

# **AWS State, Local, and Education Learning Days**

Washington, DC



# Amazon Connect

Increase productivity and satisfaction with an intelligent contact center

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# Agenda

- Amazon Connect Overview
- Contact Lens
- Amazon Q in Connect



## Amazon Connect

**One application. One seamless experience.**

TENS OF THOUSANDS  
OF CUSTOMERS

MORE THAN 10 MILLION CONTACT  
CENTER INTERACTIONS A DAY

USED BY +100,000 AMAZON  
CUSTOMER SERVICE ASSOCIATES

# 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**



# Built from the ground up to accelerate your CX innovation

TAKE CONTROL OF AN ENTERPRISE GRADE CONTACT CENTER WITH JUST A FEW CLICKS



## Self-service

Take control from day one and make changes fast

- Get started in 5 minutes, with an enterprise grade contact center and global telephony
- Powerful UI and API lets you make changes instantly

- Test, dial up, and deploy features at will, only paying for what you use
- Iterate on demand with built in A/B testing

## True omnichannel

Unify your experiences and maximize people

- Configure a customer journey and deploy across all channels instantly—no duplicate effort
- One automation engine (e.g., IVR, Chatbot, tasks)

- One agent experience
- One routing & skills engine
- One data, analytics, and optimization engine

## Native data and AI

Drive real world results

- Access data in one place with no walled gardens: your data is your data
- AI conversational and real time journey analytics

- AI-driven agent and manager assist
- AI-driven quality management, forecasting, and agent scheduling

## One vendor solution

Enable solutions with clicks not integrations—native, not cobbled together

- Agent optimization suite
- Customer profiles
- Case management

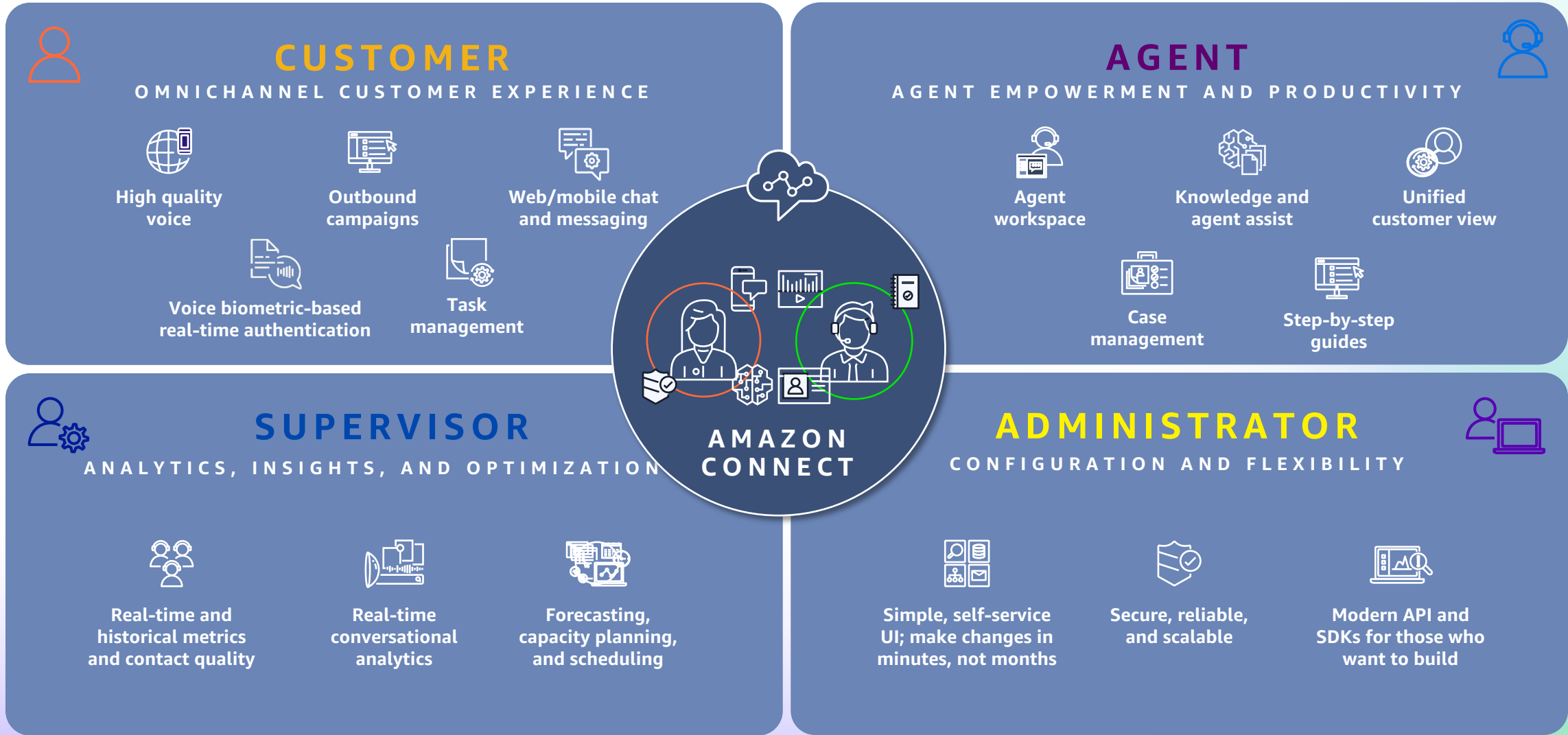
- Tasks to track all agent and back-office work
- Proactive outbound
- Voice authentication

