

Part 2



AWS Workshop Series

Day 7: SAP on AWS & Contact Center

Taking Enterprise Beyond the Cloud by TruelDC

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Presented by



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Agenda

- What is Call Center
- Introduction to AWS Connect
- LAB



Source: AWS Immersion day



What is a call center?

What is a call center?

- Automatic distribution of voice calls to agents
 - Routing types include: longest-idle, skills-based, circular, terminal, last-agent
 - Inbound and Outbound
- Historically on-premise
 - Physical connectivity to telco
 - Physical cabling to agent
 - Closed system
 - Cloud-based is gaining in popularity
- Typically comprised of multiple vendor solutions
 - Extensive integration effort
 - CTI



A (very) brief history of contact centers

How did (modern) call centers come to be?

- Increased consumption of centralized services
 - Banking
 - Travel
 - Government
- Increased expense of human operators
- Inability to scale



Technology drivers that enabled the first call centers

- Touch-tone (1963)
 - Dual-tone multi-frequency (DTMF)
 - Allows human interaction with automated systems over the phone
- Toll-free numbers (1967)
 - TFN
 - Removed customer cost barriers
- Private Automatic Branch Exchange (Late 1960s)
 - PABX/PBX
 - Reduced cost/complexity of internal transfer and communication



Call Center Technologies

- Automatic Call Distributor (ACD)
 - Many small examples in late 60s
 - Rockwell Galaxy
 - First commercially successful ACD
 - Built for Continental Airlines and deployed in 1973
 - Up to 15 cabinets for full redundancy
 - Adding an agent could take days
- Outbound Predictive Dialer
 - Uses data to predict when a customer will answer AND an agent will be available
 - The rise of answer machine detection (AMD)
 - International Telesystems Corp (1980s)
 - Became InfoLogix
- Interactive Voice Response (IVR)
 - Interact with a telephony platform via DTMF
 - Perception was the first mainstream IVR in the early 80s



Common technologies and deployment scenarios

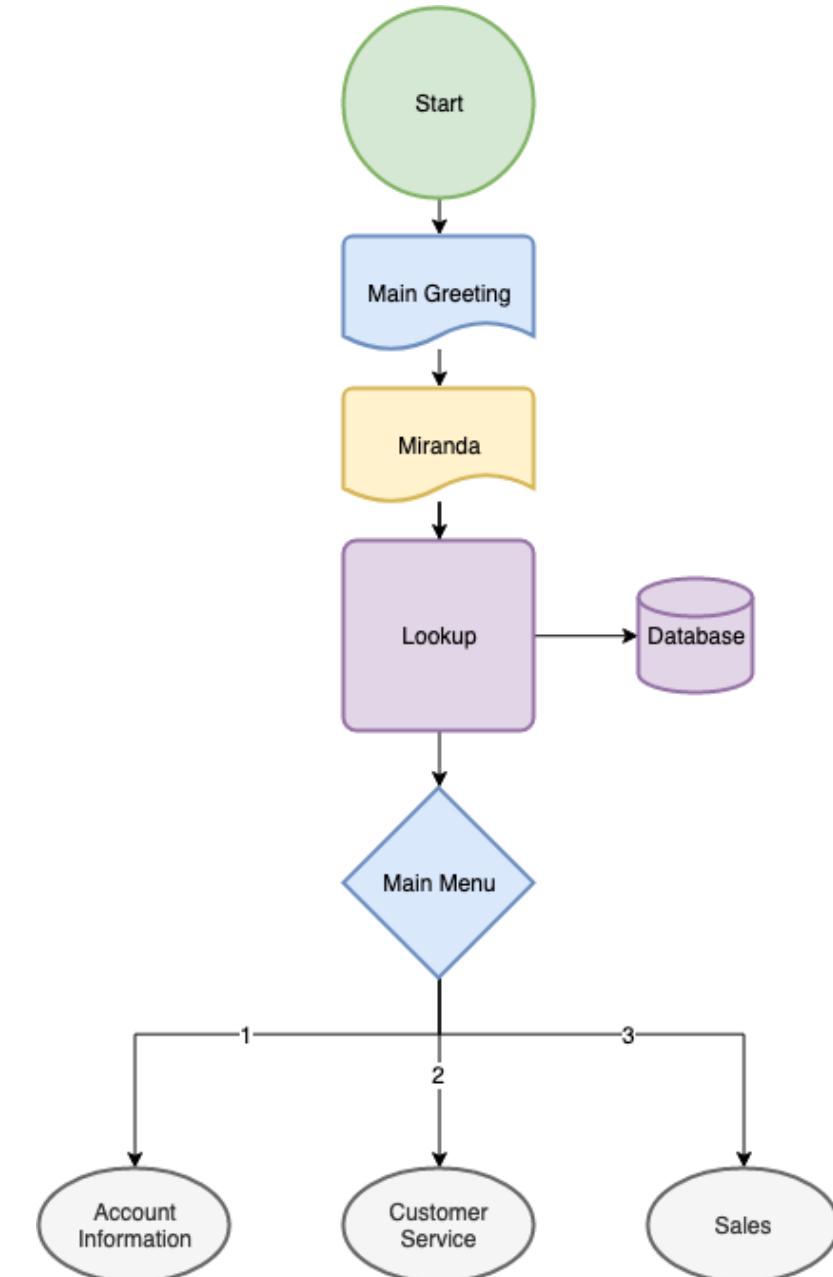
Common Contact Center Technologies - Core

- ACD
- PBX
- CRM
- Readerboards/Wallboards
- VoiceMail
- Workforce Management
- Workforce Optimization



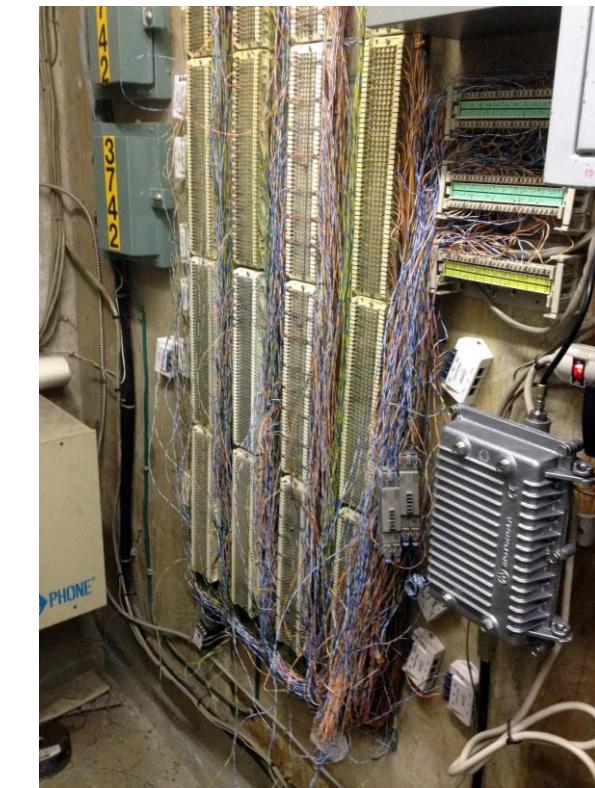
Common Contact Center Technologies - IVR

