

# Achieving Digital Customer Experience Management's (CXM) Full Potential with the Generative AI Revolution

December 2023



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## Evolution and transformation of CXM

Over the last few years, the contact center landscape has evolved into a dynamic ecosystem integrating digital concepts, solutions, and human touchpoints to deliver a seamless customer experience

Today's CXM combines traditional and digital solutions to deliver a fundamentally superior customer experience

### Traditional CXM

- The primary purpose of traditional contact centers is to serve as a hub facilitating inbound and outbound customer interactions across multiple channels
- In a traditional contact center, agents are trained to resolve various customer queries and use basic tools and technologies such as Customer Relationship Management (CRM) tools and chatbots or virtual agents that can handle simple and/or predefined queries to manage and track customer interactions, often dispersed across siloed systems

#### Interaction in silos across channels



Voice



Chat



Email



Social media

NOT EXHAUSTIVE

### Digital CXM

- Digital CXM leverages digital concepts and technologies such as advanced analytics, automation solutions, conversational AI, cloud-based contact centers, omnichannel solutions, and CX consulting to deliver personalized customer interactions across various channels. This holistic approach leverages an intertwined system of technology and digital solutions with human agents and customer touchpoints to ensure a seamless and tailored customer experience
- By centralizing customer data and interactions, digital CXM eliminates silos, resulting in a cohesive and consistent end-to-end customer journey, enhanced process efficiencies, and improved customer satisfaction

#### Components of digital CXM (in addition to traditional CXM components) NOT EXHAUSTIVE



Advanced analytics



Automation



Conversational AI



Cloud contact center platforms



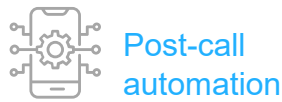
CX consulting



## Gen AI | use cases

Gen AI has multiple applications in digital CXM services that can help make operations more effective while enhancing customer experience

NOT EXHAUSTIVE



### Post-call automation

Gen AI enables post-call automation by analyzing conversations and automatically tagging tickets under relevant categories. It generates concise summaries, capturing crucial details and action items, and facilitates personalized follow-up emails or messages for customers based on call content.



### Knowledge base enrichment

By analyzing transcripts of customer conversations and other post-call data, gen AI can identify new topics and frequently asked questions to create new knowledge articles as well as update existing ones.



### Dynamic report generation

Gen AI employs data processing algorithms to automate dynamic report generation in contact centers. It processes real-time data streams, identifies trends, and extracts insights, providing administrators with comprehensive reports in diverse formats.



### Interactive Voice Response (IVR) and dialog flow customization

Utilizing Natural Language Processing (NLP), gen AI can tailor IVR systems and dialog flows to match individual customer preferences and historical interactions. The AI system dynamically adapts responses and menu options based on real-time customer data, ensuring a highly personalized and efficient customer experience.



### Multilingual support

By utilizing NLP and extensive language datasets, gen AI achieves efficient content translation, transcending language barriers in multiple domains, including customer support and content localization.



### Next-best action recommendation

Gen AI leverages customer data, sentiment analysis, and historical patterns, including preferences and purchase history, to offer agents personalized recommendations for the best actions or responses in each unique customer scenario.



### Synthetic data creation

Gen AI addresses data scarcity through data augmentation, transfer learning, generative models, and simulation. These methods synthesize additional training data, enabling the model to learn effectively in newer process areas and industries with limited available data.






### Agent training

Gen AI can create interactive training materials with a combination of visualizations, text-based guidelines, and audio instructions. Agents receive comprehensive and engaging learning content tailored to their preferred learning styles, leading to more effective training and improved performance on the job.

