

With the right foundation model and AI principles, generative AI assistants can boost agent productivity and facilitate greater operational efficiencies while driving ethical and compliant practices.

Maximizing Contact Center Operations with Generative AI Assistants Backed by Responsible AI Principles

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Introduction

The contact center is not new to automation. For years, organizations have been leveraging software robots and rules-based chatbots to simplify the repetitive, high-volume customer inquiries that bog down an agent's day — whether it's resetting passwords, answering FAQs, or finding order numbers. AI has also been around for decades. Conversational AI has taken traditional chatbots, which were limited to preprogrammed inputs and predetermined commands, to an advanced level of understanding, enabling them to respond to conversations in various forms, including telephony, voice, text messaging, web messaging, and messaging apps. Organizations have also used machine learning and advanced analytics applications to unearth predictive insights and identify emerging opportunities that can help create more personalized, contextual customer experiences (CX).

Now, with generative AI (GenAI), the way brands interact with customers and the way agents interact with consumers are again transforming, providing an additional layer of efficiency and personalization. A core GenAI development in customer service has been conversational applications, including automated GenAI-enabled assistants that deliver contextual responses to customer queries in chats or automate email responses, for example. According to IDC data, almost 25% of global organizations believe that one of the many benefits of GenAI is its ability to integrate and improve current conversational AI platforms' capabilities.

Organizations are undoubtedly excited about the potential of GenAI and its seemingly unlimited opportunities in customer service. However, such investments do not come without challenges. How data is trained, how algorithms are written, and the quality of inputs are subject to bias and potential unethical practices. Just as important is the certain unpredictability that building large language models (LLMs) creates concerning their ability to provide accurate answers and quality outputs that align with human values (i.e., the code is not good enough), which can be especially devastating for customer-facing GenAI applications. Data privacy and security considerations, such as sharing public or confidential data in LLMs or their integration with consent management practices, are also important. In the customer service space, GenAI going rogue can seriously damage a brand's reputation. Partnering with a service provider that is grounded in

AT A GLANCE

KEY STAT

According to IDC's research:

- » 25% of global organizations indicated that investing in GenAI for customer-facing applications would benefit their contact center operations the most.

WHAT'S IMPORTANT

As organizations worldwide prepare for conversational GenAI investments for contact centers, they must choose a partner that is open to and flexible with model development and has a steadfast stance on managing, monitoring, and governing AI applications and models.

trust, transparency, and governance and able to offer a solid foundation to build large language models (whether purpose built or customized) will be key to successful GenAI transformation. With the right foundation, GenAI and automation can solve global organizations' biggest customer service challenges: meeting increased demand, reducing costs and, most importantly, making customers and human agents happier.

Benefits of GenAI for Customer Service

Beyond GenAI conversational applications, the market has observed other common customer service use cases for knowledge management (i.e., reading and synthesizing data/insights using natural language processing), content generation (e.g., emails and agent training scenarios), and summarization. IDC data suggests that global organizations have the highest interest in summarization applications for customer feedback, customer data, or transcripts and in natural language interfaces to access knowledge bases for improved customer self-service (see Figure 1).

FIGURE 1: *Customer Service GenAI Use Cases*

Q Regardless of whether you plan to invest in GenAI technology or not, which of the following GenAI use cases for customer support do you feel could most benefit your contact center operations if implemented?