- Frequently virtualized
- Easiest way to begin migration to cloud
 - Provides scalability to handle spikes in call volume
 - Allows redirection to other sites/systems
- Speech enablement
 - TTS – Text-to-Speech
 - ASR – Automatic Speech Recognition
 - NLP – Natural Language Processing
 - NLU – Natural Language understanding
- Gateway to AI/ML services



Common Contact Center Technologies - Telephony

- Telephony Infrastructure
 - Gateways
 - SBCs
- Agent Desktop
 - Desktop Hard Phones
 - Traditional
 - SIP
 - Soft Phones
 - Thick Client
 - Web-based
 - Desktop App
 - Thick Client
 - Web Based



Common requirements and concerns



Amazon Connect (Contact Center)

Easy to use omnichannel cloud contact center

Common Questions we hear

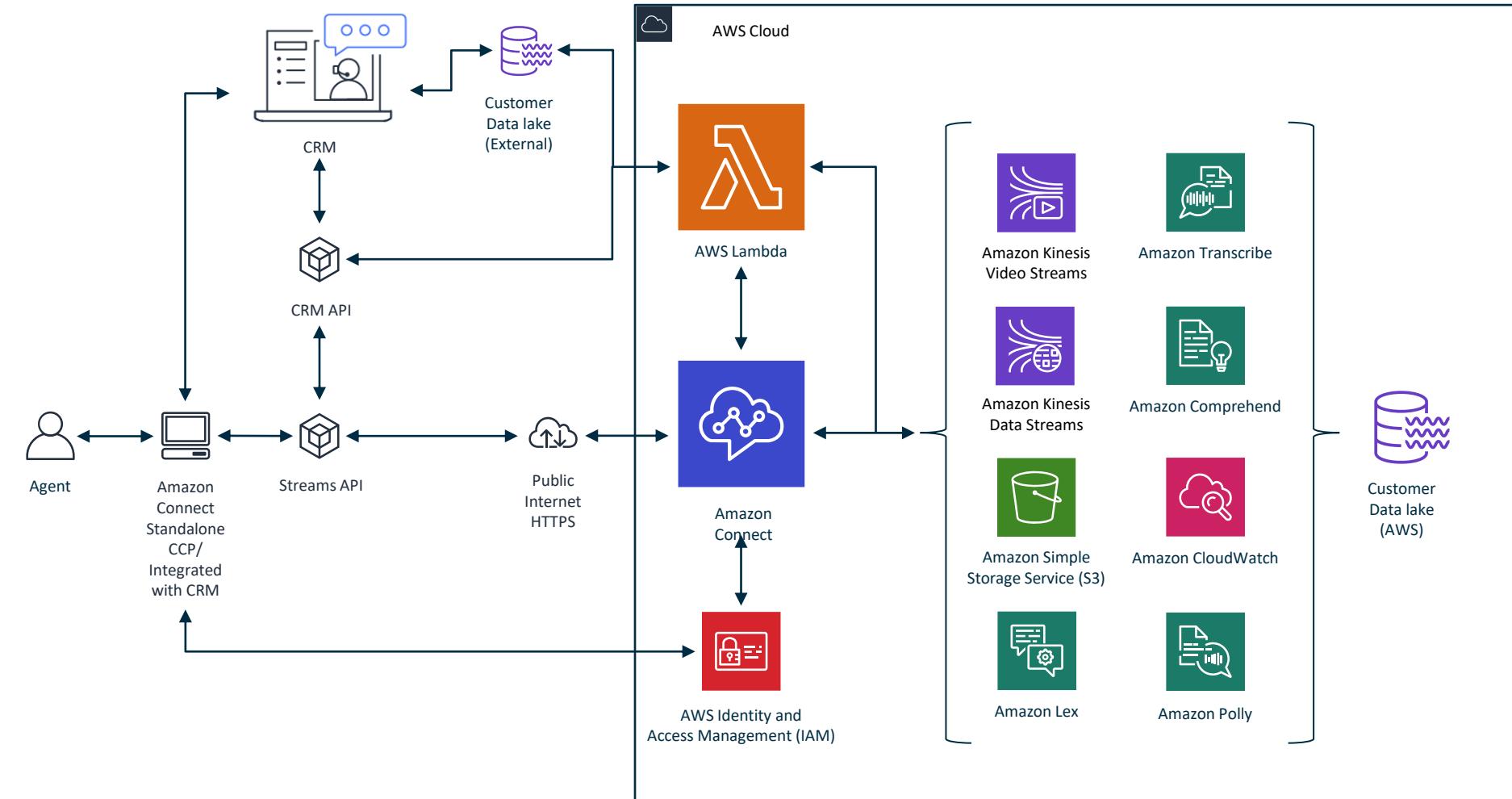
- How can I innovate on the Customer Experience (CX) I am providing my customers?
- How do I improve CSAT and NPS?

- How do I introduce Artificial Intelligence (AI) & Machine Learning (ML) in a meaningful way to my Contact Center?
- How can I pilot new concepts and try advanced technologies without large upfront costs?

- How do I optimize CX while also optimizing costs?