## Flows

Powerful IVR, chatbot, agent and task automation

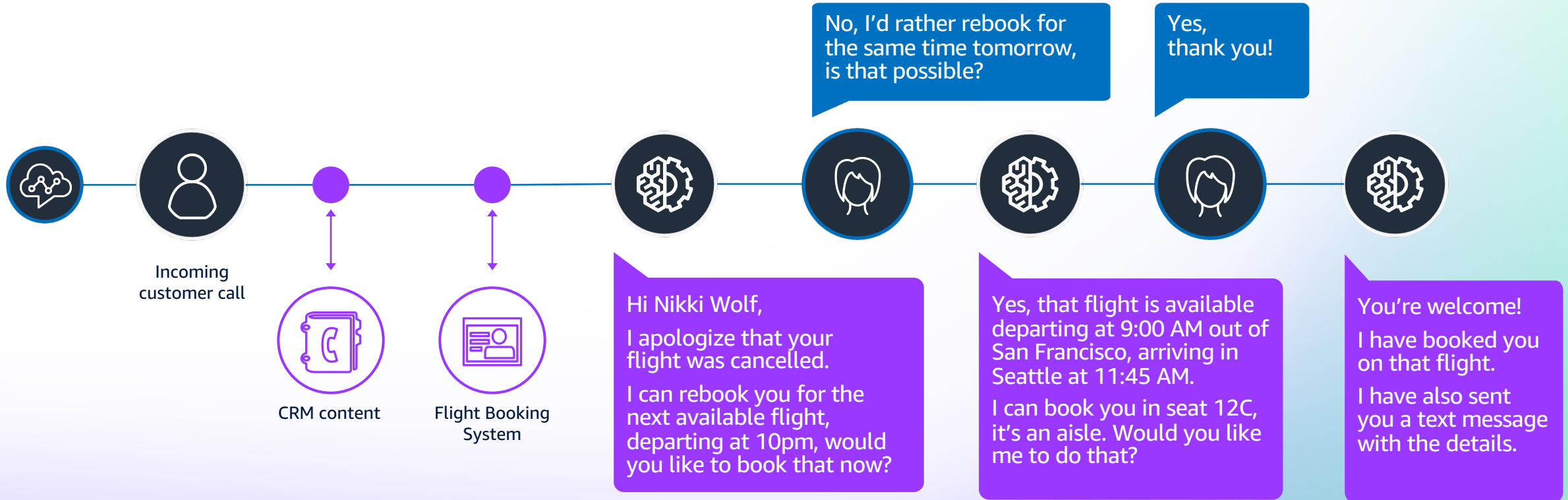
- One flow language, drag-and-drop editor, and engine for all channels
- Native Natural Language understanding

- Agent step-by-step guides
- Flow analytics to optimize and iterate
- Reusable modules, versioning, and change control



