

The background of the image features a dark blue gradient on the left, transitioning into a large, vibrant, abstract shape on the right. This shape is composed of overlapping curved segments in shades of orange, pink, and purple, creating a dynamic, modern aesthetic.

AWS re:Invent

NOV. 27 – DEC. 1, 2023 | LAS VEGAS, NV

Principal Financial Group boosts CX using call analytics and generative AI

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Speakers



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Agenda

- 01 Key contact center challenges
- 02 Benefits of AI for CX
- 03 AWS contact center intelligence solutions
- 04 Latest innovations in generative AI for CX

- 05 Principal Financial Group customer story
- 06 Console demonstration
- 07 How to get started

Key contact center challenges



Average speed to answer (ASA)

81% of consumers say they want to self-serve



Average handle time (AHT)

Agents spend ~30% time on administrative tasks



Analytics and Insights

Lack of insights into trends, sentiment, performance...

AI powered contact center use cases

SOLUTIONS ENHANCED BY GENERATIVE AI



Self-service virtual agent

Resolve customer queries with automated responses



Agent & supervisor assist

Improve productivity with automation and coaching



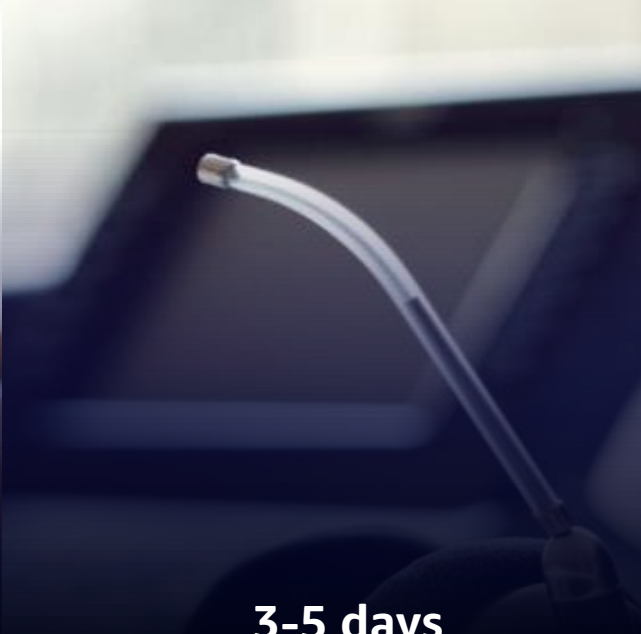
Conversational analytics

Gain insights into customer conversations and agent performance



**90% reduction
in time for balance
enquiry**

**30% containment
rate by self-service
bots**

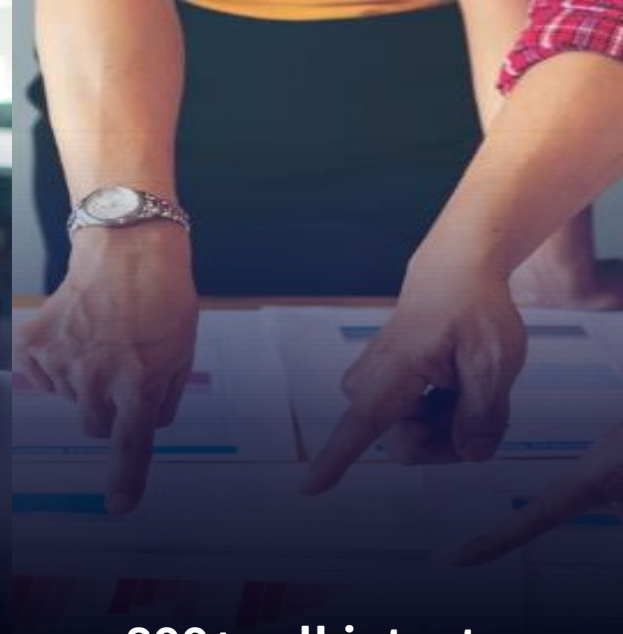


**3-5 days
Reduction in agent
training time**

**9-15 secs
reduction in avg. call
time - saving more
than 4.4k hours on 2.2
million calls/year**



**~\$800,000 saved in
operating expenses
with call reductions
and efficiency gains**



**800+ call intent
identified**

**Eliminated 2000
hours of manual call
monitoring**

**100% post call
analytics**



Serving contact center customers across the globe

Healthcare

Magellan
HEALTHSM

Accolade

CDC

Quantum
HEALTH

Banking, finance & insurance

Vanguard[®]
TransUnion^{tu}

Intuit[®]

Liberty Mutual[®]
INSURANCE
WaFd Bank

STATE AUTO
Insurance Companies

T S B

intact[®]
INSURANCE

Principal[®]

