



# aws INNOVATE

AI/ML EDITION

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# Modernize your CX innovation with ML-powered Amazon Connect

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# Agenda

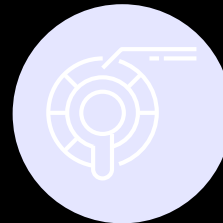
- Amazon Connect overview
- ML-powered features of Amazon Connect
- ML-powered CX engagement scenarios

# Amazon Connect

Great customer and agent outcomes with AI & ML at the heart of every interaction



Dynamic, personal, and natural automated experiences



Built in real-time and historical analytics with secure, hassle-free access to your data

One application for workflows, routing, agent management, & experiences across all channels



**Scale from tens to tens of thousands of agents**



Self-service configuration enables instant innovation

## Pay only for what you use

# Amazon Connect is innovating quickly

## 170+ major feature launches in four years

### RECENT LAUNCHES

- High volume outbound communications (Preview)
- Amazon Connect Wisdom
- Amazon Connect Voice ID
- Amazon Chat messaging streaming APIs
- Programmable Contact Center APIs
- Customer Profiles connectors for Shopify and Segment
- Customer Profiles identity resolution, flow updates
- Improved agent application
- Apple Business Chat for Amazon Connect
- New regions: Korea

Automatic agent status change

Per-second billing

Real-time customer voice stream

Contact flow import/export

Salesforce CTI adapter

ISO compliance

Contact Lens

Multi-block editing

User management API

Natural text-to-speech voices

Asia Pacific (Tokyo) Region

Real-time analytics dashboard

Contact flow block copy/paste

Conversation logs

Chatbots

Amazon Lex languages: Spanish, French, and German

ML-based PII redaction

AWS CloudTrail support for Amazon Connect APIs

Agent event streams

Contact attributes API

User hierarchy API

SOC compliance

AWS CloudTrail integration

Output file storage

Conversational speaking style voices

Chat for web and mobile

Whisper flows

Europe (London) Region

Agent connection time metrics

Speech synthesis markup language support

Tagging support

Telephony metadata

Resource config APIs

Contact flow looping

Metrics and reporting

Auto queues call transfer

US West (Oregon) Region

Contact flow versioning

Customer voice stream

Automated queue callbacks

SSO SAML 2.0

Pause/resume call recordings

Interactive chat messages

Dynamic range compression (DRC) tag

NA/EU/APAC telephony pricing decreases

Contact flow AWS Lambda functions

PCI-DSS compliance

Queue metrics API

HIPAA

One-click drill downs for real-time metrics



# Automate real-time caller authentication

THE NEW AGENT EXPERIENCE



## PROBLEM

Inability to get real-time help from supervisors during customer conversations

## SOLUTION

Real-time analytics that monitors calls, detects customer sentiment and issues, and automatically alerts supervisors when agents need assistance

## ANNOUNCING

Contact Lens call summarization for Amazon Connect

# Demo 1

# Deliver agents a unified customer view

## THE NEW AGENT EXPERIENCE



### PROBLEM

Not having real-time capabilities to understand when a call requires urgent attention

### SOLUTION

Get real-time call analytics that enable supervisors to detect and resolve customer experience issues during live calls

### LATEST ENHANCEMENT

Automatically identifies and categorizes key parts of the customer service conversation



