



Unleashing a Contact Center Transformation Innovation with Generative AI

Boosting business outcomes for a better customer and employee experience

FROST & SULLIVAN VISUAL WHITEPAPER

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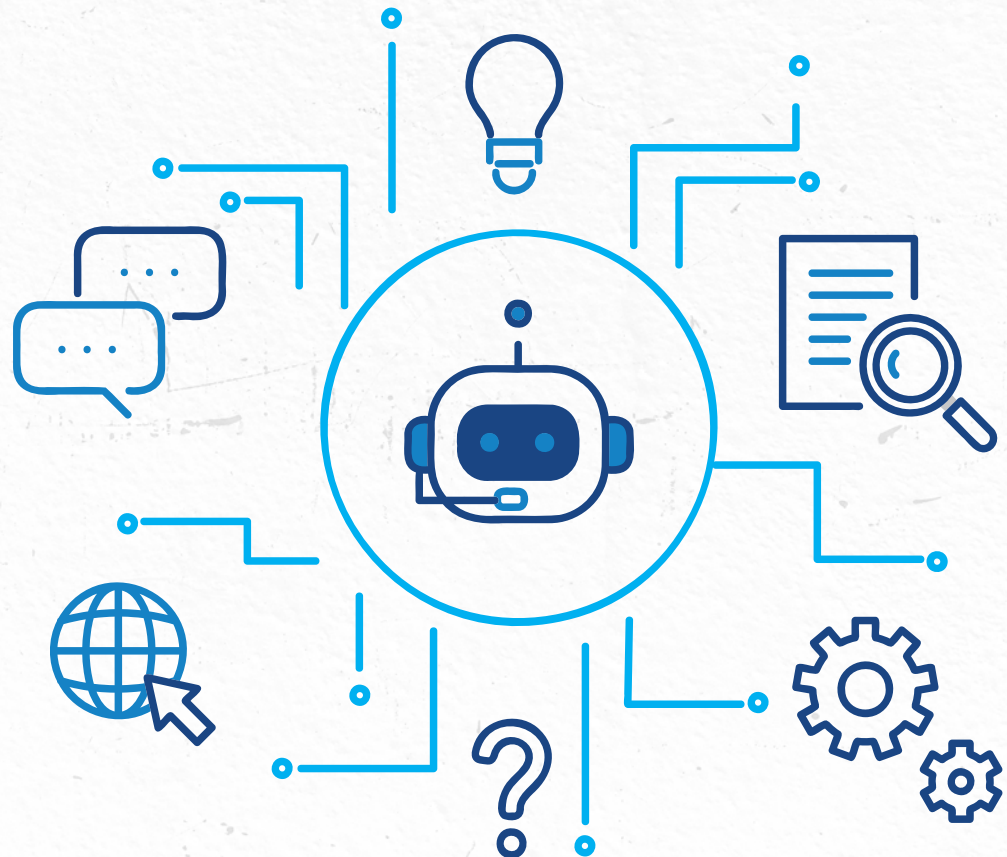


CONTENTS

- 3** Surging Demand and Application of AI in the Contact Center Is Just Getting Started
- 4** Critical Areas of AI Impact
- 5** Generative AI Takes CX and EX to the Next Level
- 6** CX Personalization
- 7** Summarization
- 8** Business Insights and Actions
- 9** Omnichannel Self-service

10 AI to Generative AI Transformation—Putting it All Together

12 Solution Spotlight: AWS



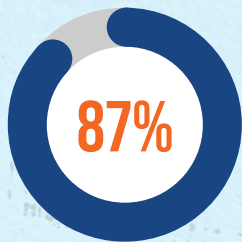


Surging Demand and Application of AI in the Contact Center Is Just Getting Started

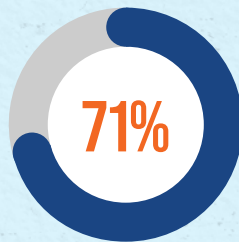
From touch-tone to conversation, agent coaching to AI-powered learning, reporting and analytics to AI-powered business insights and actions, AI technologies are changing the customer contact landscape.

Fifty years have passed since customer self-service came on the scene, broadening and revolutionizing customer service. This revolution flourished in the 1980s through voice user interfaces and chat, which paved the way for eventual rapid contact center AI innovation and adoption.