Common Deployment Models: Cloud

- Overcome complexity
- Simplify development
- Speed of deployment
- No on-premise equipment

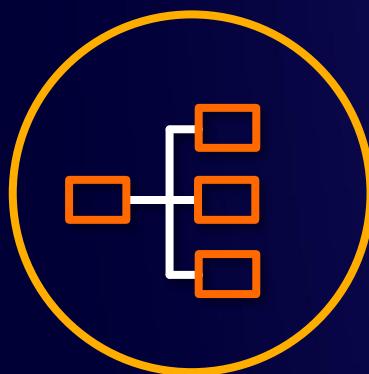


Amazon Connect



**Easy-to-use, omni-channel, cloud-based contact center service
that scales to support businesses of any size**

The fastest path to customer service innovation



**Skills-based
contact routing**



**Voice and chat
recording**



**Real-time and
historical analytics**



**High-quality
voice capability**

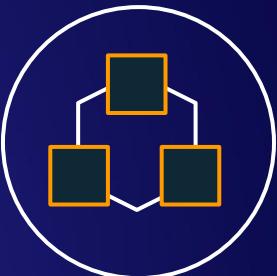


The flexibility of Amazon Connect

Dynamic, personal and natural contact flows



Open platform



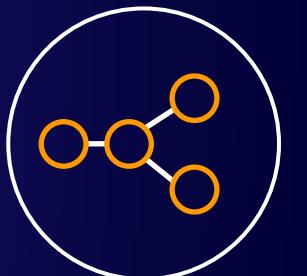
Scale up and down at a moments notice



**100%
cloud-based**

No planned downtime

AWS services and partners



Pay-as-you-go pricing

We built scalable cloud technology to improve our Contact Center experience

Amazon.com Customer Service supports...



Millions
of customers



Dozens
of languages



32
countries

Over 70,000 Customer Service Associates



answerconnect



Bellhop

BW | Best Western.
Hotels & Resorts



CHRONEXT



▲ DELTA



DIRECT
INTERACTIONS

DLT
RHODE ISLAND

D
DOW JONES

FUJITSU

GE APPLIANCES



intuit

John Hancock

Johns Creek
GEORGIA
be the exception

Juniper

Kanetix Ltd.