Retail & hospitality

GE
APPLIANCES

Morrisons
Since 1899

RYANAIR

StubHub

TechStyle
FASHION GROUP

Telecom & professional services

VONAGE

amaysim

xpertal
GLOBAL SERVICES

MAXIMUS

Wolters Kluwer

And many more industries

The New York Times

vistaprint

Johns Creek
be the exception

origin

DXC.technology

News Corp

Wix

octopusenergy

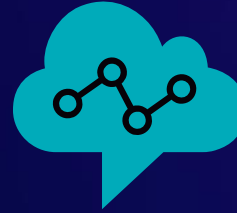
THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

twilio

Two flexible options for your contact center goals

Power your next customer service experience with AWS

Amazon Connect



End-to-end
contact center

AWS CCI solutions



Add AI to existing
contact centers



Amazon
Transcribe



Amazon
Comprehend



Amazon
Kendra



Amazon
Lex



Amazon
Polly



Amazon
Chime SDK

Generative AI/BI



Amazon
Bedrock



Amazon
SageMaker



Amazon
QuickSight

AWS Contact Center Intelligence (CCI) solutions

ADD AI TO YOUR EXISTING CONTACT CENTER



Address 3 main use cases in contact centers –
with no ML expertise required

Supported contact centers

 GENESYS™

8x8

:talkdesk®

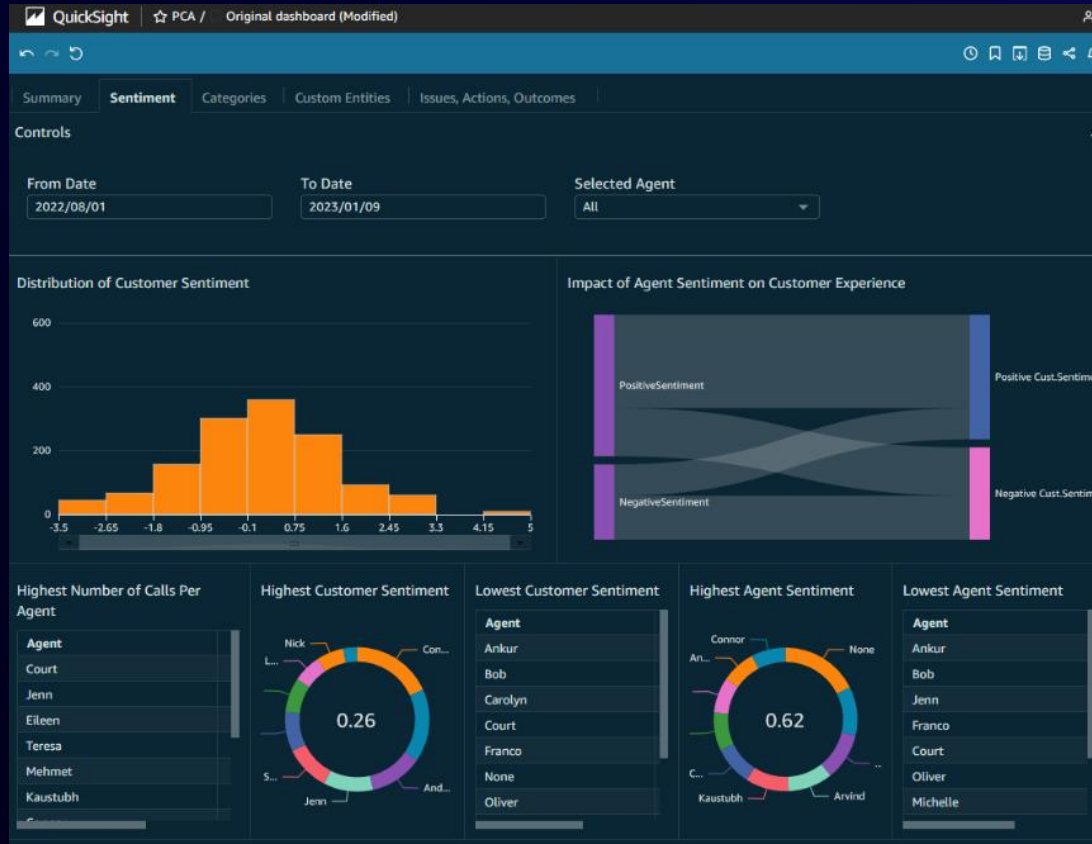

CISCO

AVAYA

... and many more

Generative AI powered post-call analytics solution

POST-CALL ANALYTICS, OPEN SOURCE, AVAILABLE ON GITHUB



The screenshot shows the 'Transcribe Post-Call Analytics' interface. It includes a 'Call List' section with a search bar and a table of calls. A detailed view of a specific call is shown on the right, with a red box highlighting a summary of the call transcript.

Timestamp	Job Name	Resolved	Topic	Product	Summary	Cust Sent
8-10-01 16:10:55	Lost-Debt-Ca...	no	credit card fr...	credit card	The customer's cred...	🔴→
8-10-01 16:10:50	Retail-p0 UT...	yes	replacement	video game	A customer called a...	🟢↑
8-10-01 16:10:49	Reservations...	yes	reservation			
8-10-01 16:10:48	Lost-Debt-ca...	no	credit card is...			
8-10-01 16:10:46	SoftwareT22...	no	software issue			
8-10-01 16:10:46	Lost-Debt-Ca...	no	credit card is...			
8-10-01 16:10:43	Retail-p02 U...	no	toy issue	toy	A customer called a...	🔴↑

Summary: A customer called about a toy dinosaur that was ordered as a birthday gift for their son but arrived missing part of its head. The agent looked up the order and informed the customer that the specific dinosaur toy is currently out of stock due to production issues overseas. A replacement will be sent in approximately 6 weeks when more are available, as refunds are not allowed for items purchased during a sale. The customer agreed to wait for the replacement.