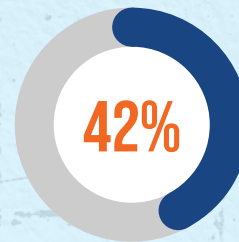
In 2023, AI is now everywhere—from digital customer self-service to quality management and analytics—enabling more intelligent and empathetic interactions in addition to better quality, accuracy, and business insights.



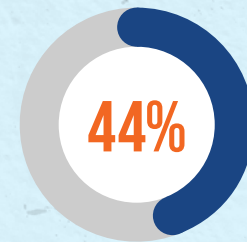
87% of enterprises believe AI and machine learning (ML) are important to achieving business goals centered around growing revenue, increasing operational efficiency, and boosting customer experience (CX)¹



71% of enterprises have embarked on the AI journey to support business outcomes¹



42% of survey respondents plan to add AI-powered agent assist capabilities in the next 2 years²



44% of businesses will invest in intelligent virtual assistants and bots in the next 2 years²

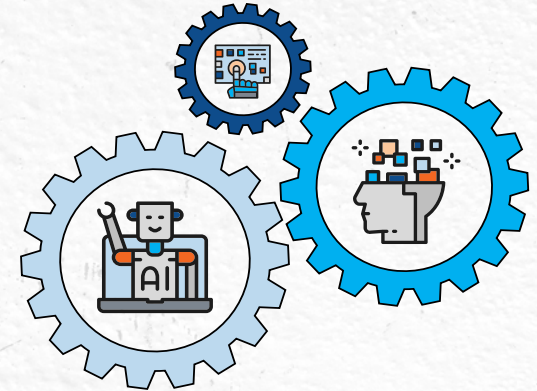
¹ Frost & Sullivan's Global State of AI, 2022, January 2023, (N=594)

² Frost & Sullivan Navigating Digital Transformation in Contact Centers—A Customer Perspective, Global, 2023 to 2024, March 2023, (n=751)



Critical Areas of AI Impact

AI technologies such as ML, generative AI, large language models (LLMs), and natural language understanding (NLU) are being infused across the business landscape, with applications and data shared across multiple contact center areas and the back office.



The Benefits of AI Integration are Everywhere

80% of companies will deploy process automation within the contact center in the next two years, assisting agents and supervisors alike. For instance, bots can be used to access data from scanned documents and populate forms and databases quickly and accurately or to gather information and make calculations for suggested agent actions.

- ▶ Speed up service delivery and increase efficiency
- ▶ Offload tedious tasks, improving the employee experience (EX)
- ▶ Increase accuracy across all systems of record
- ▶ Maintain compliance using script prompts as agent reminders

76% of companies will add transcription capabilities in the next two years, reducing the time and effort required for agents to document interactions and enabling supervisors to see what is happening in real time, for example, during a call.

- ▶ Bolster agent assistance
- ▶ Enable call summarization
- ▶ Automate post-call wrap-up
- ▶ Feed interaction data for enhanced analytics

79% will add speech and conversation analytics, 75% will add emotion recognition/detection, and 74% will add sentiment analytics. These will allow agents to understand the customer's disposition up front and better guide the interaction, in addition to enabling supervisors to better understand agent performance.

- ▶ Enhance root cause analysis
- ▶ Uncover customer intents
- ▶ Supercharge insights in performance management, coaching, and training applications



Generative AI Takes CX and EX to the Next Level

While the buzz around generative AI is new, generative AI itself is not. In fact, solution providers have been employing LLMs for some time now without marketing fanfare. Now, using intelligence garnered from years of amassing interactions and customer data to power LLMs, generative AI is being refined and taking the customer and employee experience to the next level, and with solid use cases to drive awareness.

What is Generative AI?

First-generation AI contact center applications included intelligent virtual assistants (IVAs), personalization, and speech and sentiment analytics, yet they were limited. For example, chatbots aimed to automate customer engagements but relied on laborious training methods featuring scripted responses and predefined workflows that were challenged to offer personalization at scale. Foundation models are at the heart of generative AI and are trained on massive volumes of data and parameters, allowing them to learn and perform complex tasks. Foundation models for natural language processing (NLP) are large LLMs, which possess exceptional NLU and give them a human-like quality. These models are the foundational brain of generative AI-infused CX applications.