**ONE APPLICATION. ONE SEAMLESS EXPERIENCE.**

# Customer Experience



## PERSONAL

Amazon Connect Flows adapt on a per customer basis

## DYNAMIC

Answer customer questions before they are even asked

## NATURAL

Amazon Connect chatbots use the same technology that powers Alexa

## OMNICHANNEL

Amazon Connect SMS provides assistance on channel of choice

# Agent experience

AMAZON CONNECT AGENT WORKSPACE

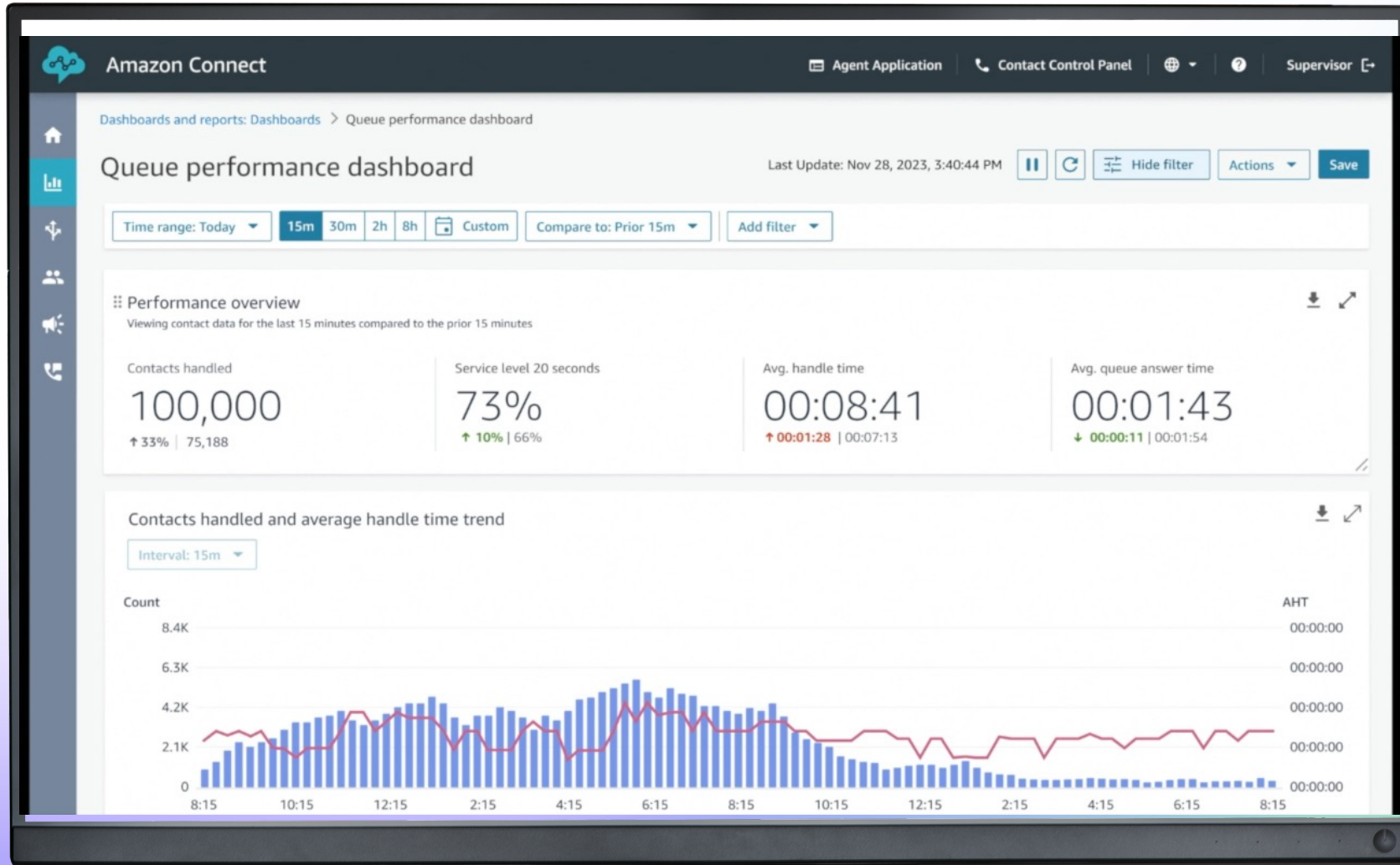


The screenshot displays the Amazon Connect Agent Workspace interface. At the top, the agent's status is 'Available' and the name is 'Nikki Wolf'. The main workspace is divided into several sections:

- 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, card status, transaction amount, and vendor information.
- Recommendations:** Two boxes offer suggestions: 'New case - transaction declined' with a 'Make payment' button, and 'Offers' including 'Apply for a new credit card'.
- Chat Input:** A text box at the bottom with a 'Type a message and press enter to send' prompt and an 'End chat' button.

