AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

AIM205

How Zillow and Genesys are transforming customer conversations

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Zillow

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Senior Product Manager
Genesys

Priyank Goyal
Principal Product Manager
Amazon Transcribe

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Agenda

Contact center challenges

AWS contact center intelligence (CCI) use cases

Case study: Zillow

Genesys integrations with AWS CCI

Demo

Next steps

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Great customer experience is important

73% customer experience impacts purchasing decisions

32% churn after one bad experience

16% price premium for good customer service

https://www.pwc.com/us/en/services/consulting/library/consumer-intelligence-series/future-of-customer-experience.html



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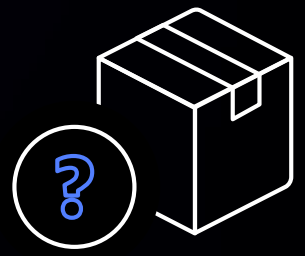
Key contact center challenges



Long hold times

Agents unavailable

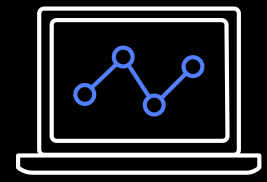
Multiple transfers to get to the right agent



Long resolution times

Agent unable to quickly address customer problems

Supervisors unaware of escalating customer calls



Lack of insights

Limited visibility into macro trends

Difficult to identify agent coaching opportunities

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How machine learning solves contact center challenges

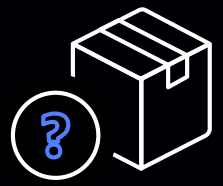
Applying AI and ML to contact centers







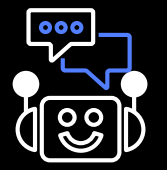
Long hold times



Long resolution times



Lack of insights



Conversational IVRs and chatbots



Agent assist and supervisor alerts

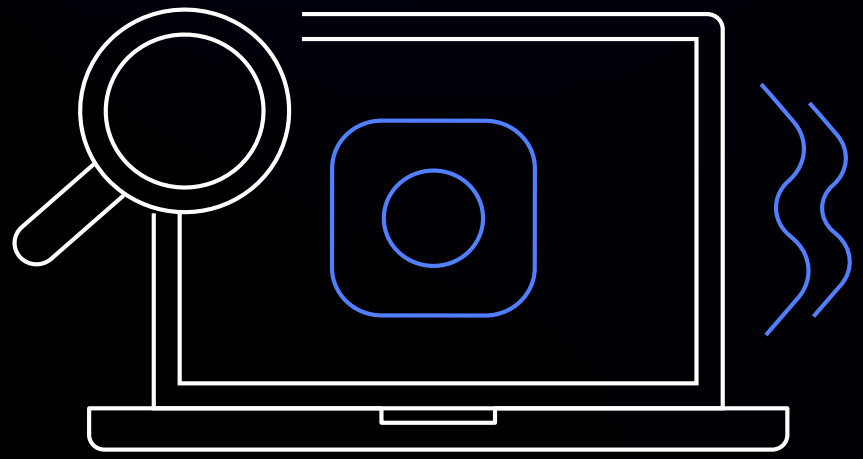


Call analytics

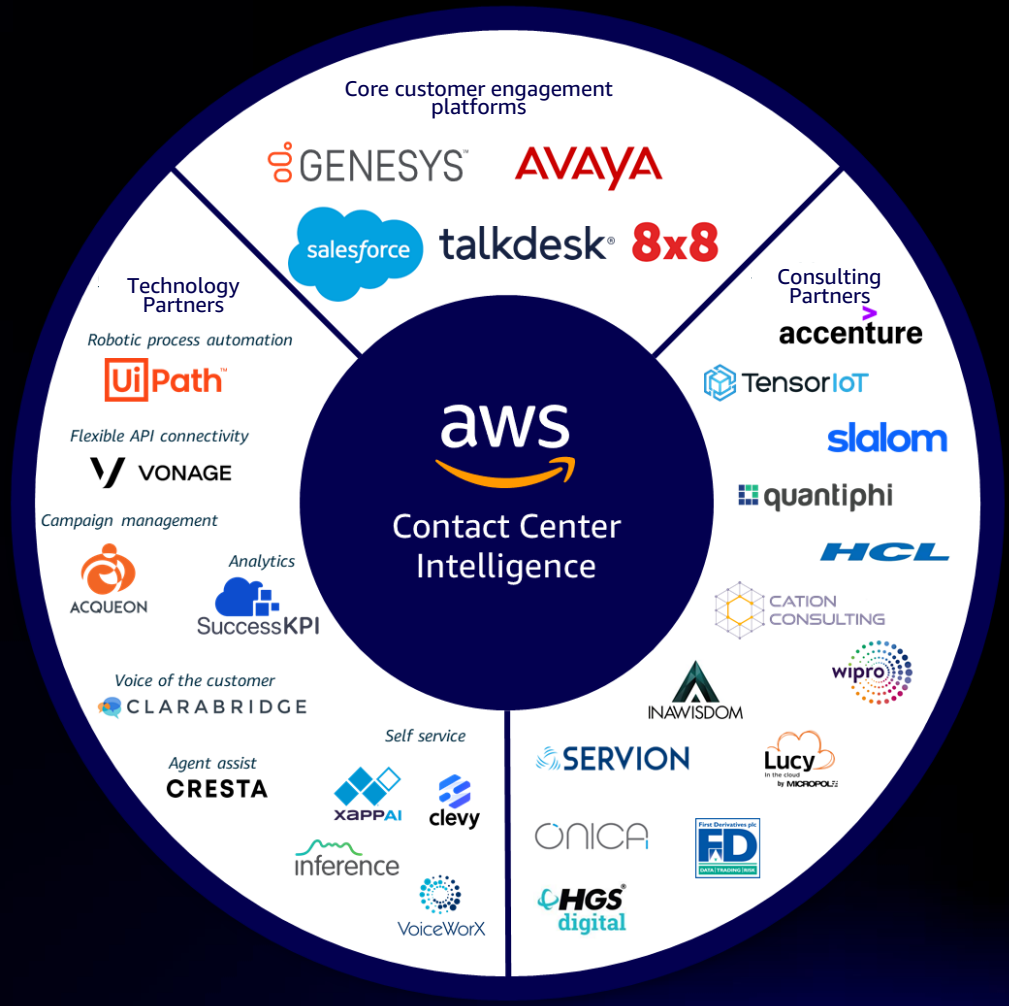
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AWS Contact Center Intelligence (CCI)

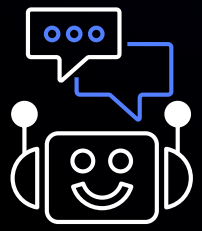


A set of common contact center use cases that are powered by AWS AI services to allow customers maximum flexibility in telephony infrastructure and minimum integration barriers



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What use cases are covered by AWS CCI?