For example, generative AI-infused chatbots can engage customers in more natural and contextually relevant conversations with significantly fewer training requirements and more opportunities for personalized interaction. These generative AI tools can analyze vast amounts of customer data, often in real time, and accurately predict customer behavior to enable tailored solutions and personalized recommendations, as well as create new content (text/voice/video).

AI Ethics

Because of the power generative AI has for creating content, contact center solution providers are discussing and making technology and strategy changes related to the ethical use of AI. Incorporating privacy by design principles that caretaker customer information, being transparent as to its use, applying it safely and cost-effectively, and ensuring the accuracy of results are just some of the critical considerations. For instance, the information generated by an IVA in a healthcare application could contain harmful or misleading information if not curated properly, or a generative AI-generated email response to a customer might contain biased or offensive wording. Creating clear policies and strategies around its use, such as restricting data sources and vetting content, are essential to creating positive and beneficial generative AI strategies.

Generative AI is being refined and taking the customer and employee experience to the next level, and with solid use cases to drive awareness.



USE CASE:

CX Personalization

Generative AI's processing power can further break down the walls of customer service, marketing, and sales, paving the way for assisting agents to hyper-personalize interactions in real time. Generative AI can help agents understand the entire customer journey—including interest, purchasing, service, and upselling—and create highly accurate, personalized offers that blend each area.

Generative AI uses real-time data, ML, and predictive analytics to effortlessly generate insights and craft customized and targeted customer experiences that provide first-contact issue resolution and expose customers to the right products or services at the moment of need.

With generative AI's ability to uncover customer intent and sentiment, personalization is driven further. Adding analytics for gauging agent empathy, along with real-time agent guidance for in-the-moment course correction, can positively impact customer satisfaction and employee engagement.



97% of top performing businesses say demand for personalized CX is driving the rapid integration of touchpoints that unite real-time customer data with AI and analytics.”

—2023 NTT DATA Global Customer Experience Report





USE CASE:

Summarization






Using AI for real-time transcription adds performance-enhancing features to an agent's and supervisor's workday and does much of the time-consuming heavy lifting, such as post-call wrap-up. Generative AI takes this one level higher by improving accuracy and quality and adding new capabilities through enhanced NLU and understanding of context. For instance, with industry averages of 1 to 3 minutes per post-call wrap-up, generative AI can speed service delivery and reduce costs by eliminating agents' need to document what happened in notes. Call transcripts can be summarized, analyzed, and highlighted with suggested actions for agents, providing easy access to information and reducing cognitive load. Supervisors can utilize performance summaries to note key areas for coaching and training or get alerts when real-time assistance is needed, greatly reducing time and effort for searching and review.



76% of businesses have already deployed or will deploy transcription in the contact center in the next two years."

—Frost & Sullivan Navigating Digital Transformation in Contact Centers—
A Customer Perspective, Global, 2023 to 2024, March 2023, (n=751)

Real-Time Transcription

-  Omnichannel summarization using transcripts across voice and digital channels
-  Real-time agent assistance with transcription plus conversation summary
-  Automated post-call wrap-up with live agent curation and personal insights
-  Automated post-interaction agent performance summary for managers
-  Automatic machine translation to support multilingual environments



USE CASE:

Business Insights and Actions

Contact centers are one of the richest data sources because companies generate millions of customer interactions yearly. Buoyed by summarization capabilities, generative AI can harness a multitude of data sources to analyze and generate more accurate and insightful business insights and suggested actions for contact center administrators and business leaders. Generative AI boosts:



Topic extraction



Intent recognition to predict possible reasons for customer engagement in advance



Real/near-time trend identification and analysis



Customer sentiment and emotion



Interaction resolution and outcome



Generation of coaching and training opportunities



Suggestions for digital channel journey improvements



Identification and recommendations for process automation



Nearly all organizations (95%) agree that predictive analytics is critical to establishing performance insights and anticipating operational needs.”

—2023 NTT DATA Global Customer Experience Report

Generative AI can better classify, organize, and analyze historical contact center transcripts/conversation data and engagement outcomes. This allows administrators to generate best practice workflows or playbooks for bots and agents, improve agent assist, and generate new knowledge base content and articles.



