

AWS State, Local, and Education Learning Days

New York City



ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML)

Amazon Connect

Increase productivity and satisfaction with an intelligent contact center

11:30 AM - 12:30 PM

Jawad Irshad

Solutions Architect
Amazon Web Services
awsjawad@amazon.com

Brett Berman

Solutions Architect Manager
Amazon Web Services
bermanbr@amazon.com

Agenda

- Amazon Connect Overview
- Contact Lens
- Amazon Q in Connect
- Agent Workspace Demonstration

Contact Centers Expectations in 2025

- Customer expect a seamless experiences across multiple channels (Phone, SMS, Chat).
- Agents want quick access to multiple systems and tools to reduce handle times.
- Supervisors require a better way of gathering and analyzing relevant metrics and data.
- Administrators need to maintain a secure, scalable, and reliable environment.

Amazon Connect differentiators

SIMPLE-TO-USE CLOUD CONTACT CENTER



Built from the ground up as a single solution



Pay only for what you use

Globally redundant telephony +30 providers, +85 inbound, and +230 outbound countries

Instant access to **+200 fully featured AWS services**





Amazon Connect has **tens of thousands of customers** supporting more than **10 million contact center interactions a day**



Kentucky Transportation modernizes driver support with Amazon Connect agent empowerment



“ It became critical for KYTC to assess its customer service organization when it began facing significant challenges with its previous contact center solution... KYTC agents are using a new desktop when interacting with customers, which has positively impacted training time and agent experience. This is the Amazon Connect Agent Workspace, empowering agents with a unified experience... The agency has reduced the duration of calls with customers because it can address their needs quicker. Prior to the AWS solution, KYTC averaged 3–4 minutes per call, and with the modernized contact center, it averages less than 2 minutes. With between 30,000 and 40,000 calls on average per month, this saves significant time for both agents and customers ”

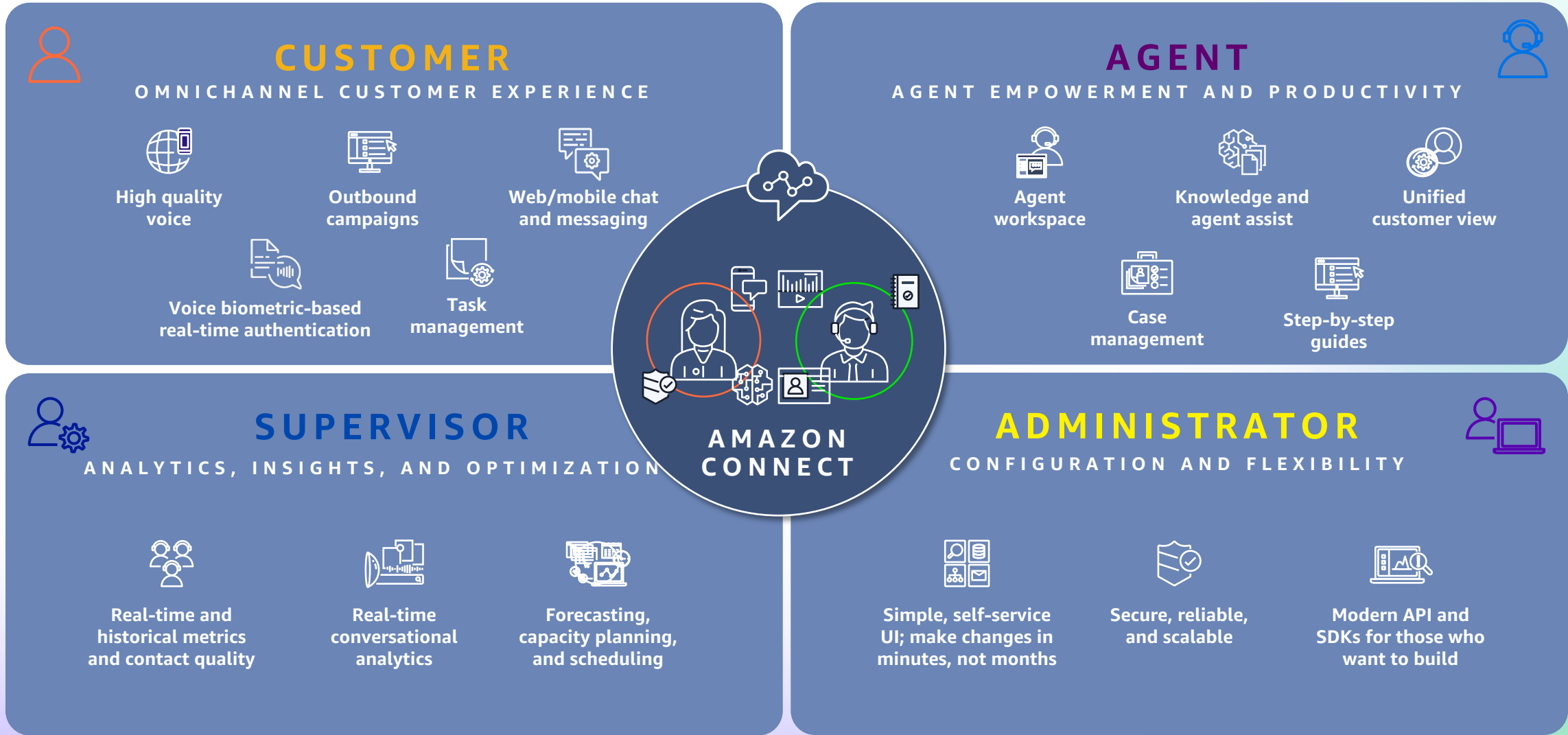
[KYTC 2023 Case Study](#)