<https://amazon.com/post-call-analytics>



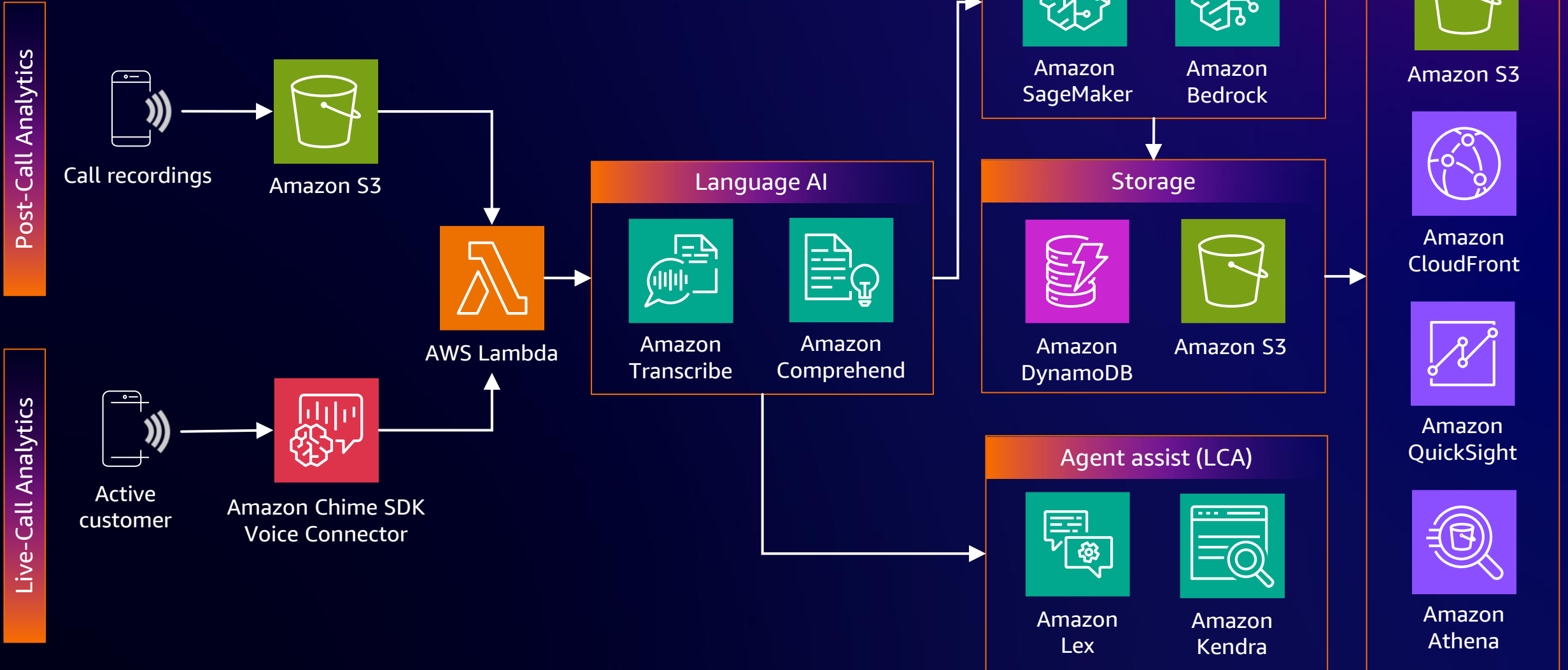
Generative AI powered post-call analytics solution

POST-CALL ANALYTICS, OPEN SOURCE, AVAILABLE ON GITHUB



Contact center analytics

REFERENCE ARCHITECTURE



Announcements



Announcing foundation model powered ASR

LAUNCHING TODAY

Unlock innovative
speech applications
with high accuracy
ASR FM

100+

Expand Amazon Transcribe language support to over 100+ locales

+30%

Deliver high accuracy in noisy environments, across accents, and use cases

10+

Features focused on security, privacy, customization

Announcing generative call summarization in Transcribe Call Analytics

AVAILABLE AS PREVIEW

Transcription preview

Select download transcript to save a local copy of the transcription.

Download transcript

Text

Generative call summarization - *preview*

The customer had just purchased a car and accidentally damaged the back fender while pulling out of the dealership parking lot. There were no barriers or signs to prevent vehicles from hitting the low wall. The customer wanted to speak to a manager about getting the car repaired without having to pay since it was damaged on the dealership property. The agent transferred the customer to the head of the cosmetic repairs department to look at the car and discuss options.