Self-service

Answer calls without a live agent

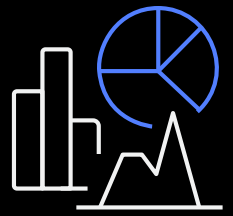
Reduce call transfers with Intelligent routing



Real-time call analytics and agent assist

Provide supervisor alerts and improve quality management

Decrease agent call handling time with next best action



Post-call analytics

Gather deep insights on product and spot emerging trends

Get better scorecards to assess agent performance

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Powering intelligent contact centers

Amazon Lex
Amazon Polly



Self-service bots

Amazon Transcribe



Call analytics

Amazon Comprehend



Natural language processing

Amazon Translate



Machine translation

Amazon Kendra

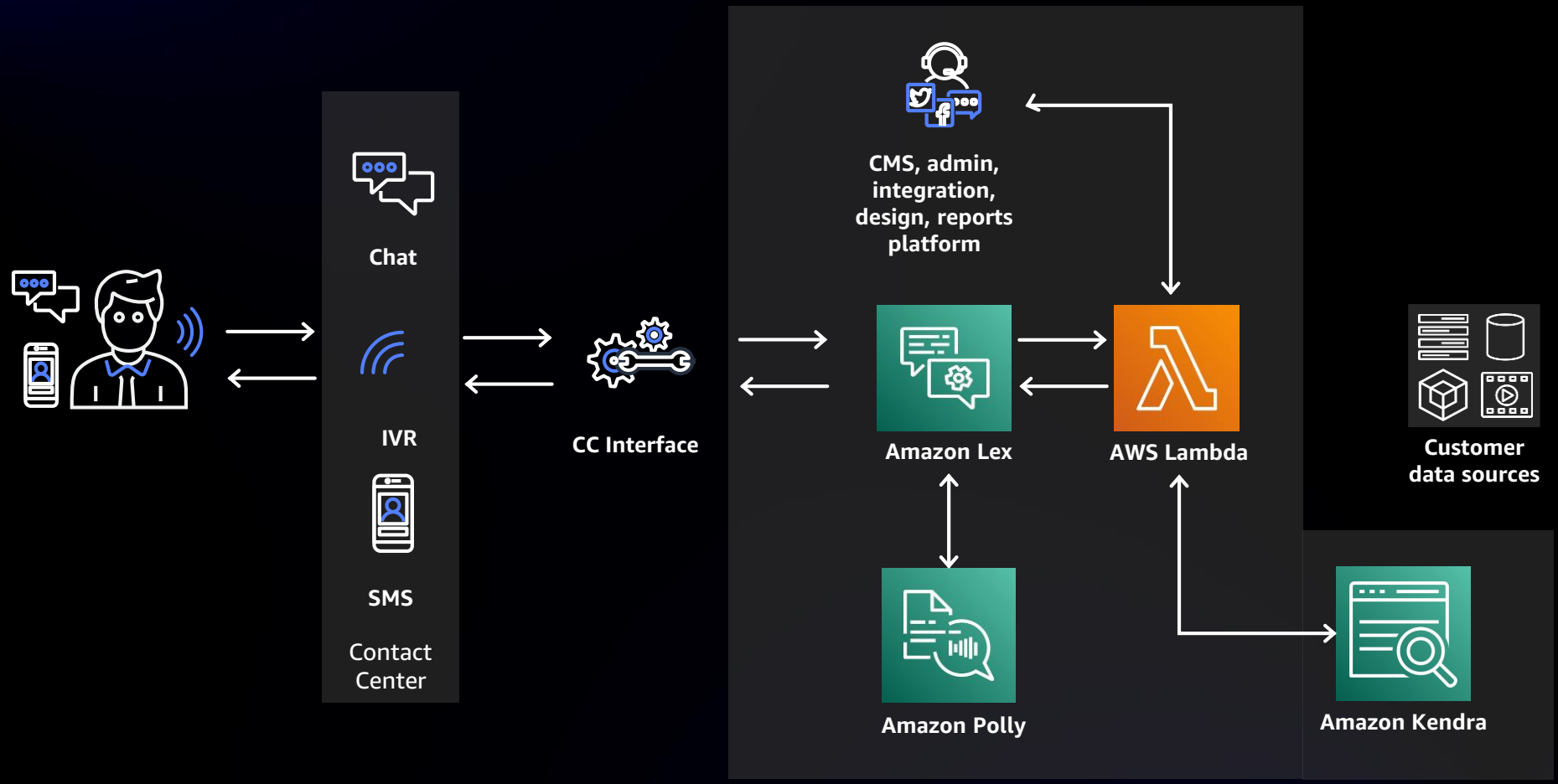


Intelligent search

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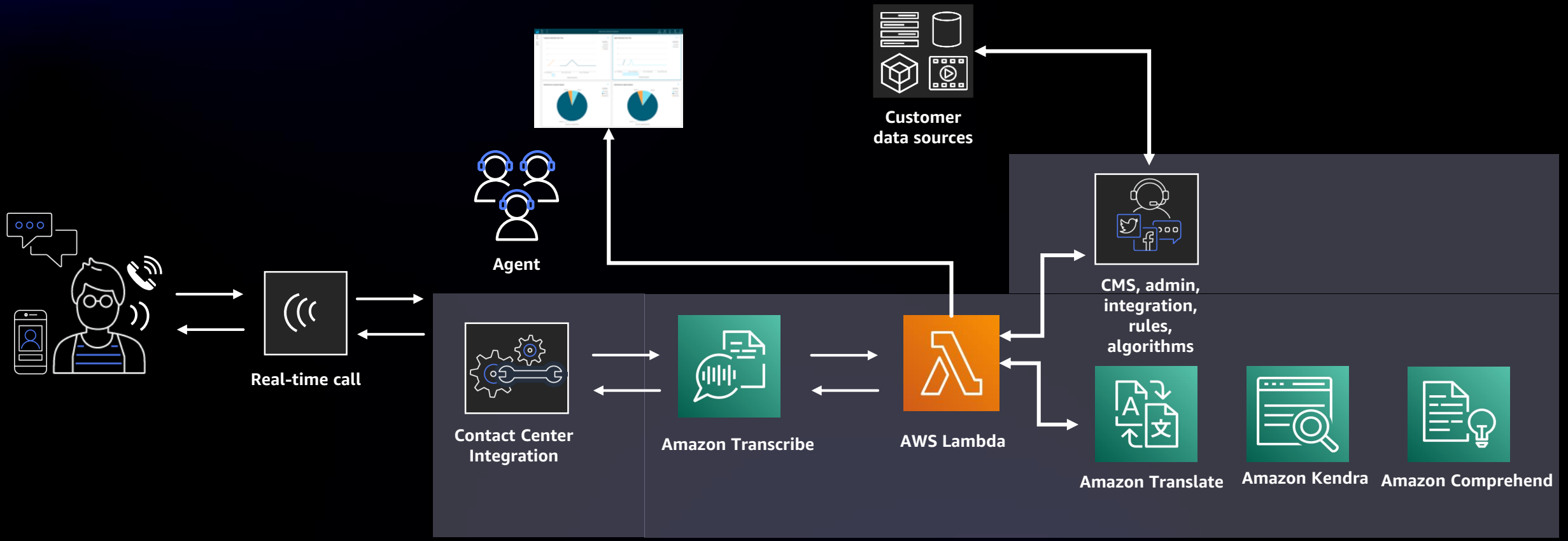
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Self-service sample architecture



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Agent assist sample architecture

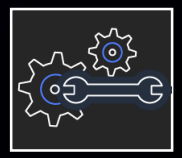


salesforce talkdesk CRESTA SuccessKPI VONAGE Unispeech HCL accenture HGS digital SERVION slalom TensorIoT wipro

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Real-time contact center integrations



Contact Center Integration

Amazon Chime Voice Connector

Genesys AudioHook

Streaming protocol

VONAGE

Vonage Voice API

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Post-call analytics sample architecture



