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Improving customer experience by adding AI to your contact center

Improve service, reduce costs, and optimize customer experience with AWS Contact Center Intelligence solutions

Improving customer experience boosts your bottom line

No matter the communication channel, a good customer service experience can have a significant impact on business metrics. From increasing efficiency to enhancing insights, contact centers are key to securing consumer loyalty and improving repurchasing odds.

A contact center outfitted with the right technology can support and track engagements across diverse channels, resolve customer issues quickly, and gain insights from customer interactions. But, while many companies are interested in applying advanced technology to improve customer interactions, they struggle with how to drive efficiencies and improve automation in the service experience. A key element in transformation? Adding artificial intelligence (AI) and machine learning (ML).

Companies that invest in customer experience can see a revenue increase of up to 70% in 36 months.[3]

54% of companies perceived customer experience as a primary competitive differentiator.[1]

40% of customers would stop doing business with a brand they loved after one bad experience.[2]

86% of customers are willing to pay more for a better experience.[1]

[1] "Share of Organizations That View Customer Experience (CX) as a Competitive Differentiator in the United States in 2021," Statista, 2022

[2] "Share of Customers in the United States Who Stopped Doing Business with a Company Due to Poor Customer Service from 2016 to 2020," Statista, 2022

[3] MacDonald, S., "How a Customer Experience Strategy Helps Scale Revenue Growth (and Achieve Profitability)," SuperOffice, 2022

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The benefits of solving contact center challenges with artificial intelligence and machine learning

The application of AI and ML can turn a contact center into a profit center, which improves the employee and customer experience and reduces operational costs.

Artificial intelligence and machine learning benefits

Increase customer satisfaction

- Reduce call wait times
- Quickly route questions to the right agent
- Decrease time to resolution
- Offer 24/7/365 self-service options to resolve queries

Increase agent productivity

- Reduce call volume
- Offload repetitive questions to chatbots
- Enable real-time assistance

Increase business opportunity

- Reduce costs via self-service technologies
- Derive actionable insights on high-quality metrics like customer sentiment, potential product issues, and agent performance
- Deliver faster, more effective service, leading to higher NPS/CSAT scores

Artificial intelligence or machine learning: What's the difference?

Artificial intelligence

Any technique that enables computers to mimic human intelligence using logic, if-then statements, and ML

Machine learning

A subset of AI that uses machines to search for patterns in data to build logic models automatically

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The role of artificial intelligence and machine learning in contact centers

Implementing ML in contact centers offers improved agent performance and better customer experiences.

Resolvable pain points	Machine learning deployment	How machine learning helps
The need to repeat information or use specific phrases	Conversational interactive voice responses (IVRs)/chatbots/virtual agents	Enable virtual agents to resolve customer queries without a live agent. If a question needs to be transferred, the live agent is presented with the ongoing conversation and background information to prevent the customer from having to repeat themselves
Multiple transfers between agents while trying to reach the right agent	Smart routing	Gather customer inquiries and needs through conversational AI and then apply rules to route it to the agent best fit to resolve the issue at hand
Unhappy call experiences	Real-time call analytics	Proactively alert supervisors based on real-time caller and agent sentiment, asking them to step in before an issue escalates
Long call resolution times	Agent assist	Suggest next-best actions via predetermined rules and best past responses, or access resources quickly to help agents meet customer needs
Repeated call frustrations	Post-call analytics	Analyze calls to identify patterns in customer feedback, agent performance, and business improvement opportunities

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# AI-powered contact center services, security, analytics, and storage

From large-scale established companies to startups, Amazon Web Services (AWS) provides flexible options to easily add AI and ML intelligence to contact centers at any stage of the journey.

Amazon Connect

For companies looking for an end-to-end omnichannel cloud contact center.

- Unified tools for routing, analytics, and management
- Natively embedded AI and ML
- Quick setup and changes
- Biometric-based authentication
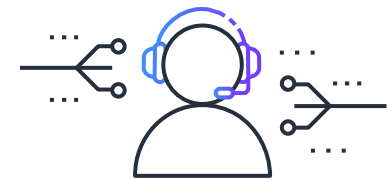
AWS Contact Center Intelligence (CCI)

For companies looking to add AI and ML to existing contact centers, such as Genesys, Cisco, Talkdesk, Avaya, 8x8, Mitel, and many more.