Improve agent productivity through automated interaction summaries

Available as **Preview**

Summarization is provided automatically as an output in JSON to post-call analytics job

Single API call to receive transcript, analytics, and summary

Option to redact PII information from transcript and summary



Principal Financial Group

Important Information

Amazon Web Services (AWS) is a product of Amazon.com, Inc.

This presentation is intended to be educational in nature and is not intended to be taken as a recommendation.

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MORE THAN **140** YEARS

62M CUSTOMERS

18,500 EMPLOYEES

\$635B ASSETS UNDER MANAGEMENT

30K DAILY CUSTOMER CALLS

8 minutes AVERAGE CALL LENGTH

As of 12/31/2022. AUM source: 2022 annual report. See our most recent 10-K or 10-Q report for additional information and forward-looking disclosures. For other updates, visit www.principal.com.

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Why AWS and PCA for Principal?

A PARTNER TO HELP ACHIEVE THE GOAL OF HAVING ALL DATA POINTS IN THE CLOUD BY END OF 2026

Benchmark components

Access to real SMEs

Enterprise definitions

Open source framework

High accuracy for Transcribe Call Analytics

Current state of conversation analytics solution at Principal



Voice channel



Email channel

Capturing voice of the customer (VOC)

ANALYZING BOTH UNSTRUCTURED AND UNSOLICITED DATA



Voice channel

Listen

Capture data from multiple sources

Interpret

Synthesize data for actionable insights

Act

Implement enhancements to improve outcomes

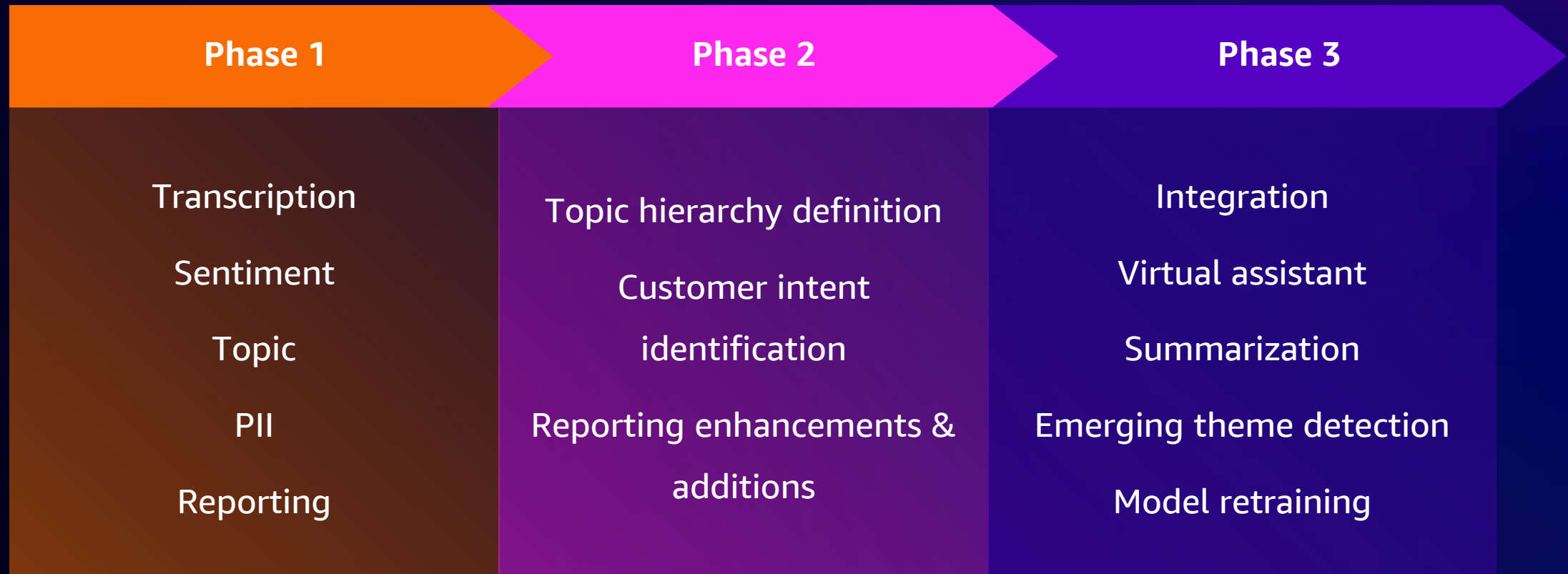
Monitor

Quantify the performance of customer experience efforts

Govern

Align, commit, and prioritize the vision, strategy, and outcomes

Creating a seamless and hyper-personalized CX



Omni-channel interaction journey

ROADMAP: INTEGRATE ALL OPEN ENDED COMPONENTS: VOICE, EMAIL AND SURVEY



Email channel



Aggregate cross-product omnichannel data, analytics, and insights at scale



Integrate and process email and voice interactions data from users



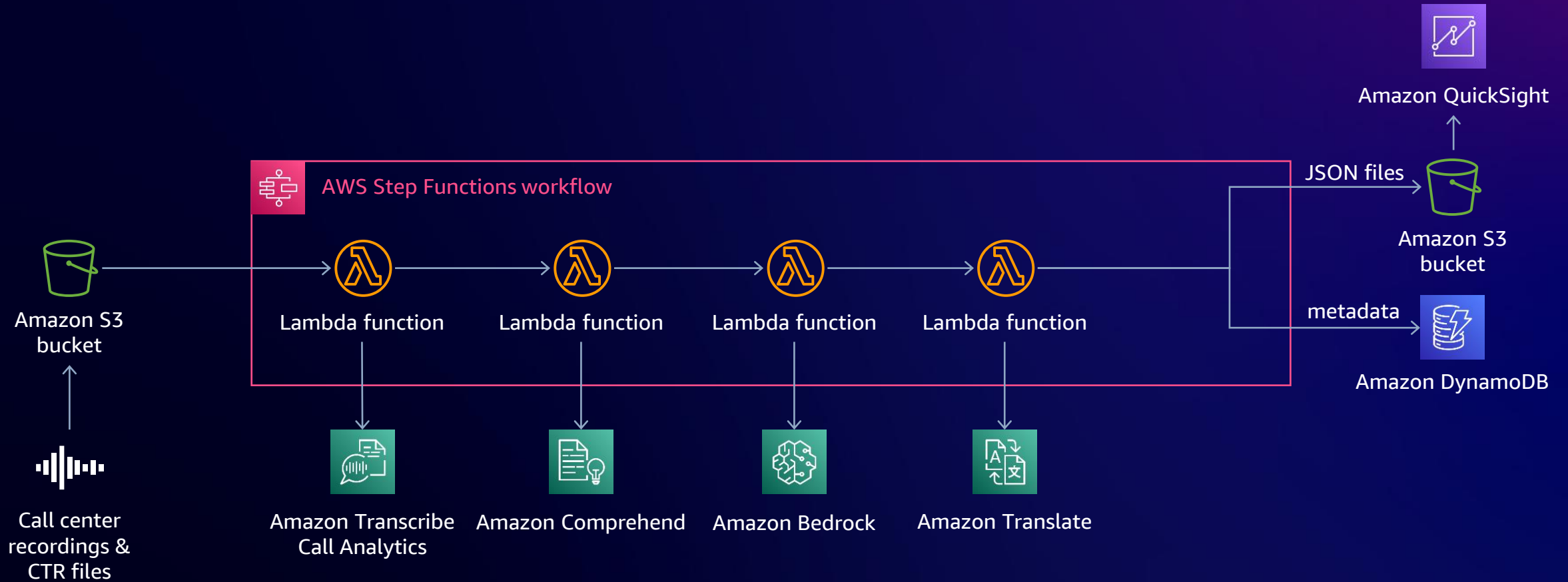
Identify hidden relationships between the omnichannel data

Improve customer service by acting proactively on customer insights

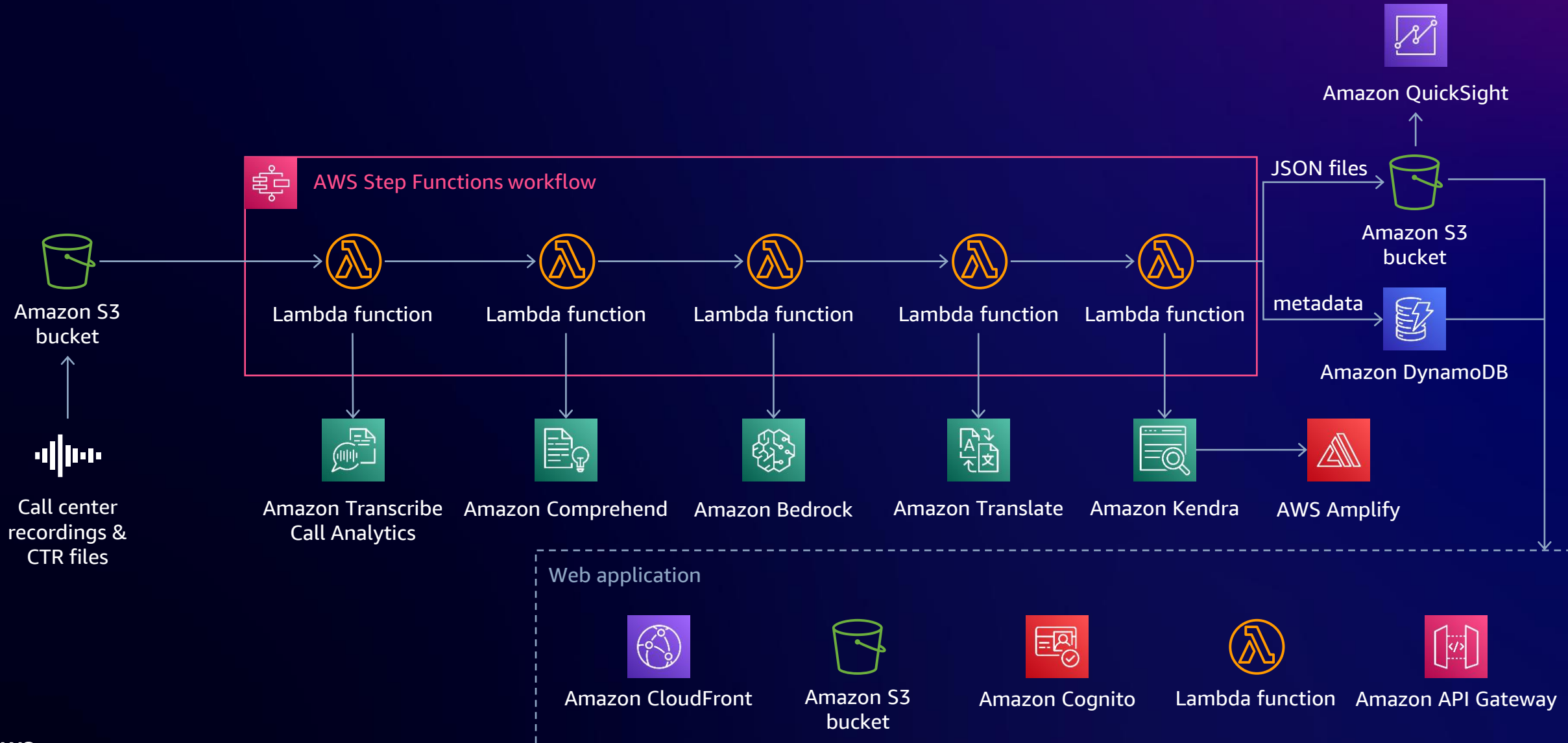
Post-call analytics – How is it implemented?