SuccessKPI CLARABRIDGE ACQUEON HCL VONAGE accenture FD HGS digital

Lucy in the cloud by MICROPOLE quantiphi ONICA SERVION TensorIoT wipro INAWISDOM

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Zillow: Transforming customer experience with conversation insights

Tarun Agarwal (He/Him/His)
Principal Applied Scientist
Zillow

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227M

Q3 2021 avg. monthly unique users



2.7B

Q3 2021 visits



>135M

Homes in living database

Zillow®

Zillow® ClosingServices

Zillow® HomeLoans

Zillow PREMIER AGENT™

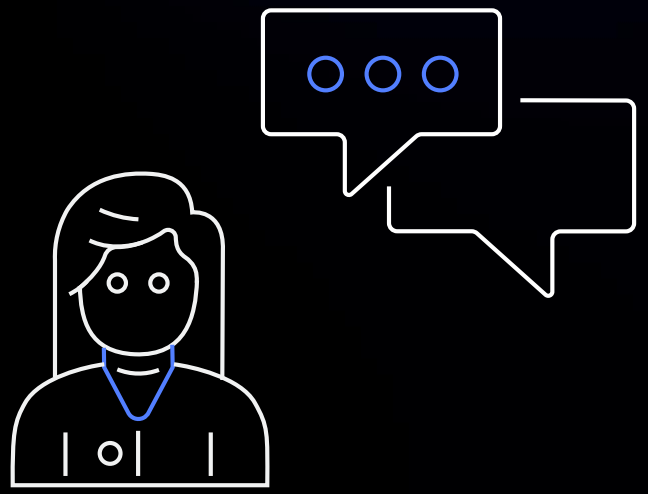
Zillow® Rentals

hotpads. Showingtime® StreetEasy trulia

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Connecting homebuyers and agents



The homebuyer



The agent





Home listings



Neighborhoods



Financing

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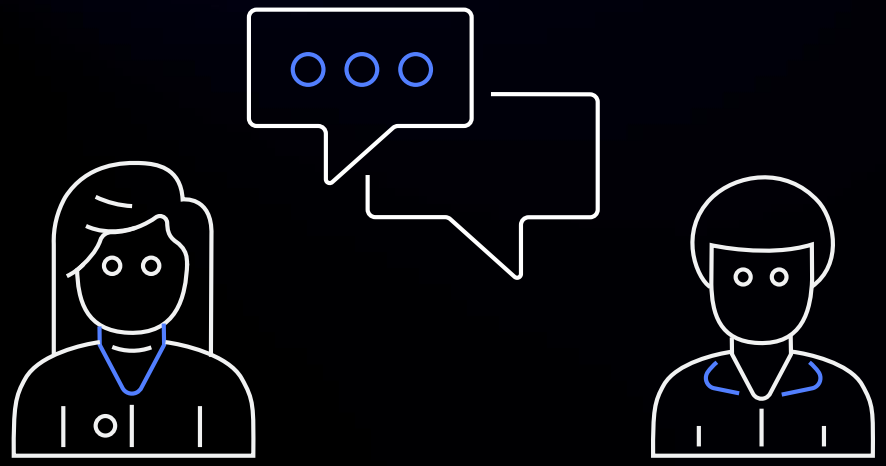
The need for conversation insights

SHOWING APPOINTMENTS



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The need for conversation insights



The Homebuyer

The Agent



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Why can’t we get more insights?



+



=

Limited insights

Lack of data/coverage

Manual scoring

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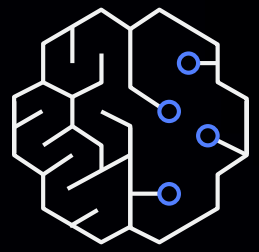
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Creating a conversation insights solution



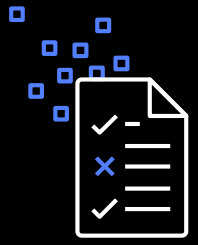
Comprehensive coverage

+



Automatic detection of sentiment, categories, and issues

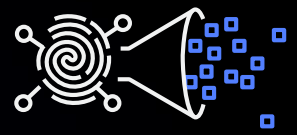
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Scorecard



Call sampling



Coaching



CSAT

Insights!

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Conversation insights solutions

Amazon Transcribe

- Highly accurate
- High throughput
- Supports both mono and stereo audio recordings
- Provides PII redaction for data privacy

Amazon Comprehend

- Enables sentiment detection

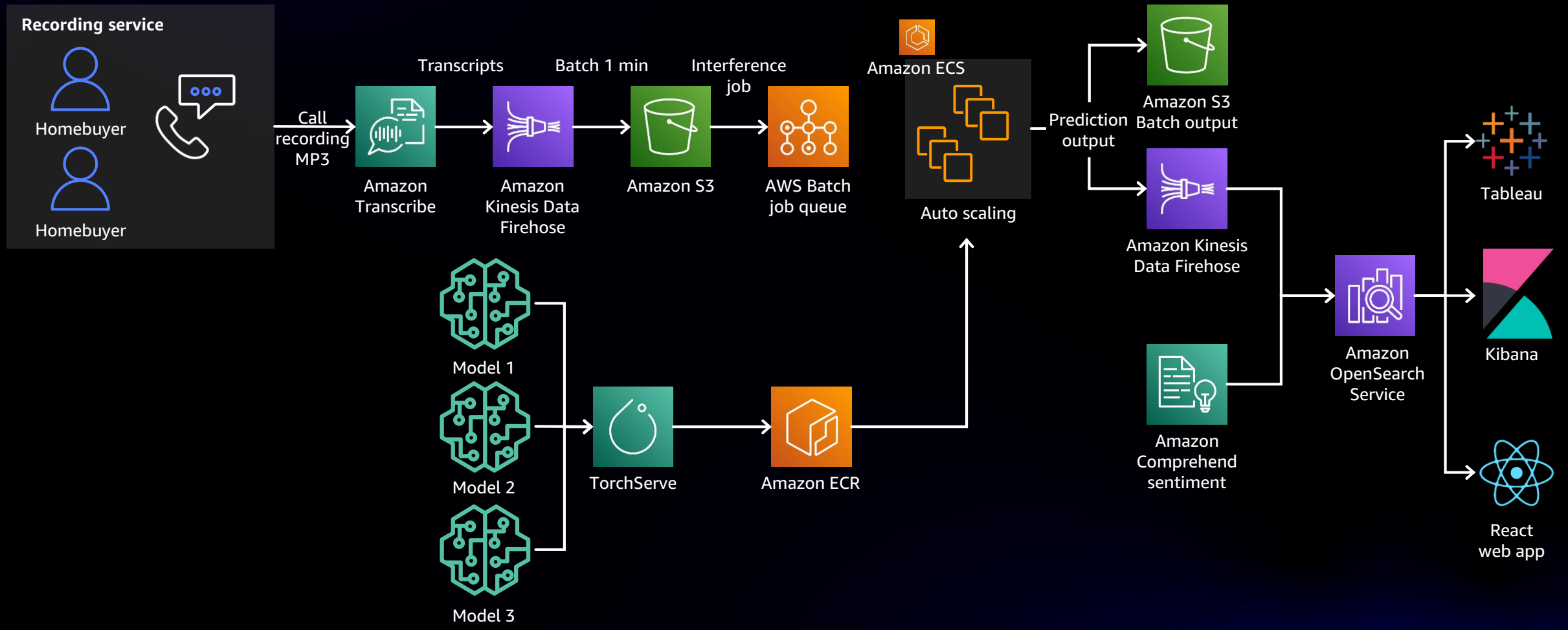
AWS Batch

- Maintains multiple job queues for different calls
- Allows compute environments for varying GPU capacity
- Enables auto-scaling for cost savings

