



PUBLIC SECTOR
SUMMIT ONLINE

Improving customer experience through machine learning-powered analytics in the contact center

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Public Sector, Asia Pacific and Japan

Amazon Web Services

Contact Centers that connect with people



WE CARE in Singapore provided 900 hours of counseling sessions between January and May 2020, double the amount from the same period the previous year. WE CARE plans to continue leveraging Amazon Connect to extend its services to people who cannot travel to the center for counseling.



"We can scale the AWS solutions we're using in new ways and be more reactive during and after a disaster."

Dan Beeston - *ICT Manager, Juniper*

In a single business day, AWS Professional Services worked with Juniper to set up Amazon Connect as an automated contact center as an immediate incident response when an outbreak occurs at a Juniper facility or when a total lockdown goes into effect.

Staying connected in a changed world

➤ The world has changed

300 million students being home schooled

Distancing is the new norm

Over 20% of workers work from home

➤ Role of governments and the public sector redefined

➤ Contact centers playing an increasingly critical role to citizens

Challenges in contact centers today



Poor
visibility into
quality of
customer
care



Compliance
risk



Timely
discovery of
emerging
issues



Lack of
real-time
support for
live calls



Disconnected
ecosystem of
products



Expensive
third-party
tools

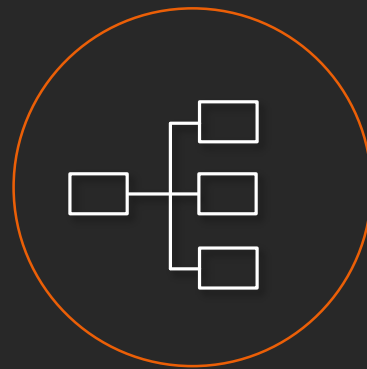


Poor
transcription
accuracy

Amazon Connect

Simple to use, omnichannel cloud-based contact center service that scales to support businesses of any size

The fastest path to customer service innovation



Skills-based
contact routing



Voice and chat
recording



Real-time and
historical analytics



High-quality
voice capability

Service architecture:

Multi-tenant across multiple availability zones connected through low latency links

Telephony architecture:

Host toll-free and direct dial numbers (DID) on our managed network of carriers

Contact Lens for Amazon Connect

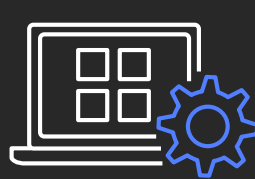
New analytics capabilities powered by machine learning (ML) that are integrated in Amazon Connect



Advanced
search



Detailed analytics
and sentiment
analysis



Automated
contact
categorization



Theme
detection
(coming soon)



Supervisor
assist
(coming soon)



Open and
flexible data

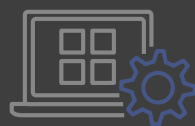
The out-of-the-box experience makes it simple for contact centers and their staff to **use the power of ML with just a few clicks**



Advanced search



Detailed analytics
and sentiment
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Automated
contact
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Theme detection
(coming soon)



Supervisor assist
(coming soon)



Open and flexible
data

New powerful search features in Amazon Connect

- Search contacts based on keywords and phrases in call transcripts
- Filter by speaker type – customer vs. agent
- Search based on conversation characteristics such as sentiment scores and non-talk time

Use case 1

Search for all conversations where customers have mentioned canceling their services and understand the magnitude of a potential customer churn issue

Use case 2

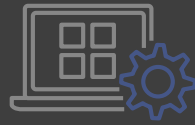
Identify contacts where customer sentiment at the end of the call was poor and then do a deep dive to find underlying reasons



Advanced search



Detailed analytics and sentiment analysis



Automated contact categorization



Theme detection (coming soon)



Supervisor assist (coming soon)



Open and flexible data



Contact search

Filters

Start date

Jun 18, 2020



End date

Jun 18, 2020



Time zone

Etc/UTC



Initiation method



Phone number

Search for phone number



Queue

Search for queue



Agent login

Search for agent



Minimum interaction seconds

Maximum interaction seconds

Channel

Select a channel to filter the contacts included in the report. If no channel is selected, search will return all contacts within the reporting time range.