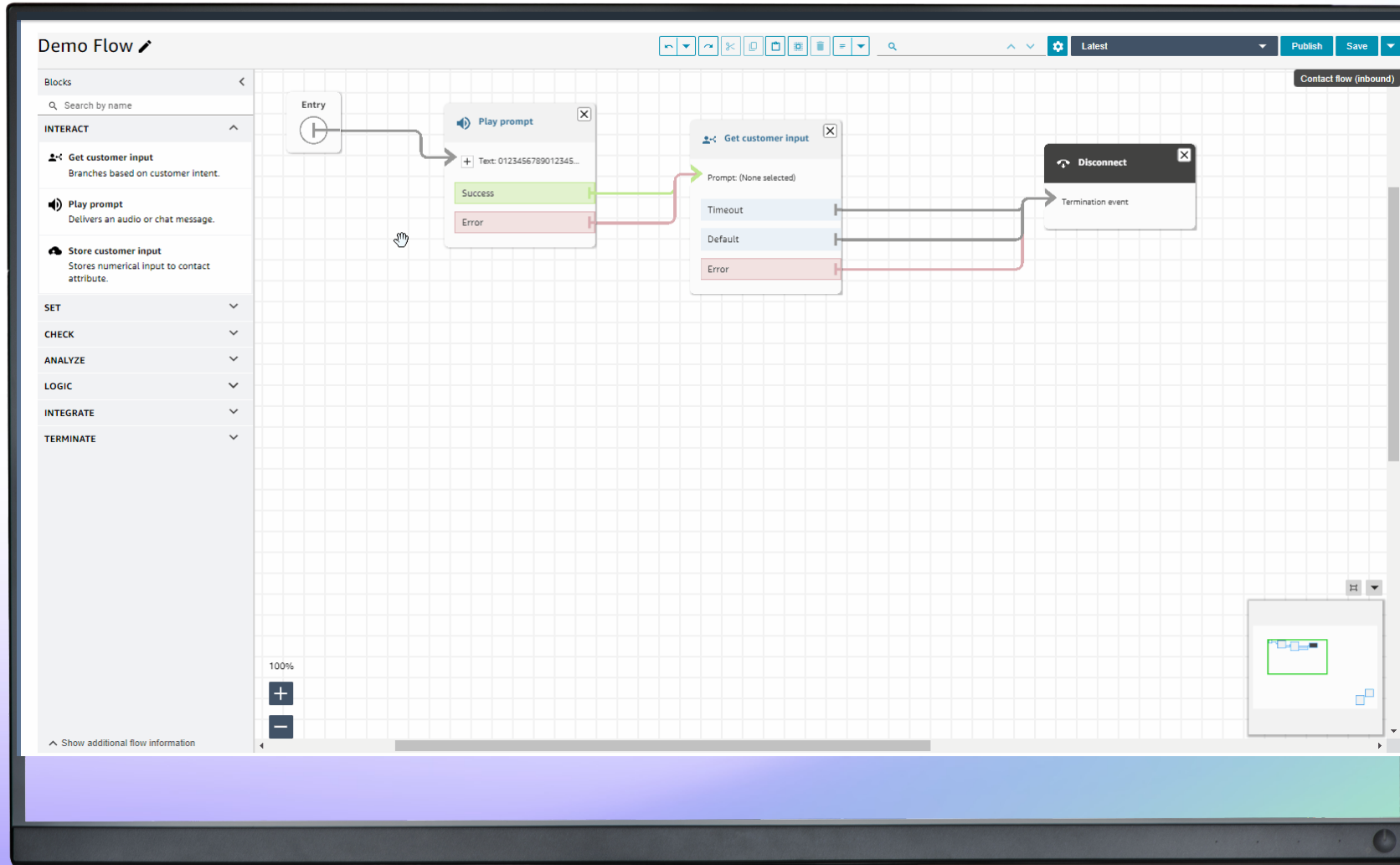
# Supervisor experience

CONVERSATIONAL ANALYTICS, AGENT EVALUATIONS, FORECASTING, AND SCHEDULING



# Administrator experience

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



# Pay-as-you-go makes innovation work for you

FREEDOM TO RAPIDLY EXPERIMENT AND SCALE UP AND DOWN



No required  
upfront commitments



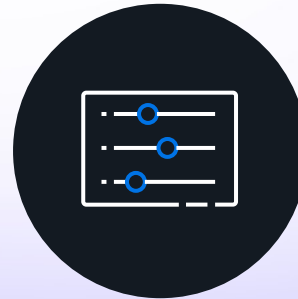
Elastic  
scalability



Reduced  
maintenance



Expand globally  
at your pace



Instant  
experimentation



Accelerated  
innovation

# Contact Lens

# Contact Lens for Amazon Connect

Out-of-the-box experience enabled contact centers and their staff to use the power of ML with just a few clicks



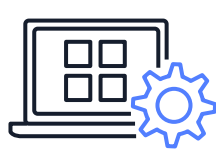
---

Advanced  
search



---

Detailed  
analytics and  
sentiment  
analysis



---

Automated  
contact  
categorization



---

Call  
summarization



---

Real time  
supervisor  
alert



---

Sensitive data  
redaction

# Use Case - Identify critical issues in real-time

Real-time metrics

Agents

Time range: trailing previous 2 hours

Agent login	Channels	Agents					Contacts				
		Activity	Duration	Agent hierarchy	Routing profile	Capacity	Active	Availability	State	Duration	Queue
loginname_a	All channels	On contact	01:15:01	US/ West/ Dept A	RP name A	3	1	0	-	-	-
	Voice					1	0	0	Connected	00:05:18	Queue name
	Escalation, Angry customer					0	0	-	-	-	-
loginname_b	Voice	On contact	00:02:32	US/ West/ Dept A	RP name B	1	1	0	Connected	00:04:39	Queue name
loginname_c	All channels	On contact	00:28:13	US/ West/ Dept A	RP name B	2	0	1	-	-	-
	Voice					0	0	0	Connected	-	-
	Chat					0	0	-	-	-	-
loginname_d	Chat total	On contact	00:24:01	US/ West/ Dept A	RP name A	2	2	0	-	-	-
	Chat					1	0	0	Connected	00:01:01	Queue name
	Chat					1	0	0	Connected	00:12:45	Queue name
loginname_e	All channels	On contact	00:13:30	US/ West/ Dept A	RP name C	2	2	0	-	-	-
	Voice					0	0	-	-	-	-
	Chat total					2	0	-	-	-	-
	Chat					1	0	0	Connected	00:11:56	Queue name
loginname_f	All channels	On contact	01:07:52	US/ West/ Dept A	RP name a	3	1	0	-	-	-
	Voice					1	0	0	Connected	00:03:12	Queue name
	Chat total					0	0	-	-	-	-

Rows per table: 50 1-32 of 100

New table

- Get alerted to real-time issues when a customer conversation matches your predefined rules
- Listen in or review live call transcript to decide whether a call transfer is needed

# Use Case - Simplify call transfers

The screenshot displays a call center interface with three main sections:

- Metadata:** Contact Id, Channel (Voice), and Customer sentiment (indicated by a green progress bar).
- Categories:** A list of categories with "Proper-Greeting" selected.
- Transcript:** A conversation log showing an agent's message: "Hello. Thanks for calling XYZ Company. My name is John Doe. Let's start with your date of birth, and please verify your address for me please." The agent's timestamp is 00:00 and the customer's timestamp is 00:13. A green smiley face icon is next to the agent's message.

