block to a flow.
2. In the contact block, under Call recording, choose On, Agent and Customer.

Both agent and customer call recordings are required to use Contact Lens



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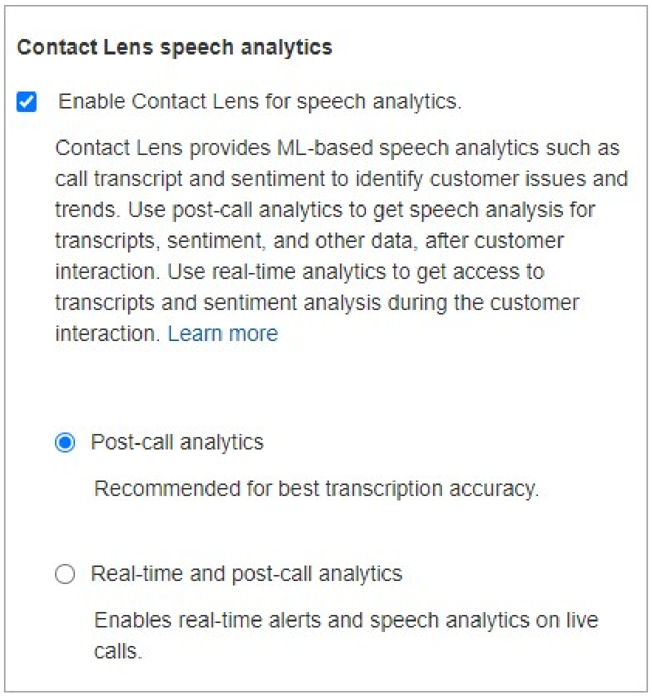
3. Select Enable Contact Lens for speech analytics.

If you don't see this option, Contact Lens for Amazon Connect hasn't been enabled for your instance.



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4. Choose one of the following:

- Post-call analytics: Contact Lens analyzes the call recording after the conversation and After Contact Work (ACW) is complete. This option provides the best transcription accuracy.

- Real-time analytics: Contact Lens provides both real-time insights during the call, and post-call analytics after the conversation has ended and After Contact Work (ACW) is complete.

If you choose this option, we recommend setting up alerts based on keywords and phrases that the customer may utter during the call. Contact Lens analyzes the conversation real-time to detect the specified keywords or phrases, and alerts supervisors. From there, supervisors can listen in on the live call and provide guidance to the agent to help them resolve the issue faster.

If your instance was created before October 2018, additional configuration is needed to access real-time analytics.

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5. Choose the language. For a list of available languages for various Contact Lens features, see Supported languages.

6. Choose Save.

7. If the contact is going to be transferred to another agent or queue, repeat these steps to add another Set recording and analytics behavior block with Enable Contact Lens for speech analytics enabled.

Tip - If you want to continue using Contact Lens to collect data after transferring a contact to another agent or queue, you need to add another Set recording and analytics behavior block with Enable analytics enabled for the flow. This is because a transfer generates a second contact ID and contact record. Contact Lens needs to run on that contact record as well.