lekker

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



Mutual of Omaha



News Corp



priceline

rackspace
technology



sba.com

SERVISBOT



SIXT

SLICE

snapsheet

SPOKEO

Square

StubHub

SUBWAY



SW
R

TransUnion^{tu}

TRAEGER

UNOX®

WATSON

WEBVORK

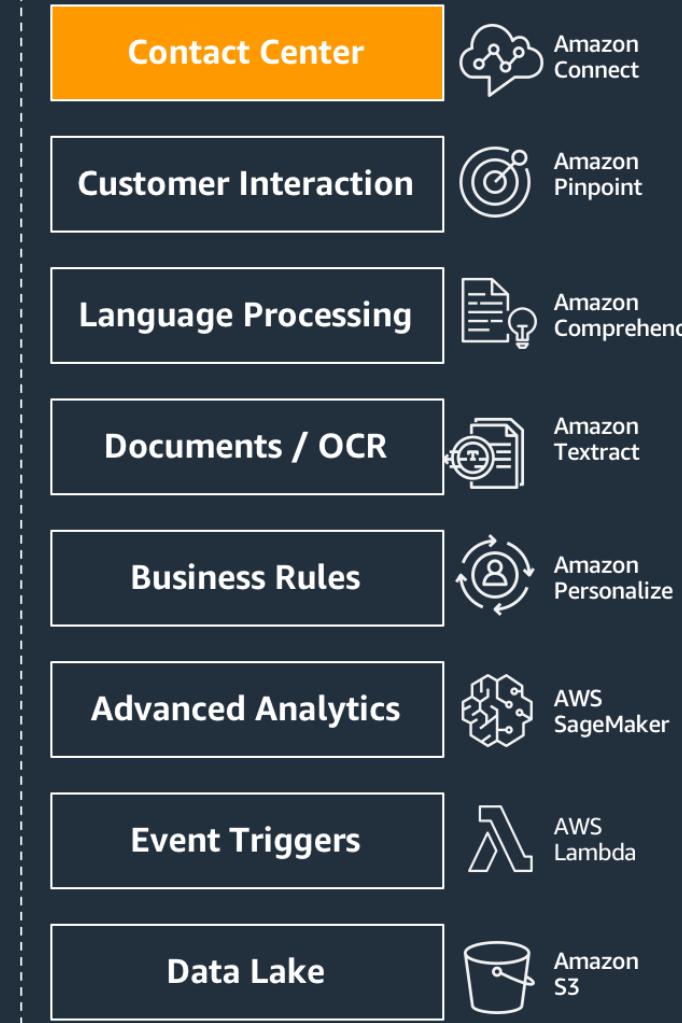
WEST VIRGINIA
Office of
Technology



Seamless end-to-end omni-channel experience is what customers want



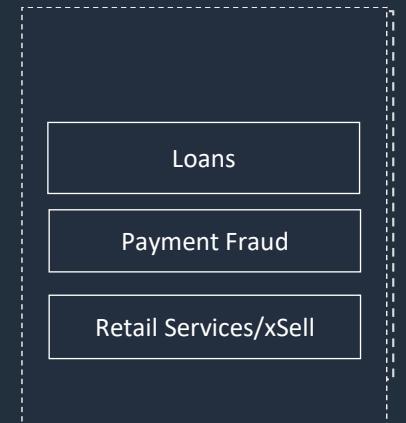
Omnichannel Experience



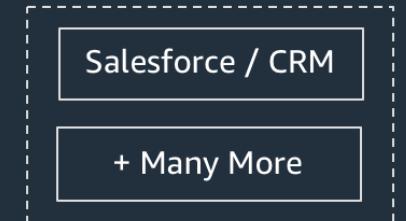
Automated transactions

Detailed customer information

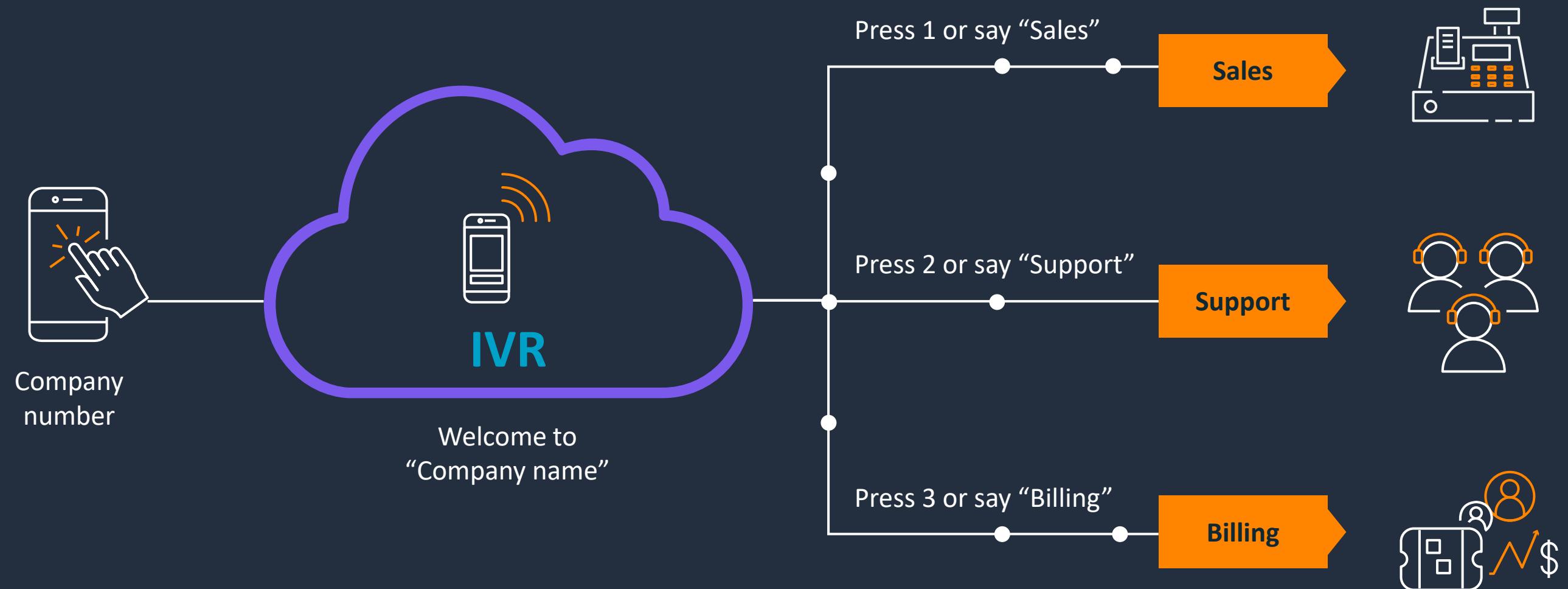
Insurance



SaaS Tools



Standard self-service automation



Contact Flow Engine—customer experience example



PERSONAL

Contact flows adapt on a per customer basis

DYNAMIC

Answer customer questions before they are even asked

NATURAL

Amazon Lex Chatbots use the same technology that powers Alexa

Chat

Easily deploy web, mobile, and Apple Business Chat for an Omni-Channel experience



Create consistent customer experiences leveraging existing voice assets and integrations

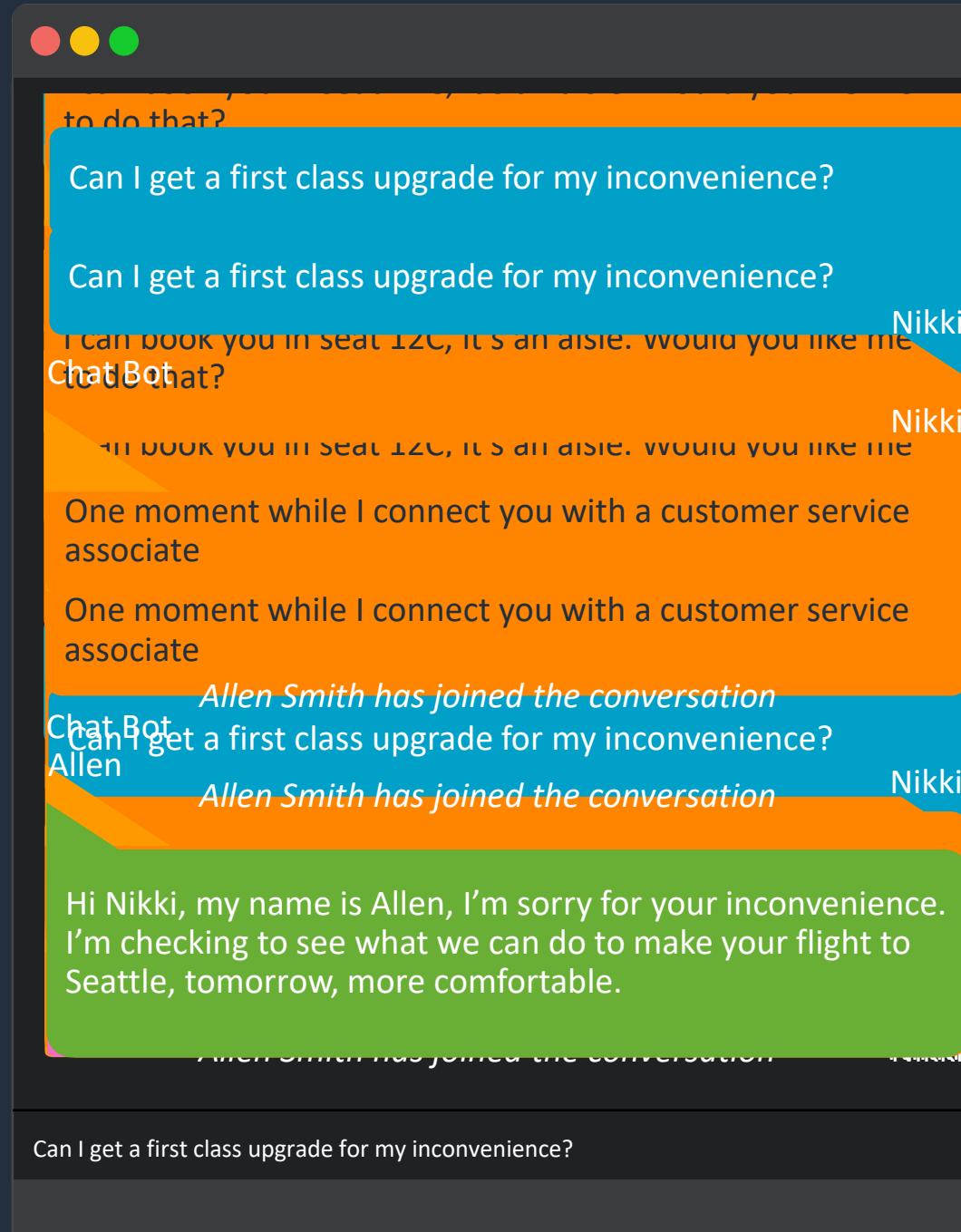
Pre-built integrations with Lex chatbots and warm handoffs to agents