- Pass call transcript containing customer sentiment, matched categories, and detected issue from one agent to another
- Reduce the need for customers to repeat themselves during call transfers

# Use Case - Manage policy and regulatory compliance

When

A Contact Lens post-call analysis is available

If all of these conditions are met

Words or phrases - Exact match  
Limit: 100 words or phrases total for the rule

Logic: Any of the following words or phrases were not mentioned during the first 30 seconds of the contact, where speaker is agent

Enter keywords or phrases. Comma separate multiples entries. Add

Keywords or phrases	
thank you for being a gold member	
thank you for being a valued customer	

- Track adherence to call scripts (e.g., greetings)
- Ensure regulatory requirements are being followed (e.g., disclaimers)

# Use Case - Improve handling of sensitive customer data

```
{
  "ParticipantId" : "33333333",
  "Id" : "sssssssss-ssss-ssss-ssss-sssssssss",
  "Content": "My email id is [PII].", //This shows that the customer's email ID has been redacted.
  "BeginOffsetMillis" : 500,
  "EndOffsetMillis" : 945,
  "Sentiment" : "NEGATIVE",
  "LoudnessScore": [
    40.5,
    55.0,
    59.3
  ],
}
```

- Redact customer data such as names, addresses, credit card details, and social security numbers
- Hide sensitive information in the call transcript and silence it in the audio recording

# Use Case - Find agent coaching opportunities

The screenshot displays the 'Contact search' interface. At the top, a message box states: 'The contact search page has a brand new experience. Now you can select your search timeframe by the hour. You can use multi-select for agent names, contact queues, contact flows, and more. Also, we've extended the time range of search from two weeks to eight weeks. The previous version of the contact search page is still available for a limited time. [Learn more.](#)'

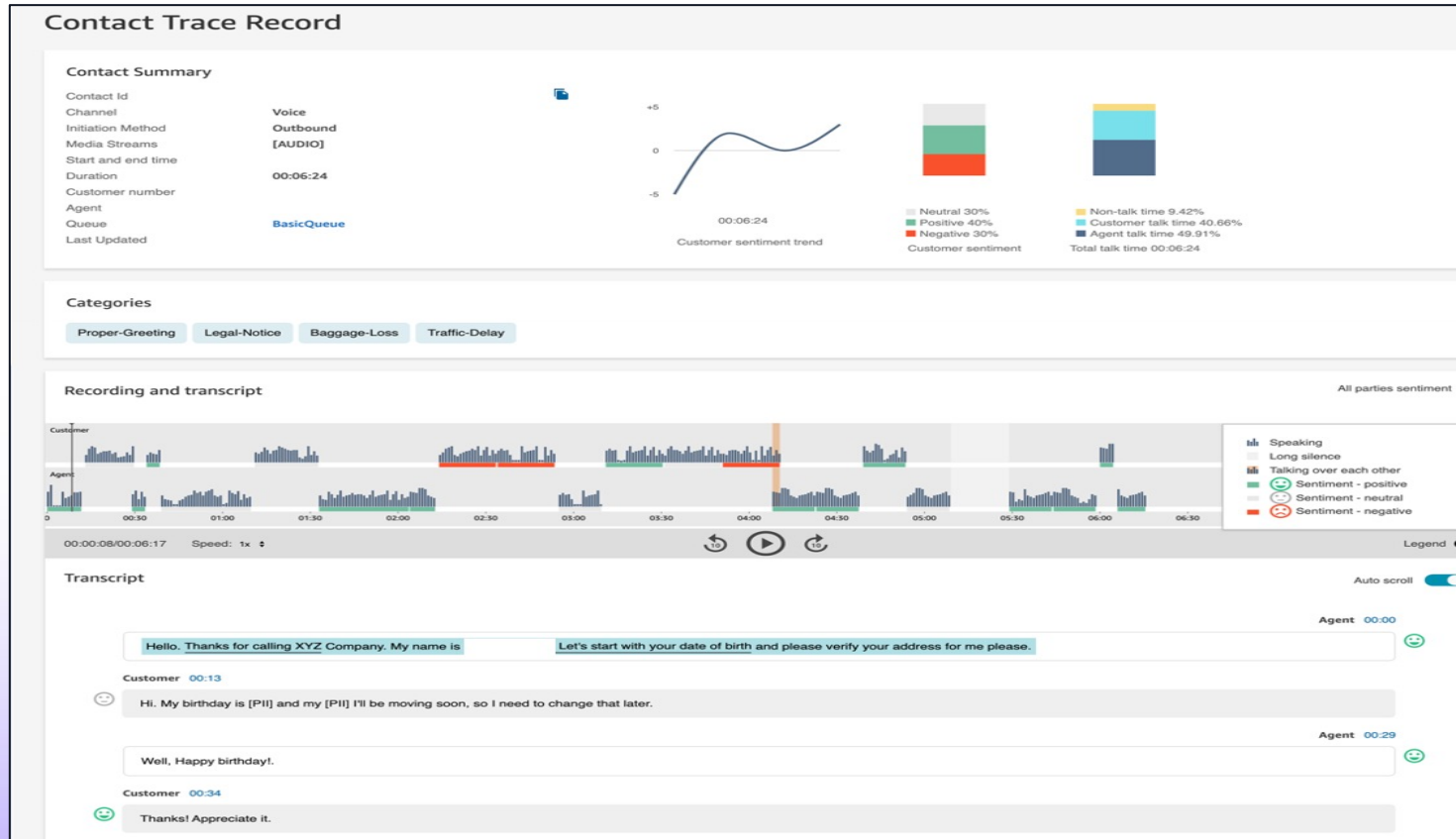
Below the message is a 'Filters' section with a 'Clear all' link. It includes a 'Time range' dropdown, a 'Channel' dropdown set to 'All Channels', and an 'Add Filter' button. A dropdown menu is open, listing various filter options: Agent, Contact ID, Contact category (CL), Customer phone number, Disconnect reason, Initiation method, Interaction duration, Non-talk time (CL), Queue, Sentiment Score (CL), System phone number, and Words or phrases (CL).