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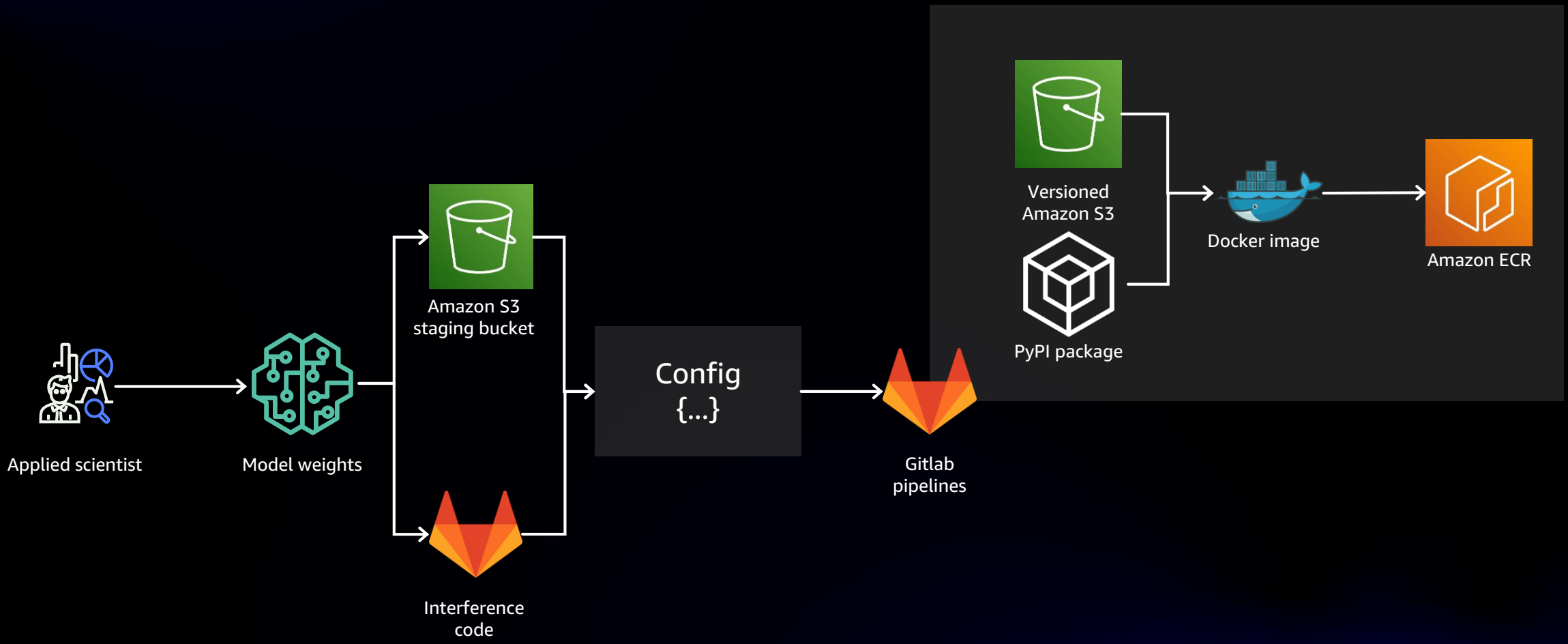
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Conversation insights solution architecture



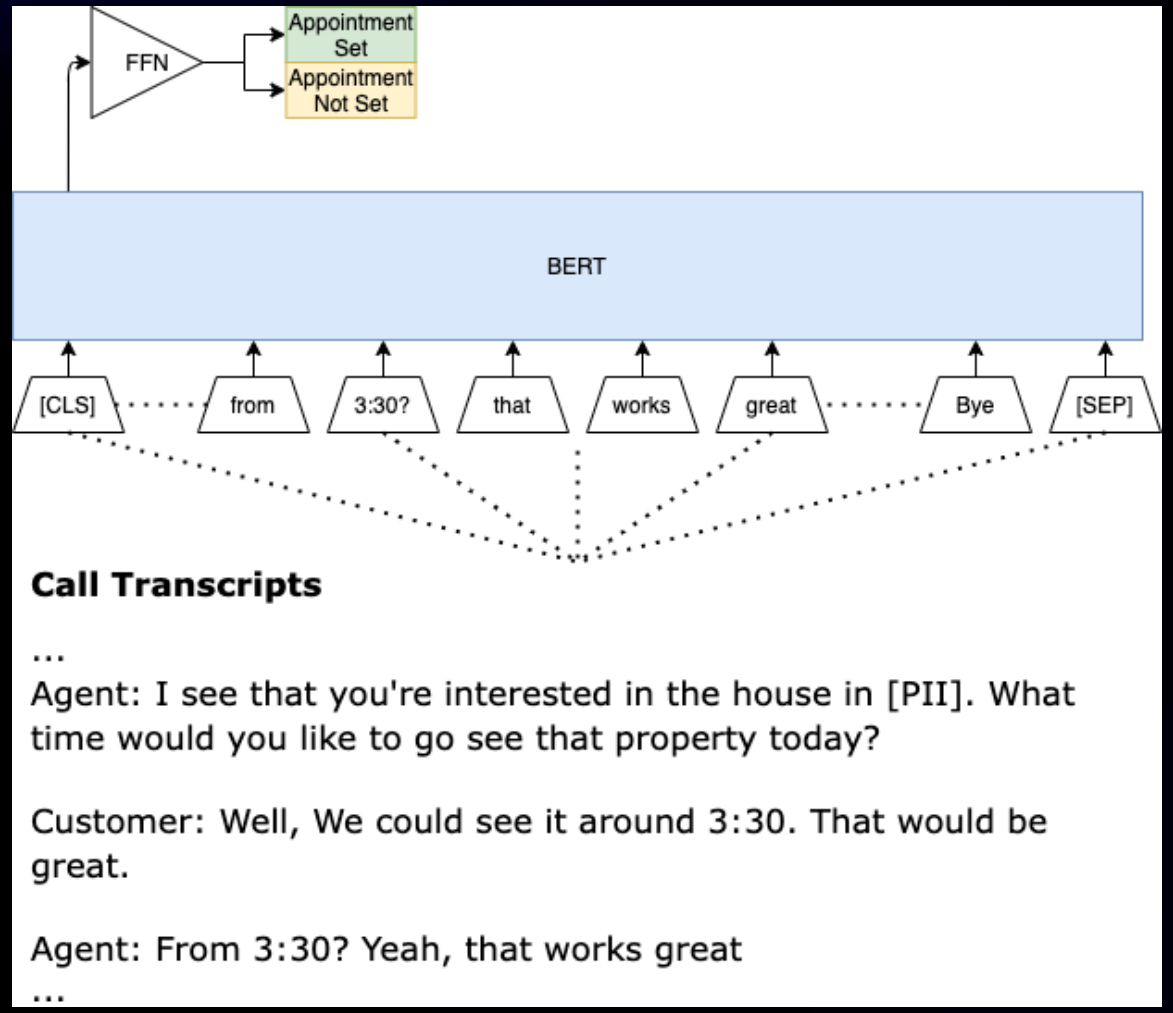
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Developer tools