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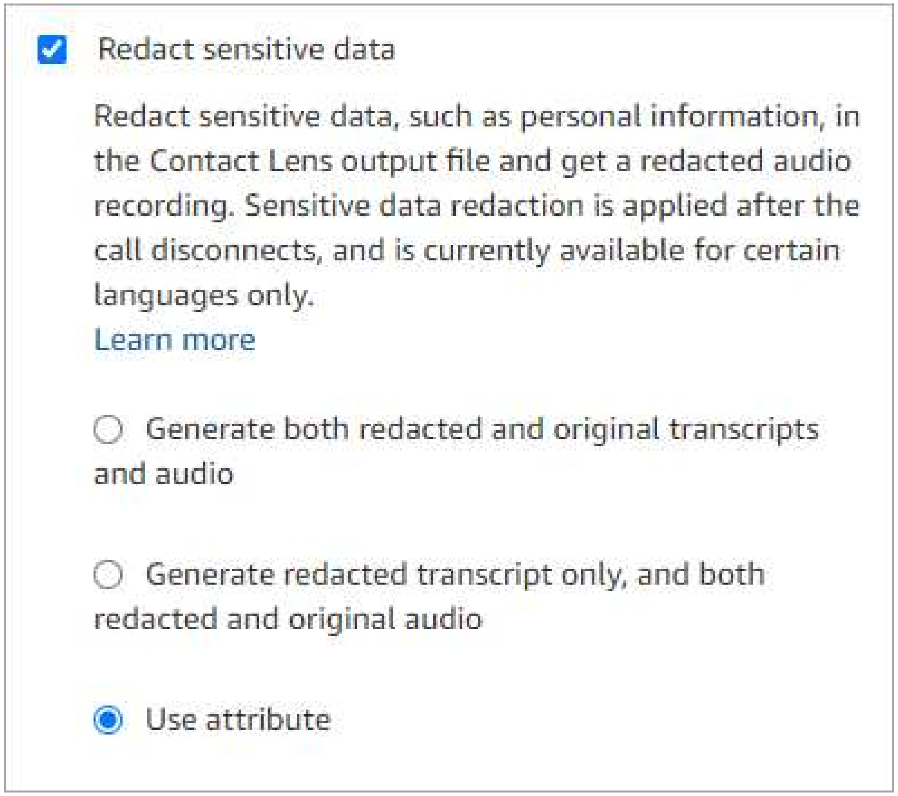
How to enable redaction of sensitive data

To enable redaction of sensitive data in a contact flow, choose Redact sensitive data. No other configuration is needed. Contact Lens determines what data can be redacted.



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Review sensitive data redaction for accuracy

The redaction feature is designed to identify and remove sensitive data. However, due to the predictive nature of machine learning, it may not identify and remove all instances of sensitive data in a transcript generated by Contact Lens. We recommend you review any redacted output to ensure it meets your needs.

Important - The redaction feature does not meet the requirements for de-identification under medical privacy laws like the U.S. Health Insurance Portability and Accountability Act of 1996 (HIPAA), so we recommend you continue to treat it as protected health information after redaction.

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Dynamically enable Contact Lens using contact attributes

You can dynamically enable Contact Lens and the redaction of the output files based on the language of the customer. For example, for customers using en-US, you may want only a redacted file whereas for those using en-GB, you may want both the original and redacted output files.

- Redaction: choose one of the following (they are case sensitive)

- None
- RedactedOnly
- RedactedAndOriginal

- Language: Choose from the list of available languages.

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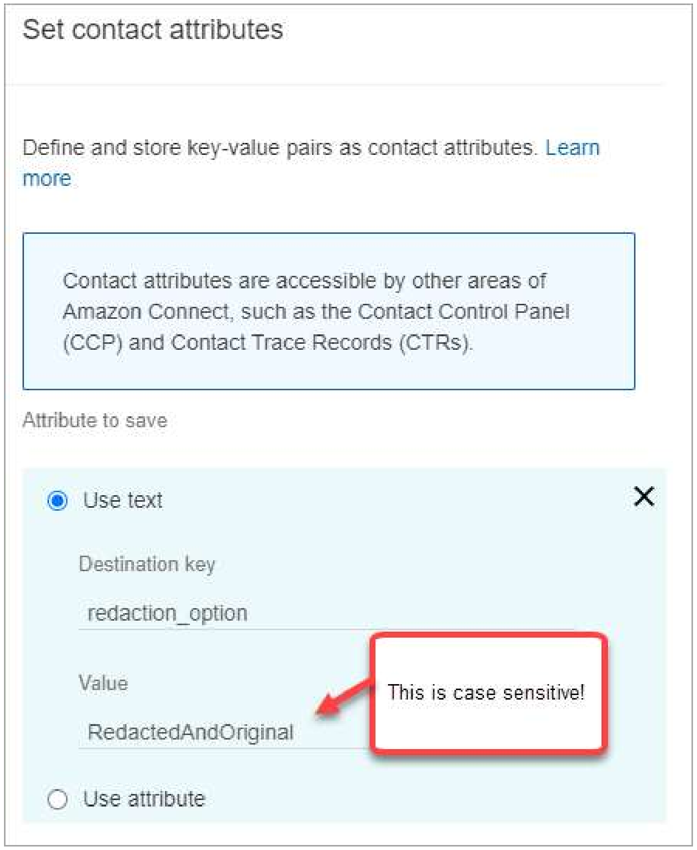
You can set these attributes in the following ways:

- User defined: use a Set contact attributes block. For general instructions about using this block, see How to reference contact attributes. Define the Destination key and Value for redaction and language as needed.



