AI & Machine Learning

Automatically uncover insights
from your customer conversations

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Contact Centers are important for Customer Experience

Multi-industry

Financial Services, Healthcare, Hospitality and Travel, Utilities and energy, Retail and Consumer, Education, Insurance, B2B, Ecommerce, Telecom, Media and entertainment, Gaming, Real estate, Automotive

Different Functions

Customer Service, Telemarketing, Help desks, Support Centers, Employee Services, Patient-provider communications
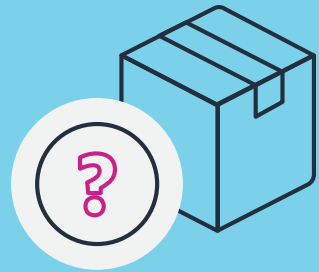
Disparate deployments

On-premise, Cloud, Hybrid Centralized, Distributed
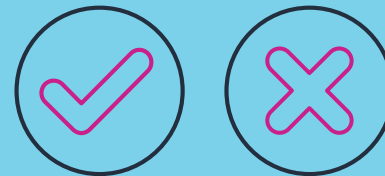
Adding intelligence to contact centers

Who are you?

Accessing relevant customer data is crucial to problem resolution

What do you need?

Identifying problems correctly and efficiently impacts customer experience

How did we do?

Measuring how well the problem was handled and its impact on loyalty / retention
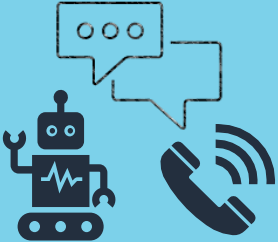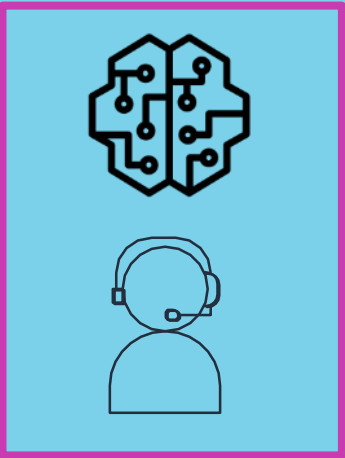
Where to improve?

Analyzing the data to improve the customer experience and the bottom line

Adding intelligence with AI and ML

Applying AI and ML to contact centers

Self Service
Conversational IVRs, virtual agents, and smart routing

Real-time call analytics and agent assist
Voice transcription with sentiment analysis and next best actions

Post call analytics
Agent scoring
Issue detection

Find answers without the need for a live agent; Quickly identify the right agent

Alert supervisors immediately to important issues; Improve agent efficiency

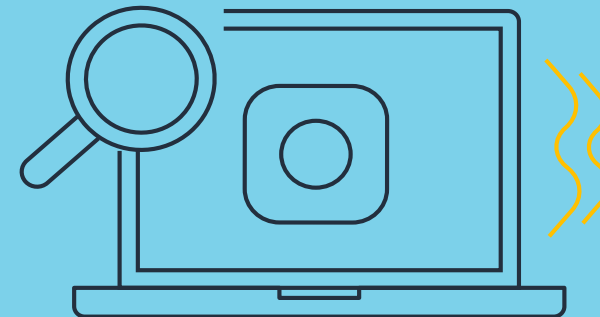Identify agent training and business improvement opportunities