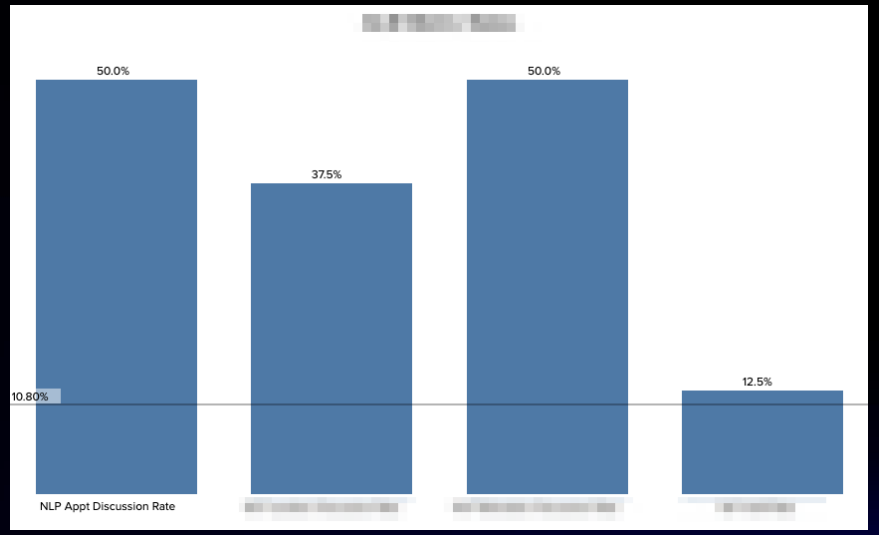


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Text classification using language models

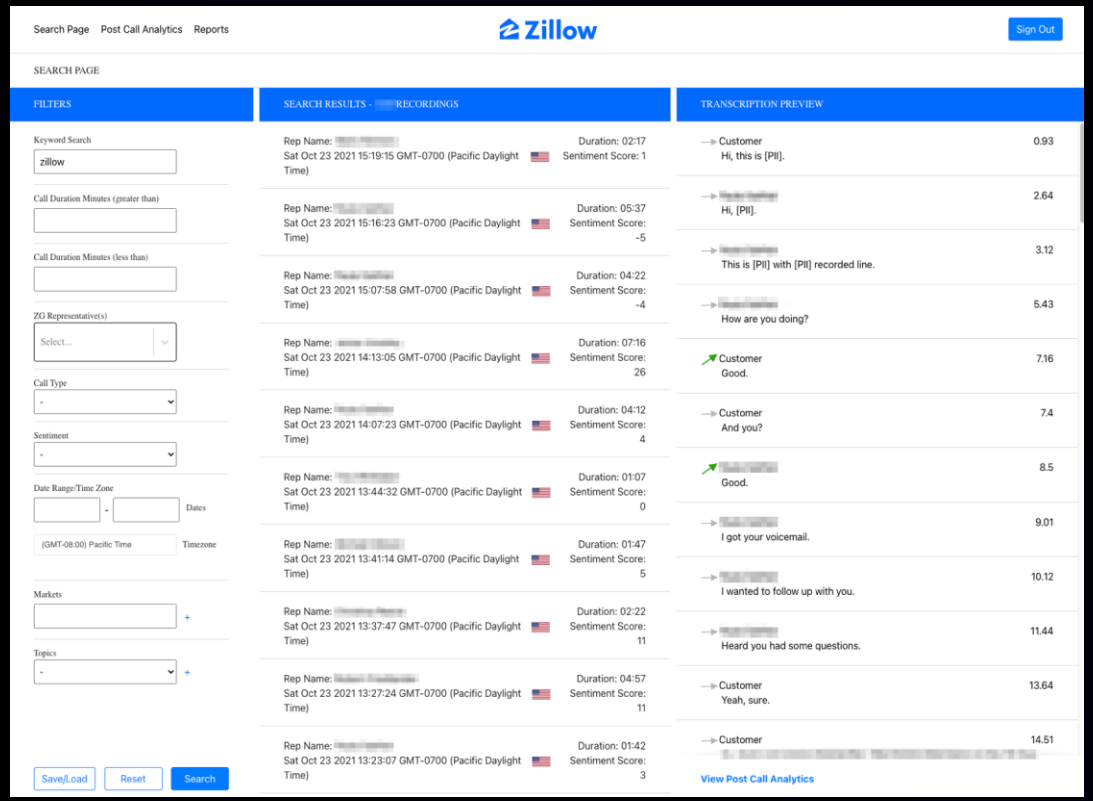


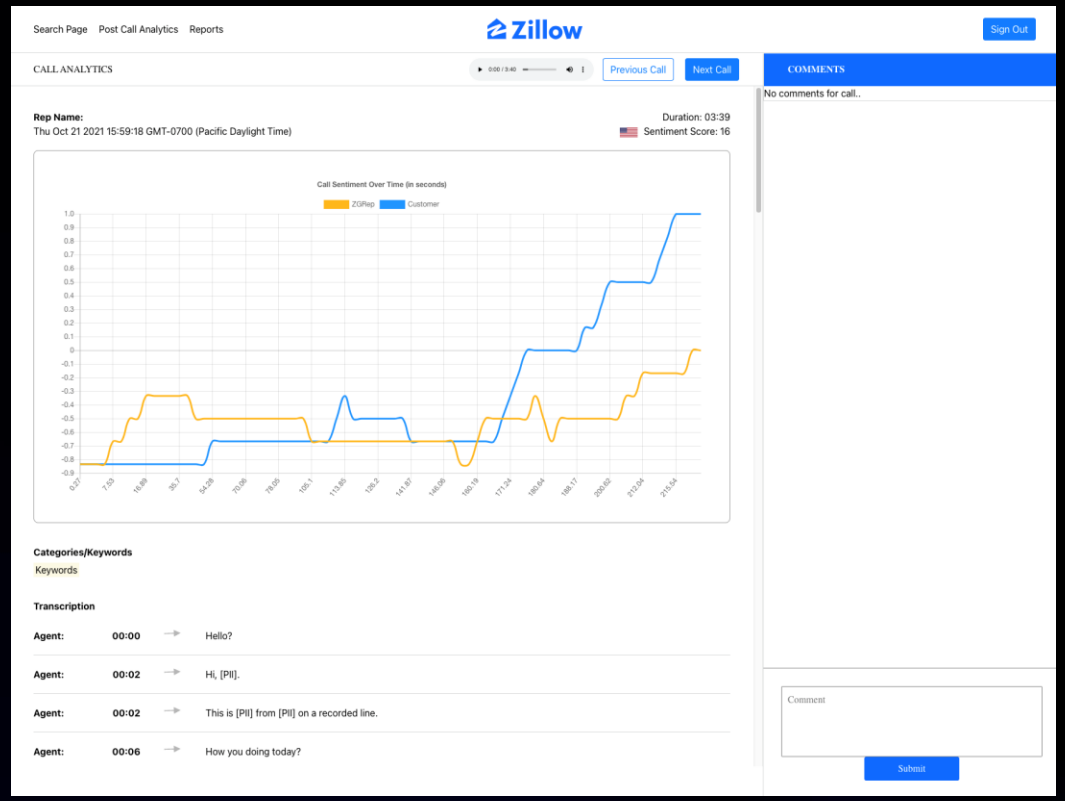
- Use state-of-the-art pretrained language models
- Extract signals through text classification on text embeddings