The following image shows how to use contact attributes for redaction. Note that Value is case sensitive.

The following image show how to use contact attributes for language:

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- Use a Lambda function. This is similar to how you set up user-defined contact attributes. An AWS Lambda function can return the result as a key-value pair, depending on the language of the Lambda response. The following example shows a Lambda response in JSON:

```
{
  'redaction_option': 'RedactedOnly',
  'language': 'en-US'
}
```

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Availability of Contact Lens features by Region:

Region	Post-call analytics	Real-time analytics	Extended language support
US East (N. Virginia)	Yes	Yes	Yes
US West (Oregon)	Yes	Yes	Yes
Canada (Central)	Yes	Yes	Yes
Europe (Frankfurt)	Yes	Yes	Yes
Europe (London)	Yes	Yes	Yes
Asia Pacific (Singapore)	Yes	-	-
Asia Pacific (Sydney)	Yes	Yes	Yes
Asia Pacific (Tokyo)	Yes	Yes	Yes

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Multi-party calls and Contact Lens

We do not support multi-party calls in Contact Lens. For example, if there are more than two parties (agent and customer) on a call, the quality of the transcription and analytics, such as sentiment and categories, is degraded.

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Security profile permissions for Contact Lens

To keep customer data secure, you can set up permissions to have granular control on who can access information generated by Contact Lens.

The security profile permissions shown in the following image apply to Contact Lens.

Metrics and Quality

Type	All
Access metrics	☐
Contact search	☐
Search contacts by conversation characteristics	☐
Search contacts by keywords	☐
Contact attributes	☐
Contact Lens - speech analytics	☐
Rules	☐
Recorded conversations (redacted)	☐
Login/Logout report	☐
Manager monitor	☐
Recorded conversations (unredacted)	☐
Saved reports	☐

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Following is a description of each of these permissions:

Contact search
This permission isn't specific to Contact Lens, but it is required so you can access the Contact search page, which is where you can search contacts so you can review the analyzed recording and transcript. In addition, you can do fast, full-text search on call transcripts, and search by sentiment score and non-talk time.

Search contacts by conversation characteristics
On the Contact Search page, you can access additional filters that allow you to return results by sentiment score and non-talk time. In addition, you can search conversations that fall into specific contact categories. For more information, see Search for sentiment score, Search for non-talk time, and Search a contact category.