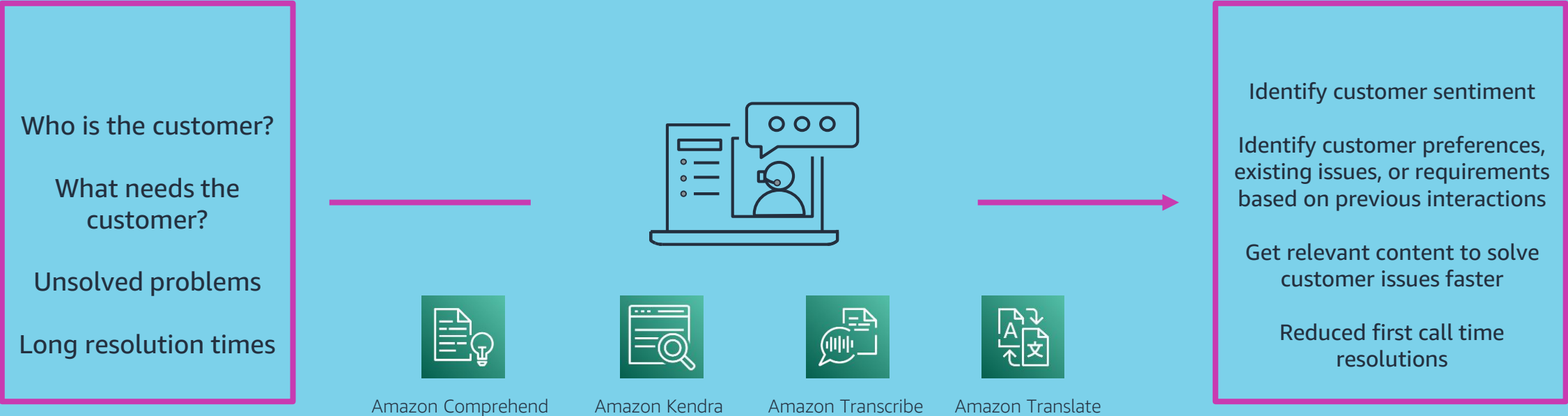# AWS machine learning for contact centers

Amazon Connect

Easy to use, omnichannel cloud contact center

AWS Contact Center Intelligence (CCI)

Set of solutions to add intelligence to your existing contact center

Why live-call analytics?

Who is the customer?

What needs the customer?

Unsolved problems

Long resolution times

Amazon Comprehend

Amazon Kendra

Amazon Transcribe

Amazon Translate

Identify customer sentiment

Identify customer preferences, existing issues, or requirements based on previous interactions

Get relevant content to solve customer issues faster

Reduced first call time resolutions

salesforce · talkdesk · SuccessKPI · VONAGE · Uni speech · GENESYS · HCL
Infosys · accenture · HGS digital · SERVION · slalom · TensorIoT · wipro

What is Live-call Analytics

- Solution to transcribe and get sentiment trends of contact center calls in **real-time**

- Enables contact center supervisors and agents to improve callers' experience

- Uses AWS Language AI services like Amazon Transcribe and Amazon Comprehend

- Open source on GitHub *aws-samples*, with companion blog post: https://amazon.com/live-call-analytics

- Easily launched via CloudFormation including demo telephony server

Live-call analytics demo

Live-call analytics – how is it implemented?

Why post-call analytics?

What is working?

How are we doing?

What needs to improve?

What are our blind spots?