50% decrease in call time

50% decrease in agent onboarding

6 weeks to modernize





ONE APPLICATION. ONE SEAMLESS EXPERIENCE.

Agent experience

AMAZON CONNECT AGENT WORKSPACE



The screenshot displays the Amazon Connect Agent Workspace interface. At the top, the agent's status is 'Available' and the name is 'Nikki Wolf'. The main workspace is divided into several sections:

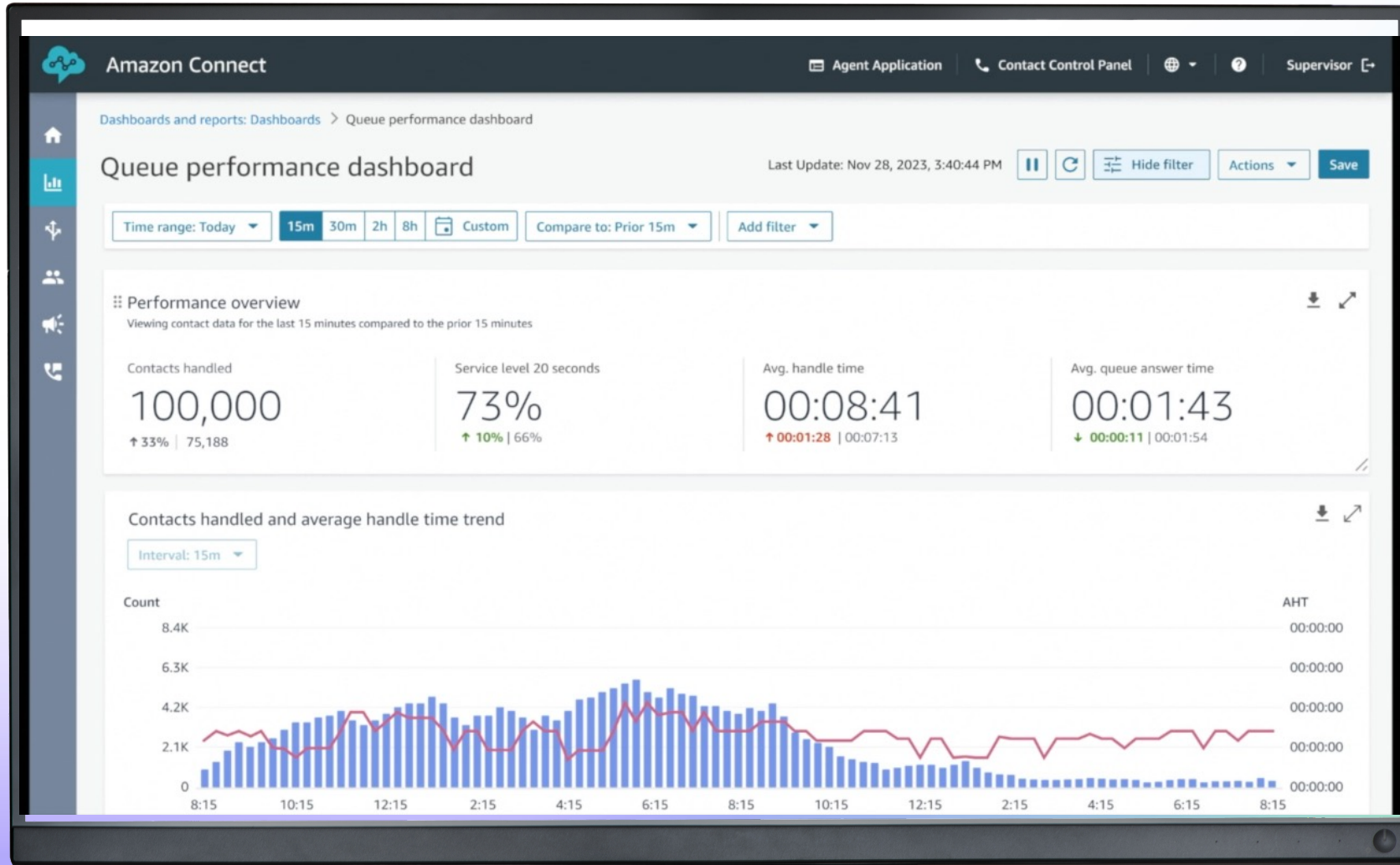
- Chat History:** Shows a conversation with a Virtual Assistant. The assistant asks for a one-time password, and the agent responds with '1234'. The assistant then confirms a credit limit increase and offers a travel rewards card.
- Case Summary:** A central panel titled 'Fraud activity - transaction declined' for Case XYZ1234567. It includes a summary, reference ID, creation date, assigned queue (Transaction Support), and assigned user (John Stiles). A table of details is shown below:

Field	Value
Reference ID	XYZ1234567
Customer name	Nikki Wolf
Contact email	nikki_wolf@example.com
Creation date	November 28, 2023
Last updated	November 28, 2023
Contact phone	1 212-555-5400
Assigned queue	Transaction Support
Assigned user	John Stiles
Account number	233455
Card currently locked	Yes
Date of transaction	November 28, 2023
Tenure of membership	10 years 3 months
Transaction amount	\$550
Vendor of transaction	Example Corp Travel
Case status	Open

- Related Actions:** Buttons for 'Close case', 'Add task', 'Edit case', and 'Go to case details' are provided.
- Offers:** Two offers are shown: 'Unlock Card' (to initiate the card unlock process) and 'Apply for a new credit card' (noting the agent is eligible for the Platinum Travel Card).
- Amazon Q Assistant:** A sidebar on the right shows the AI assistant's message: 'I am Amazon Q, your AI assistant! As I listen to the conversation I will provide suggestions.'