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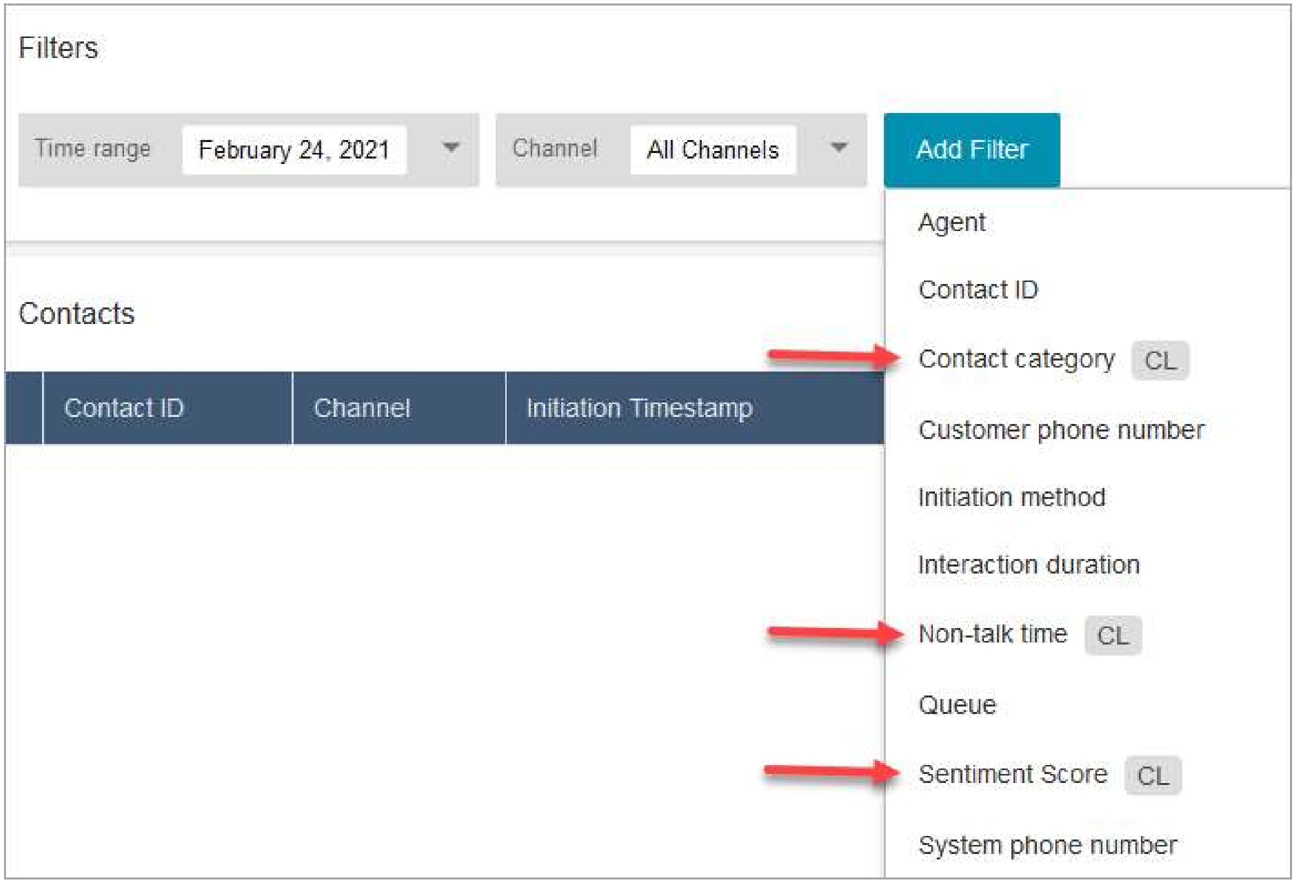

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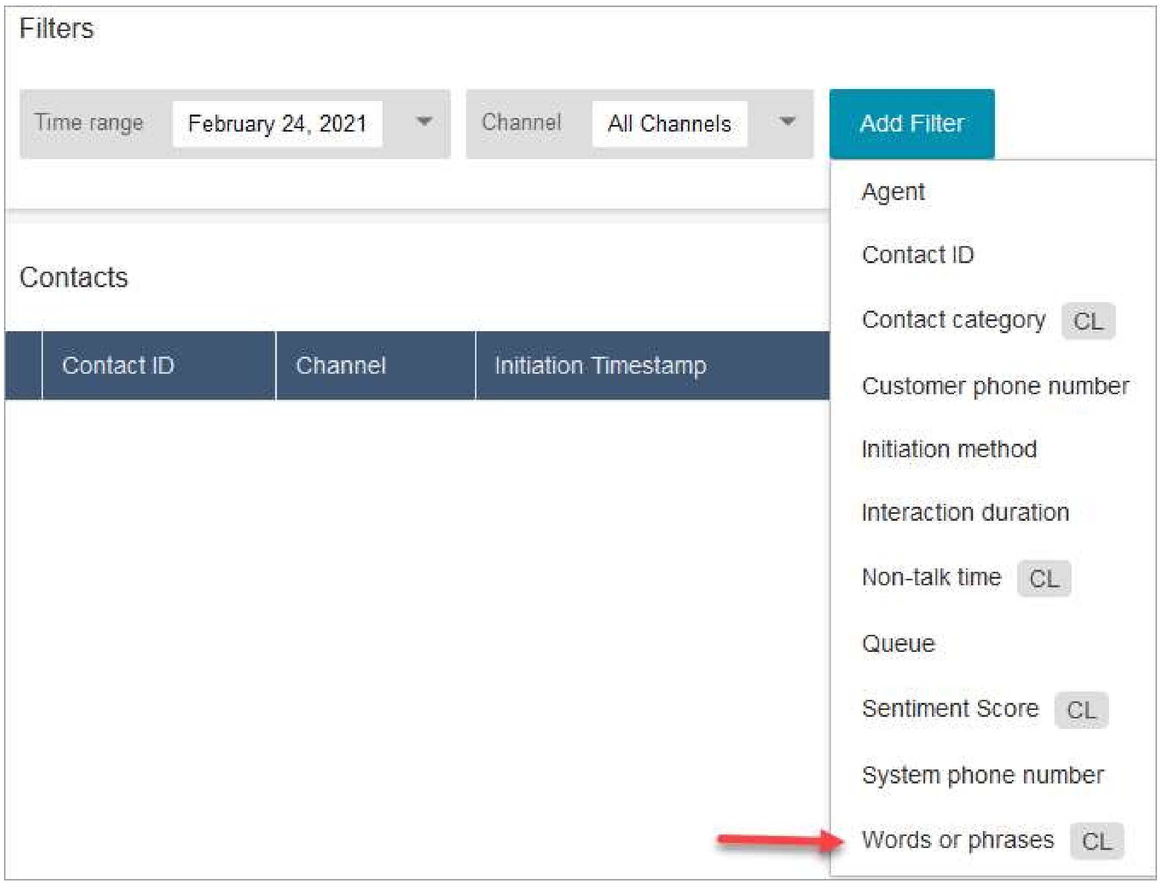
Search contacts by keywords