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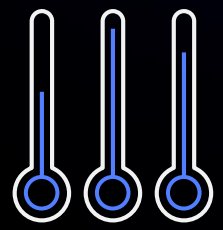
Speech analytics: Search and visualization





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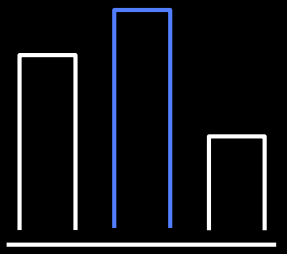
How we measure success



10+ indicators modeled in production



Coaching needs identified for 15–20x more agents



Modeled CSAT scores uncover negative experiences at 10x higher rate

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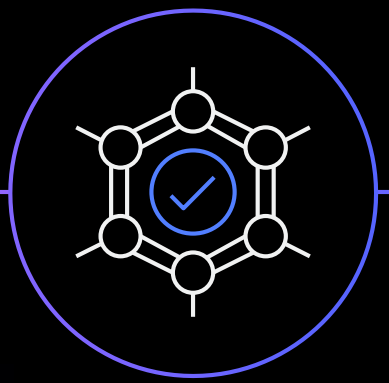
Roadmap



Adopt Amazon Transcribe CLM with Amazon SageMaker Ground Truth



Transcribe calls in other languages



Create a continuous feedback loop

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Zillow natural language processing (NLP)



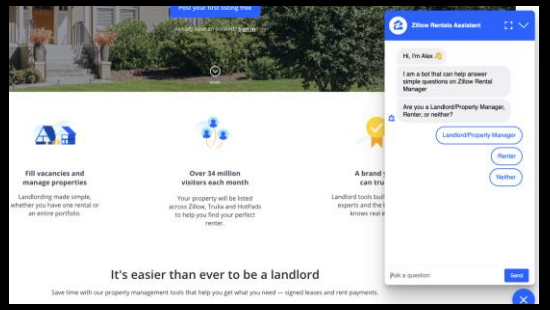
Zillow: Near Real-Time Natural Language Processing (NLP) for Customer Interactions
https://bit.ly/31oNHXl



Zillow: Building Speech Analytics Using AWS AI Services
https://bit.ly/2YiRMv0



Guided Search – Personalized Search Refinements to Help Customers Find their Dream Home
https://bit.ly/3ELX1TJ



Zillow Rental Manager Chatbot
https://bit.ly/3wmmik8

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Genesys: Delivering smarter customer experiences

Rebecca Owens (she/her)
Senior Product Manager
Genesys

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Agenda

Genesys – AWS partner

Genesys blended AI & AWS CCI

Genesys AudioHook and
Amazon Transcribe



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Genesys: Leading contact center software company



30 years

of CX leadership



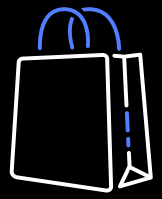
70 billion

Customer experiences per year



1,200+

partners



11,000+

customers



5,000+

employees



100+

countries

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Power of partnership

Global leaders in cloud contact center software and enterprise cloud platforms have joined forces to help some of the world's biggest brands create more memorable customer experiences



Genesys Cloud (PureCloud) on AWS



Manage bulk recordings in Amazon S3 buckets



Turn text into lifelike speech with Amazon Polly



Design conversational bots with Amazon Lex



Event-driven actions for process fulfillment with AWS Lambda



Post-call analytics with Amazon Transcribe & Amazon Comprehend

Genesys Cloud is built on AWS

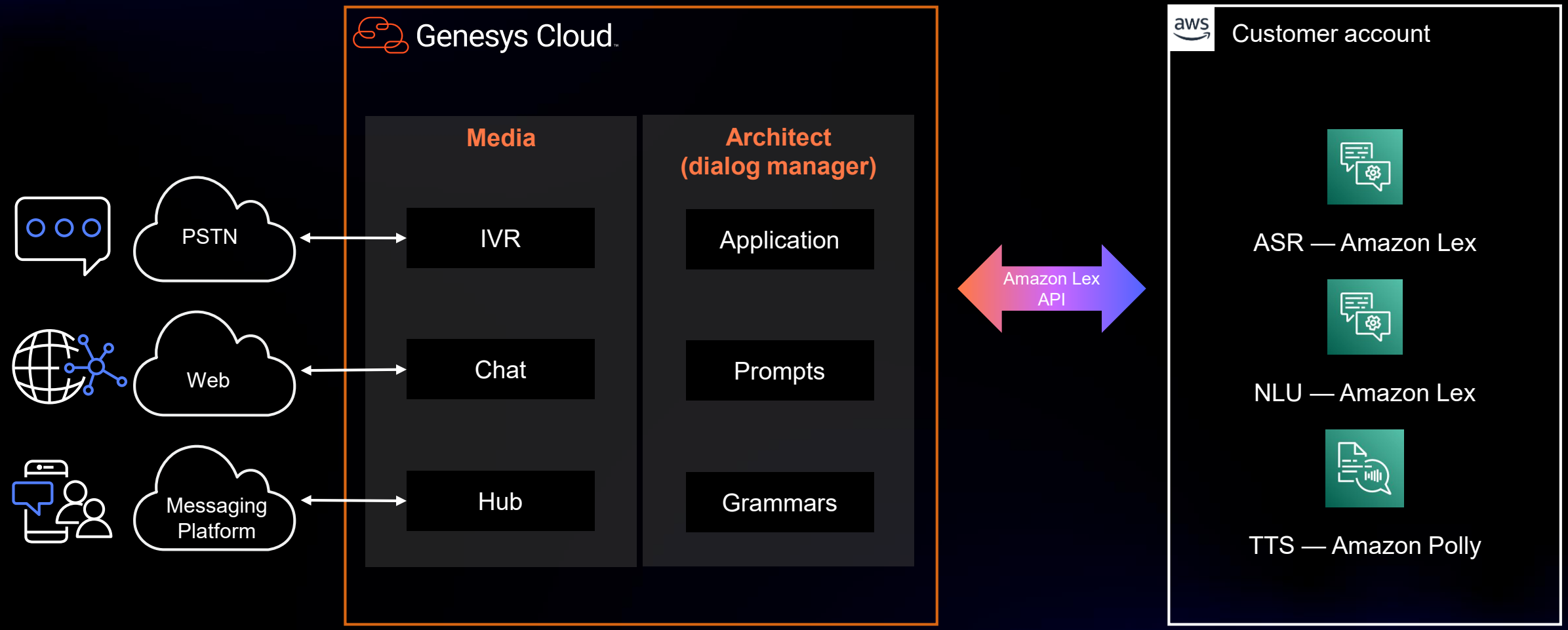
Amazon EC2 instances, Amazon ElastiCache, Amazon DynamoDB and DynamoDB Accelerator, Amazon EMR, Amazon Lex, Amazon Polly, Amazon CloudWatch, Amazon S3, Amazon RDS, Amazon CloudFront, AWS Config, Amazon SQS, Amazon GuardDuty, Amazon SageMaker, Amazon CloudSearch, Amazon Kinesis, Amazon SWF, AWS Lambda, AWS Shield, AWS KMS, Amazon MQ, Amazon VPC, Amazon S3 Glacier, Amazon OpenSearch Service, AWS Certificate Manager, Amazon Kinesis Data Firehose, Amazon Athena, Amazon WorkSpaces, Amazon Macie, Amazon SES, Amazon Inspector, Amazon Route 53, AWS Glue, Amazon Kinesis Data Analytics, AWS Directory Service, Amazon QuickSight, AWS CloudTrail