## Gen AI | barriers to adoption and potential solutions (page 1 of 2)




Implementing gen AI poses notable obstacles including data privacy and security, regulatory challenges, and costs; organizations must devise strategies to navigate these challenges for effective integration of gen AI

Key challenges today		Current solutions
<div>Reliability</div> <div></div>	<ul style="list-style-type: none"><li>• <b>Trustworthiness of information:</b> Gen AI lacks the multi-link selection of search engines, hindering the differentiation of reliable from less credible sources</li><li>• <b>Hallucinations:</b> Gen AI can create plausible yet incorrect content, posing serious risks, notably in regulated industries</li><li>• <b>Context gap:</b> LLMs, trained on generic data, struggle with domain-specific tasks, yielding subpar or erroneous outcomes</li></ul>	<ul style="list-style-type: none"><li>• Human-in-the-loop for validation, content moderation, and reinforcement learning</li><li>• Fine-tuning by training LLMs on smaller, targeted datasets</li><li>• Specialized software or customized algorithms to convey uncertainty</li></ul>
<div>Regulation</div> <div></div>	<ul style="list-style-type: none"><li>• <b>Intellectual Property (IP) / copyright:</b> The absence of IP/copyright protection for gen AI content can result in ownership disputes, lawsuits, and financial risks, exacerbated by content similarities driven by prompts and training data, as well as potential unauthorized use of IP-protected training data</li><li>• <b>Explainability:</b> Gen AI's opaque decision-making poses challenges, particularly in legal justifications for actions such as fraud detection or claim approval</li></ul>	<ul style="list-style-type: none"><li>• Resemblance/Plagiarism checks with existing content and leveraging licensed data for training</li><li>• Firms such as Appen and IBM are developing add-ons to make gen AI more explainable and interpretable with the help of natural language and visualizations</li></ul>
<div>Data privacy and security</div> <div></div>	<ul style="list-style-type: none"><li>• <b>Data privacy:</b> The utilization of extensive datasets in training gen AI models, which might involve sensitive data, presents risks of data breaches and non-GDPR compliance. Additionally, the generated content itself could inadvertently expose identifiable information about individuals or organizations</li><li>• <b>Cyber threat:</b> The use of organizational data in fine-tuning gen AI models increases vulnerability to data breaches. Gen AI tools can potentially empower cyber attackers to craft content for malicious purposes such as malware, phishing, and identity theft</li></ul>	<ul style="list-style-type: none"><li>• Data encryption for model training and prompts to protect sensitive information</li><li>• Utilizing gen AI-derived synthetic data for model refinement and reducing reliance on real-world data</li><li>• Prioritizing user consent, data transparency, and control in data collection and sharing</li></ul>

## Gen AI | barriers to adoption and potential solutions (page 2 of 2)

Implementing gen AI poses notable obstacles including data privacy and security, regulatory challenges, and costs; organizations must devise strategies to navigate these challenges for effective integration of gen AI

### Key challenges today

<div>Technology</div> <div></div>	<ul style="list-style-type: none"><li>• <b>Processing needs:</b> LLMs generally require a large amount of processing power and time. This is especially true for image, video, and audio generation, which can take significantly longer to process</li><li>• <b>Integrations:</b> For many use cases, stand-alone gen AI solutions may not suffice and may need to be integrated with other systems/solutions directly or through Application Programming Interface (APIs) which can lead to extended time-to-market, compatibility issues, and go-to-market challenges</li></ul>
<div>Cost</div> <div></div>	<ul style="list-style-type: none"><li>• <b>Usage cost:</b> Current pricing models such as flat-rate, per-token, per-minute, and pay-per-use, are both expensive and less intuitive for businesses</li><li>• <b>Infrastructural cost:</b> LLMs require vast data and advanced infrastructure for diverse use cases, intensifying the need for efficient data storage, processing, and accelerated computing</li><li>• <b>Scalability:</b> Cost of deploying, operating, and maintaining gen AI solutions across an enterprise can increase substantially as the scale of deployment grows</li></ul>
<div>Ethics</div> <div></div>	<ul style="list-style-type: none"><li>• <b>AI bias:</b> Gen AI tools such as ChatGPT have been found to have biases based on race, gender, color, geography, etc. which is a reflection of the training data</li><li>• <b>Human workforce displacement:</b> Gen AI has demonstrated the capacity to automate specific job functions, prompting valid concerns about potential workforce displacement and subsequent unemployment</li></ul>