# Demo 2a

# Demo 2b

# Monitor real-time sentiment and get help fast

## THE NEW AGENT EXPERIENCE



### PROBLEM

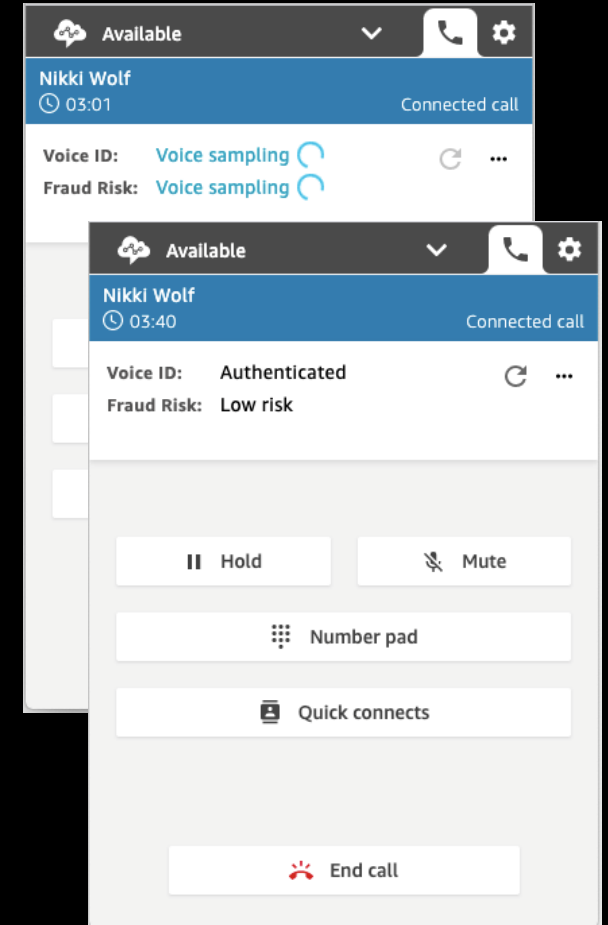
Manual and repetitive customer questioning used for identity authentication

### SOLUTION

Automated real-time caller authentication that analyzes a caller's unique voice characteristics

### LATEST ENHANCEMENT

- Improved fraud detection
- Salesforce CTI support



# Enable agents with real-time recommendations

## THE NEW AGENT EXPERIENCE



### PROBLEM

Finding useful content and answers to questions across multiple knowledge bases and articles

### SOLUTION

Real-time resolution and recommendations using natural language search across systems to find answers quickly

### LATEST ENHANCEMENT

Salesforce CTI support

# Demo 3

# Automate follow-up on key customer tasks

## THE NEW AGENT EXPERIENCE



### PROBLEM

Inability to manage and track agent tasks effectively

### SOLUTION

Automatically assign, track, and follow-up on agent tasks for improved customer experience

### LATEST ENHANCEMENTS

- Orchestrate tasks directly from contact flows
- Task scheduling

# Engage customers on their channels of choice

THE NEW CUSTOMER EXPERIENCE



**CUSTOMER**

Chat messaging streaming APIs



Messenger



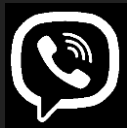
Instagram



SMS



Twitter



Viber



Slack



Line



Google Messages



Microsoft Teams



WeChat



Apple Business Chat\*



Web Chat\*

**Amazon Connect chat**

AI powered speech analytics

Customer feedback collection



**AGENT**

\*Supported natively in Amazon Connect

# Engage customers on their channels of choice

THE NEW CUSTOMER EXPERIENCE



**CUSTOMER**



Amazon Translate

Add real-time  
translation for  
communications  
applications

Add real-time  
translation for  
communications  
applications

Provide on-demand  
translation of user-  
generated content

Amazon  
Connect chat

AI powered speech  
analytics

Customer feedback collection



**AGENT**



\*Supported natively in Amazon Connect



# Demo 4

# Improve the self-service experience with AI

THE NEW CUSTOMER EXPERIENCE



**CUSTOMER**



Natural language speech & text  
AI handles more complex interactions  
Multiple language support  
"Build once, use everywhere"