Voice Chat Task

Customer phone number



Advanced search



Detailed analytics and sentiment analysis



Automated contact categorization



Theme detection (coming soon)



Supervisor assist (coming soon)



Open and flexible data

Amazon Connect

fcacoile English

Contact Trace Record

Contact Summary

Contact Id: aa9b80b2-9633-42cd-bb5b-e3747c9e4803

Channel: Voice

Initiation Method: Outbound

Media Streams: [AUDIO]

Start and end time: May 26, 20, 08:25:31 pm - 08:31:55 pm

Duration: 00:06:24

Customer number: +17783165624

Agent: Caoile, Francis

Queue: BasicQueue

Last Updated: May 26, 20, 08:36:18 pm

Customer sentiment trend

00:06:24

Sentiment	Percentage
Neutral	30%
Positive	40%
Negative	30%

Customer sentiment

Category	Percentage
Non-talk time	9.42%
Customer talk time	40.66%
Agent talk time	49.91%

Total talk time 00:06:24

Categories

Proper-Greeting Legal-Notice Baggage-Loss Traffic-Delay

Recording and transcript

All parties sentiment

Customer

Agent

0 00:30 01:00 01:30 02:00 02:30 03:00 03:30 04:00 04:30 05:00 05:30 06:00 06:30

00:00:08/00:06:17 Speed: 1x

Legend

- Speaking
- Long silence
- Talking over each other
- Sentiment - positive
- Sentiment - neutral
- Sentiment - negative

Transcript

Auto scroll

Agent 00:00

Hello. Thanks for calling XYZ Company. My name is Francis Caoile. Let's start with your date of birth and please verify your address for me please.

Customer 00:13

Enhanced contact detail page

- Review of entire call transcript
- Customer and agent sentiment for every speaker turn
- Customer sentiment progression during the call
- Breakdown of participation between agent and customer
- Redaction of sensitive data in call transcript and audio recording



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Open and flexible
data

Automatic monitoring of customer experience issues

- New page in Amazon Connect makes it simple to define and manage custom categories
- Specified criteria can be keywords, phrases, and conversation characteristics

Use case 1

Contact centers can now create scorecards that show what percentage of their agents adhered to scripts related to organisation guidelines for customer experience, such as call greetings and sign offs

Use case 2

Organisations can now automatically monitor valuable customer feedback, such as mention of a competitor's features



Advanced search



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Automated contact categorization



Theme detection (coming soon)



Supervisor assist (coming soon)



Open and flexible data



Name

GreetingScript

Name can contain characters A-Z, 0-9, or '.', '-', '_'. It cannot contain spaces.

Words and phrases



Logic: Any of the following words or phrases were mentioned during the first 120 seconds of the contact, where speaker is agent

Enter keywords or phrases. Comma separate multiples entries.

Add

Keyword and phrases

"Thank you for calling Amazon Connect"

Remove

AND

Words and phrases



Logic: Any of the following words or phrases were mentioned during the first 120 seconds of the contact, where speaker is agent



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Theme detection
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Open and flexible
data

Discover emerging issues and their severity with theme detection

- Automated analysis of multiple customer conversations to derive a set of themes that may be causing increased call volumes, dissatisfied customers, and recurring issues
- Themes presented by Contact Lens for Amazon Connect in an easy-to-understand visual format that helps supervisors quickly respond to customer feedback

Coming soon

Trending topics

Online banking access de... 110

Account is locked 104

Can't access web page 87

Password reset 60

Bill pay 58

Difficulty hearing 52

Poor connection 52



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Open and flexible
data

Real-time analytics for supervisors

- Real-time dashboard shows the sentiment progression of live calls in a contact center
- Supervisors can also define custom criteria based on a call's characteristics (such as requests to speak to a manager) that allow them to receive a real-time alert so they can engage and quickly help the customer

Coming soon

Use case

Contact center supervisors can identify and help frustrated customers before they hang up