On the Contact Search page, you can access additional filters that allow you to search call transcripts by keywords or phrases, such as "thank you for your business."



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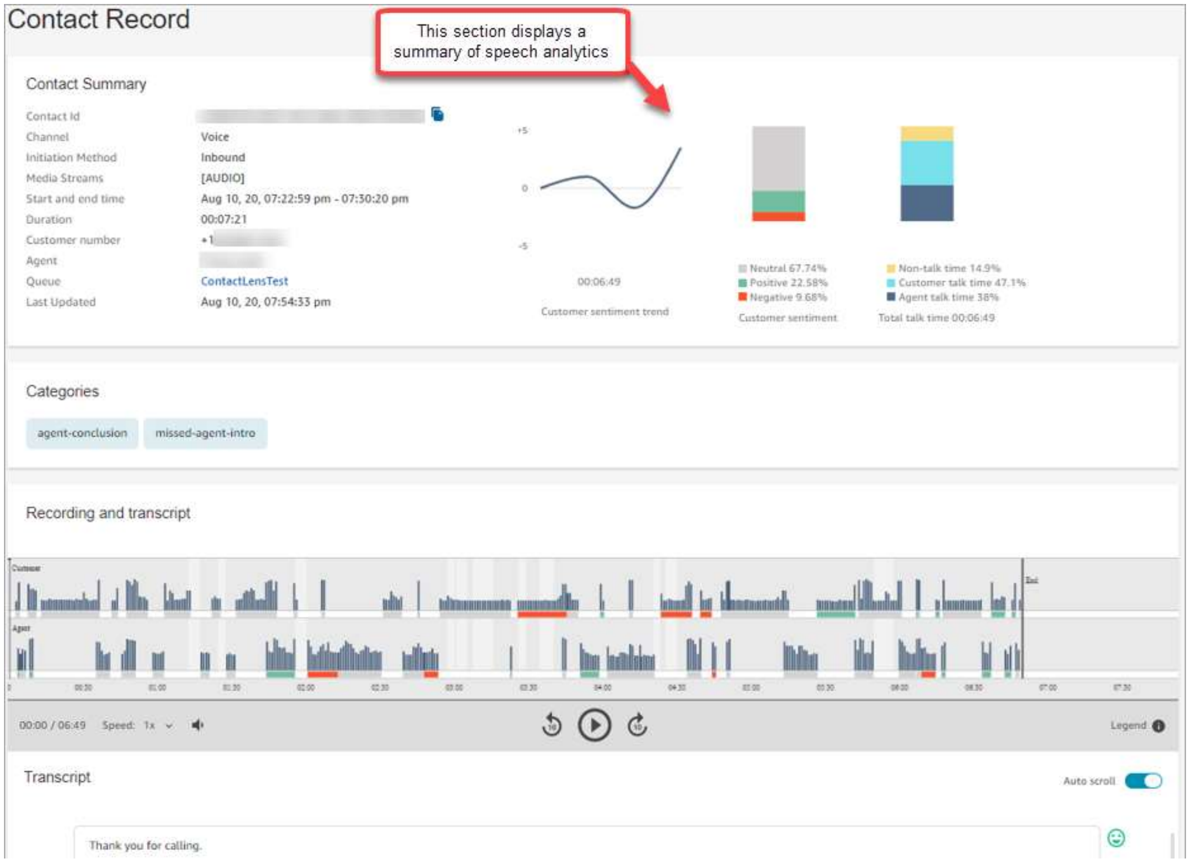
Contact Lens - speech analytics