The main area shows a table of contacts with columns: Contact ID, Channel, Initiation Timestamp, Queue, Agent, Recording/Transcript, Customer Phone Number, Disconnect Timestamp, and Contact Duration. The table is currently empty, displaying the message: 'No results found. Please review your filter selection.'

At the bottom right, there is a 'Rows per page' dropdown set to 25 and navigation arrows.

- Use the Contact Search page to find calls analyzed by Contact Lens
- Search by filters unique to Contact Lens such as words or phrases, contact category, sentiment score, and non-talk time

# Use Case - Review call details



- Get sentiment for every conversation turn and over the length of the entire call
- See matched call categories, the breakdown of talk time between agent and customer, and any interruptions or silence

# Use Case - Customize Vocabulary to improve accuracy

Name	Language	State
Test-	British English	Ready (default)
TestUpload	Scottish English	Ready

Context menu for 'TestUpload':

- Set as default
- Download
- Remove

- Expand and tailor the vocabulary of the speech-to-text engine in Contact Lens.
- Improve the accuracy of speech recognition for product names, brand names, and domain-specific terminology

This is the header. It is required.

```
sample-table-type-file (2) - Notepad
File Edit Format View Help
Phrase IPA SoundsLike DisplayAs
Los-Angeles Los Angeles
F.B.I. ε f b i aɪ FBI
Etienne eh-tee-en
```

# Use Case - Get call summarization automatically

The screenshot displays a contact record for a voice call. The contact ID is 67ffb54... and the call was completed on July 17, 2024, at 03:00:36 pm. The agent is agent1. The call summary, generated by AI, states: "The customer was frustrated about a delayed gift delivery. The agent checked the order and saw it was delayed due to weather conditions. To resolve it, the agent offered to expedite a replacement shipment at no extra cost, which the customer accepted. The customer emphasized the delivery was very important and timely." The transcript shows the customer saying "Hi." and a key highlight of "Issue" is present.

Contact ID	Channel	Contact status	Initiation timestamp	System phone number	Queue	Agent	Recording/Transcript	Cust
67ffb54...	Voice	Completed	Jul 17, 2024, 03:00:36 pm	outbound	BasicQueue	agent1	🔊 📄 🗑️	+17

**Audio**

0:00 / 0:00

**Summary** Generated by AI

The customer was frustrated about a delayed gift delivery. The agent checked the order and saw it was delayed due to weather conditions. To resolve it, the agent offered to expedite a replacement shipment at no extra cost, which the customer accepted. The customer emphasized the delivery was very important and timely.

**Transcript** Show key highlights

Key highlights: Issue

Categories: Greeting

**Customer** 00:03

Hi.

- Identifies and labels key parts of the conversation
- Finds issue, outcome, and action item of a call
- Output available in Contact Lens JSON file

# Pay-as-you-go Pricing

Pay only for what you use. No long-term commitments or minimum monthly fees

## AWS Free Usage Tier

**\$Free**

Get started

Receive:  
90 minutes per month

## Contact Lens Pricing by AWS Region\*

**\$0.015/min**

First 5 million minutes

**\$0.0125/min**

5 million+ minutes

### AWS Regions:

US East (N. Virginia), US West (Oregon), Canada (Central), Europe (London), Europe (Frankfurt), Asia Pacific (Singapore), Asia Pacific (Sydney), Asia Pacific (Seoul), and Asia Pacific (Tokyo)

\*Prices here are in USD and apply to instances hosted in US-based regions.

For other pricing, including outbound dialing rates, go to: <https://aws.amazon.com/connect/pricing/>

# Amazon Q in Connect

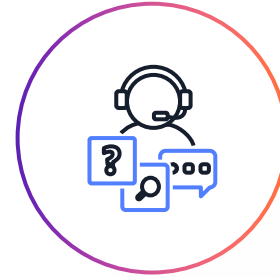
# Challenges in solving customer concerns