n = 723

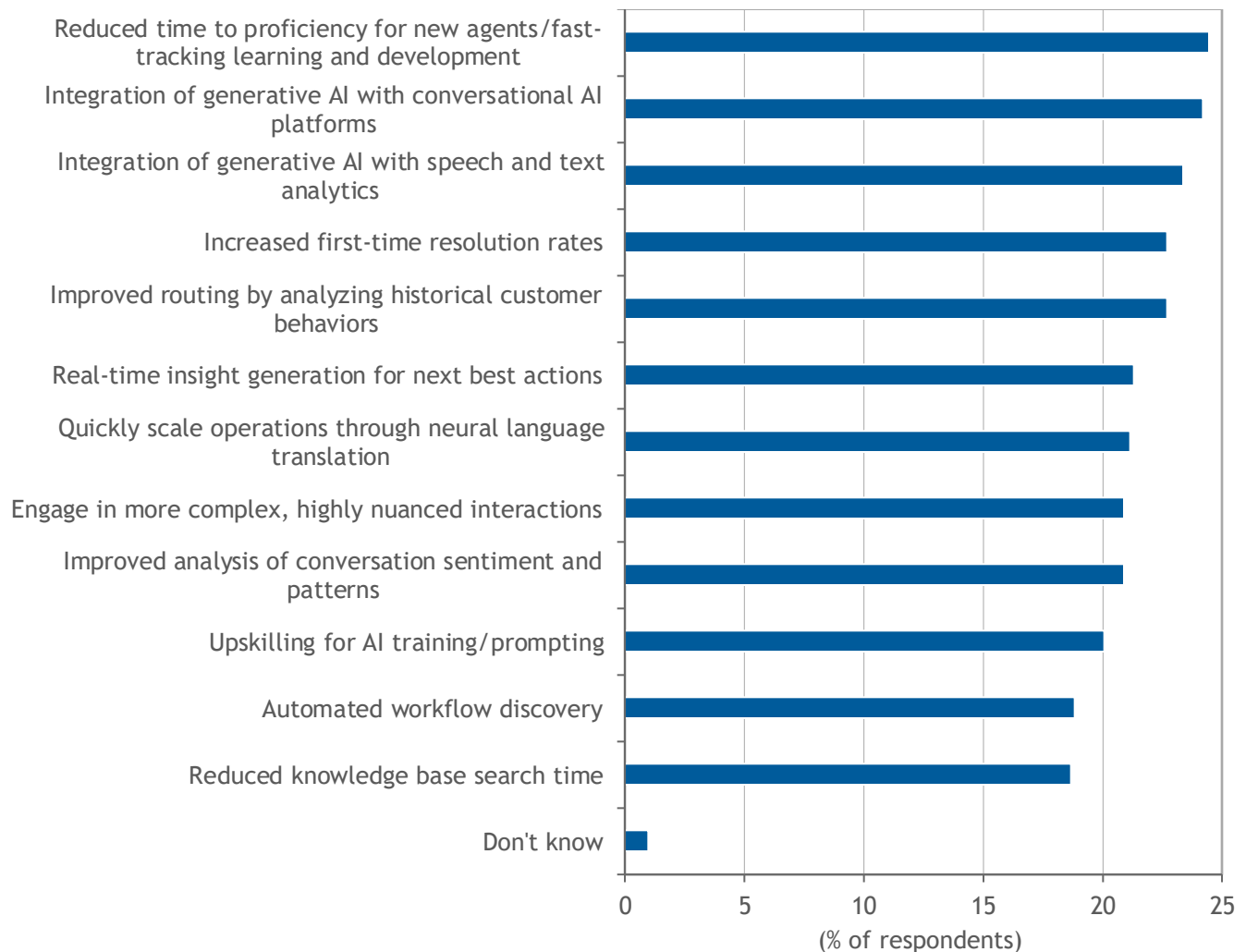
Source: IDC's Worldwide Customer Care Business Process Services Survey, June 2023

GenAI customer service applications can positively impact both the agent/employee experience and the customer experience. These two areas are often considered siloed initiatives, but integrating them can accelerate growth, improve business decision-making, and result in exceptional service.

Global organizations have vast expectations of GenAI. They expect GenAI to help fast-track the training and development of new agents, integrate and improve current conversational AI and speech/text capabilities, and increase first-time resolution rates (see Figure 2). Not surprisingly, its greatest impact on the customer experience is improved customer satisfaction. According to IDC data, 42% of global organizations said that higher customer satisfaction will be GenAI's greatest benefit in the contact center, followed by the increased value of self-service portals and chatbots and reduced customer effort.

FIGURE 2: **GenAI Benefits for Agents**

Q What are the perceived agent benefits of utilizing GenAI for your organization's contact center operations/customer support?



n = 723

Source: IDC's Worldwide Customer Care Business Process Services Survey, June 2023

Considering IBM watsonx Orchestrate for Customer Service

IBM watsonx Orchestrate is a next-generation conversational AI and automation solution that enables both technical and nontechnical business users to build GenAI chat and voice agents. It is designed to transform self-service experiences across any device or channel, helping boost employee productivity and scale across the business. IBM has enabled powerful GenAI features and capabilities in this product, focusing on three core areas for contact center modernization:

- » **Customer self-service with Conversational Search or retrieval augmented generation (RAG):** To generate more conversational answers that are grounded in enterprise-specific content in response to customer inquiries, IBM is leveraging its LLMs via the watsonx.ai platform (IBM's enterprise-ready AI and data platform for training, deploying, and managing foundation models) and integrating them into the conversational AI interface. Using semantic search capabilities, IBM extracts information from documentation based on business content and uses LLMs purpose built for business functions to deliver a conversational response to users. This reduces the time to build intricate, long conversational flows. All this can be automated by Conversational Search, now available out of the box using watsonx Orchestrate.
- » **Agent assist for auto-summarization:** Activities such as summarizing transcripts, recordings, and call notes or any documentation or categorization tasks are imperative for ensuring compliance with regulations and good customer service. However, these tasks have typically required an agent's manual efforts. GenAI-enabled agent-assist solutions empower agents to deliver more timely responses and improve the next best actions while enhancing productivity.
- » **Large speech models for voice:** While the market has spoken about large language models and bringing ChatGPT into business functions, watsonx Orchestrate has shifted to also offering large language speech models integrated with speech-to-text and natural language understanding capabilities. Voices are designed to respond to customer requests in natural humanlike speech and can understand expressions and analyze conversation sentiment. These large speech models have been in beta for approximately six months and were launched out of the box in the watsonx Orchestrate platform in June 2024.