USE CASE:

Omnichannel Self-service

While voice remains key in customer service, the last decade of digital transformation has added more than a dozen interaction channels into the mix (with an average of eight per contact center). There has been an accompanying increase in customer preference to self-serve before contacting a live agent.

Generative AI brings an additional level of human-like, contextually aware intelligence to digital interactions, which has refreshed legacy IVRs, turned virtual assistants into IVAs, and spawned more capable enterprise-wide bots. Generative AI offers a true two-way empathetic and human-like conversational tone with customizable sentiment capabilities.

In addition, generative AI dramatically improves bot training and implementation efficiency, leveraging a corpus of company/industry knowledge, contact center/agent transcripts, and synthetic data. It can identify knowledge gaps and help supplement them, improve process automation identification, and enhance self-service through multimodal enhancement (text, audio, images, and video). Best of all, generative AI is always learning, so by analyzing ongoing omnichannel engagements, it can provide suggestions for continuous improvement.



Nearly half (48%) of enterprises believe conversational interfaces/virtual agents will become the most deployed AI technology in the next 2 years.”

—2023 NTT DATA Global Customer Experience Report





AI to Generative AI Transformation— Putting it All Together

The twin challenges of improving CX and EX while reducing costs have helped fuel the adoption of AI-enhanced solutions.

Removing drudgery from an agent’s workday while empowering them with the right information at the right time and providing deep business insights that optimize agent performance and improve customer satisfaction address these challenges. Success is being achieved through AI-powered personalization, process automation, and analytics.



VERTICAL SPOTLIGHT:

The travel and hospitality industry is generally an early adopter of transformative technology. For example, using virtual reality to showcase destinations, using chatbots as concierges and personal assistants during hotel stays, and using mobile apps to provide travelers with flight status, rebooking, entertainment, or onboard refreshment ordering are a fraction of the innovative solutions currently changing pockets of the industry. Likewise, the industry’s use of generative AI will allow companies to innovate further. While online travel sites already use AI and ML to enable fast search and provide options to customers, imagine the speed and convenience when generative AI’s heightened NLU capabilities are combined with mined customer data and real-time travel information (e.g., airlines, hotels, weather).

For instance, a customer engaging with a generative AI IVA could simply state, via chat or voice, “I love food and wine and want to plan a trip to Paris the week of Easter using airline miles, what are my options?” Up pops itinerary options that include possible flights and personal recommendations for popular food markets, restaurants, and springtime food and wine events—all guided by preference, context, history, and possibility. This will greatly shorten the planning to booking stages of customer engagement.



The addition of generative AI can profoundly impact anticipating customer needs, understanding preferences and intent, and personalizing interactions. Generative AI's ability to process massive amounts of data, understand, create, learn, and improve holds the promise of addressing CX and EX challenges and rapidly facilitating better business outcomes at scale.

Travel and hospitality is just one area ripe for improvement, but the sky is the limit. Combining sales, service, and marketing data in retail for proactive outreach with personalized upsell recommendations, beginning-to-end loan processing fueled by process automation to assist the agent and supervisor and eliminate friction in the customer journey, or assisting patients trying to navigate myriad doctors, departments, and processes in a healthcare setting are just a smattering of industries poised for further revolution through AI advancements.





Solution Spotlight: AWS

Amazon Connect is a cloud contact center that enables companies of all sizes to deliver superior customer experiences at a lower cost. With Amazon Connect, businesses can stay ahead of changing customer expectations by rapidly delivering CX improvements that help retain existing customers and attract new ones. Non-technical business leaders or experienced administrators can instantly and easily optimize the customer experience in just a few clicks, delighting customers with a more personalized agent and self-service experience across their channel of choice. With Amazon Connect's built-in AI-powered features, new agents are productive from day one and experienced agents can solve complex customer problems quickly. Robust real-time analytics transforms data into actionable insights to continuously improve contact center operations, lower costs, and grow business opportunities. Generative AI further enhances Amazon Connect's built-in AI/ML capabilities to improve agent assistance, manager assistance, and customer self-service.

Tens of thousands of AWS customers are using Amazon Connect to support more than 10 million contact center interactions every day.



To learn more about Amazon Connect, visit <https://aws.amazon.com/connect/>

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