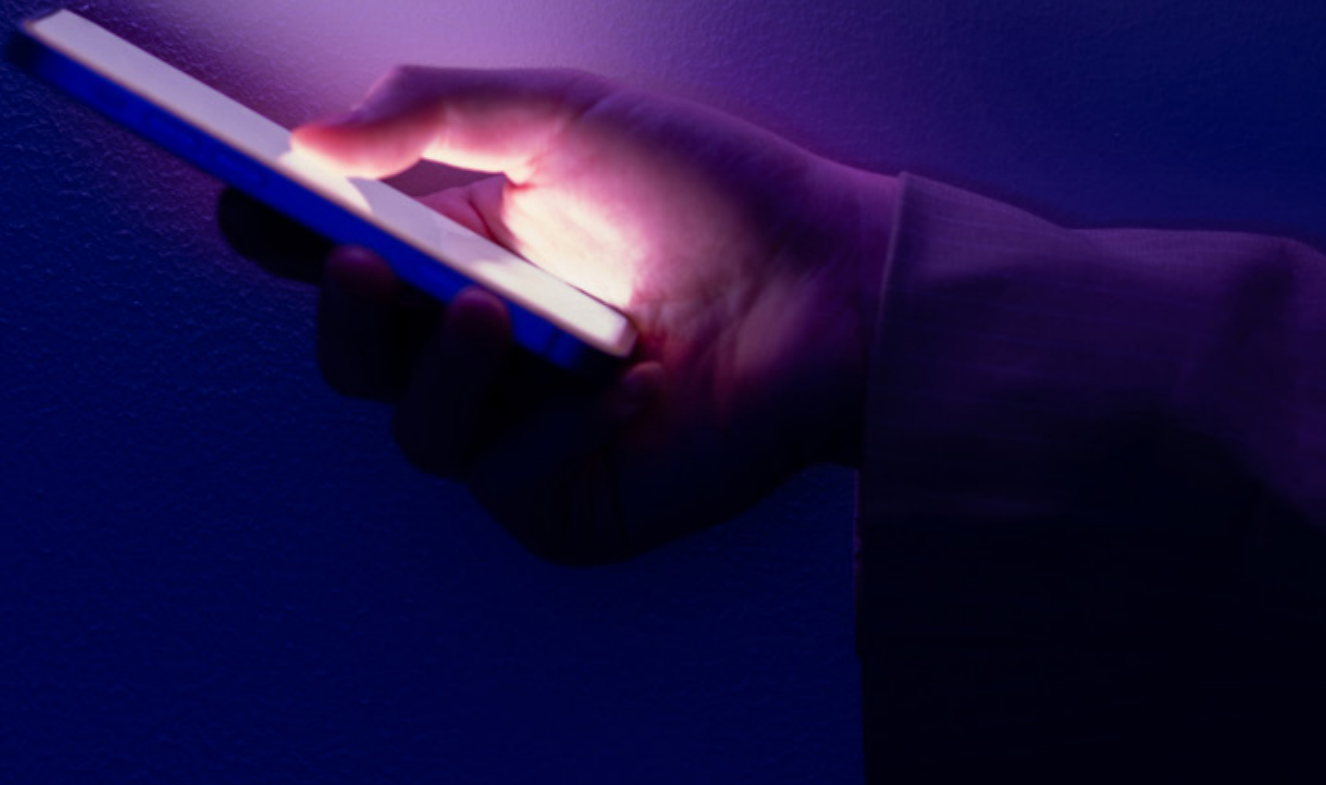


Gartner®

Gartner for Customer Service Leaders

Top Generative AI Use Cases for Customer Service



Generative AI (GenAI) holds the promise of being able to transform customer service and support. Customer service and support leaders should start the GenAI adoption process by deploying use cases that strike a balance between innovation and risk mitigation.

Overview

Key Findings

- GenAI will change how customer service and support organizations design work, assign tasks and create customer experiences, requiring leaders to act now to ready their organizations to accelerate the learning process.
- Per responses to a question in an August 2023 Gartner webinar, 85% of organizations are investing in GenAI to improve business functions. Customer service and support is the second highest priority for businesses when it comes to GenAI investment, right behind IT.
- GenAI, specifically large language models (LLMs), has a unique set of risks when compared with other more common AI implementations, requiring leaders to scrutinize their first set of potential use cases.
- More and more customer service and support technology vendors are developing their own GenAI capabilities and integrating them into their solution portfolios. This strategy provides customer service and support leaders an opportunity to capitalize on this innovation in a shorter time frame.