On the Contact Record page for a contact, you can view graphs that summarize speech analytics: customer sentiment trend, sentiment, and talk time. For example, the following image shows how this information is displays on the contact record page for a contact.



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Rules
This permission allows you to view, edit, or create rules for categorizing contacts. For more information, see Automatically categorize contacts based on uttered keywords and phrases.

Recorded conversations (redacted)
On the Contact Record page for a contact, this permission allows you to listen to call recording files and view call transcripts in which the sensitive data has been removed. For more information, see Example redacted file.

Recorded conversations (unredacted)
This permission manages access to unredacted content that contains sensitive data such as name and credit card information. It manages access to the following unredacted content:

- Original, unredacted chat transcripts
- Original, unredacted transcripts analyzed by Contact Lens
- Original, unredacted audio recordings

You can access this content on the Contact Record page for a contact.

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Important - If you have permissions to both Recorded conversations (redacted) and Recorded conversations (unredacted), by default only redacted recordings are made available on the Contact Record page.

You must remove permissions to Recorded conversations (redacted) to access unredacted conversations.

You can't access redacted and unredacted content at the same time.

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Contact Lens notification types

Contact Lens provides the following notification types:

- Contact Lens Post Call Rules Matched: An EventBridge event is delivered whenever a Contact Lens rule is matched and has triggered post call.
- This event contains useful information about the Contact Lens rule that is triggered including the category assigned, and details of the agent, contact and queue.
- Contact Lens Real Time Call Rules Matched: An EventBridge event is delivered whenever a Contact Lens rule is matched and has triggered in real time.
- This event contains useful information about the Contact Lens rule that is triggered including the category assigned, and details of the agent, contact and queue
- Contact Lens Analysis State Change: An EventBridge event is delivered when Contact Lens is unable to analyze a contact file. The event contains the Event Reason Code which provides the details on why it was unable to process the file.

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You can use these notification types in a variety of scenarios. For example, use Contact Lens analysis State Change events to signal unexpected errors in the processing of a contact file where EventBridge event details can be subsequently stored in a CloudWatch log for additional review, trigger additional workflows, or alert relevant support teams for further investigation.

The Contact Lens post-call and real-time events enable numerous new use cases such as surfacing and visualization of additional insights, for example:

- Generate alerts on real-time customer sentiment drops across all calls
- Aggregating and reporting on reoccurring issues and topics
- Measuring the impact of the latest marketing campaign by detecting how many customers referenced it during a call a
- Customizing agent compliance standards for each Region and lines of business, and enrolling agents into additional training where required.

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Add custom vocabularies

You can improve the accuracy of speech recognition for product names, brand names, and domain-specific terminology, by expanding and tailoring the vocabulary of the speech-to-text engine in Contact Lens.

This topic explains how to add custom vocabularies using the Amazon Connect console. You can also add them using the CreateVocabulary and AssociateDefaultVocabulary APIs.

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Things to know about custom vocabularies

- You must set a vocabulary as the default for it to be applied to the analyses to generate transcripts.

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- You can have one vocabulary per language applied to the analyses. This means only one file per language can be in the Ready (default) state.
- You can upload more than 20 vocabulary files. However, you can activate only 20 custom vocabulary files at the same time.
- Transcription is a one-time event. A newly uploaded vocabulary isn't applied retroactively to existing transcriptions.
- Your text file must be in LF format. If you use any other format, such CRLF format, your custom vocabulary is not accepted by Amazon Transcribe.
- For limits to the size of a vocabulary file and other requirements, see Custom vocabularies in the Amazon Transcribe Developer Guide.