Amazon Connect

Real-time metrics > New report

Last refreshed: Dec 2, 2019 at 10:48:07 AM

Time range: trailing previous 2 hours

Agent login	Channels	Agents					Contacts					
		Activity	Duration	Agent hierarchy	Routing profile	Capacity	Sentiment	Active	Availability	State	Duration	Queue
loginname_a	All channels	On contact	01:15:01	US/ West/ Dept A	RP name A	3		2	1	-	-	-
	Voice							1	0	Connected	00:05:18	Queue name
	Chat total							1	1	-	-	-
								1	0	After contact work	00:13:01	Queue name
loginname_b	Voice	On contact	00:02:32	US/ West/ Dept A	RP name B	1		1	0	Connected	00:02:32	Queue name
loginname_c	All channels	Error	00:28:13	US/ West/ Dept A	RP name B	2		0	1	-	-	-
	Voice							0	0	Error	-	-
	Chat							0	1	-	-	-
loginname_d	Chat total	On contact	00:24:01	US/ West/ Dept A	RP name A	2		2	0	-	-	-
	Chat							1	0	Connected	00:01:01	Queue name
	Chat							1	0	Connected	00:12:45	Queue name
loginname_e	All channels	On contact	00:13:30	US/ West/ Dept A	RP name C	2		2	0	-	-	-
	Voice							0	0	-	-	-
	Chat total							2	0	-	-	-
	Chat							1	0	Connected	00:11:56	Queue name
	Chat							1	0	Connected	00:05:22	Queue name
loginname_f	All channels	On contact	01:07:52	US/ West/ Dept A	RP name a	3		3	0	-	-	-
	Voice							0	0	Connected	00:03:12	Queue name
	Chat total							2	0	-	-	-
	Chat							1	0	Connected	00:10:18	Queue name
	Chat							1	0	Connected	00:05:30	Queue name



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Do more with your data

- Rich metadata for every contact, including call transcripts, sentiment, categorization labels, talk speed, and interruptions
- Metadata available in customers' Amazon S3 buckets in well-defined schemas

Use case 1

Businesses can use this data in a BI tool along with their CRM data to gain insights into customer engagements

Use case 2

Data science teams can also use this data to create custom ML models that provide unique advantages to your business

Demo

Contact flow designer

Snap to grid Save

Set customer queue flow
Specifies the flow to invoke when a customer is transferred to queue.

Set whisper flow
Specifies the whisper to be played to the customer on an outbound call, or to the customer or agent when the call is joined.