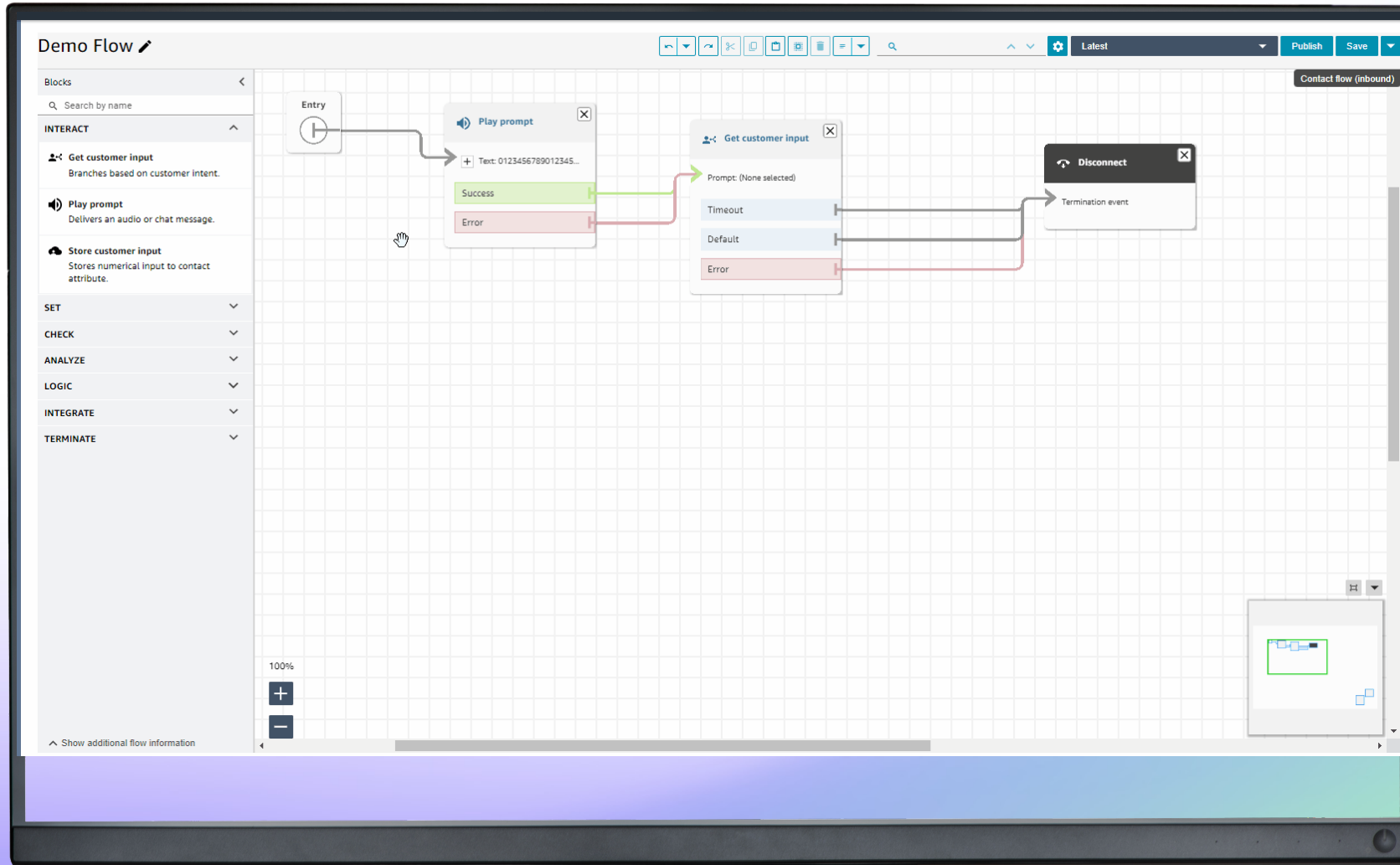
Supervisor experience

CONVERSATIONAL ANALYTICS, AGENT EVALUATIONS, FORECASTING, AND SCHEDULING



Administrator experience

WORKFLOW BUILDER, OMNICHANNEL & SKILLS-BASED ROUTING, RULES ENGINE, AND MORE



Common contact center operational challenges



Inability to discover emerging issues in real-time



Poor visibility into customer conversations



Limited insights to detect common trends



Hard to evaluate performance at scale



Challenging to train and retain talent



Difficult to accurately predict long-term resource needs

Amazon Connect Contact Lens: conversational analytics and quality management powered by AI

Conversational analytics for voice & chat



Gen AI-powered post-contact summaries



Gen AI-powered contact categorization



Theme detection



Real-time supervisor alert



Contact transcription



Contact categorization



Sensitive data redaction



Sentiment analysis

Performance evaluation



Evaluation forms

Automated evaluations (Gen-AI or rule based)