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Genesys blended AI

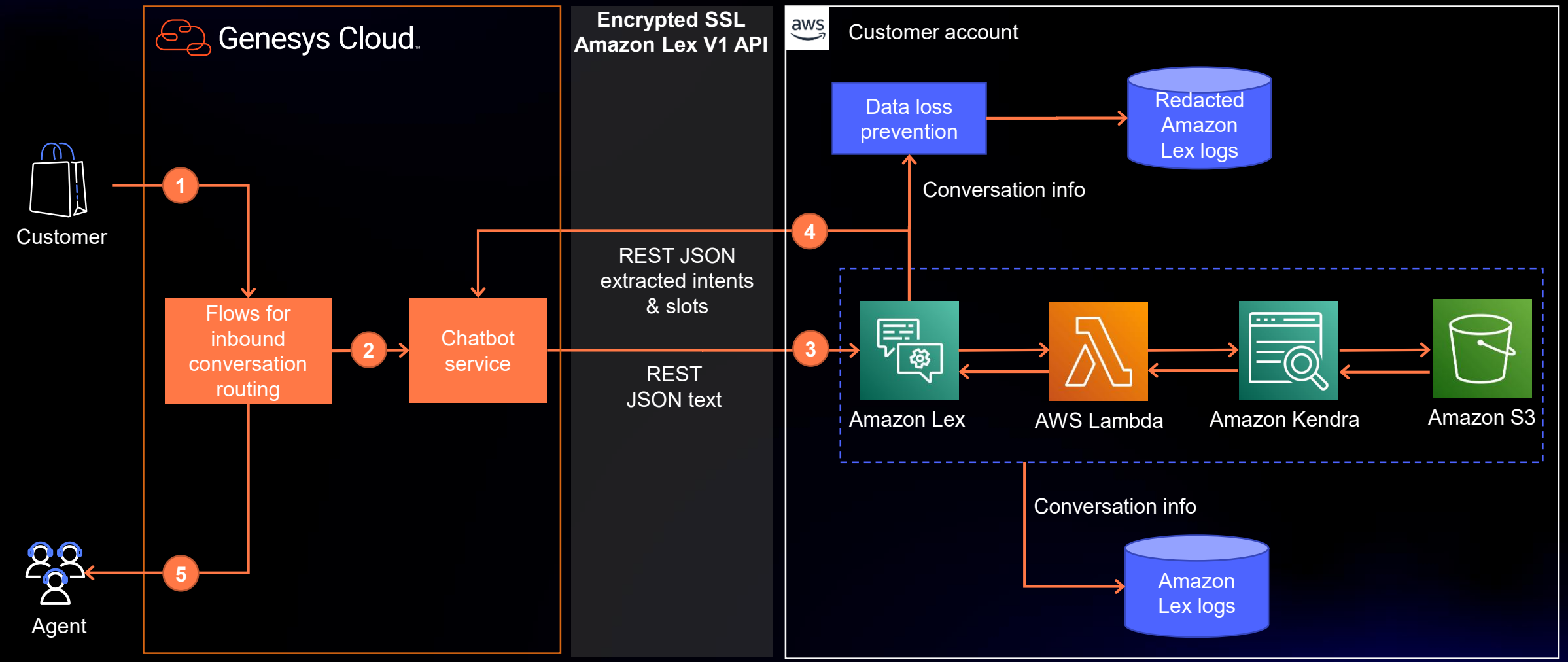
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Overview: Self-service



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Genesys Cloud & Amazon Lex chatbots



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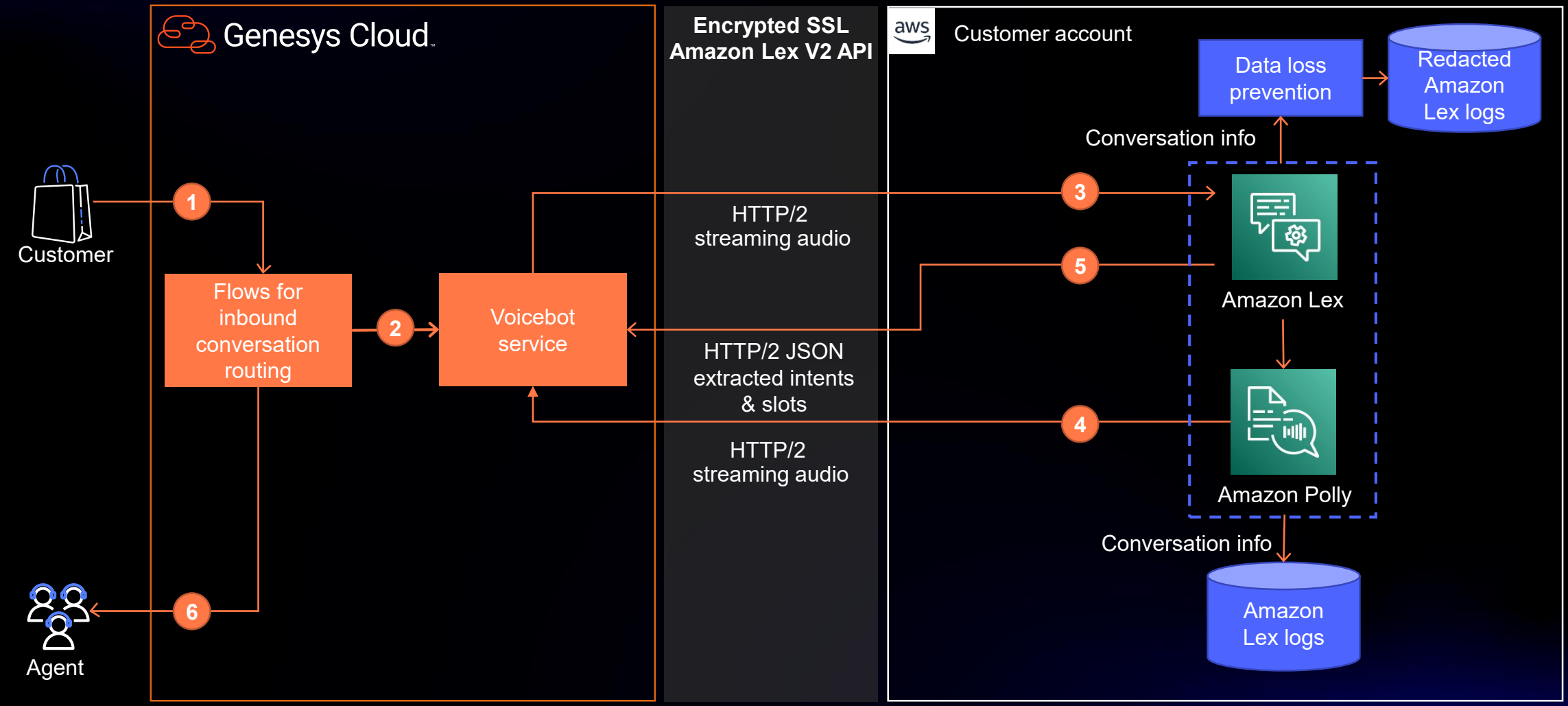
Amazon Lex V2 voice integration advantages

1. Improved functionality for voice customer service
   - Barge-in
   - No speech timeout
2. Streaming: Improved accuracy
3. Dual-tone multi-frequency (DTMF)



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Genesys Cloud & Amazon Lex V2 voicebots



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Customer success story: TechStyle

TechStyle FASHION GROUP

TechStyle Fashion Group

Stitching success with Genesys Cloud

Challenges with prior solution

- Had feature gaps, stability issues, and lack of premier support
- No integration to social channels and other platforms
- Downtime associated with platform upgrades

Genesys solution:

- Genesys Cloud CX
- Voice, chat, email, and AI chatbot
- Integration to homegrown CRM & ERP
- Screen-pops for agents

"At TechStyle, our number one priority is using industry-leading technology to exceed our members' expectations for great service. With Genesys Cloud, we have a robust customer experience platform with all the features we need to raise the bar on the service we provide to our members."