Core Differentiators: IBM watsonx Assistants

IBM is building a foundation that allows enterprises to create large language models that they can quickly integrate into their AI assistants while driving the governance and data management necessary to scale and accelerate transparency and explainability in data and AI workflows. Core differentiators of watsonx Orchestrate include:

- » **A strong foundation for data, governance, and AI:** The solution offers integration to watsonx platform's components, which consolidate business data, promote trust and transparency in answers, and train, tune, deploy, and customize models. These components include:
 - **watsonx.ai:** Trains, validates, tunes, and deploys models for GenAI
 - **watsonx.data:** Unifies business data to scale analytics and AI in applications
 - **watsonx.governance:** Manages, monitors, and governs all AI applications and models

- » **Flexibility in model choice:** IBM caters to the needs of customers requiring simple or more complex LLMs. Customers have access to IBM Granite models, which are purpose built for enterprise use cases and available out of the box. Granite is IBM's flagship series of LLM foundation models, which are based on decoder-only transformer architecture and trained on trusted enterprise data spanning the internet, academia, codes, legal, and finance. Customers can also bring their own LLM to the platform or customize and embed a model optimized for targeted business domains and use cases by connecting natively to watson.ai.
- » **Seamless integration with contact center platforms, SMS/messaging apps, CRM systems, and so forth:** Using watsonx Orchestrate does not require organizations to move their technology stack to integrate with IBM solutions, so streamlining how they configure interactions with their assistant is vendor agnostic. IBM works with all contact center-as-a-service providers, including NICE and Genesys, for native integrations, various messaging channels, and search tools and has extensions that allow organizations to connect with any application programming interface.
- » **Assistant builder for low-code/no-code chatbot creation:** IBM's low-code/no-code interface allows anyone in an IT or line-of-business role to create a chatbot quickly without requiring coding skills or data science expertise. watsonx Orchestrate Assistant Builder simplifies chatbot creation with reusable components, prebuilt templates, and integrations that make the process of building conversational flows easier and more seamless for nontechnical users.
- » **AI skills studio for automation:** IBM watsonx Orchestrate provides users with access to a skills studio they can use to automate time-consuming tasks, so agents and developers can focus on higher-value work. Users have access to prebuilt skills they can use to accomplish a wide range of tasks with integration to the tools they actively use today. The Skills Studio in watsonx Orchestrate is a low-code developer studio with a robust software developer kit (SDK) for building skills and automations that can be added to the Orchestrate skills catalog and used to extend the capabilities of an AI assistant. With the Skills Studio, organizations can build their own skills and workflows quickly and easily and leverage existing investments in automation tools by discovering automations within Orchestrate and putting them to work across the organization.
- » **Integration to advanced semantic search capabilities:** For conversational search and RAG use cases, IBM leverages watsonx Discovery to provide an additional layer of semantic search for enterprise-level organizations requiring more powerful capabilities.

Challenges

Although global organizations are eager to embrace LLMs, many are still struggling with trust, transparency, and understanding data protection implications and the application of GDPR principles. Responsible AI design, including bias, legal/ethical, and security/privacy considerations, will be critical to protecting private or sensitive data in unproven AI models and preventing potential adversarial attacks on AI models. As IBM shifts from pilots to production, its challenge will be how to scale enterprise-grade foundation models and GenAI across the enterprise while continuously working to ensure AI safety.

Conclusion

As companies seek to reimagine the customer experience with conversational GenAI to streamline simple queries and improve the customer experience, selecting a reliable service provider with the foundation and know-how to build models, robust governance, and a technology portfolio built on responsible AI principles will be imperative to meet customer needs and deliver enhanced commercial conversational AI solutions.

Flexibility is key to building the right LLM size for a company's use case, industry, business requirements, and risk profile.

About the Analyst



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Ali Close is a research manager for IDC's Worldwide Outsourcing Services Team and leads the Worldwide Intelligent Finance and Customer Care Business Process Services practice. Ali's coverage includes finance and accounting, customer care/contact center, procurement, and analytics business process outsourcing services.

MESSAGE FROM THE SPONSOR

Today, generative AI (GenAI) and other technology advancements are transforming the way customers interact with businesses. With IBM watsonx Orchestrate, you can transform your call center operations by delivering GenAI-powered self-service support, automating routine tasks, integrating all your service channels, and empowering your teams with intelligent insights that enhance agent productivity. Our platform not only speeds up response times and resolves customer issues proactively with trusted AI models but also fast-tracks employee operations with powerful automation capabilities that can scale effortlessly with your growing needs.



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