

Contact Center Enhancements - Amazon Connect

Overview:

This solution integrates **Amazon Connect**, an AI-powered **agent workspace**, and **Amazon Q (AI Assistant for Agents)** to improve customer service efficiency, especially in scenarios involving **fraud detection, transaction disputes, and account security**.

Key Features:

1. Amazon Connect Integration

- Full telephony suite embedded:
 - Dialpad, call, hold, mute, voicemail
 - Real-time call management for customer interactions
- Shows availability status (e.g., "Available")

2. Personalized Agent Dashboard

- Displays agent-specific info:
 - Name, queue, routing profile, email
 - Timestamp for agent login/start of shift
- Personalized greeting: "Good Morning, Umesh!"

Transaction Review & Action Panel

This panel provides agents with quick-access tools and smart workflows to efficiently manage customer account activity, resolve disputes, and ensure seamless service delivery.

Review Transaction History

- Displays recent declined or suspicious transactions
Example: \$550 at NILE on 09/11/23
- Helps agents quickly identify and investigate potential fraud or disputed charges

Temporary Block Debit Card

- One-click option to immediately freeze a customer's debit card

- Prevents further unauthorized transactions while maintaining customer trust

Make Payment

- Allows agents to view open accounts, due amounts, and due dates
- Supports quick resolution of billing-related inquiries

NEW Apply for a New Credit Card

- Guides agents through the credit card replacement process
- Useful in cases of fraud or lost/stolen cards

Start SMS Session

- Enables real-time SMS-based communication with customers
- Enhances omnichannel support capabilities

Add Notes for Transfer

- Lets agents add context-rich notes during or after calls
- Facilitates smooth handoffs between departments or shifts

Voicemail Page

Agents can access and manage voicemail messages directly within the workspace, ensuring no customer inquiry is missed.

- Accessible via the **Voicemail** button on the bottom-left navigation bar
- Displays a list of all received voicemails with timestamps and caller details
- Supports actions like **Play**, **Mark as Read**, **Delete**, and **Call Back**
- Provides a transcript preview (if enabled) for faster triage
- Ensures agents can follow up on missed calls without leaving the interface

4. AI Assistant: Amazon Q Integration

- **Natural Language Understanding (NLU):**
 - Detects user intent like fraud ("I think it's fraud")
- **Provides context-aware solutions:**
 - Apologize and review transactions

- Lock credit cards
- Suggest appropriate follow-up actions
- **AI-Powered Recommendations:**
 - Cancel unauthorized transactions
 - Order replacement card
 - Monitor suspicious activity
 - Access identity theft resources

AI Capabilities Used:

- Intent recognition from chat messages
- Contextual response generation
- Agent assist recommendations
- Workflow automation (card block, reissue, etc.)

Technologies Used:

- Amazon Connect (CCaaS)
- Amazon Q (AI for agents)
- Real-time UI (likely built on AWS SDK, React/JS)
- Backend: AWS Lambda / DynamoDB (assumed)
- Secure role-based agent access

Use Case:

Fraudulent transaction resolution

- Agents can:
 - Detect fraud via AI suggestion
 - Take immediate action (block card, reissue)
 - Communicate via voice or SMS
 - Add notes for smooth escalation or follow-up

Below are some useful screenshots:

The screenshot shows the Amazon Connect Agent Workspace interface. On the left, there's a phone keypad with a dropdown menu set to '+1' and a text input field 'Enter phone number'. Below the keypad are several control buttons: 'Call' (green), 'End Call' (grey), 'Hold' (grey), 'Mute' (grey), and 'Voicemail' (red). In the center, a large banner says 'Good Morning, Umesh!' with the date 'Friday, September 26, 2025 - 7:44 AM'. Below the banner, the agent's information is displayed: 'AGENT NAME: Umesh Kumar' and 'AGENT QUEUE: Customer Support'. To the right, there's a section titled 'Amazon Q' with the subtext 'AI Assistant for Agents'. It shows a message from 'Tom' saying 'Hi Tom, I will be helping you solve Maria's issue today...' and a response from 'Amazon Q' saying 'I think it's fraud'. Below this, there's a 'Here is a solution...' section with a message about apologizing for trouble and helping the customer review transactions. A 'Sources:' section lists actions like canceling unauthorized transactions and monitoring accounts. At the bottom right, there's a 'Send' button next to a text input field 'Ask Amazon Q...'. The overall theme is dark with green and red highlights for interactive elements.

Click the Voicemail button at the bottom left to open the Voicemail page.

The screenshot shows the Agent Workspace interface. On the left is the Amazon Connect sidebar with a dial pad and call control buttons (Call, End Call, Hold, Mute, Voicemail). The main area is the Voicemail Management section, which includes a search bar and a table of voicemails:

ID	Type	Contact ID	Queue	Time	Read Status
001	Personal	CTX-12345	Support	2:15 PM	Unread
002	Group	CTX-67890	Sales	1:45 PM	Read

To the right is the AI assistance feature, "Amazon Q". It shows a conversation with a customer named Tom:

Hi Tom, I will be helping you solve Maria's issue today...

I think it's fraud

Here is a solution... Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card.

Sources:

- Cancel unauthorized transactions
- Order a replacement card
- Monitor account for suspicious activity
- Access identity theft protection resources

Ask Amazon Q... Send

You can type any query into Amazon Q to get a real-time response from the GenAI.