Amazon  
Connect chat

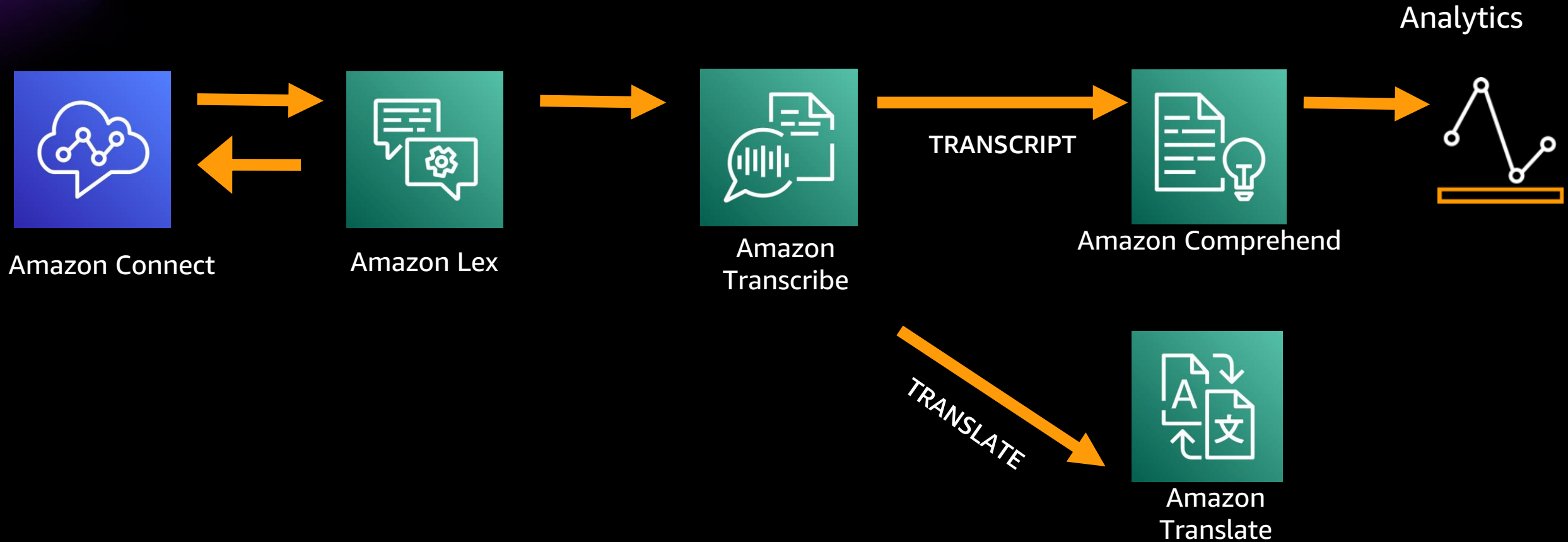
**AI Powered  
speech analytics**



**AGENT**

Customer feedback collection

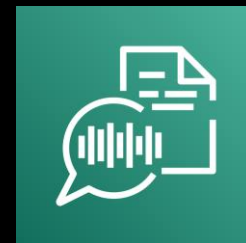
# Improving contact centers with artificial intelligence



# Demo 5

# Amazon Transcribe

Fully managed and continuously trained automatic speech recognition service powered by deep-learning models



Punctuation and  
capitalization



Word-level time  
stamps



Word-level  
confidence scores



Custom  
vocabularies



Speaker  
identification



Channel  
identification



Streaming  
transcription

## Language support

US English

US Spanish

British English

Australian English

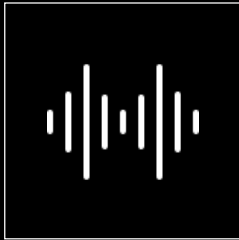
Canadian French

Brazilian Portuguese

Italian

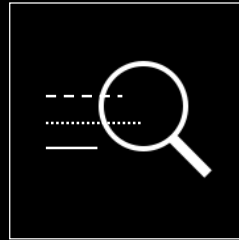
# Amazon Comprehend

Natural language processing service that uses machine learning to find insights and relationships in text