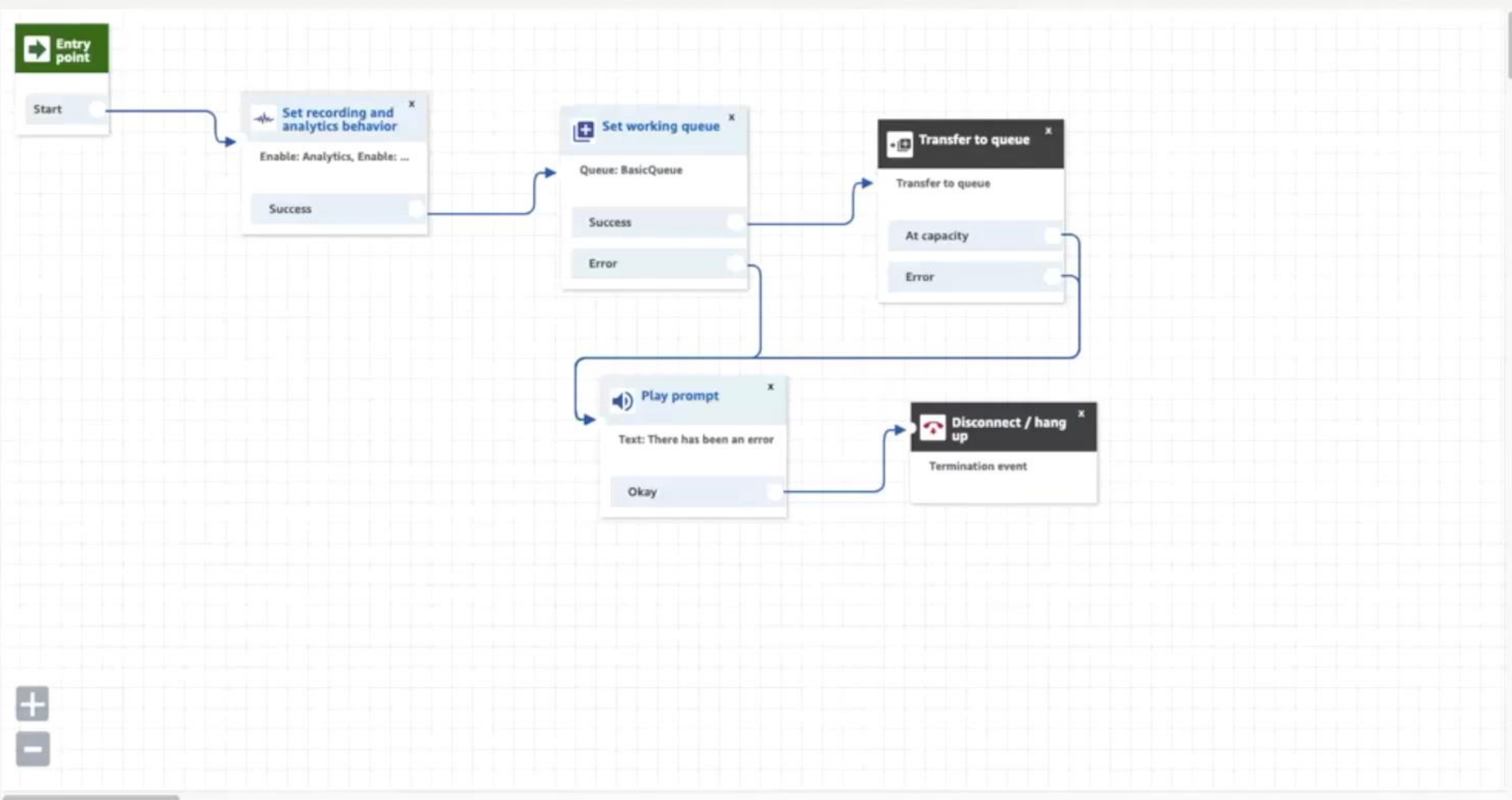
Set disconnect flow
Specifies which contact flow to run when a customer remains on the call after the agent disconnects.

Set callback number
Specifies the number to be used to call the customer back in the Contact Control Panel (CCP), or when Transfer to queue is invoked with the callback option.