## 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 - A generative AI powered assistant from AWS

AMAZON Q **DEVELOPER**



AMAZON Q **BUSINESS**

## Embedded

Amazon Q  
In Connect

Amazon Q  
In QuickSight

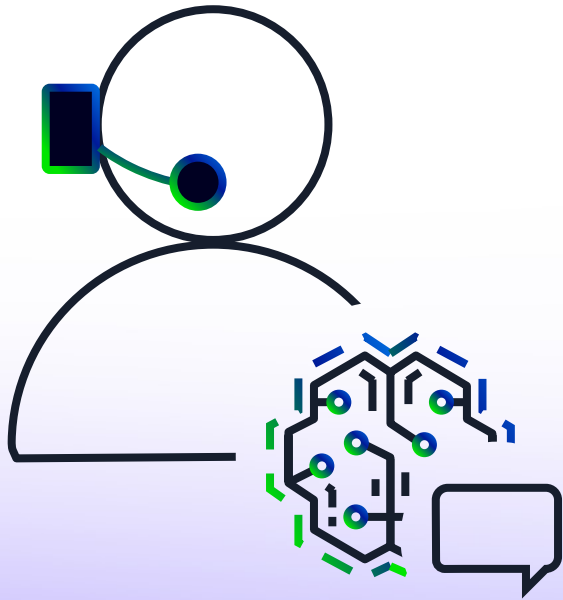
Amazon Q in  
AWS Supply Chain

## Benefits

In-built privacy and security

Customizable to your business

# 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". On the right, a search results panel shows the detected issue, the generated response, the generated solution, and the articles used to generate the response and solution.

**Detected issue**

**Generated response**

**Generated solution**

**Articles and documents used to generate the response & solution**

# 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

# Generative AI-powered post-contact summaries

Agents can access post-contact summaries for voice contacts on the Contact Control Panel (CCP)

Managers and supervisors can access summaries for voice and chat contacts on the Amazon Connect admin website

## Contact details

In progress | Last updated: Jul 17, 2024, 03:02:06 pm | [Copy]

### Overview

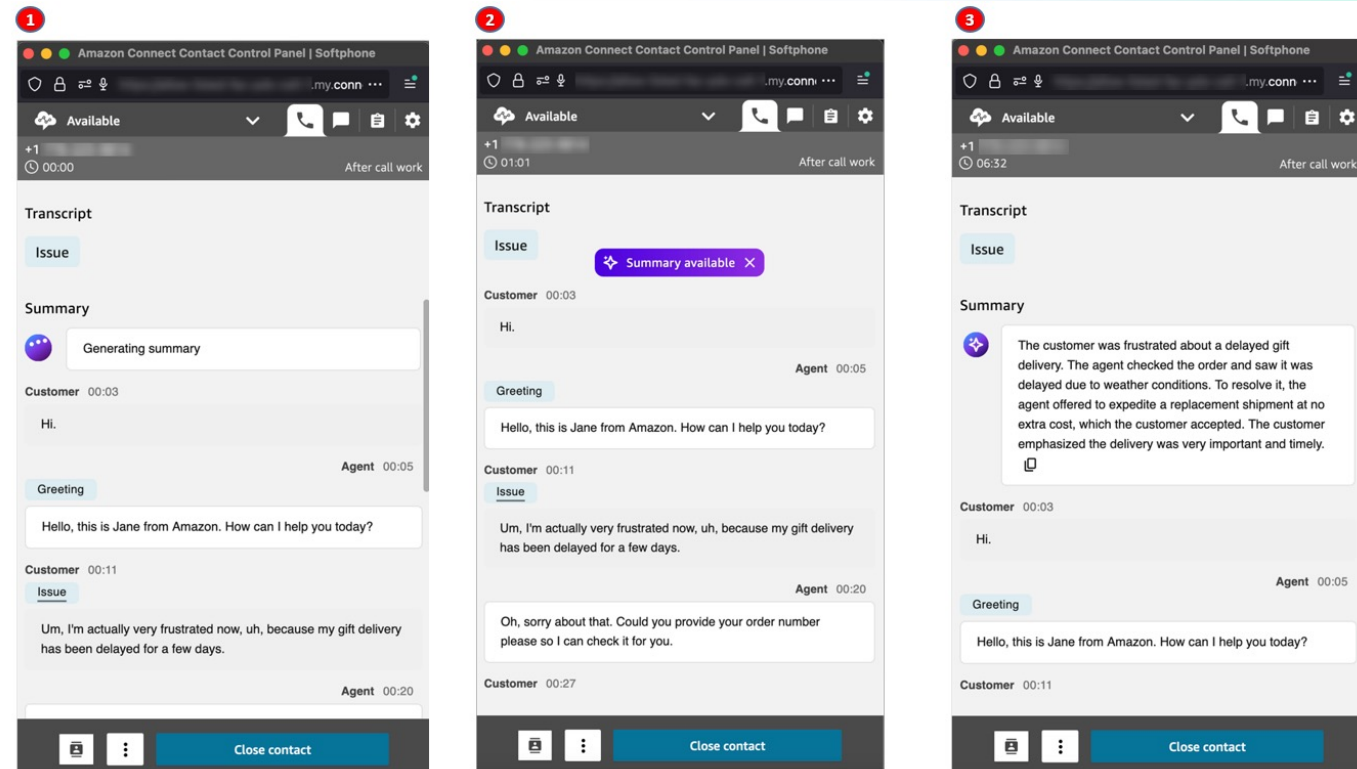
Voice | Duration: 1 min 23 s (Jul 17, 2024, 3:00:36 PM – 3:01:59 PM)

Channel subtype	Agent	Initiation method	Disconnect reason
Telephony	agent1 (Doe, Jane)	Outbound	Customer disconnect

Customer phone number	Customer sentiment
+1 [redacted]	[Progress bar]