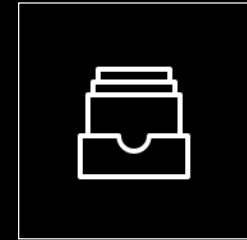
## Voice of customer analytics

Analyzing what customers are saying about your brand, products, and services



## Semantic search

Making search smarter by searching on key phrase, sentiment, and topic



## Knowledge management & discovery

Organizing documents, categorizing by topic, and personalizing experiences

# Personalize outbound calls and notifications

## THE NEW CUSTOMER EXPERIENCE



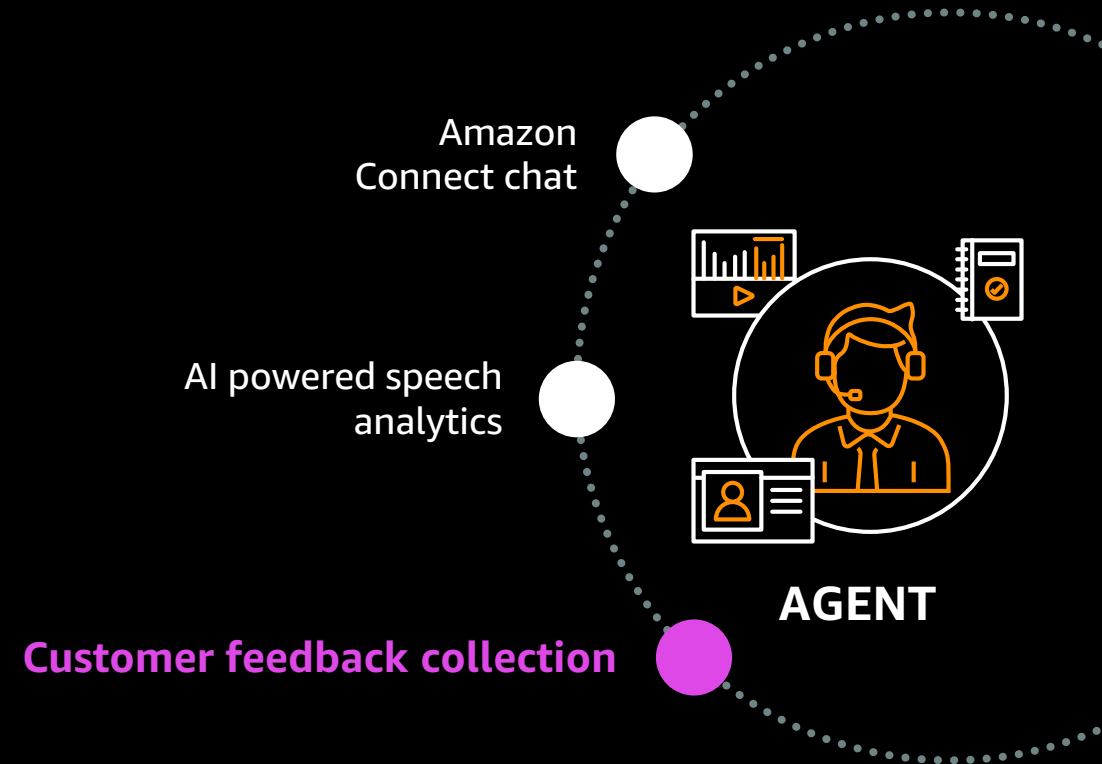
**CUSTOMER**

### PROBLEM

Customer centricity usually means feedback becomes a top priority. Collecting feedback from customers can become increasingly difficult.

### SOLUTION

Phone based feedback collection powered by ML. Gain insights to the sentiment and key phrases used by the caller, redact PII and automate call analysis.