Calibrations



Gen AI-assisted evaluation



Screen recording



Real-time & historical analytics



Contact search & rules



Call recording



Supervisor barge

Use Case - conversational analytics for voice & chat

The screenshot displays the Amazon Connect interface for a contact. At the top, it shows 'Amazon Connect' with navigation options like 'Agent Application', 'Contact Control Panel', and 'LoginName'. The main section is titled 'Contact details' and includes an 'Overview' card with contact information: 'Voice | Duration: 12 min 24 s (9:20 - 9:34 AM EST, Nov 20, 2022)'. Below this is a 'Summary' section with a paragraph: 'The customer wanted to book two suites at a hotel in Fresno, California for two nights from May 26th to May 28th. However, the agent did not have any suites available on those dates. The agent offered two king bedrooms instead at \$199 per night plus taxes and fees. But the customer thought the price was too high and decided to search for a better deal on their own.'

The 'Conversational analytics' section contains three charts: 'Customer sentiment trend' (a line graph showing sentiment over time), 'Customer sentiment' (a stacked bar chart showing Negative 33.3%, Positive 0%, and Neutral 66.7%), and 'Talk time' (a stacked bar chart showing Agent talk time 16.1%, Customer talk time 17.8%, and Non-talk time 66.1%). Below these charts is a summary table:

Overall customer sentiment	-1.7	Customer talk time	00:00:20	Conversation duration	00:02:13
Overall agent sentiment	0	Agent talk time	00:00:18	Longest non-talk time	00:00:21
				Total non-talk time	00:01:17

At the bottom, there is a 'Transcript' section with a 'Categories' list (greeting) and a transcript snippet: 'Customer 00:01 | Issue | greeting | HI, My name is [PII]. I called in about five days ago, and I spoke with [PII] in regards to my claim. I haven't heard. Back six.'

Generative AI-powered post-contact summaries

Conversational analytics metrics

Screen recording

Transcripts, categories, highlights

Performance evaluations

The 'Evaluations' panel shows a list of evaluation items for a 'Service Assurance' form. It includes details like 'Form name: Service Assurance', 'Form version: 11', and 'Contact ID: 58bbf113-a01e-49f1-9b1a-46c051660261'. Below this, there are two sections for evaluation questions:

1. 1. Call Introduction

1.1 Did the agent greet the customer? Yes No

2. 2. Contact resolution

2.1 Did the agent address the customer questions? Yes No Not Applicable

2.2 Did the agent transfer the call for further handling? Yes No Not Applicable

Use Case – Real-time supervisor alert

Rules

Use Rules to automatically take actions based on updates to a contact or events in external applications. [Learn More](#)

Q Search

Rule name	Status	Trigger	Action
cancelService	Published	Contact Lens post-call	Assign Contact Category
Greeting	Published	Contact Lens post-call	Assign Contact Category
Product	Published	Contact Lens post-call	Assign Contact Category
Problem	Published	Contact Lens post-call	Assign Contact Category

Agent login	Channels	Agents
loginname_a		
loginname_b	Voice	2 On contact 00:02:32
loginname_c	All channels	On contact 00:28:13
	Voice	

Notify supervisors on real-time dashboard if detect keywords/phrases. Ex. "talk to your manager"