Amazon Transcribe   Amazon Translate   Amazon Comprehend

Improved quality management with contact center call resolution insights

More efficient call review process

Develop better scorecards to assess agent performance
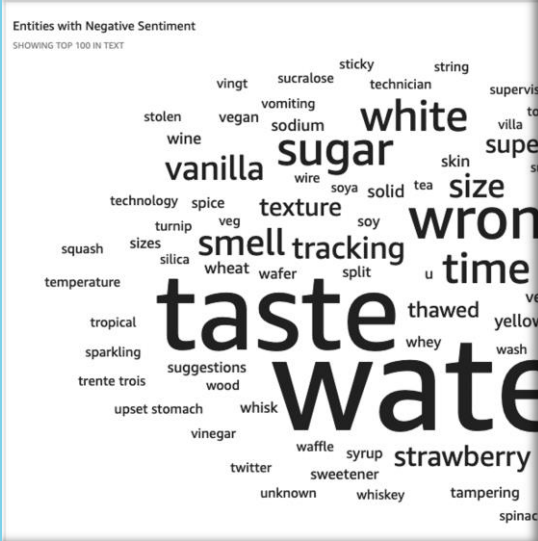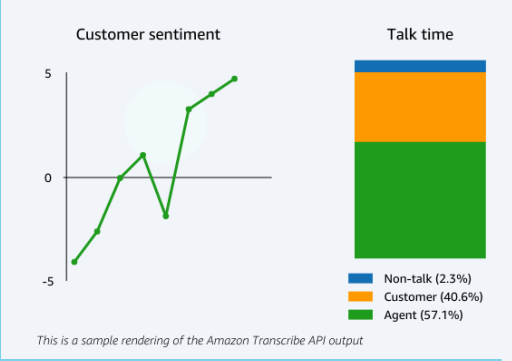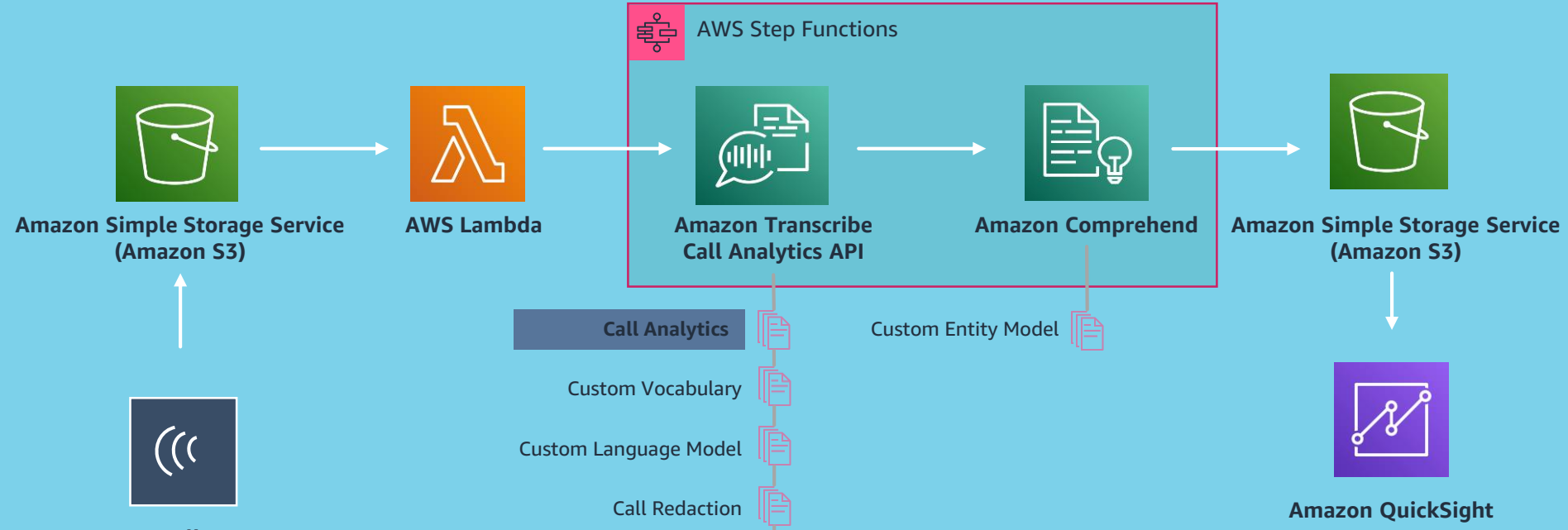
Agent training and reinforcement

SuccessKPI   CLARABRIDGE   ACQUEON   HCL   V VONAGE   accenture   FD First Derivatives plc   HGS digital

Lucy in the cloud by MICROPOLE   quantiphi   ONICA a rackspace technology company   SERVION   TensorIoT   wipro   INAWISDOM

Post-call analytics – how is it implemented?

Amazon Simple Storage Service (Amazon S3)

AWS Lambda

AWS Step Functions

Amazon Transcribe Call Analytics API

Amazon Comprehend

Amazon Simple Storage Service (Amazon S3)

Call Recordings

Call Analytics

Custom Vocabulary

Custom Language Model

Call Redaction

Vocabulary Filter

Language Identification

Custom Entity Model

Amazon QuickSight

Customer sentiment

Talk time

Non-talk (2.3%)
Customer (40.6%)
Agent (57.1%)

This is a sample rendering of the Amazon Transcribe API output

Entities with Negative Sentiment
SHOWING TOP 100 IN TEXT

Call Transcript

Start	Dur.	Speaker	Transcription
0:00:10.34	10.3s	Agent	Hello. Thank you for calling Enterprise 123. I'm [PII]. Hi [PII]. How can I help you today?
0:00:40.79	30.5s	Customer	Hi [PII], I am calling because I ordered 5 beach towels last week and my order still hasn't arrived. In my account, it shows that it's been delivered. Can you help me get my towels?
0:01:30.84	9.1s	Agent	I'm so sorry for the inconvenience. Can you verify your account number for me?
0:01:33.85	3.6s	Customer	Sure, it's [PII].
0:01:12.34	7.9s	Agent	Thank you, [PII]. Can I also confirm the address where you wanted the towels to be delivered?
0:01:15.74	14.5s	Customer	Yeah. I'm on [PII]. Do you need the house number?
0:01:30.84	2.1s	Agent	That would be great if I could get that.
0:01:33.85	3.6s	Customer	Sure, it's [PII].