Recommendations

Customer service and support leaders who are responsible for improving service through the application of innovative solutions using GenAI capabilities should:

- Learn about the GenAI capabilities applicable to customer service and support organizations and the options for sourcing the technology.
- Start by adopting GenAI capabilities for content generation, content utility and text analytics capabilities, which provides quick discovery of GenAI technology's benefits by improving agent productivity.
- Expand the adoption of GenAI capabilities such as virtual assistant, call summarization and real-time translation by understanding the dependencies and working with vendors to strike the right balance between innovation and risk mitigation.

Introduction

GenAI has the potential to transform customer service and support by providing highly personalized conversational capabilities, assisting agents to improve productivity, autogenerating content, analyzing text and summarizing interactions.

Organizations understand this potential as customer service and support is the second highest area for investment in GenAI capability. Customer service and support vendors also understand this potential as they invest heavily in building and incorporating GenAI into their solution portfolios, providing a unique opportunity for customer service and support leaders to quickly get started with GenAI.

And while the potential of GenAI is impressive, it comes with some significant risks. The technology in its current state can generate outputs that have biased, nonfactual information referred to as “hallucinations.” Depending on the sourcing of the GenAI technology, privacy of data can be an issue as well. All of these risks can be harmful for the business if it does not manage them well when adopting the GenAI technology.

How do customer service and support leaders strike a balance between deploying innovative solutions like GenAI while mitigating risk? How do customer service and support leaders get started with GenAI but keep their organizations and customers safe?

Customer service and support leaders should use this research to:

- Understand GenAI capabilities in customer service and support.
- Apply GenAI capabilities through their related use cases to get started quickly and realize benefits.
- Learn about the dependencies and risks of other GenAI capabilities in which additional due diligence will be required.

Analysis

GenAI Capabilities for Customer Service and Support

Nearly every customer service and support technology vendor is working double time to incorporate and integrate GenAI capabilities into their solution roadmaps. Meanwhile, hundreds of startup companies are emerging, creating a supportive GenAI ecosystem of hardware, software and services. The great GenAI gold rush is here, leaving many who run customer service and support with more questions than answers on how to best get started while not getting left behind.

Now is the time to begin your GenAI learning process by getting started with the technology. It is critical to understand GenAI capabilities within the customer service and support ecosystem, and how these capabilities translate to potential use cases that will drive business benefit for the organization (see Figure 1).

Figure 1: GenAI Capabilities for Customer Service and Support



Table 1: GenAI Capabilities for Customer Service and Support

Content Generation	Generating new content like knowledge articles, emails, text messages, agent training materials, customer education materials
Content Utility Functions	Edits or recommendations on existing content, including rewriting, reformatting, correcting, autocompleting, labeling or summarizing
Real-Time Speech and Text Translation	Real-time translation during a live interaction or on static text, such as transcripts, emails, text messages and knowledge articles
Text Analytics	Analytics on text such as customer interaction transcripts to get customer intent, sentiment, entity recognition and generate reports/dashboards
Call Summarization	Summarizing voice call content either in real-time or post contact, including automatic identifying and tagging call disposition
Virtual Customer Assistant	Customer-facing chatbot for Q&A, channel routing, transaction execution, and other tasks
Virtual Agent Assistant	Employee-facing chatbot for assisting agents in real-time, on such tasks as retrieving knowledge articles and suggesting solutions
Virtual Channel Assistant	Generative AI bot that works behind the scenes to monitor customer behavior and dynamically personalize/proactively assist customers on self-service channels

Source: Gartner

GenAI capabilities provide a powerful, innovative platform by which to launch use cases that can help customer service and support organizations deliver higher quality, more efficient service. The potential set of use cases is vast across the eight capability areas, with each delivering a range of benefits but also carrying with them varying levels of risk.

This content should be used to help guide customer service and support leaders down the path of which GenAI capabilities are feasible to get started with quickly. The content also provides information for service leaders to familiarize themselves with the other GenAI capabilities, which carry additional dependencies that increase the complexity to adopt.

As a best practice, Gartner recommends applying GenAI technology initially for internal applications given the risks of enabling the technology for customer-facing applications.

Before you begin prioritizing GenAI use cases for your organization, it is critically important to understand the types of GenAI technology sources and how associated risks can be mitigated. This approach helps ensure that GenAI is put to good use in your organization without compromising your customers or your brand.

