



WHITEPAPER

How Amazon Web Services (AWS) Technology Improves the Customer Experience





We live in a world of rapid innovation, where **1.35 million tech startups** compete alongside established businesses to carve out a customer base for themselves. In this environment, it's not always clear what differentiates one company from others that offer similar products.

In truth, for most companies, the most effective differentiator isn't directly related to the product at all but to the customer experience. **Sixty-six percent of customers** care more about the experience than about price, and **81% of organizations** consider customer experience to be a top competitive differentiator.

There's clear evidence to support this. Brands that offer superior customer engagement and retention strategies bring in **5.7 times more revenue** than competitors whose efforts fall short. Furthermore, studies have shown that a satisfied customer contributes **2.6 times as much revenue** as that of a somewhat satisfied customer. The bottom line is that customer experience has a significant impact on customer satisfaction, which ultimately drives a company's short-term and long-term viability.

Yet, despite the importance of customer care, many companies invest only in the initial customer experience rather than in proactive customer engagement designed to deliver an excellent experience throughout a customer's life cycle.

While a number of tools are available to help companies provide this proactive level of engagement, Amazon Connect is emerging as a leading cloud-based platform.

Why Amazon Connect Is Such a Powerful Customer Experience Tool

Part of the broader Amazon Web Services (AWS) ecosystem, Amazon Connect is tailored to companies that want to innovate unique experiences for their customers quickly and at a minimal cost. The solution provides highly scalable, pay-as-you-consume services that can be woven together to create a much wider array of experiences than legacy contact center platforms.

Unique Amazon Connect features and services are powered by machine learning, artificial intelligence (AI), and data analysis. Amazon Connect provides pre-packaged services such as voice biometrics, natural language self-service, and sentiment analysis.

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To fully understand just what Amazon Connect can do for a company's customer experience, let's consider some of the more valuable features these cloud services can provide.

Chatbots and Customer Experience

At face value, chatbots seem simple. They read a customer's message and try to come up with a basic, helpful response. However, the most effective are more complex and deliver more as a result.

Conversational chatbots mimic human conversation patterns and interactions. They need to understand a broad range of topics as well as variations in human conversation across a wide range of populations and age groups. Further, they require a chatbot conversation framework that can maintain a context history and keep track of a conversation, even if the customer jumps among multiple topics. They can then use that context in conjunction with application programming interfaces (APIs) to reference any previous interaction a customer has had with the company.

Good chatbots are complex technologies that look extremely simple to the customer. That's not to say that chatbots are perfect. The more complex customer challenges are, the less likely it is that a chatbot can handle them on its own. They also aren't yet a seamless replacement for human customer service — although it's predicted that [this could change as early as 2029](#).

As chatbots continue to evolve, problems will resolve. For now, though, they're best used as one element of customer service that can hand off a conversation to a human representative at the right moment.

Ensuring a handoff that is as seamless as possible, while still making it clear that a handoff is happening, is key. The chatbot should be able to clearly communicate the conversation history at hand and clear context for why the transition is occurring when transferring a client interaction to a human agent. Good chatbots can also work with a recommendation engine, such as the one provided by Amazon Connect, to offer a best guess of how to kick-start that agent-customer conversation.

How AWS is Planning for the Future of Chatbots

Companies like Amazon can push conversational chatbot technology forward in part because a large user base allows them to collect a wide swath of data.

Thanks to Alexa, Amazon has a broad user base that allows it to gather data and improve chatbot conversations. Alexa is able to better answer user queries because it picks up on [context clues](#) as it learns over time. These clues rely on the history of individual user interactions, as well as established preferences, and even information such as where an Echo device is located in the house. It also uses machine learning to continue to learn from every interaction and, more important, every mistake.

Artificial Intelligence and Customer Experience

Equally important in the customer experience is AI. This technology changes the way businesses interact with their customers by learning and adapting through minimal human involvement and relying heavily on machine learning.

Contact centers can leverage conversational AI-powered tools to offer a personalized customer experience. AI-based algorithms can better understand customer searches, optimize recommendations, and deliver the most high-quality experiences possible.

AWS provides automated machine learning abilities to businesses and developers that enable them to create and tune a model for a given data set or directly from a database. Moreover, AWS is working to create models designed for specific tasks, such as detecting fraud or forecasting business outcomes. They're also actively working to fix the issues that exist in some machine learning models, adjusting for implicit biases and incomplete or skewed data.

All of these steps forward, along with improved interfaces and ways of visualizing data, make it easier to develop machine learning models without being a data scientist. The end result is companies having the ability to apply AI and machine learning to strengthen the customer experience they offer.

How AI Is Benefiting Customers and Employees

1. SELF-SERVICE

Gone are the days of "Press 1 to pay your bill." AI chatbots that are built to communicate in a natural, human way let customers tell an automated system what they want. That automated system understands and then responds with the right information.