—Aarde Cosseboom,
Senior Director of Global Member Services Technology, Analytics & Product

Results:



Increased efficiency in managing 10M+ annual member interactions



Ability to flex users up or down as needed



More cost effective & efficient member support



Ability to use features; e-support, integrated bots & social channel support

aws GENESYS | Global Reference Program

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AudioHook & Amazon Transcribe

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Problem

Agents are overloaded

- Large volumes of data
- Complex domain information
- Engaging customers

Transcribe is for post-call analytics only

- No way to extract real-time information from audio stream
- No way to support Agents during live calls



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Genesys AudioHook and AWS support agents



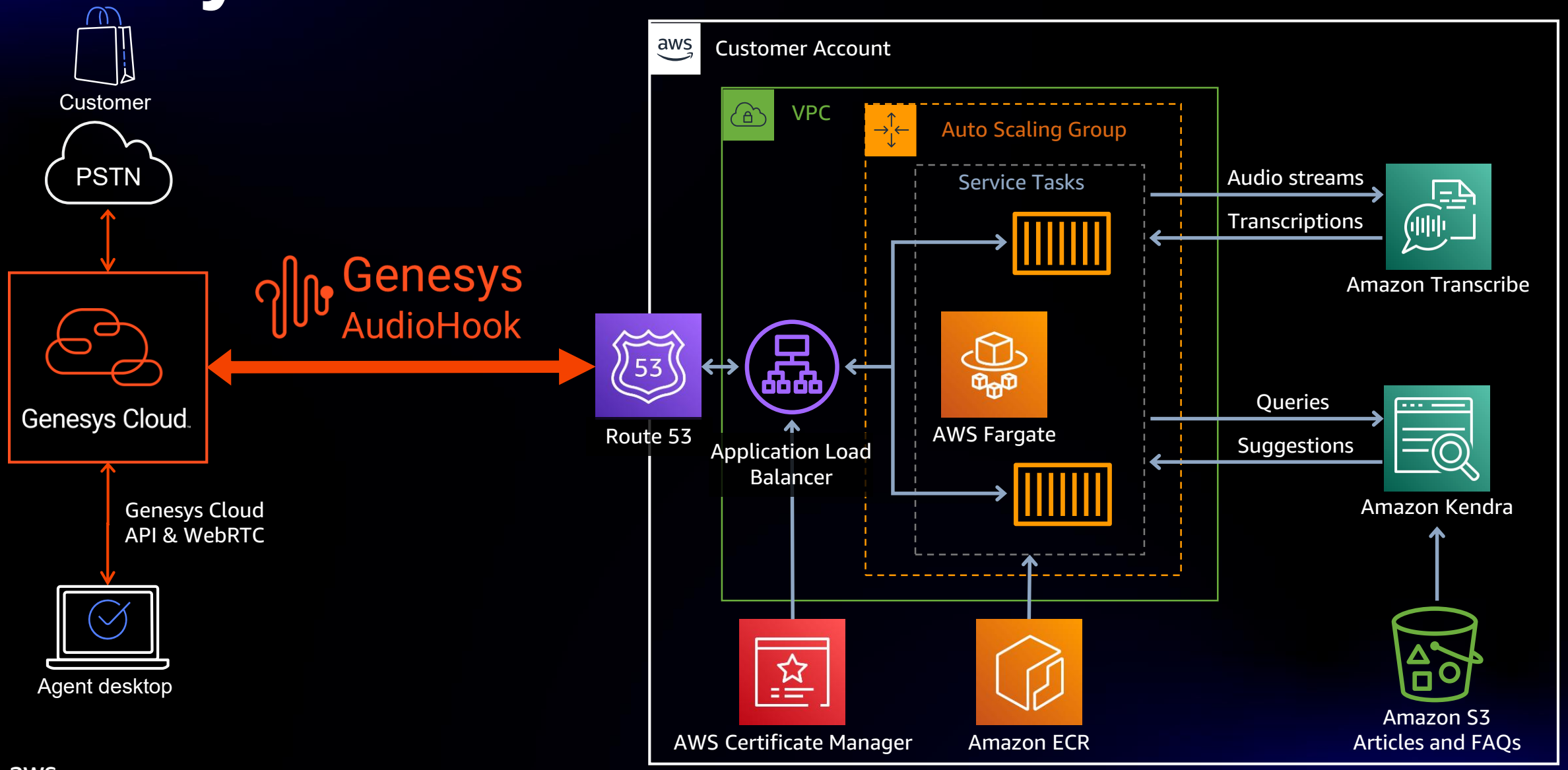
Real-time sentiment analysis

Agent assist

Supervisor alerting

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Genesys AudioHook and Amazon Transcribe



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Resources

- Genesys Cloud https://bit.ly/3o1iFN4
- Genesys AppFoundry https://bit.ly/3mN5dg7
  - Amazon Lex https://bit.ly/3o1xK19
  - Amazon Polly https://bit.ly/3BJD0ew
  - Genesys Cloud & Amazon Lex-Kendra Blueprint https://bit.ly/31FnHaB
  - Classify and Route Emails with Amazon Comprehend https://bit.ly/3EQvGji
- Q&A Bot https://bit.ly/2ZWpl6C
- Genesys AudioHook https://bit.ly/300YQgN
  - Genesys Cloud & Amazon Transcribe/Amazon Kendra blueprint

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Next steps

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How to get started with AWS Contact Center Intelligence



AWS Partner Network

Engage with AWS Partners to help you with the POC and build integrations with your current systems to productionize



AWS Professional Services

The AWS Professional Services organization is a global team of experts that can help you realize your desired business outcomes when using the AWS cloud

https://aws.amazon.com/machine-learning/contact-center-intelligence/partners/

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Resources

AWS Contact Center Intelligence

AWS CCI website https://go.aws/3wmlNXr
AWS Partner solutions https://go.aws/3k6F9eg
Webinars https://go.aws/2ZW9tla

Self-service

Amazon Lex chatbot with Amazon Kendra https://bit.ly/3qjPsPU

Agent Assist and Real-time call analytics

Agent assist with Chime Voice Connector https://bit.ly/3mOewfM
Quantiphi Real-Time Call Analytics AWS Quick Start https://go.aws/3kcJuMZ

Post-call analytics

Amazon Transcribe Call Analytics https://bit.ly/3wnaA8V

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Thank you!

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