The screenshot shows the Agent Workspace interface, identical to the previous one, but with a different AI response in the "Amazon Q" section:

Hi Tom, I will be helping you solve Maria's issue today...

I think it's fraud

Here is a solution... Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card.

Sources:

- Cancel unauthorized transactions
- Order a replacement card
- Monitor account for suspicious activity
- Access identity theft protection resources

How to reset password

I can help you with that. Let me provide you with the relevant information and next steps.

Ask Amazon Q... Send

5. Transaction History

Click the Transaction history card to open the Transaction history page.

The screenshot shows the Agent Workspace interface. On the left is the Amazon Connect sidebar with a phone number input field and a keypad. The main area is titled "Agent Workspace" and contains a "Transaction History" section. It displays transaction details for a merchant named NILE, amount \$550.00, date 09/11/23, status Declined, and reason Insufficient funds. Below this are buttons for "Approve Transaction" and "Contact Customer". To the right is the "Amazon Q" AI Assistant, which says "Hi Tom, I will be helping you solve Maria's issue today...". It includes a message "I think it's fraud", a "Here is a solution..." section with steps to cancel unauthorized transactions, and a "Sources:" list. At the bottom are buttons for "How to reset password" and "Ask Amazon Q...", and a "Send" button.

6. Payment Processing

Click the Payment Processing card to open the payment processing page.

The screenshot shows the Agent Workspace interface. On the left is the Amazon Connect sidebar. The main area is titled "Agent Workspace" and contains a "Payment Processing" section. It has fields for "Payment Amount" (550.00), "Account Selection" (Checking Account - *1234), and "Payment Date" (16/12/2024). Below these are buttons for "Process Payment" and "Schedule Payment". To the right is the "Amazon Q" AI Assistant, which says "Hi Tom, I will be helping you solve Maria's issue today...". It includes a message "I think it's fraud", a "Here is a solution..." section with steps to cancel unauthorized transactions, and a "Sources:" list. At the bottom are buttons for "How to reset password" and "Ask Amazon Q...", and a "Send" button.

7. Block Debit Card

Click the Block Debit Card to open the block debit card page.

Amazon Connect
Available

Agent Workspace

Block Debit Card

CARD INFORMATION

Card Number: **** * 8557
Card Type: Debit Card
Status: Active
Issued: 01/15/2023

Reason for Blocking

Lost Card

Block Card Request Replacement

Amazon Q
AI Assistant for Agents

Hi Tom, I will be helping you solve Maria's issue today...

I think it's fraud

Here is a solution...
Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card.

Sources:
- Cancel unauthorized transactions
- Order a replacement card
- Monitor account for suspicious activity
- Access identity theft protection resources

How to reset password

I can help you with that. Let me provide you with the relevant information and next steps.

Ask Amazon Q... Send

8. Credit Card Application

Click the Credit Card Application card to open the Credit card application page.

Amazon Connect
Available

Agent Workspace

Credit Card Application

Card Type

Rewards Credit Card

Annual Income

Enter annual income

Employment Status

Full-time Employee

Submit Application Save as Draft

Amazon Q
AI Assistant for Agents

Hi Tom, I will be helping you solve Maria's issue today...

I think it's fraud

Here is a solution...
Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card.

Sources:
- Cancel unauthorized transactions
- Order a replacement card
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- Access identity theft protection resources

How to reset password

I can help you with that. Let me provide you with the relevant information and next steps.

Ask Amazon Q... Send

10. Send SMS message.

Click the Send SMS card to open the SMS Session page.

The screenshot shows the Agent Workspace interface. On the left, the Amazon Connect sidebar indicates the agent is available. The main area is titled "SMS Session". It includes fields for "Customer Phone Number" (set to "+1 (555) 123-4567") and "Message Template" (set to "Account Verification"). The "Message Content" field contains a template message: "Hello! This is your bank reaching out regarding your account. How can we assist you today?". Below these fields are "Send SMS" and "Save Template" buttons. To the right, there's an AI assistant named "Amazon Q" with the ID "12345". A message from "Amazon Q" says, "Hi Tom, I will be helping you solve Maria's issue today...". The AI provides a solution: "Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card." It also lists "Sources:" which include canceling unauthorized transactions, ordering a replacement card, monitoring account for suspicious activity, and accessing identity theft protection resources. A "How to reset password" button is also present. At the bottom, there's a "Send" button and a "Ask Amazon Q..." input field.

11. Transfer Call to Queue with Transfer Note.

Click the Transfer Call card to open the Transfer call page.

The screenshot shows the Agent Workspace interface. On the left, the Amazon Connect sidebar indicates the agent is available. The main area is titled "Transfer Notes". It includes fields for "Transfer To" (set to "Technical Support") and "Priority Level" (set to "Normal"). The "Notes" field contains a note: "Customer is experiencing issues with their debit card. Card was declined multiple times. Already verified account balance and card status. Needs technical review of card authorization settings.". Below these fields are "Transfer with Notes" and "Save Notes" buttons. To the right, there's an AI assistant named "Amazon Q" with the ID "12345". A message from "Amazon Q" says, "Hi Tom, I will be helping you solve Maria's issue today...". The AI provides a solution: "Apologize for any trouble this may have caused. Help the customer review the transactions and lock their credit card." It also lists "Sources:" which include canceling unauthorized transactions, ordering a replacement card, monitoring account for suspicious activity, and accessing identity theft protection resources. A "How to reset password" button is also present. At the bottom, there's a "Send" button and a "Ask Amazon Q..." input field.