- Solutions powered by AWS AI services
- Support for both on-premises and cloud contact centers
- Easy integration into existing enterprise systems

An AI-enabled contact center

An easy-to-use omnichannel cloud contact center, **Amazon Connect** helps companies provide superior customer service at a lower cost. It easily integrates into other systems, such as customer relationship management (CRM), workforce optimization (WFO), or workforce management (WFM) systems, creating a seamless operations experience.

How Amazon Connect helps businesses

Unified communication channels or contact center channels for voice and chat

Improved agent efficiency

Pay-as-you-go pricing

Lowered costs

Easily integrated solution

Simplified contact center operations

Amazon Connect is an easy-to-use, end-to-end cloud contact center application that provides out-of-the-box features within an agent UI for inbound and outbound calls, chats, IVR, customer profiles, agent assist, WFM, real-time and post-call analytics, and others. Key features include:

Skills-based routing

Real-time and historical analytics

Intuitive management tools

How Amazon Connect works

Amazon Connect automates customer interactions and improves customer service with default-enabled AI and ML.

Amazon Connect provides an interface for both agent and management support. Using the same technology that powers Amazon Alexa, Amazon Connect services use speech-to-text transcription and natural language understanding (NLU) to facilitate conversations without the need for agents and deliver information to ease handoff between agents.

Additionally, automatic translation means that agents can better serve international customers. With natural language processing (NLP) and sentiment analysis, managers and leaders can find insights and relationships across product and service trends. Altogether, Amazon Connect prepares organizations to train agents more effectively and deliver the right customer care.

Using artificial intelligence and machine learning to make a difference

Utilizing high-powered language and interaction analysis creates opportunities for more personal—and more impactful—customer experiences.

Amazon Connect in action

Thousands of companies comprised of tens of thousands of agents use Amazon Connect to serve millions of customers daily.

A closer look at how Amazon Connect makes a difference

Intuit serves more than 16.5 million people per year with technical support, tax document reviews, and purchasing assistance. Before implementing Amazon Connect, Intuit customers experienced long hold times and frustration when having to repeat information after being transferred to new agents on a call. Amazon Connect provided Intuit with a seamless customer experience and quick resolutions by unifying customer data among multiple business units. Additional benefits included:
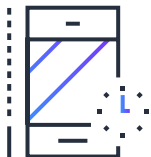
Callback functionality,
reducing wait times

Improved voice clarity,
making customers happier

INTUIT

"It took two weeks to deploy an integrated contact center using Amazon Connect, from installation to getting agents up and running on the solution. That process previously took us at least six months."

Jerry Lekhter, Director, Contact Center Engineering, Intuit

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AWS Contact Center Intelligence (CCI) solutions

AWS CCI solutions are neither a product nor a service. They are a combination of AWS AI services that help address three contact center use cases—self-service virtual agents, real-time call analytics & agent assist, and post-call analytics. AWS CCI solutions can quickly and easily add AI and ML to an existing (both on-premises and cloud) contact center platform. AWS CCI solutions can be easily integrated with a wide variety of offerings while ensuring security and compliance. Powered by AWS AI services, AWS CCI solutions empower companies to improve customer experience, boost agent productivity, and gain actionable insights by adding AI capabilities to the contact center of your choice—without any ML expertise.

How CCI solutions help businesses

Add AI to on-premises/cloud contact centers	**Quick** implementation
Power virtual agents with conversational AI	**24/7/365** self-service transactions
Redact sensitive data, call script adherence	**Improved** data security, compliance, and quality
Enable agent assistance and supervisor alerts	**Lowered** employee frustration and agent churn
Unlock timely, actionable insights	**Increased** business growth opportunities

AWS CCI solutions enable customers with almost any contact center solution to leverage off-the-shelf functionality powered by ML, including conversational IVR, automatic speech recognition (ASR), language comprehension, enterprise search, and translation. AWS CCI solutions cover three key contact center workflows:

Self-service virtual agents

Real-time call analytics & agent assist

Post-call analytics

The AWS CCI self-service virtual agents solution

The AWS CCI self-service virtual agents solution provides capabilities so customers can find answers or complete transactions 24/7/365 without the assistance of a live agent.

This solution relies on multichannel voice and chatbots along with IVR to provide basic task resolution and call deflection. AI and ML services utilize deep learning functionalities of ASR to convert speech to text and NLU to recognize intent. Combined with ML-powered intelligent search, the AWS CCI self-service solution provides accurate answers from structured and unstructured data.

Using artificial intelligence and machine learning to make a difference

Fulfilling transactional queries allows contact center employees to focus on higher-value complex work, which is a better use of their time. Adding self-service features helps lower wait times and reduce call transfers by offloading repetitive queries to virtual agents.