AI also enables prediction services that can streamline the above experience even further. If, for instance, a company recognizes that you typically pay your bill two or three days before the due date with your primary checking account, an AI-driven bot can proactively offer this exact transaction at the right time.

AI-based text-to-speech technology makes it possible for anyone to create smart assistants that are proactively helpful and speak much more naturally than older speak-and-spell automated voice technology. With [Polly](#), for example, companies can create bots that sound as realistic as professional newscasters — a much more pleasant experience for customers.

2. AGENT EXPERIENCE

AI-driven conversation analysis and scoring can help agents see where they need to improve. It can determine a customers' feelings in a particular conversation and map them to data collected during the call to determine its success.

This analysis can then be used to score the agent on empathy, product knowledge, adherence to policy, and successfully completing transactions in a given time. Using these scores, AI can recommend and deliver relevant training programs to an agent to help them deliver a better experience in the future.

How Amazon Connect Is Working to Change the Game

The AWS ecosystem has continuously helped Amazon Connect serve customers, especially with self-service capabilities. However, these capabilities alone don't highlight what makes Amazon's offerings uniquely special.

The big difference between Amazon's approach and many others is that AWS believes each company has unique needs when it comes to creating a good customer experience. Many companies offer prepackaged features that work quickly but with only a limited set of APIs, making customization difficult at best.

Amazon Connect customers, however, have access to a robust set of APIs and events that drive innovation and excellence in each step of the customer and agent journey. This is especially useful as customer challenges escalate or a company grows and requires new capabilities and new features built to evolve alongside it.

Even better, AWS charges for only the portion of the services that are used, with no contracts and no long-term commitments. That means companies are not paying for more than they need but get access to everything available every step of the way.

The platform continues to improve in its usability and functionality with existing Amazon Connect features. This is apparent in three of its most recent major releases:

WISDOM

To best serve customers while keeping call handle time down, agents need easy access to knowledge articles, wikis, and FAQs. Wisdom makes this easier by leveraging machine learning to search across multiple data sources based on phrases and questions that customers ask. This results in faster issue resolution and improved customer satisfaction.

CUSTOMER PROFILES

Customer data is often spread across various databases in homegrown applications and external systems. Customer Profiles present agents with a more unified view of customer history and account details in order to provide efficient and personalized service during a call.

REAL-TIME SPEECH ANALYTICS

Contact Lens, launched in 2019, provides a set of machine learning capabilities integrated into Amazon Connect that analyze call recordings to discover customer sentiment, trends, and compliance in customer conversations. Now, AWS has taken that a step further with real-time speech analytics.

Contact center supervisors can configure Contact Lens to alert them about customer experience issues based on speech patterns, volume levels, and specific language as they happen rather than after the fact. This insight allows them to decide in real time whether to assist the agent through chat or have the agent transfer the call for escalation.

The Power of Speech Analytics in the Customer Experience

Speech analytics offer a powerful way for companies to gather information about customer preferences in ways that weren't possible before. Call recordings consist of massive volumes of unstructured data. Before, much of this data went untapped, but speech analytics has changed that. It normalizes data through phonetic translation and transcription and matches it with structured metadata, such as agent, call length, time of day, customer name, and geographic region.

Analyzing speech with Contact Lens for Amazon Connect, both recorded and real-time, can uncover customer sentiment, reveal the root cause of product or service issues, and offer insights into competitive intelligence and agent compliance.

While speech analytics have existed for a while, it was often prohibitively expensive for small or medium-sized businesses. That has changed in recent years. Prices for solutions like Contact Lens are based on usage rather than numbers of agent seats, which makes a major difference in lowering expense.

AWS and USAN Working Together

Technology can improve not just operations, but also how companies serve customers, how they get to know customers, and how they shape their customer experience. Amazon Connect and USAN can help you utilize new technologies such as chatbots, AI, machine learning, and speech analytics to implement strategies to improve the customer experience.

[USAN Contact Suite](#) is a pre-integrated set of capabilities for Amazon Connect that extend the power of Connect and provide additional functionality that enriches the agent and customer experience. With Contact Suite, agents enjoy a unified interface in an all-in-one application.


A workflow-driven agent desktop, outbound dialing campaign management, web chat, and email are natively built for Amazon Connect, which allows for supporting prospects and customers on the channels they choose. These solutions require no integration effort, and they can be easily implemented to work in tandem with the Amazon Web Services ecosystem.

To learn more about USAN and how we can extend the power of Amazon Connect to improve your operations and the customer experience, [contact us today](#).

About USAN

USAN is an Amazon Web Services Consulting Partner, Technology Partner, and Service Delivery Partner offering design, applications, integration and implementation services for successful Amazon Connect deployments. With years of AWS experience, as a partner and a customer, USAN has a proven methodology for deploying effective and impactful Amazon Connect solutions.

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