When

There is an update in queue metrics

If all of these conditions are met

Metrics

Set a condition based on metrics

All of the following metrics in real-time with the filter queues

match any of the following

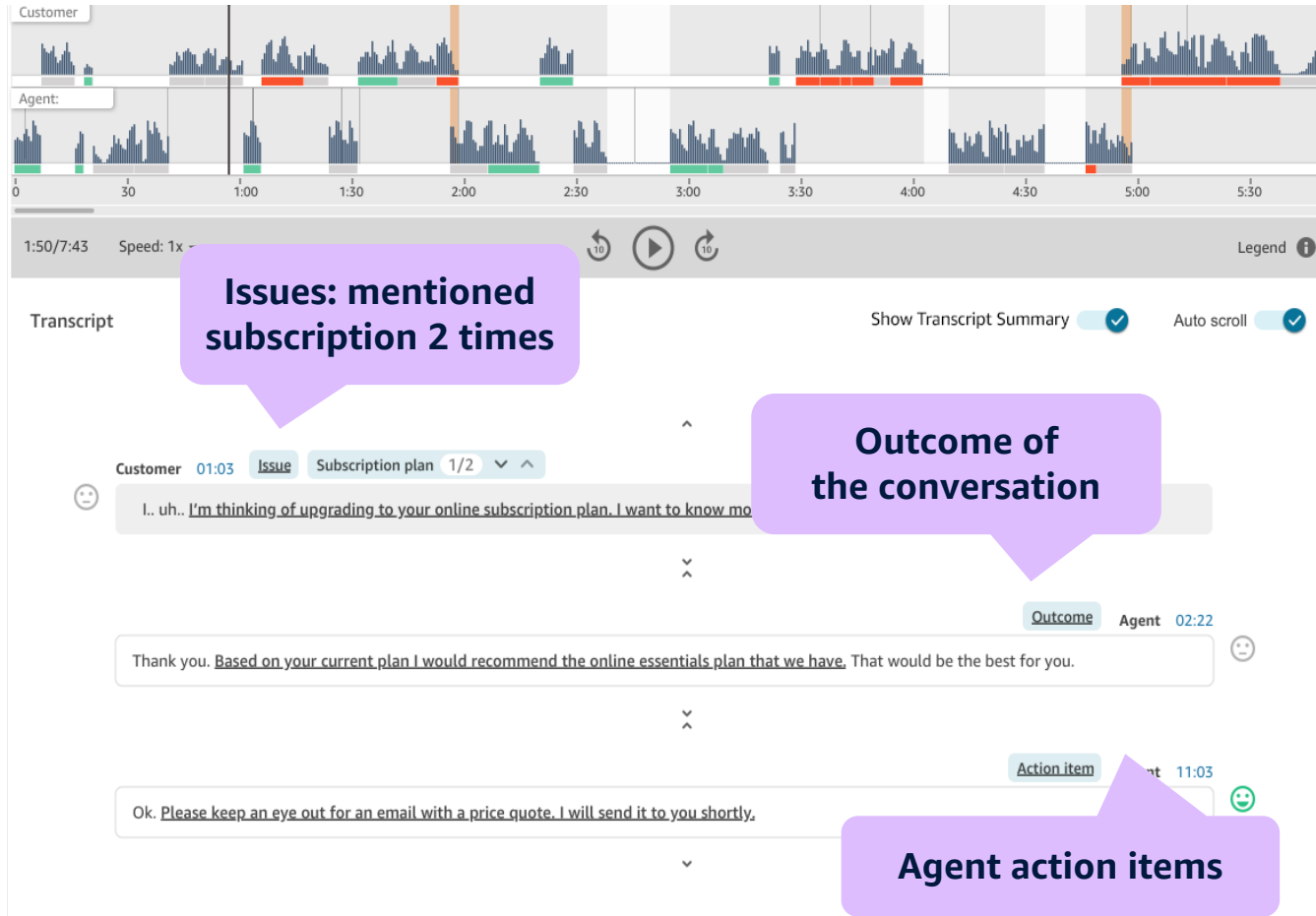
Select queues

Customer service

Notify supervisors when more then 5 contacts in the queue

Define rules for real-time conversational analytics or metrics, notify supervisors via tasks, email, or events to 3rd party systems

Use Case – Improve agent productivity



Reduce the need for agents after call work with highlights on interactions

Reduce the need for customers to repeat themselves during call transfers

Use Case – Performance Evaluation

Contact details

Contact summary

Contact ID	57681728-4b03-4778-bc6f-de1e242e1e5b	Initiation method	Outbound
Duration	00:02:27	Disconnect reason	Agent disconnect
Channel	Voice	Next contact ID	8d657afc-287f-46cd-b44f-1ef130dc7318
Queue	BasicQueue		
Agent	Caoile Francis		

[Show more](#)

Aggregated results in contact details

Average for trailing four weeks (Feb 11, 2023 to Mar 4, 2023)

Compliance	90%
Sales effectiveness	100%

[Show 3 more](#)

■ This contact ■ This agent avg. ■ All contacts avg.