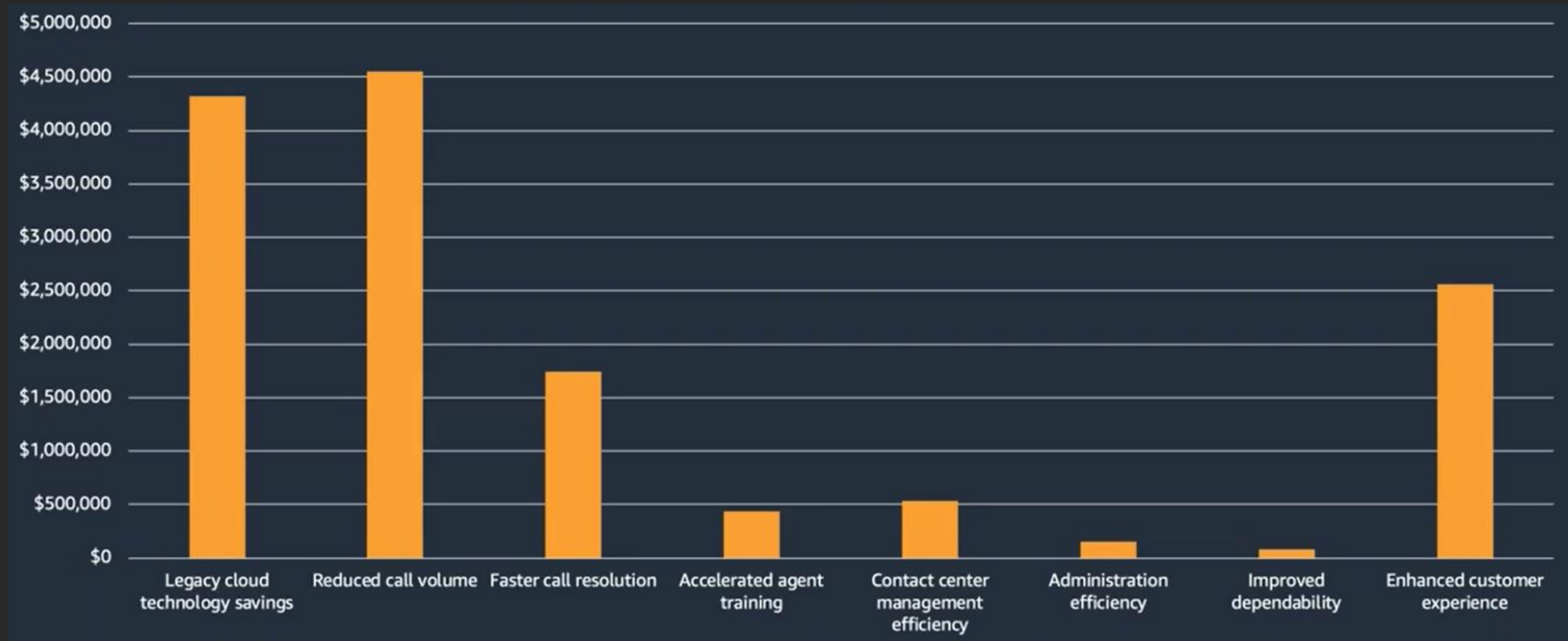
Set voice
Sets the voice to interact with the customer.

Get queue metrics
Loads queue metrics for flow to use

Branch



Measuring improved customer experience



A study by Forrester based on actual Amazon Connect customers found a typical large contact centre would realise \$14.4M in benefits over the first three years.

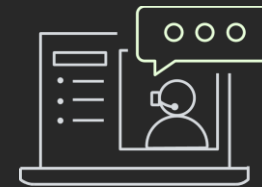
Source: https://pages.awscloud.com/Amazon_Connect_Forrester_TEI_Report.html. Based on 600 seat, 6M mins pa contact centre servicing global operations.

Accolade Healthcare is enhancing their customer experience with Contact Lens for Amazon Connect



“Contact Lens for Amazon Connect exceeds what we could have built by making it easy to programmatically select which calls to automatically transcribe and by offering an enhanced contact search and analysis page to interact with the results. We estimate that with Contact Lens for Amazon Connect we have saved several months of development time that would have been needed to mirror the same interactions and results.”

Stephen Murphy
Senior Director, Cloud Engineering, Accolade



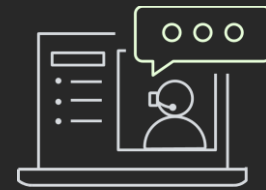
Accolade wanted to build a solution that could programmatically select calls to transcribe, analyze, and draw insights from one location



Amazon
Connect

Using Contact Lens for Amazon Connect (powered by ML), Accolade integrated automatic speech transcription and enhanced contact search months faster than any other solution

Intuit uses Contact Lens for Amazon Connect to address customer issues in real time



Intuit wanted to optimize its end-to-end live agent experience to ensure the best possible service for its customers



Amazon
Connect

Using Contact Lens for Amazon Connect (powered by ML), Intuit is automating call categorization to monitor customer experience and regulatory compliance during calls

“With Contact Lens for Amazon Connect, we’re able to quickly understand our customers’ needs and use those insights to create new machine learning models and solutions that best serve our customers.”

Ashok Srivastava
Chief Data Officer, Intuit

Thank you!

David Rosengrave

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