This is a sample rendering of the Amazon Transcribe API output

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Amazon Transcribe – Call Analytics API

Easy to use, call analytics API that can enable you to extract and add actionable insights from your customer interactions into your applications.

High-quality ASR and NLP models **specifically trained for call analytics**

Easy to use—fully managed AI service

Automated call **categorization**

Detailed **analytics** and sentiment analysis

Post-call analytics demo

Amazon Transcribe PCA   Home   Search   Signed in as: admin   Logout

Home

Job Name	Timestamp	Customer Sentiment	Customer Sentiment Trend	Language Code	Call Duration
AutoRepairs3_GUID_98735f31-c5a8-4edf-a006-0f5406054bfc_AGENT_BobS_DATETIME_17.51.51.283-09-18-2021.wav	2021-09-18 10:51:51	🙂	📈	en-US	04:05
AutoRepairs2_GUID_2a602c1a-4ca3-4d37-a933-444d575c0222_AGENT_SteveE_DATETIME_08.02.20.342-09-17-2021.wav	2021-09-17 01:02:20	🙂	📈	en-US	03:56
AutoRepairs1_GUID_4628bb26-9631-487f-8d7b-0ac8e84074fd_AGENT_AndrewK_DATETIME_07.55.51.067-09-16-2021.wav	2021-09-16 00:55:51	🙂	📉	en-US	04:55

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Solution resources

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

AWS blogs
GitHub code repositories
1-Click installers

https://amazon.com/live-call-analytics

Getting started: Next steps

DISCOVERY WORKSHOP to PROOF OF CONCEPT

Identify the use case,
Determine KPIs,
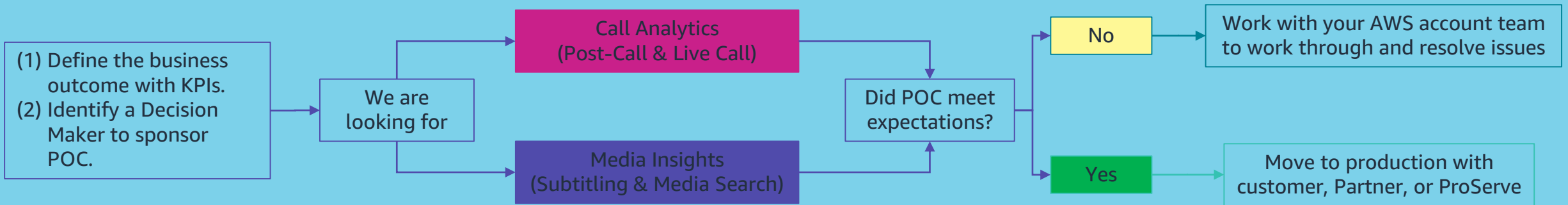Start a POC
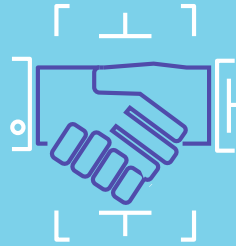
COLLABORATION

Work with AWS experts
AWS CCI Partners
AWS ProServe
ML Solution Labs

TRAINING

AWS ML Embark Program

AWS deep devices

Getting started: Proof concept with Amazon Transcribe

(1) Define the business outcome with KPIs.
(2) Identify a Decision Maker to sponsor POC.

→ We are looking for

- Call Analytics (Post-Call & Live Call)
- Media Insights (Subtitling & Media Search)

→ Did POC meet expectations?

- No → Work with your AWS account team to work through and resolve issues
- Yes → Move to production with customer, Partner, or ProServe

Best resource: AWS Account Team

Thank you!