GenAI Sources at a Glance

- **Vendor Products:** Developed by vendors, these GenAI-driven product features can be consumed by the service organizations. Products such as Microsoft 365 Copilot, Google Workspace and other special-purpose/task-specific products such as generative AI virtual agent and generative AI for call summarization can be procured/subscribed. Vendors are responsible for providing the framework to manage the risks, protect company data and enable secure interaction with the GenAI LLMs used for product development.
- **General-Purpose Models:** These are publicly available LLMs made accessible via the application interface provided by the company owning the models (e.g., ChatGPT, Bard). Or they can be accessed via APIs if provided by the company (e.g., APIs provided by OpenAI for GPT models). These models' access can be embedded in service organizations' custom applications or extended using information from enterprise data sources. Service leaders should apply best practices such as prompt engineering by partnering with IT, and human-in-the-loop (HITL) due diligence on the outputs from these models, before applying them for business purposes.
- **Custom Models:** A custom model is an LLM built and fine-tuned specifically for an organization or an industry. Usually, organizations subscribe to a private instance of an LLM from an LLM provider. Organizations could ultimately build their own foundation models from scratch, fully customizing them to their own data and business domains. The custom model provides privacy of data and can be trained with the company knowledge base, including sensitive information. Not all LLMs are the same, and assessment of the models available in the market is required to identify and subscribe the best-fit model for the company.

For the pros and cons of GenAI sourcing, refer to How to Choose an Approach for Deploying Generative AI.

Get Started With These GenAI Use Cases

We recommend service leaders start with the use cases related to content generation, content utility and text analytics capabilities. These use cases have high business value and feasibility. They are integral to the customer service and support organization activities that will improve agent productivity and quality of service.

To quickly realize the benefits of GenAI technology, start with a list of content generation, content utility and text analytics use cases (see Table 2).

Table 2: Get Started With These GenAI Capabilities and Use Cases

GenAI Capabilities	Example Use Cases
Content Generation	<ul style="list-style-type: none">• Generate knowledge articles• Generate FAQs• Generate emails• Generate text messages• Generate agent training materials• Generate customer education materials (e.g., product information)• Generate customer communication related to case management
Content Utility	<ul style="list-style-type: none">• Edit knowledge articles• Summarize email threads• Edit/summarize case notes• Rewrite, reformat, correct, label, translate or summarize content
Text Analytics	<ul style="list-style-type: none">• Identify intent in customer interaction transcripts• Identify sentiment in customer interaction transcripts• Recognize entities (product/issue type) in customer interaction transcripts

Source: Gartner

The recommendation criteria are as follows:

Low cost of sourcing: Content generation, content utility and text analytics capabilities can be implemented using the sources of the GenAI technology that are low in cost to adopt, such as:

- **Vendor products:** This option is the easiest to deploy, with low or no fixed costs required to start using GenAI capabilities. The cost parameters include subscription or procurement, expert resources for integration, and employee training, among others.
- **General-purpose model APIs embedded in a custom application frame:** This option is easier to implement and with lower fixed costs because you pay for the use of the model only, not for its training. This approach often provides time-to-market advantages. The cost parameters include subscription, expert resources for prompt engineering and employee training, among others.
- **General-purpose model extended via data retrieval:** This approach using retrieval augmented generation (RAG) enables organizations to incorporate additional information beyond what was in the foundation model's training data. This could be more up-to-date data and domain-specific or private data. The cost parameters include subscription, expert resources for prompt engineering, building data retrieval framework and employee training, among others.

ROI: Given the flexible sourcing and relatively low cost to using custom models, the ROI from the implementation of these capabilities has the potential to be very high. The ROI can also free up the agents to take on more complex customer intents, helping to improve service quality and retention.

Dependency: The use cases for these GenAI capabilities can be implemented independently or with a low degree of dependency on other enterprise applications and platforms.

Organizational knowledge: The application of these GenAI capabilities does not require the LLM to be proficient in organizational knowledge. Also, the context for generating the output artifacts can be engineered to be part of the prompt at a low cost.

Risk: These capabilities have low to medium risk given internal application of technology and the opportunity to have HITL due diligence on the outputs. Leverage best practices, such as prompt engineering, to manage the risks, such as ensuring privacy of data, according to the adopted GenAI source.

Study Dependencies and Risks of Other GenAI Capabilities

The use cases related to other GenAI capabilities, such as virtual assistants, call summarization and real-time translation are complex to implement. They also have dependencies that require a GenAI source in combination with other components within the enterprise ecosystem to enable. If you are looking to implement any of these GenAI capabilities, we recommend working with vendors as a starting point while assessing the need and capabilities of general-purpose and custom models. The Dependencies and risks for these GenAI capabilities are outlined in Table 3.