75%
Evaluation score

Conversational analytics

Customer sentiment trend

00:02:15

Customer sentiment

Negative	33.3%
Positive	0%
Neutral	66.7%

Talk time

Agent talk time	16.1%
Customer talk time	17.8%
Non-talk time	66.1%

Overall customer sentiment -1.7
Overall agent sentiment 0

Customer talk time 00:00:20
Agent talk time 00:00:18

Agent interaction duration 00:02:13
Longest non-talk time 00:00:21
Total non-talk time 00:01:17

Recording

Auto-filled questions

1. Politeness

1.1 Did the agent greet the customer?
Yes

1.2 Was the agent polite?
No

2. Effectiveness 50%

2.1 Did the agent resolve the customer problem?
Yes

2.2 What was the customer problem?

Evaluation form alongside contact details

Amazon Q in Connect

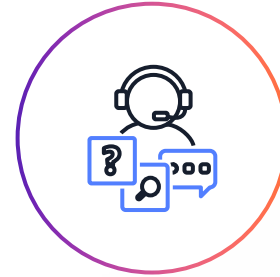
Challenges in solving customer concerns



Identify customer concern



Ask qualifying questions



Search for solution across disparate sources



Knowledge management system
Customer-facing FAQ sites
Internal chats with colleagues

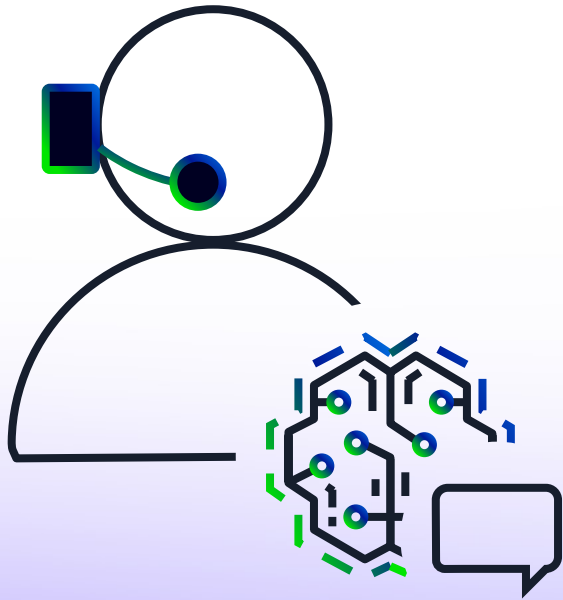


Take additional steps to resolve concern



End call without resolution
Transfer or escalate

Amazon Q in Connect uses generative AI to assist agents with recommended responses and actions



- Generate real-time responses that agents can deliver directly to customers, along with actions to take, based on context from the live conversation and relevant information from your company content (e.g., knowledge articles, FAQs, documents)
- Agents can also search across company content to receive specific recommendations, like actions to take
- Source knowledge articles and documents are displayed so agents can access more detail if needed

Generative AI-powered agent assist delivers suggested responses and actions

The screenshot displays the Amazon Q agent assist interface. On the left, a chat window shows a conversation with 'Nikki Wolf'. The chat history includes a message from Nikki Wolf: "Hi, I wanted to find out more about the travel rewards credit card." and a response from John: "I'd be happy to help with that. Our travel rewards card offers 3 points per dollar on all travel expenses. It offers reimbursement of trusted traveler programs, and carries a \$100 annual fee." The main panel shows suggested actions for Nikki Wolf, such as "New case - transaction declined", "Make payment", "Unlock Card", "Apply for a new credit card", and "Add travel notice".

Detected issue

Generated response

Generated solution

Articles and documents used to generate the response & solution



Demo

Agent Workspace

How Amazon Q in Connect works

What is the customer's issue?



What information is relevant?