TechStyle Fashion Group

"The Genesys Cloud and Amazon Web Services (AWS) CCI integration will make it easier to leverage conversational AI so we can provide more effective self-service experiences for our customers.

Since the roll-out of CCI self-service solution, Techstyle has seen: 20% drop in average hold time, 50% improvement in NetEasy score, and 31% increase in member satisfaction scores."

Aarde Cosseboom, Sr. Director of Global Member Services Technology Analytics & Product

Learn more ›

How AWS CCI real-time call analytics and agent assist solution works

The AWS CCI real-time call analytics & agent assist solution provides AI-powered speech analytics in real time, allowing agents and supervisors to better understand and quickly respond to customer needs. This solution helps increase agent effectiveness by training them to respond better on every call and helps improve customer experience using easy-to-find, relevant, and actionable information from the knowledge base. This feature also helps reroute calls to the correct agent for a quick resolution of each customer issue.

With NLP and real-time speech transcription, AI analyzes the interaction, detects caller sentiment, and identifies keywords and phrases—in the caller's language or via automated translation into an agent's preferred language. These keywords can then be used to drive actions, suggestions, answers, and real-time insights that can help the agent provide the caller with timely and knowledgeable responses. The solution also helps send automatic supervisor alerts for proactive support to prevent customer escalations.

Using artificial intelligence to make a difference

Providing real-time answers, insights, and actions increases agent productivity and customer satisfaction.

Magellan HEALTH

Magellan Health is one of the largest managed behavioral healthcare companies in the US.

Solution
Magellan Health used the AWS CCI real-time call analytics & agent assist solutions with its FirstTrax contact center application on the Genesys contact center. This allowed the organization to add contextually aware Suggested Articles throughout the application for quick access, thereby boosting the productivity and efficiency of call center agents.

Impact
Reduced agent training time by 3–5 days and allowed agents to increase call handling volume. Real-time call analytics & agent assist "helped call center agents quickly uncover the information they need. [This led to] an average reduction in call times of about 9–15 seconds."

Brian Lichtle, Former Sr. Director of Software Engineering, Magellan Health

Learn more ›

How the AWS CCI post-call analytics solution works

The AWS CCI post-call analytics solution helps drive deeper quality management insights through the automatic analysis of 100 percent contact center conversations. It helps generate actionable insights, such as product and service feedback loops that can be used to benefit the rest of the organization, or the best-performing agent interactions, such as those ending with a positive sentiment score.

The post-call analytics solution helps produce customer insights, helping agents and supervisors identify patterns and quality concerns to improve the overall customer experience and agent performance.

Using artificial intelligence to make a difference

Gathering deep insights on product and service feedback establishes more efficient call reviews and develops better agent performance scorecards.

"**With SuccessKPI, we were able to add AWS Contact Center Intelligence into our Genesys Cloud environment in a matter of hours and deliver a 360-degree view of the citizen experience. This program allowed us to deliver increased capacity, automated quality review, agent compliance and performance improvements for government agencies.**"

Thomas Romeo, GM, Federal Division, Maximus

maximus

Maximus is a leading pure-play provider in the administration of government health and human services programs, including Medicaid and Medicare.

Problem
Maximus could not analyze the content of the 7 million customer calls the company handled each month. The organization needed more quality management and operational oversight and wanted more effective tools to improve agent productivity and reduce call resolution times.

Solution
Maximus selected AWS partner SuccessKPI to implement its AWS CCI post-call analytics solution.

Impact
The post-call analytics solution provided by SuccessKPI automated speech and text analytics for millions of calls a month and scaled to thousands of agents overnight.

Learn more ›

Turn your contact center from a cost center to a profit center with artificial intelligence and machine learning

AI and ML are helping to transform the modern contact center from a cost center to a profit center. No matter the stage of your business, market landscape, or business goals, adding capabilities powered by AI and ML to your contact center will increase your bottom line.

Improving customer experiences

Increasing performance and cost efficiencies

Enhancing business insights

With **Amazon Connect** and **AWS CCI solutions**, contact centers of any structure can incorporate AI services to help achieve business benefits.

Getting started with AWS machine learning

Accelerate your ML initiatives with professional services, partners, and training programs

AWS Contact Center Intelligence solutions ›

AWS CCI post-call analytics solution ›

Amazon Connect ›

AI Use Case Explorer for top case studies ›

Training ›

Support for contact center initiatives ›

Personalized solutions ›

AWS AI services ›