Post-call analytics – How is it implemented?



Post-call analytics – How is it implemented?



Post call analytics (PCA)

Console demonstration



Call Details

Swap Agent/Caller

Call Metadata

Timestamp
2023-10-18 16:29:55

QueueName(s)
ABC QUEUE

Agent(s)
Doe, John

Call Duration
03:35

Entity Recognizer Name
-

Language Model
en-US

Agent Sentiment
Sentiment: 😊Trend: →

Customer Sentiment
Sentiment: 😊Trend: ↗

Transcribe Details

Type
Transcribe Call Analytics

Recording ID
12345678-3096-48a1-a42a-6e366499a6bc

Conversation ID
12345678-83c3-4a72-a7de-e948043004e8

File Format
wav

Sample Rate
8000

PII Redaction
Enabled

Custom Vocabulary
pfg-default

Vocabulary Filter
-

Average Word Confidence
97.9%

Sentiment



Speaker Time



Loudness/Sentiment



PCA & Amazon QuickSight demonstration

Topic identification

Date Range

2023/02/01 00:00 - 2023/03/31 00:00

Queue Name

All

Date Range Analysis

Use the filter to the left to enter the star date and end date.
This filter only affects the visuals below

Topic Frequency Drill down

The following visuals provide the Top 10 Topics for Customers and Agents.
In addition, a summary of what people say in these calls.
Click on a particular Topic to filter the associated visuals.

N° of Calls

30,498

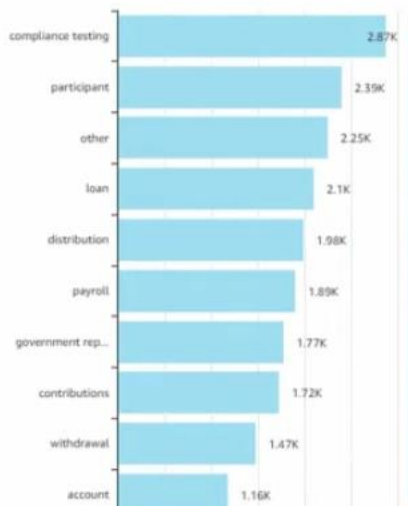
Average Talk Time

14.2

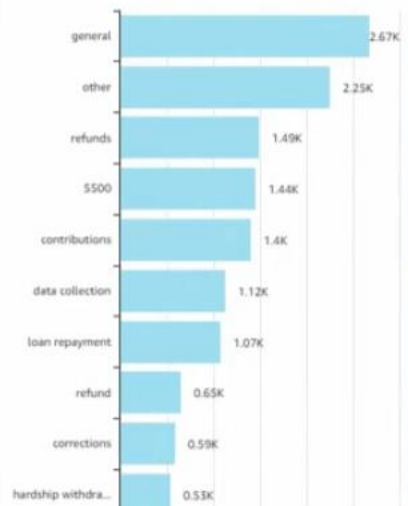
Total Calls Duration
(mins)