What Amazon Q asks Bedrock



Generative Response

LLM: "I apologize, but your reservation will be subject.. "

Generative Solution

LLM: "Here are the steps to resolve the customer's issue..."

CUSTOMER: "I'm supposed to pickup my rental car in 2 hours but I need to cancel. Will I be charged a cancellation fee?"

This document from the customer's knowledge repository is relevant: 'Cancellation Policy.docx'

Amazon Q in Connect: "Provide a response as an agent using information from 'cancellation policy.docx'"

Intent Detection ML Model

Semantic Matching ML Model

Prompt Engineering

Amazon Bedrock LLM

Leverage your existing content

Add integration [Info](#)
Choose a data source for this integration and establish a connection to import your content to Amazon Q.

▼ **Integration setup**

Choose integration method

Create a new integration
Create a new integration and select object fields

Use an existing integration
Reuse an existing integration with object fields

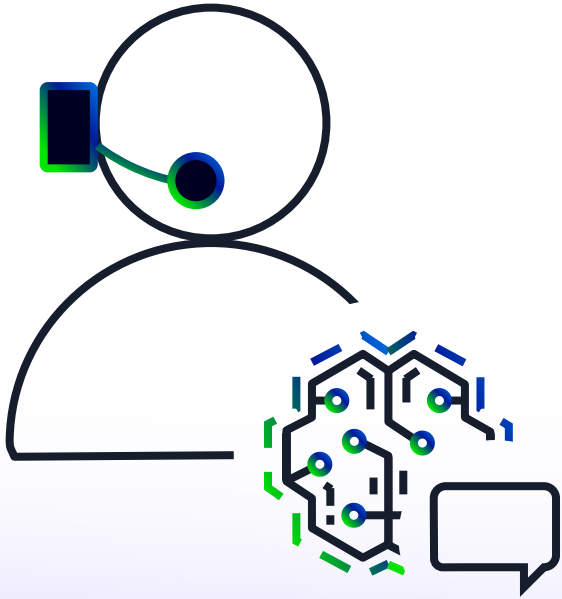
Source

Search

Salesforce
ServiceNow
Zendesk
Microsoft SharePoint Online
S3

- No-code connectors can integrate content from Salesforce, ServiceNow, Zendesk, Microsoft SharePoint Online, & Amazon S3
- Create, Read, Edit, Delete APIs to import and manage content from other knowledge sources
- Support for HTML, Word, PDF & TXT formats

Amazon Q in Connect's Business Value



Onboarding time



Average handle time (AHT)



Escalations

Amazon Q in Connect will increase overall agent productivity by 10%, decrease costly escalations by 5%, and new agents will become proficient 10 days sooner, which results \$317 per agent per month savings.

Next steps

HOW TO GET STARTED WITH AMAZON CONNECT



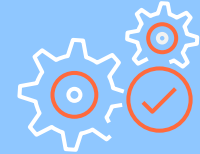
**Define use case
and timeline**



**Proof of concept
to validate**



**Pilot for use case
or subset of traffic**

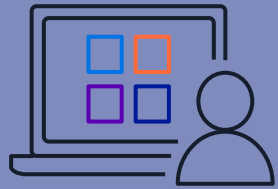


Production

[Amazon Connect](#)

aws.amazon.com/connect/

AWS contact center resources



**Immersion days/
workshops**



**Architecture
reviews/guidance**



**Professional
services**



**Partner
engagement**



**Training &
certification**

Get started with Amazon Connect today:
aws.amazon.com/connect/



Thank you!

Jawad Irshad

Solutions Architect
Amazon Web Services
awsjawad@amazon.com

Brett Berman

Solutions Architect Manager
Amazon Web Services
bermanbr@amazon.com

Please complete the survey
for this session



Track:

Artificial Intelligence (AI) & Machine Learning (ML)

Session:

Increase productivity and satisfaction with an intelligent contact center

Up next in this room

1:30pm – 3:00pm

300
level

Workshop: Building agentic workflows on AWS

Unlock organizational knowledge, automate inquiries, and improve response times while maintaining compliance using Amazon Q Business