### Current solutions

- Distributed training where computation tasks are divided across multiple systems
  - Multiple LLMs for varied use cases and efficient data processing
  - Connectors to expedite deployment of gen AI alongside other technologies
- 
- Use of open-source language models such as GPT-4 by Open AI, and LaMDA by Google to reduce usage costs
  - Use case prioritization across specific industries/functions for gen AI investment
- 
- Post-processing techniques can be used to analyze the generated output to identify and mitigate bias
  - Using artificial training data to train LLMs, especially for newer use cases can help reduce bias



## Gen AI outlook | public statements from stakeholders across the board

Enterprises are optimistic about the long-term adoption of gen AI and are excited about how it will revolutionize customer experiences and streamline enterprise workflows

Morgan Stanley



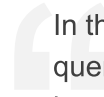
We also believe that generative AI will revolutionize client interactions, bring new efficiencies to advisor practices, and ultimately help free up time to do what you do best: serve your clients.”



Axis Bank is looking at private LLMs to envision new solutions to enhance, revamp, and automate existing solutions by targeting to implement private LLMs for specific use cases.”



Generative AI will reshape how every team operates. Just like with the adoption of the internet, generative AI represents a generational opportunity to raise the capabilities, skills, and potential of teams throughout the company.”



In the future, we believe that AI may help us predict what queries regulators are likely to come back with. We may then be able to improve our submissions by predicting in advance what regulators are likely to ask and coming prepared with those answers ahead of time.”

### Future insights



Enterprises intend on exploring gen AI to create value across a diverse array of use cases. This exploration demands a synchronized approach, owing to its unique risk considerations and the capacity to support multiple applications

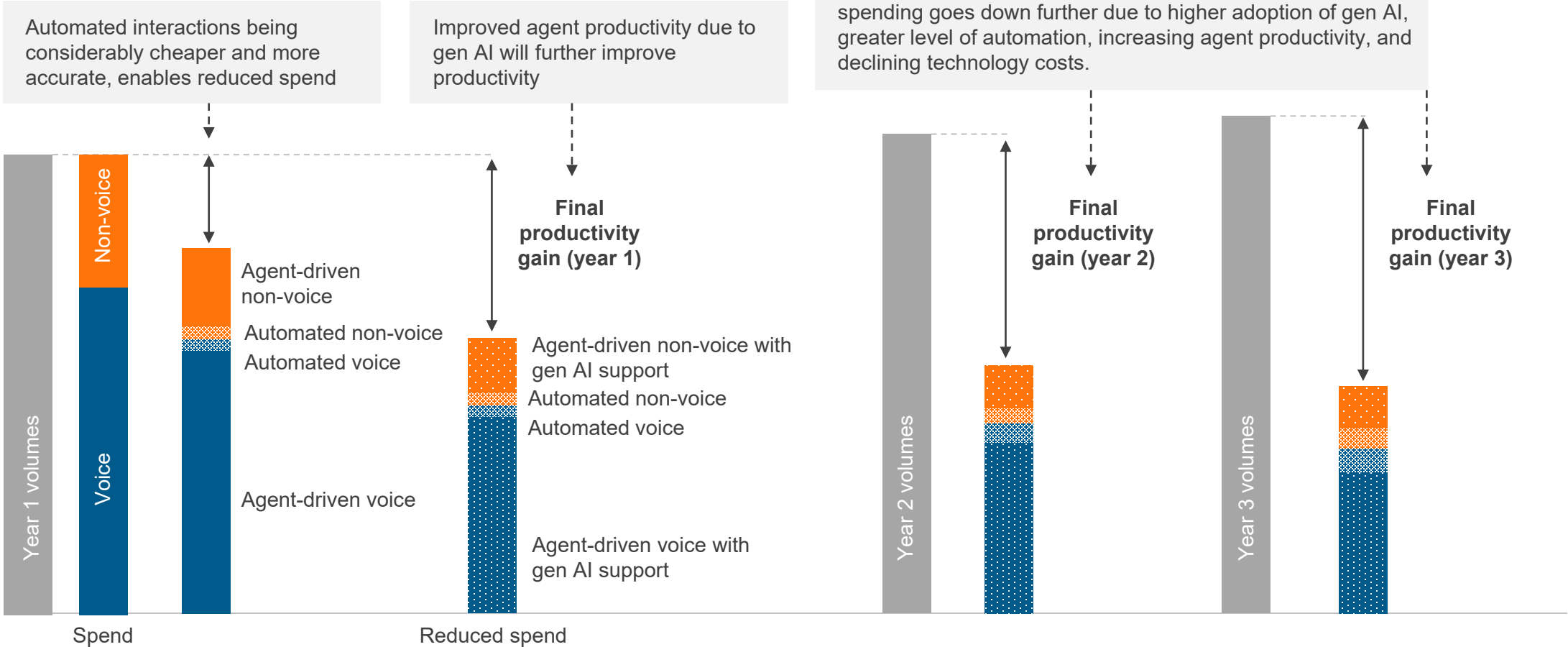
As enterprises establish gen AI objectives, there is a growing need for a workforce well-versed in AI technologies. The disparity between the supply and demand for skilled workers needs to be quickly addressed by enterprises