Customers can interact asynchronously, without losing context

Agents can seamlessly handle chat and voice contacts

Open APIs for integration and data access

Bringing the same intelligent automation to chat



Amazon Connect Chat

- ✓ The same management user interface
 - ✓ The same contact flows
 - ✓ The same Lex bots
 - ✓ The same queues
 - ✓ The same dashboards
 - ✓ The same metrics & reporting
 - ✓ The same APIs
 - ✓ The same personal, dynamic & natural experience for the customer

Voice ID

Real-time caller authentication and fraud detection using ML-powered voice analysis



Easy and fast enrollment and verification allowing customers to maintain the natural flow of conversation

Enable and configure with a few clicks for both automated (IVR) and high-touch customer interactions

ML-powered real-time fraud detection that automatically flags suspicious callers

Customer Profiles

Personalize and automate the contact center customer experience



Creates a unified profile which is provided to agents and automated experience (IVR) in real-time

Ingests customer data such as contact history, address, phone number, and recent purchase history

Automatically scans, matches and de-duplicates customer data from multiple repositories

Automated chatbot designer for Amazon Lex

Get a jump start on conversational chatbot design



Analyze thousands of lines of conversation transcripts in hours, rather than weeks

Discover common intents and information needed to fulfill customer requests, automatically

Reduce developer effort and minimize human errors when designing chatbots

Improve customer experience by designing better chatbots, faster

Amazon Connect unified agent application

Integrate the agent desktop experience

The screenshot displays the Amazon Connect unified agent application interface. At the top, there's a header bar with 'Available', a settings icon, and a language selection for 'English'. Below this, a main dashboard shows two active calls: 'Shirley Rodriguez' (00:16) and 'Nikki Wolf' (02:24). A 'Reservation task' is also listed with a duration of 06:44. On the left, a sidebar provides detailed information about the current call with Shirley Rodriguez, including her name, phone number (+1 212-555-5400), birthdate (09/07/1978), email address (shirley@example.com), mailing address (123 Any Street, Any Town, USA), and status (Enrolled, Confirmed, Low risk). Below this, there are buttons for Hold, Mute, Number pad, Quick connects, and End call. The main content area is titled 'Context' and shows Shirley Rodriguez's profile details: First name Shirley, Last name Rodriguez, Account Id 123456789, and an 'Associated' checkbox. It also lists her assets: Product name (Downtown Hotel), Product ID (123456789), Serial number (123456789-123-56-123456), Warranty expiration date (MM/DD/YYYY), Purchase date (MM/DD/YYYY), Registration date (MM/DD/YYYY), Asset record type (Hotel Reservation), and WiFi Name (Sam's WiFi). To the right, a 'Search Wisdom' sidebar provides suggestions related to the customer profile, such as 'Pet friendly hotels' (14 of 28 locations in downtown are pet friendly), 'Downtown hotel pet policy' (Downtown hotel is a pet friendly hotel), 'Downtown hotel pet deposit' (In our downtown hotel location, each small pet accompanying guests will require a \$25 deposit fee), and 'Changing hotel reservations within 14 days of booking' (Downtown hotels offer booking options with free changes and cancellations prior to 7 days before their stay).

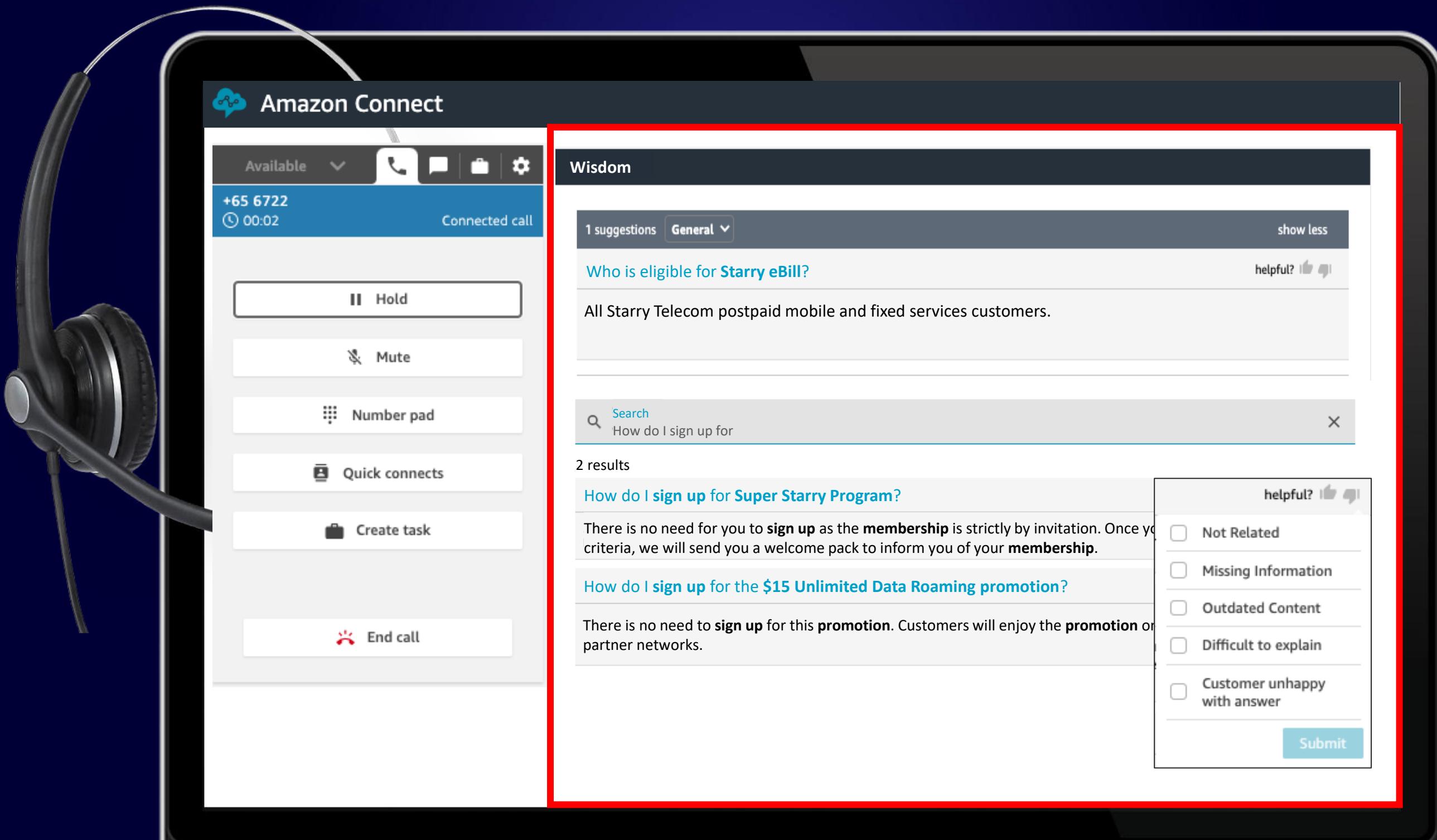
Provides a dynamic “single pane of glass” agent experience