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Required permissions

Before you can add custom vocabularies to Amazon Connect, you need the Analytics, Contact Lens - custom vocabularies permission assigned to your security profile.

By default, in new instances of Amazon Connect the Admin and CallCenterManager security profiles have this permission.

For information about how add more permissions to an existing security profile

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Add a custom vocabulary

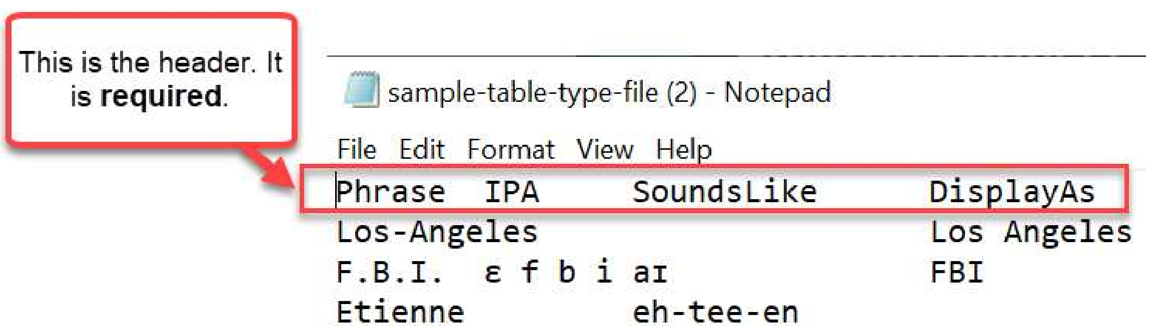
1. Log in to Amazon Connect with a user account that has the required permissions to add custom vocabularies.

2. Navigate to Analytics, Custom vocabularies.

3. Choose Add custom vocabulary.

4. On the Add custom vocabulary page, enter a name for the vocabulary, choose a language, and then choose Download a sample file.

The following image shows what the sample file looks like:



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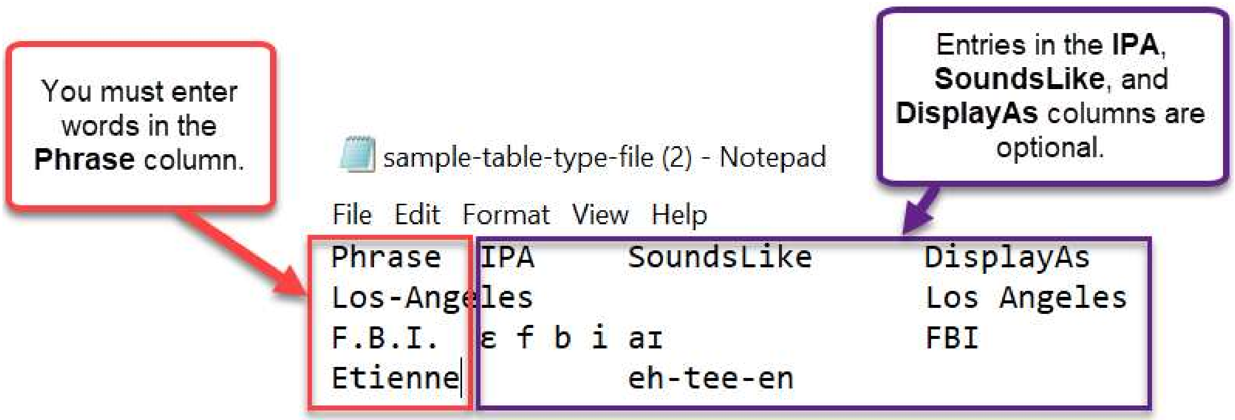
Add a custom vocabulary

5. The information in the file is separated by one [TAB] per entry. For details about how to add words and acronyms to your vocabulary file, see Creating a custom vocabulary using a table in the Amazon Transcribe Developer Guide.

To enter multiple words in the Phrase column, separate each word with a hyphen (-); do not use spaces.



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Vocabulary states

- Ready (default): The vocabulary is being applied to the analyses to generate transcripts. It is applied to both real-time and post-call analyses.
- Ready: The vocabulary is not being applied to analyses, but it is a valid file and available. To apply it to analyses, set it to default.
- Processing: Amazon Connect is validating your uploaded vocabulary and trying to apply it to the analyses to generate transcripts.
- Deleting: You chose to Remove the vocabulary, and Amazon Connect is deleting it now.