647,160

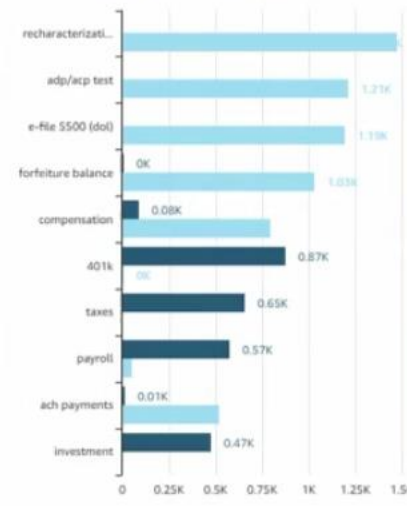
Top 10 Customer Topic Level 1



Top 10 Customer Topic Level 2



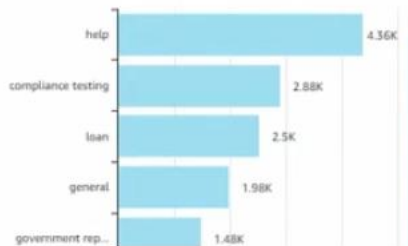
Top 10 Customer Topic Level 3



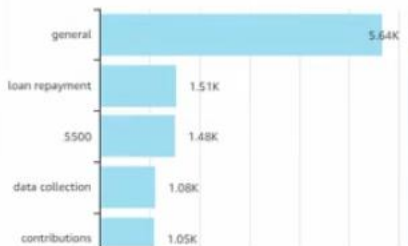
Summary Call Customer Filter

customer_topic_level_1	customer_topic_level_2	customer_topic_level_3
general	system issue	password
other	other	forfeits
plan sponsor reporting	financial reporting	correct
participant	mobile app	deferra
government reporting	5500	e-file 5
government reporting	5500	e-file 5
other	other	adp/acq
other	other	adp/acq
general	inquiry	missing
other	other	adp/acq
general	general	feeling
taxes	tax	filing
general	waiting period	custom
other	other	forfeits
general	contract inquiry	billing
other	other	adp/acq
other	other	forfeits

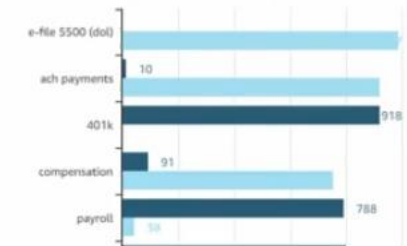
Top 10 Agent Topic Level 1



Top 10 Agent Topic Level 2



Top 10 Agent Topic Level 3



Summary Call Agent Filter

agent_topic_level_1	agent_topic_level_2	agent_topic_level_3
help	general	password reset
help	general	customer servio
help	general	mobile app
help	general	e-filing
compliance testing	general	taxes
participant ...	general	voicemail
general	inquiry	missing in origin
..	..	..

Understanding the customer experience

AWS POST CALL ANALYTICS SOLUTION IS THE CORNERSTONE OF ALL THE INITIATIVES

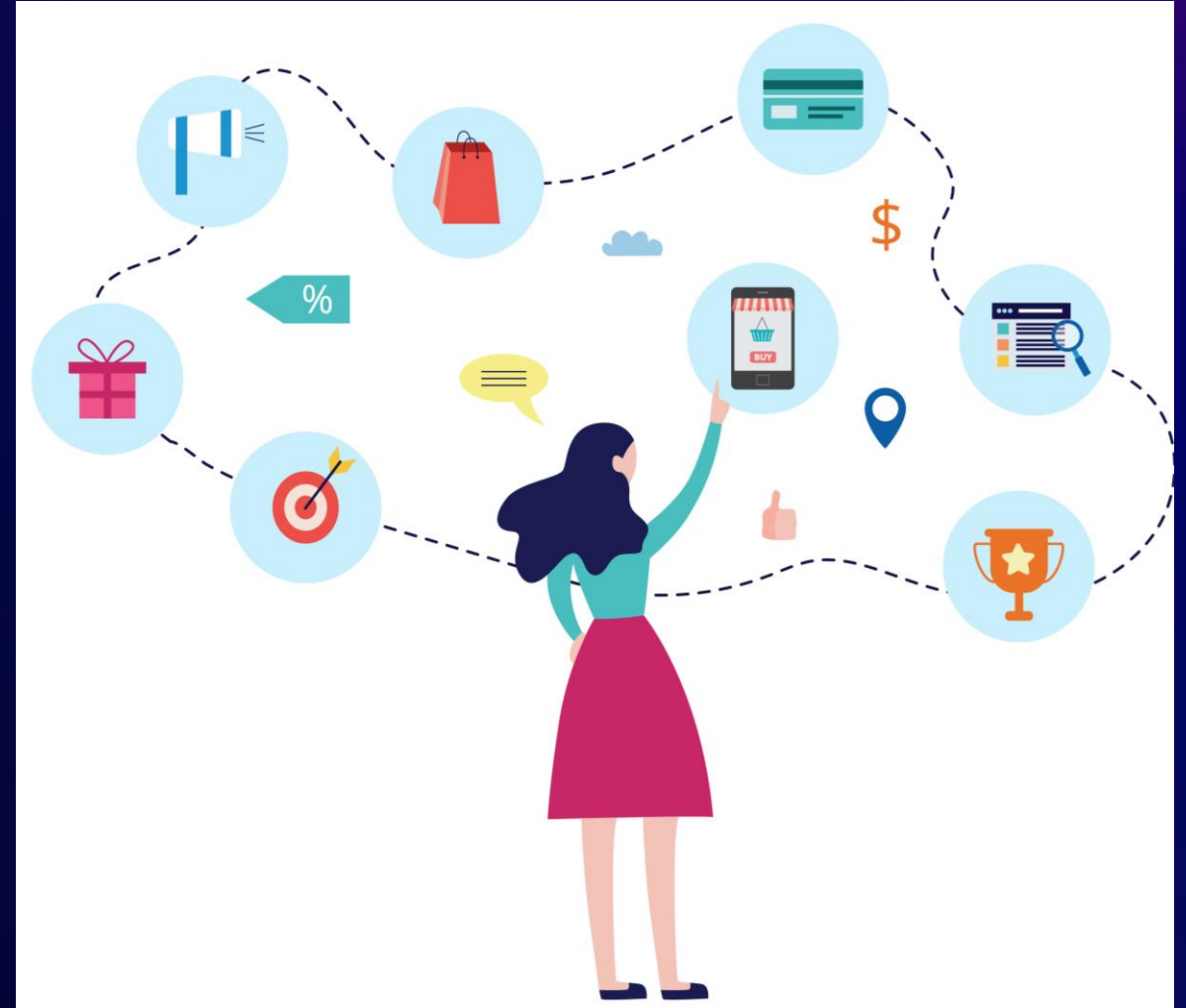
Customer Experience must be **simplified, personalized, and anticipatory.**