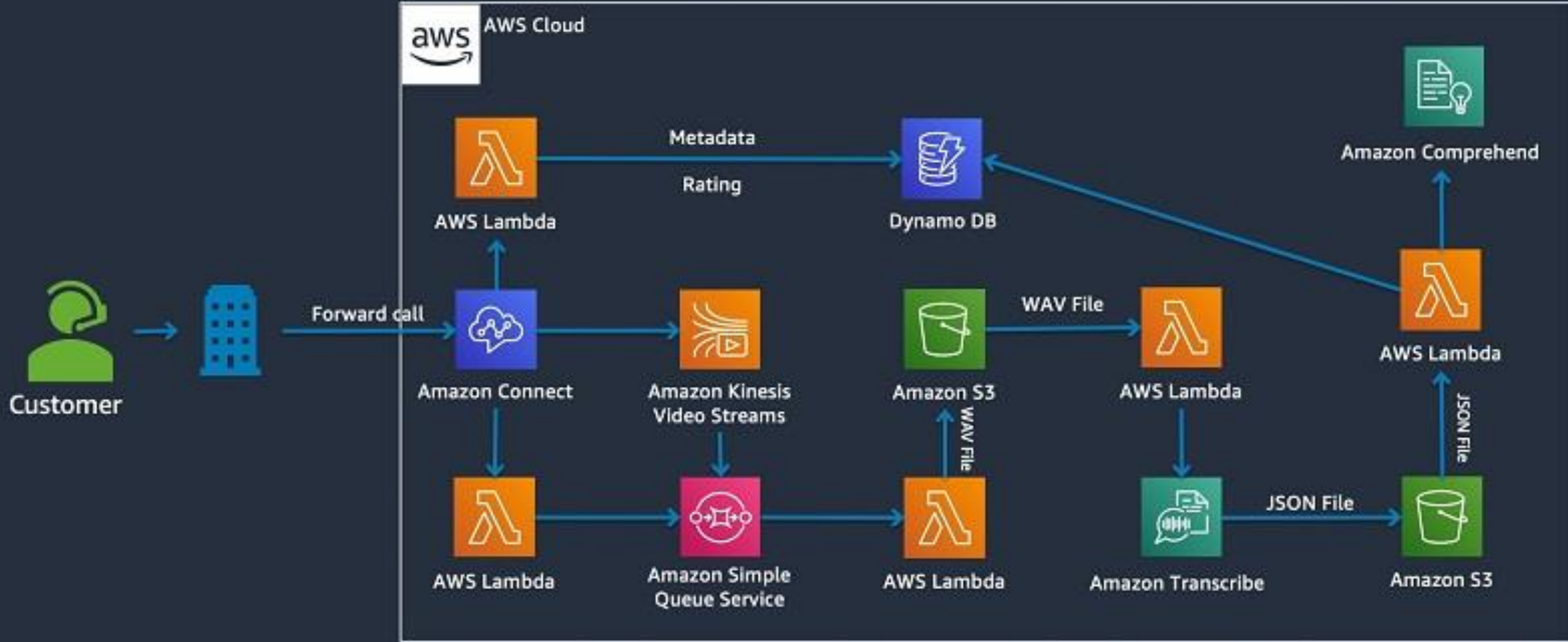


# Demo 6a



# Demo 6b

# Architecture



# Lets recap



# Additional Links

- Amazon Connect - <https://aws.amazon.com/connect/contact-lens/>
- AI powered speech analytics solution - <https://aws.amazon.com/solutions/implementations/ai-powered-speech-analytics-for-amazon-connect/>
- Feedback collection on Amazon Connect - <https://aws.amazon.com/blogs/machine-learning/setting-up-an-ivr-to-collect-customer-feedback-via-phone-using-amazon-connect-and-aws-ai-services/>
- Live customer service chat translation - <https://aws.amazon.com/blogs/machine-learning/implement-live-customer-service-chat-with-two-way-translation-using-amazon-connect-and-amazon-translate/>

# Visit the AI & Machine Learning resource hub for more resources

Dive deeper into these resources, get inspired and learn how you can use AI and machine learning to accelerate your business outcomes.

- The machine learning journey e-book
- 7 leading machine learning use cases e-book
- A strategic playbook for data, analytics, and machine learning e-book
- Accelerate machine learning innovation with the right cloud services & infrastructure e-book
- Choosing the right compute infrastructure for machine learning e-book
- Improving service and reducing costs in contact centers e-book
- Why ML is essential in your fight against online fraud e-book
- ... and more!



<https://bit.ly/3mwi59V>

Visit resource hub

# AWS Machine Learning (ML) Training and Certification



## AWS is how you build machine learning skills

Courses built on the curriculum leveraged by Amazon's own teams. Learn from the experts at AWS.

[aws.training/machinelearning](https://aws.training/machinelearning)



## Flexibility to learn your way

Learn online with on-demand digital courses or live with virtual instructor-led training, plus hands-on labs and opportunities for practical application.

[explore.skillbuilder.aws/learn](https://explore.skillbuilder.aws/learn)



## Validate your expertise

Demonstrate expertise in building, training, tuning, and deploying machine learning models with an industry-recognized credential.

[aws.amazon.com/certification](https://aws.amazon.com/certification)

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# Thank you!

Sumit Patel