Table 3: Dependencies and Risks of Other GenAI Capabilities

GenAI Capabilities	Dependency	Risk
GenAI bot as agent assistant	A conversational AI platform with GenAI capabilities needs to assist the agent on demand, and requires integration with the live chat or voice call platform for assisting agents in real time. Quality of the data for fine-tuning or curation of the GenAI models is key to successful adoption.	Hallucinations, bias and copyright violations should be managed with best practices such as prompt engineering and HITL due diligence on the outputs. Organizational readiness should be assessed given agent training and integration requirements.
Customer-facing virtual assistant	A conversational AI platform with GenAI capabilities is required for the customer-facing virtual assistant application. Quality of the data used for fine-tuning or curation of the GenAI models is key to successful adoption.	There is a high risk given the customer-facing application. An essential requirement is managing risks by applying best practices, such as using predefined prompts mapped to customer intents, or by using a vendor-provided risk management framework.
Call summarization	A platform such as speech analytics with GenAI capabilities is required for the call summarization capability to be applied.	There is a low risk given internal use with high ROI, as the after-call work (ACW) effort can be minimized for the agent.
Speech/text translation in real time	A vendor product or a GenAI model with translation capability integrated with live chat or a call platform is required for translation in real time.	The capability is a high risk given potential customer-facing application. Thorough due diligence of the model or vendor product's translation capabilities is recommended.
GenAI bot as a self-service channel assistant	A vendor product or a GenAI model integrated with self-service channels, such as a company website or mobile app, is required to dynamically assist customers in real time.	ecosystem for the application to add value to customer interaction on self-service channels.

Source: Gartner

Take Steps to Adopt GenAI in Customer Service

As you look to adopt the generative AI capabilities, here are the key recommendations:

- Begin with vendor products while assessing the need for other types of sourcing given the risks and relatively high cost associated with adopting and using sources such as custom models.
- Partner with the technology team to assess and select the best-fit approach to source the GenAI technology. Assessment should include analyzing the pros and cons of each deployment approach against the use case. Understand that most organizations may need a combination of GenAI sources.
- Use best practices such as prompt engineering and HITL due diligence on the outputs from the models before applying them for business purposes.
- Focus on assigning skilled staff members with a good understanding of the GenAI technology sources and their capabilities.
- Use APIs provided to access GenAI models such as GPT and PaLM 2 instead of direct access via the interfaces (e.g., ChatGPT or Bard) provided by the vendor. Using APIs in combination with best practices such as prompt engineering will provide opportunities to manage risks such as hallucinations, bias, security and copyright violations.
- Assess vendors' product features to protect the privacy and security of the organization's data and mitigate risks such as hallucinations and bias.
- Pilot the use case to manage the risks inherent with the technology before scaling the implementation. For more information on piloting the GenAI in your organization, refer to How to Pilot Generative AI.

Summary

GenAI has the potential to reshape customer service and support for good. Use cases range from transforming the customer experience through highly personalized conversational capabilities to autogenerating content to be consumed by customers and agents in self- and assisted service interactions.

While the future potential of GenAI appears unlimited, the technology in its current state can generate harmful outputs or even nonfactual information referred to as "hallucinations." Customer service and support leaders can get started with GenAI while keeping their organizations and customers safe by adopting best practices such as prompt engineering. Leaders can begin with content generation, content utility and text analytics GenAI capabilities to quickly realize the benefits of GenAI technology.

Evidence

The data in the Key Findings is based on the 700 responses to the polling question, “In Which Business Functions Have You Adopted or Intend to Adopt GenAI?” The question was asked in the Gartner GenAI Webinar conducted in August 2023 and attended by 1,100 Gartner clients.

Actionable, objective insight

Position your organization for success. Explore these additional complimentary resources and tools for customer service and support leaders:

eBook



Discover How Service Leaders Are Implementing GenAI

Understand how your peers are planning to implement GenAI into their service and support function.

[Download eBook](#)

Report



Become a Successful Customer Service Supervisor

Tap the hidden potential of your front-line managers.

[Learn More](#)

Guide



Top Predictions for Customer Service Leaders

Uncover the challenges and benefits of adopting customer service AI strategies in service operations.

[Download Now](#)

eBook



The Customer Service Leadership Vision

Overcome major challenges and drive customer engagement and growth this year and beyond.

[Download eBook](#)

Already a client?

Get access to even more resources in your client portal. [Log In](#)

Connect With Us

Get actionable, objective insight that drives smarter decisions and stronger performance on your mission-critical priorities. Contact us to become a client:

U.S.: 1 855 811 7593

International: +44 (0) 3330 607 044

[Become a Client](#)

Learn more about Gartner for Customer Service & Support Leaders

gartner.com/en/customer-service-support/products/gartner-for-customer-service

Stay connected to the latest insights