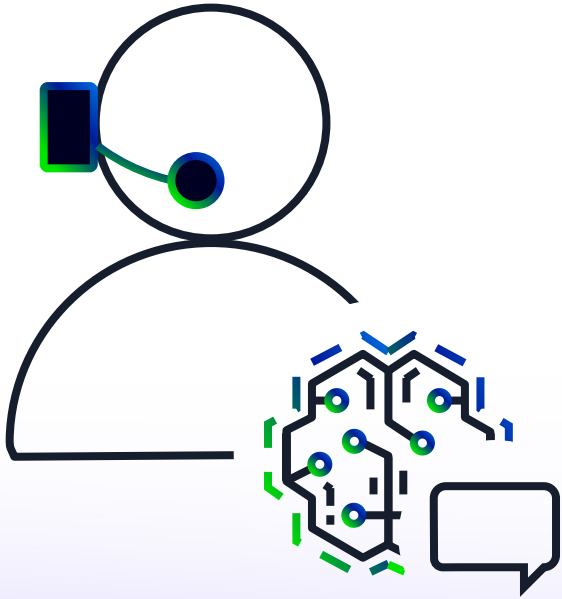
Summary Generated by AI

The customer was frustrated about a delayed gift delivery. The agent checked the order and saw it was delayed due to weather conditions. To resolve it, the agent offered to expedite a replacement shipment at no extra cost, which the customer accepted. The customer emphasized the delivery was very important and timely.



Developers can directly ingest the summaries from the APIs into third-party systems

# 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.

# What our customers are saying



"Amazon Q in Connect will create **10-15% time savings** on every contact..."



"We envision these features will enable our agents and supervisors to focus on delivering premiere customer experiences..."



"We expect that Amazon Q in Connect will **ensure both our new and experienced agents are prompted in real-time** with accurate information..."

# Pay-as-you-go Pricing

No required up-front payments, long-term commitments, fees or data storage charges

## Amazon Q in Connect Pricing

# \$40/agent/month

You are billed \$40 per agent/per month for agents who either receive a suggested response, or who search across connected knowledge sources. Amazon Connect security profiles enable you to manage which agents can receive suggestions and search Amazon Q in Connect.

\*Prices here are in USD

# 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

# FAQs

## **Why should a customer be confident in Amazon Connect's approach to generative AI?**

AI and ML have been a focus for Amazon for over 20 years and **what we do best is apply AI to real world applications** at scale. From Alexa to Amazon Go “no checkout line” stores, we have been using AI to find practical solutions to a variety of business problems.

## **What LLMs does Amazon Q in Connect use?**

Amazon Q in Connect is built using Amazon Bedrock to deliver the highest business value while optimizing costs for our customers. While **we don't release the details on which LLMs the product uses**, we are constantly evaluating the performance of foundational models and willing/able to make changes to improve customer and business outcomes.

## **What guardrails do we have in place to ensure LLM responses are accurate?**

We use Amazon Bedrock, providing all of the AWS scalability, reliability, and security that customers are accustomed to and expect. Additionally, to address concerns about AI hallucinations we are

- 1) keeping agents in control** to edit/ modify AI generated responses before delivery to end customers
- 2) providing 'references'** along with AI generated response (e.g. links to articles)
- 3) collecting user feedback** for the generative responses implicitly (e.g., number of human edits) and explicitly (thumbs up / thumbs down button for agents) for improvements.

# FAQs

## What channels does Amazon Connect in Q work with?

Amazon Q provides real-time recommendations when contact lens is enabled in the **voice and video calling** channels. Contact Lens is not required for Amazon Q to provide real-time recommendations in the **chat and SMS channels**. Agents can also query Amazon Q both during active contacts and between contacts.

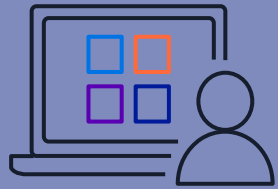
## What regions is Amazon Q in Connect available? What languages are available?

The service is available in **US East (N. Virginia)**, **US West (Oregon)**, Europe (London), Europe (Frankfurt), Asia Pacific (Sydney), and Asia Pacific (Tokyo). The service is only available in English. *Note: Amazon Connect instances in Europe (London) leverage Amazon Bedrock in Europe (Frankfurt). Connect instances in Asia Pacific (Sydney) leverage Amazon Bedrock in Asia Pacific (Tokyo). All other Amazon Connect instances leverage Amazon Bedrock in their respective regions.*

## How can I get started?

In the in the AWS console, navigate to 'Amazon Connect' and the 'Amazon Q in Connect' section where you are prompted to create a new Domain (Assistant) and connect a knowledge source (e.g. Salesforce, ServiceNow, Zendesk, Microsoft Sharepoint Online, and Amazon S3) using no-code connectors.

# 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/](https://aws.amazon.com/connect/)

# Next steps

## HOW TO GET STARTED WITH AMAZON CONNECT



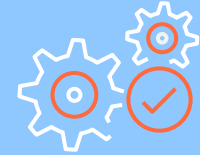
**Define use case  
and timeline**



**Proof of concept  
to validate**



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



**Production**

**Amazon Connect**

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



# Thank you!

**Deepa Nair**

Senior Solutions Architect  
AWS  
naideep@amazon.com

**Please complete the survey  
for this session**



**Artificial Intelligence (AI) and  
Machine Learning (ML)**

Increase productivity and satisfaction  
with an intelligent contact center