Strategic partnerships with the right technological providers can expedite execution and tailor models to meet specific enterprise requirements. Enterprises can leverage the expertise of these providers and capitalize on their innovative solutions

## Gen AI outlook | expected productivity gains through gen AI

Gen AI can result in considerable productivity gains in contact centers by automating low-mid complexity inquiries and assisting agents in improving their efficacy

### Key productivity gains realized through gen AI

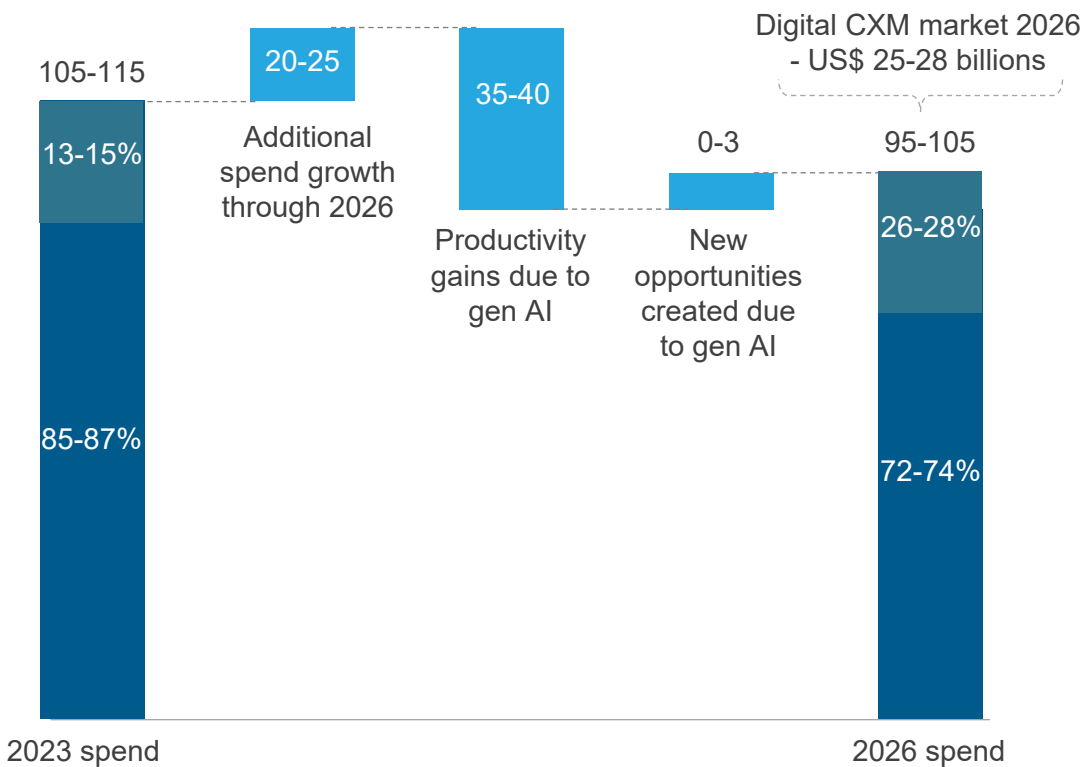


## Gen AI outlook | future of outsourced digital CXM market

Gen AI will accelerate digital CXM even further, doubling its overall share of the global CXM market over the next three years

Total CXM outsourcing spend  
US\$ billions

Digital CXM market size  
Share of digital CXM in outsourced CXM market



### Adoption of gen AI is expected to drive significant productivity gains in the long-term

- Gen AI is expected to drive significant productivity gains within the CXM market as enterprises seek to implement these capabilities across their voice and non-voice operations
- Productivity gains will be driven by automating transactional work reducing the cost per interaction, as well as improving agent efficiency due to multiple factors such as improved access to information, better agent-assist tools, automated documentation, call routing optimization, improved quality assurance, and leaner organizational pyramids
- Adoption of gen AI is expected to accelerate in the mid- to long-term due to increased awareness of its potential and impact, the resolution of challenges related to privacy, security, accuracy, and cost, and its ability to provide a superior customer experience

### Increased adoption of gen AI will create new opportunities

- Recent developments in gen AI that are having a significant impact on the CXM landscape include:
  - Public release of ChatGPT, enabling more human-like conversations
  - The launch of GPT-4 with enhanced multi-modal capabilities, including image processing and document handling
  - Introduction of Google's AudioPaLM, enabling real-time listening, speaking, and translation across multiple languages