Customer journey transformation

Why are customers calling instead of emailing us with questions and self-serving online?

VOC omnichannel analysis

Utilize existing data more effectively and **create** more **robust insights** on customer experience.



**Continue collaboration with
AWS to build roadmaps that
meet business needs**



Business impact

01

Phase 1 (in production): Post call analysis, PII redaction, topic hierarchy definition, summarization

Processed **1Mn+ calls** from multiple contact center queues

Deep insight into the content of calls

Enhanced BI capabilities

Relying on LLMs to gather additional customer insights

02

Phase 2 (in development): Omnichannel customer interactions, Virtual assistant

Holistic understanding of customer omni-channel interaction

Improve optimization on internal processes for CX

Gain customer multi-channel insights (with Neptune)

Business impact

03

Phase 3 (in development): Integrating our proprietary solutions with **Amazon Bedrock** (Anthropic Claude Instant)

Use diverse data sources to improve accuracy for **call topic & intent detection, and summarization**

QnABot on AWS solution for **intelligent agents**

Utilize **Claude** for PCA user interface

Retrieval augmented generation (RAG)

- Amplify internal customer knowledge bases
- Employee time savings on finding answers to customer & partner queries

Next steps

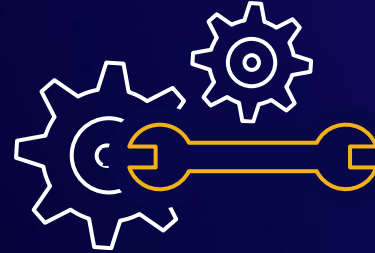
AWS CCI next steps

HOW TO GET STARTED



Discovery workshop to proof of concept

- Identify the use case
- Determine KPIs
- Do a workshop/Immersion day
- Start a POC



Buy vs. build

- Contact center platforms
- Consulting partners
- Independent software vendors (ISV)



Who can help

- Work with AWS experts
- AWS ProServe
- AWS CCI Partners
- Consulting partners
- Independent software vendors (ISV)



AWS Contact Center Intelligence Solutions
GO.AWS/CCI

Additional resources



[Live call analytics and agent assist for your contact center with Amazon language AI services](#)

Blog post describing the features and architecture of the AWS CCI Live Call Analytics and Agent Assist applications



[Post-call analytics for your contact center with Amazon language AI services](#)

Blog post describing the features and architecture of the AWS CCI Post-Call Analytics application



[Amazon Transcribe Call Analytics documentation](#)

Public documentation on the underlying Amazon Transcribe APIs with example usage and responses



[AWS Contact Center Intelligence Solutions](#)

Identify the AWS Contact Center Intelligence use case that works best for you

Other interesting contact center sessions

ID	Session type	Time	Session Title	Location
Monday, November 27				
AIM223	Breakout	1:00pm-2:00pm	Principal Financial enhances CX using call analytics and generative AI	MND - South Pacific E
AIM324	Chalk talk	3:00pm-4:00pm	Supercharge agent productivity with Amazon Transcribe & generative AI	CSR - Forum 126
AIM320	Chalk talk	4:30pm-5:30pm	Elevate the self-service contact center powered by generative AI	MGM - Boulevard 169
AIM355-R	Workshop	5:00pm - 7:00pm	Build conversational experiences with Amazon Lex and generative AI	MND - Oceanside A
Tuesday, November 28				
AIM357	Chalk talk	4:00pm-5:00pm	Deliver high-grade responses using Amazon Lex with generative AI	CSR - Summit 221
Thursday, November 30				
AIM222	Breakout	2:00pm- 3:00pm	Amazon Lex reshapes CX with conversational workflows and generative AI	VEN - Summit Showroom

Thank you!



Please complete the session survey in the mobile app



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Aartika Sardana Chandras

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