It takes about 90 minutes for Amazon Connect to delete a vocabulary.

If you attempt to upload a vocabulary that does not validate, it results in a Failed state. For example, if you add multiple-word phrases to the Phrase column, and separate them with spaces instead of hyphens, it will fail.

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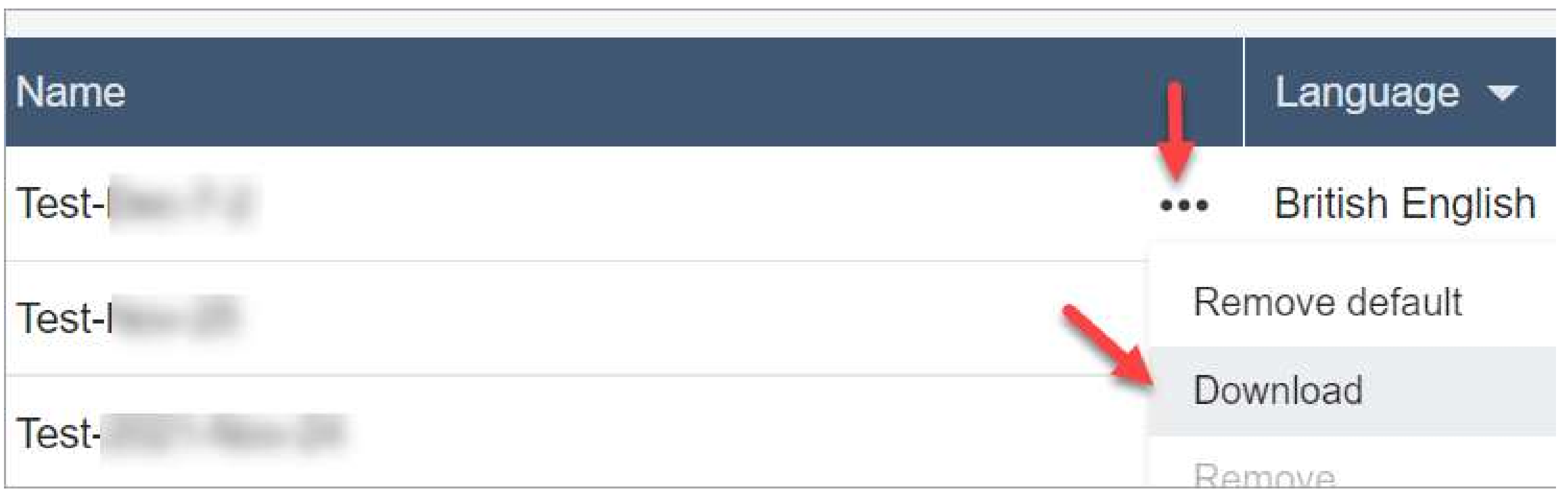
Download and view a custom vocabulary

To view a custom vocabulary that has been uploaded, you download and open the file. Only files in the Ready state can be downloaded and viewed.

1. Navigate to Analytics, Custom vocabularies.
2. Choose More, Download.
3. Open the download to view the contents.
4. You can change the contents, and then choose Save and upload.



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Search conversations analyzed by Contact Lens

You can search the analyzed and transcribed recordings based on:

- Speaker.
- Keywords.
- Sentiment score.
- Non-talk time.

In addition, you can search conversations that are in specific contact categories (that is, the conversation has been categorized based on uttered keywords and phrases).

These criteria are described in the following sections.

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Some layout options

1.4 Million
unfilled computing jobs by 2020[(1)]

75 Percent
of companies face disruption[(2)]

$116 Billion
lost productivity per year[(3)]

Current Options Are Not Solving the Problem

STAFFING AGENCY	CAMPUS HIRING	VISA TALENT	INTERNAL TRAINING	BOOTCAMPS
Do not help with shortage	Not enterprise ready	High compliance & legal costs; delays	Not core competency; bureaucratic	Demand-supply mismatch; fragmented

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Sources: (1) Bureau of Labor Statistics. (2) Gartner. (3) CIO Magazine.