Unifies the agents view of communications, data, and tools

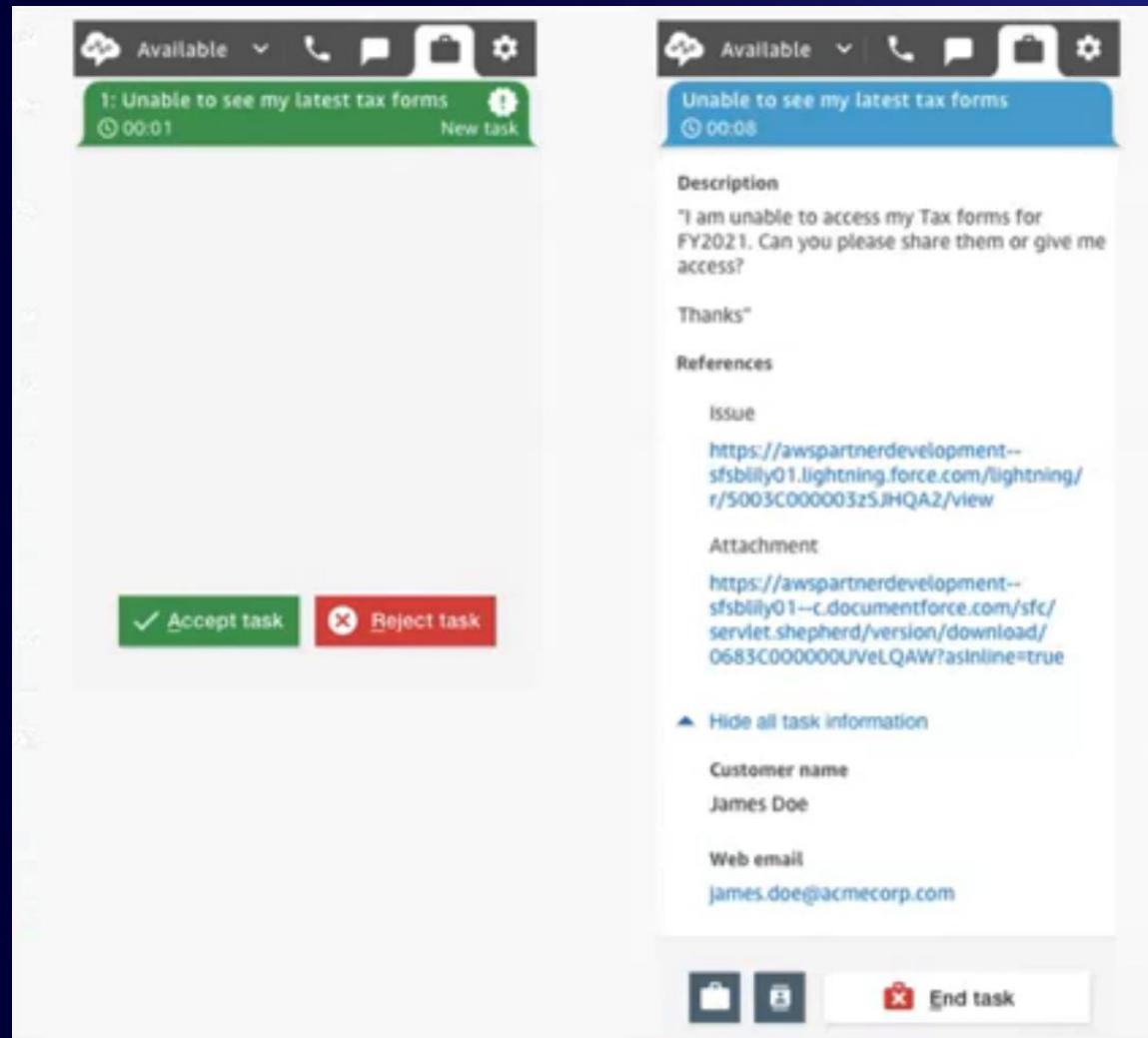
Supports Voice, Chat, Tasks, Wisdom, Voice ID, and Customer Profiles

Enables agents to resolve issues faster with less effort

Agent experience – Amazon Connect Wisdom



Agent experience to complete and create follow-up tasks



Single application for agents to know exactly what tasks to do when, regardless of the application required to complete task.

Agents see details like name, description, task related information, and links to help them complete the task.



Customizable and embedable browser-based softphone

Contact Control Panel
is fully customizable:
Take the code and
make it your own

The screenshot displays a browser-based softphone application with several open windows:

- Agent Script**: Shows a script for "Authenticated: Welcome John Zhang". It includes a greeting to customer and information about the customer being John Zhang.
- Enhanced Transfer**: A sidebar showing steps for transfer: 1 Product (Broadband + Fixed), 2 Sub Product (Mobile Broadband), 3 Enquiry Reason (Travel Pass - Add/Remove), 4 Customer Segment (Consumer), and 5 Transfer Target (Financial Hardship).
- Call Simulator**: Set to DN 1001, Call duration 10 mins. Lists tenants: Authenticated Calls, Salesforce, Centurylink, Telstra, and Coral Calls with pop up.
- Agent Call Back**: Shows a list of clients: Olivia Smith (0425 123 123, 3:30 pm) and Ryan Taylor (03 2542 14512, 3:45 pm). Includes tabs for Clients, Schedule, and Preview.

The main window on the left shows the "WELCOME RICK" screen with a "OneVoice" interface, call logs for lines 1003 and 1007, and control buttons for HOLD, TRANSFER, RELEASE, KEYPAD, RECORD, and MUTE. It also displays call type as Manual Outbound, remote number 02 9847 8348, and time in call 00:06:20. Customer details for John Zhang (Current Package Upgrade) are shown, along with links for Sales, Customer Account Number, Call Information, and Port Out Code. A Logout button is at the bottom.