  - Launch of ChatGPT Enterprise, providing enterprise-grade security and privacy
- While the overall size of the CXM market might reduce, gen AI is expected to accelerate the growth of digital CXM. By 2026, digital CX is anticipated to capture a market share of 26-28% in the overall outsourced CXM market
- Enterprises often opt for a hybrid-gen AI implementation approach, combining internal efforts and third-party partnerships, with a preference for tech-focused providers known for their expertise in large-scale transformations, strong technological capabilities, and innovative approaches to next-gen technologies

# Research calendar

## Customer Experience Management Services

Published Planned Current release

Reports title	Release date
Healthcare Customer Experience Management (CXM) Services in North America – Provider Compendium 2023	January 2023
Delivering Extraordinary Customer Experiences Using Conversational AI	January 2023
Africa on the Rise: The Next Frontier in Customer Experience Management (CXM)	March 2023
Engaging with Customers in the Metaverse – Turning Fantasy into Reality	April 2023
Press Play on Player Experience: Level up Beyond Game Design	April 2023
Contact Center-as-a-Service (CCaaS) PEAK Matrix® Assessment 2023	May 2023
Contact Center-as-a-Service (CCaaS) – Provider Compendium 2023	June 2023
Customer Experience Management (CXM) Services PEAK Matrix® Assessment 2023	September 2023
Conversational AI Products PEAK Matrix® Assessment 2023	September 2023
Unleashing the Power of Data and Artificial Intelligence in Customer Experience Management (CXM)	October 2023
Playing to Win: Transforming Agent Experience with Gamification	October 2023
Conversational AI (CAI) Technology Service Provider Landscape with Products – Provider Compendium 2023	December 2023
Turning Challenges into Growth Opportunities: Customer Experience Management (CXM) State of the Market 2023 – Update	December 2023
<b>Achieving Digital Customer Experience Management's (CXM) Full Potential with the Generative AI Revolution</b>	<b>December 2023</b>
Customer Experience Management (CXM) – Provider Compendium 2023	Q4 2023

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