Customizable and embedable browser-based softphone

Embed the Contact Control Panel in your CRM or any other tools that your agents use

The screenshot shows the Salesforce Service Console interface. At the top, it displays the contact information for Sunil Sinha, including their title (Amazon Connect (AWS)), account name, phone number (+503 927-5341), email (sinhsuni@amazon.com), and contact owner (Sunil Sinha). Below this, the "Contact Channel Records" section is visible, showing a call log entry for a recent inbound call from +1 503-927-5341, which was connected 22 seconds ago. A modal window titled "Phone" is open, showing the call status as "Available" and providing control options like Hold, Mute, Number pad, Quick connects, and End call. To the right of the call log, there are sections for "Related" (Opportunities, Cases, Campaign History) and "Details" (Notes & Attachment). The main contact record page also includes tabs for Cases and Inbound - BasicQueue.

Agent experience with Zoho Integration

The screenshot shows the Zoho CRM interface. At the top, there's a navigation bar with links like Home, Feeds, Leads, Accounts, Contacts, Potentials, Activities, Reports, Dashboards, Projects, and a three-dot menu. Below the navigation is a search bar and some quick access icons.

The main area displays a call log entry for "Price Negotiation - Ventura Capital". The call was an Outbound negotiation, handled by Quinn Rivers. It shows the call duration, date modified, and a note indicating a customer interested in a 1000 widget package.

To the right, a lead profile for Melinda Anderson is shown. The profile includes her name, company (Ventura Capitalists), phone number (+14083529191), email (melinda.a@ventura.com), and follower count (0). There are buttons for "Send Email" and "More Info".

A modal window is open at the bottom, showing a call summary for Melinda Anderson (00:03) with an "END CALL" button. Below the call summary, detailed lead information is provided:

Lead Owner	Quinn Rivers
Email	melinda.a@ventura.com
Phone	+14083529191
Mobile	(not explicitly listed)
Lead Status	Contacted

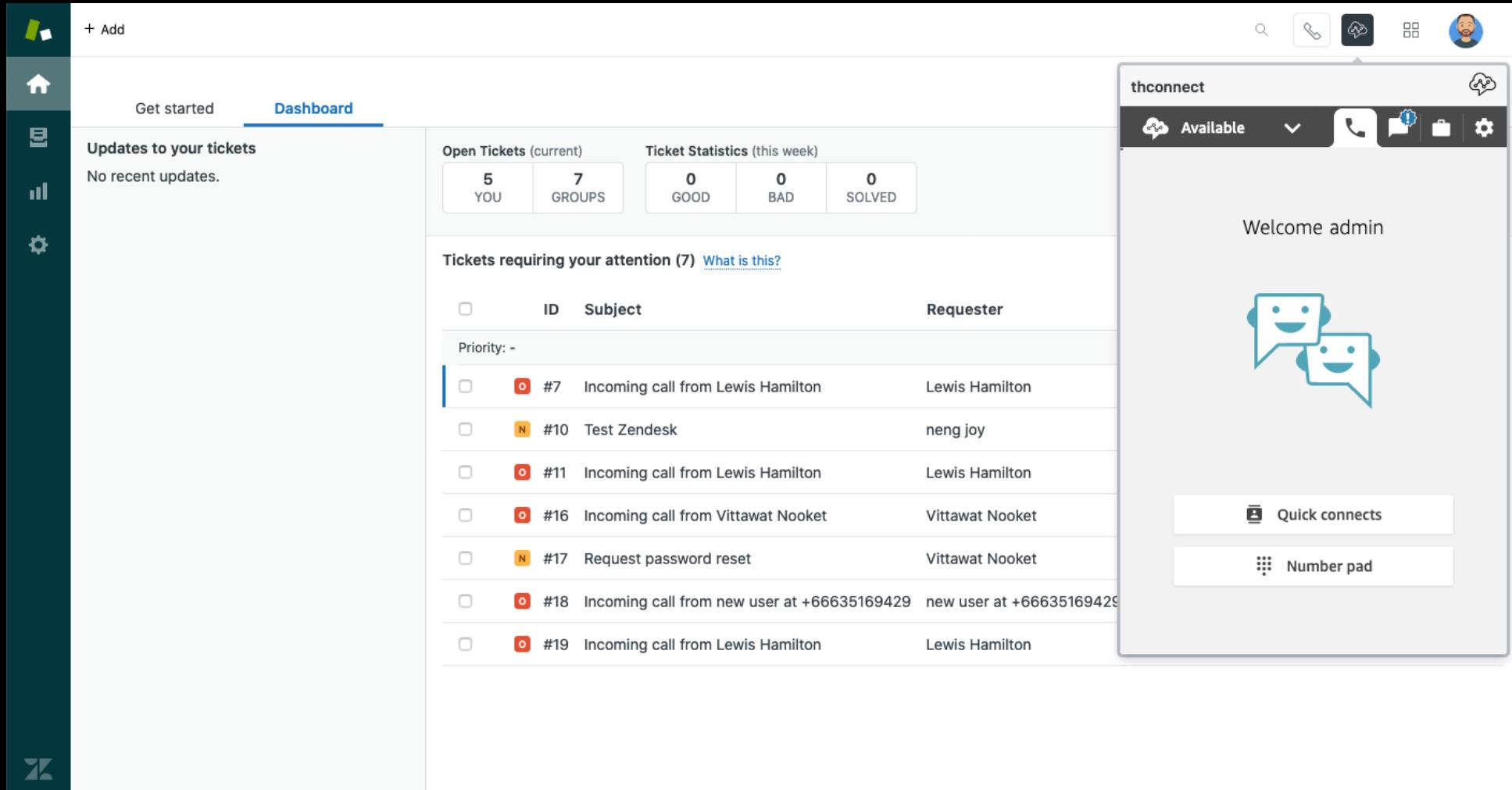
At the bottom of the modal, there's a "Call Description" input field.



Amazon Connect integration for Zoho CRM and Zoho Desk is available immediately and offers the following benefits:

- Contextual customer information
- Click-to-dial
- Automatic call logging

Agent experience with Zendesk Integration



The screenshot shows the Zendesk Support interface with a sidebar containing icons for Home, Tickets, Analytics, and Settings. The main area is titled 'Dashboard' and displays 'Open Tickets (current)' with 5 YOU and 7 GROUPS, and 'Ticket Statistics (this week)' with 0 GOOD, 0 BAD, and 0 SOLVED. Below this, a section titled 'Tickets requiring your attention (7)' lists seven incoming calls from various users. A modal window titled 'thconnect' is overlaid on the screen, showing a status bar with 'Available' and icons for phone, messaging, and settings, along with a welcome message 'Welcome admin' and two smiling speech bubble icons.

ID	Subject	Requester
#7	Incoming call from Lewis Hamilton	Lewis Hamilton
#10	Test Zendesk	neng joy
#11	Incoming call from Lewis Hamilton	Lewis Hamilton
#16	Incoming call from Vittawat Nooket	Vittawat Nooket
#17	Request password reset	Vittawat Nooket
#18	Incoming call from new user at +66635169429	new user at +66635169429
#19	Incoming call from Lewis Hamilton	Lewis Hamilton



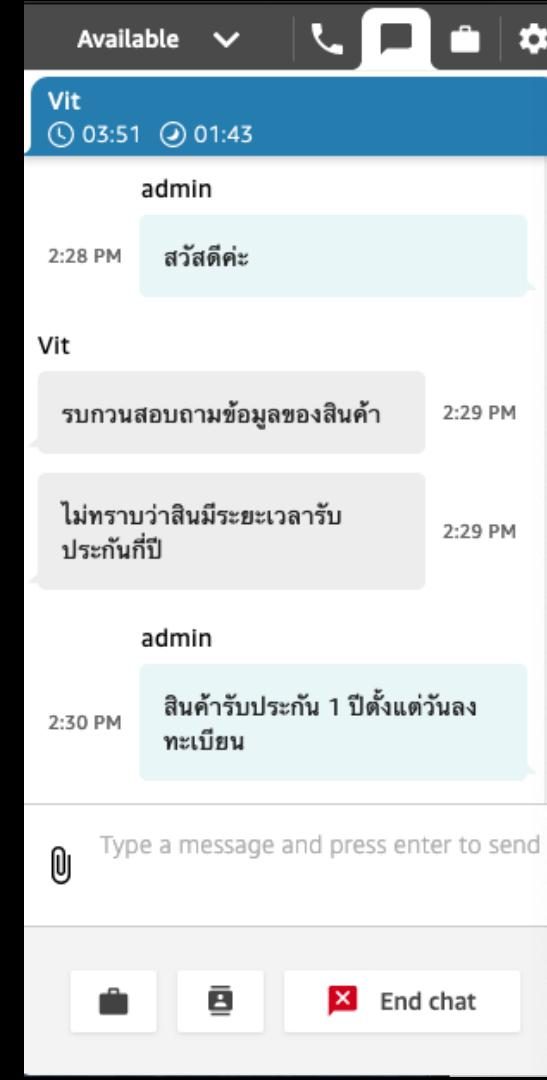
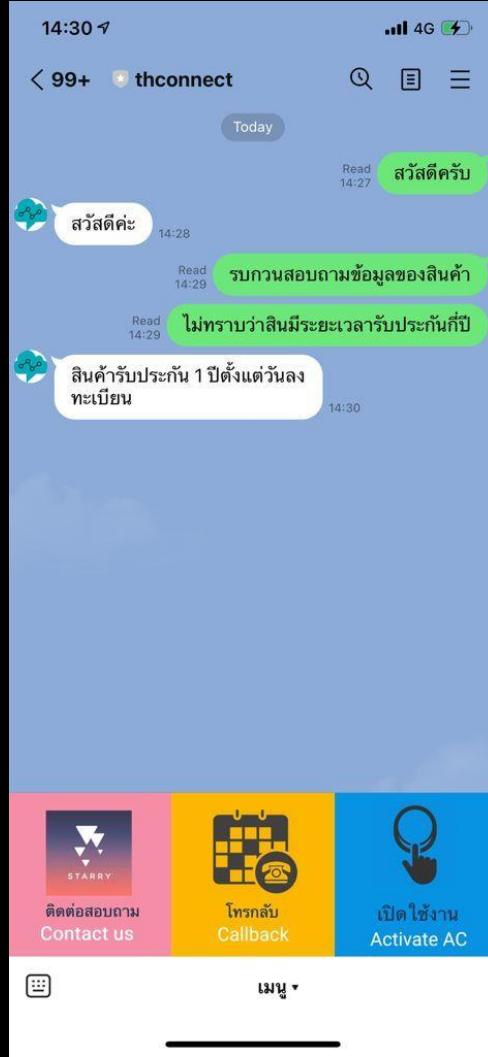
Single application for agents to work on Zendesk Interface.
Allow agents to take calls from a single support platform by embedding a web-based softphone directly into Zendesk Support.

Agent new UI

The screenshot displays the new agent user interface. At the top, there's a header with 'Available' status, a '+' button, a gear icon, and language selection ('English'). Below the header is a preview section showing two agents: 'Nikki Wolf' and 'Sofia Martinez', both with 0:00 duration. A red box highlights the 'Sofia Martinez' row. To the right of this is a 'Customer profile' sidebar with a search bar and a '+ Profile' button. The main area shows Sofia Martinez's profile details: First name: Sofia, Middle name: -, Last name: Martinez, Account number: XXXXXX, Associated (green checkmark). Below this are sections for Phone number (+1 212-555-5100), Birthdate (1985-06-18), Additional info (Looking to purchase X), Email address (sofia.martinez@example.com), Gender (Female), Mailing Address (123 Any Street, Any Town, USA), and Billing Address (123 Any Street, Any Town, USA). At the bottom, there are tabs for 'Product purchase history', 'Contact history' (which is selected), and 'More information'. The 'Contact history' table has columns: Timestamp, Channel, Queue duration, Hold duration, Total duration, and Actions. It lists 7 entries, each with a timestamp from [date and time] and placeholder duration values like [x mins x secs]. At the very bottom are buttons for 'Type a message', 'End chat', and other standard chat controls.

New agent UI with customer profile. This layout makes it easy for agent to handle multiple concurrent chat and tasks, along with voice calls

LINE Integration



Flexible to integrate with well-known social messaging application

Amazon connect chat SDK available to support omnichannel experience

Forecasting, Capacity Planning, & Scheduling

REACH CUSTOMERS AT SCALE WITH ML-POWERED OMNICHANNEL COMMUNICATIONS



Get started with a single click

Improve accuracy and efficiency using machine learning

Simplify staffing using Connect's native intuitive user experience

Benefit from cloud flexibility, scalability, and reliability



Thank you!