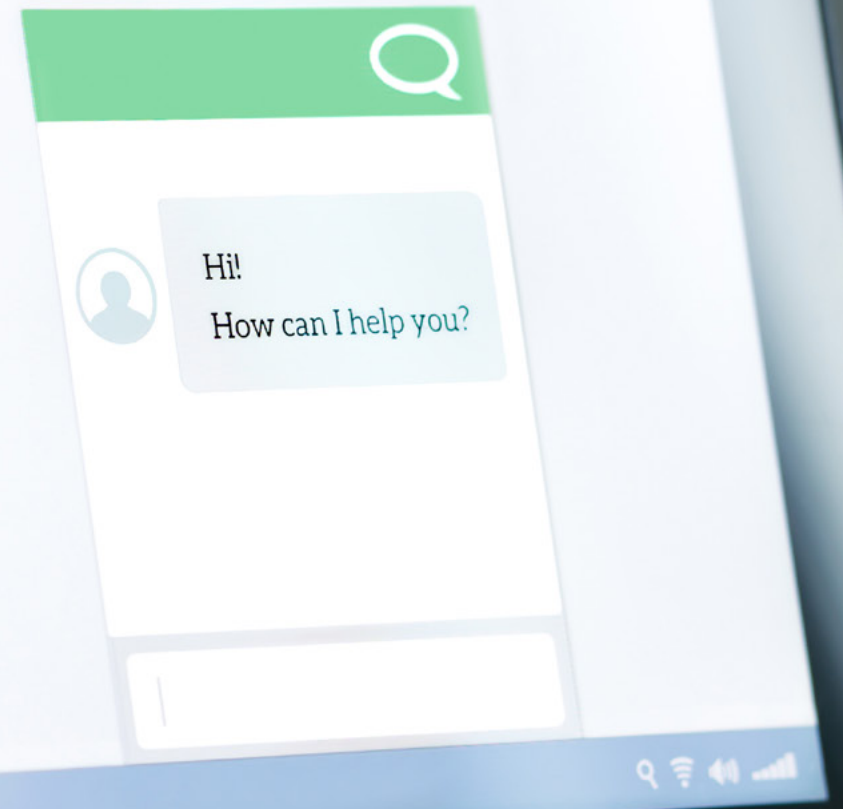


Gartner®

Gartner for Customer Service and Support

The Chatbot Deployment Guide

**Improve the customer service experience
at a lower cost**



A well-designed chatbot can improve customer experience and drive positive customer emotion at a lower cost than live interactions. This research provides customer service and support leaders with best practices for the critically important design phase of the chatbot life cycle.



Uma Challa
Senior Director Analyst



Published 31 January 2022 - ID G00761117

Overview

Key findings

- Organizations often begin chatbot deployment by selecting a technology, not the use case. This leads to an ineffective solution and lower-than-expected improvements in customer experience (CX) and cost savings.
- Deployment teams focus their energy on the features of chatbot technology and metrics (e.g., containment) instead of focusing on the customer intent. This results in poor user experience (UX).
- In the chatbot design phase, organizations fail to identify the selected use-case dependencies on the technology capabilities (e.g., single sign-on) and plan for the same. This leads to delays in the chatbot deployment.

Recommendations

To accomplish CX goals, customer service and support (CSS) leaders should:

- Increase the likelihood of a successful chatbot deployment by choosing the best-fit use cases before selecting the technologies needed to deploy the chatbot.
- Improve CX and achieve self-service goals by focusing on optimizing UX in all stages of the chatbot interaction.
- Ensure an on-time and in-budget chatbot deployment by identifying dependencies within the enterprise ecosystem.

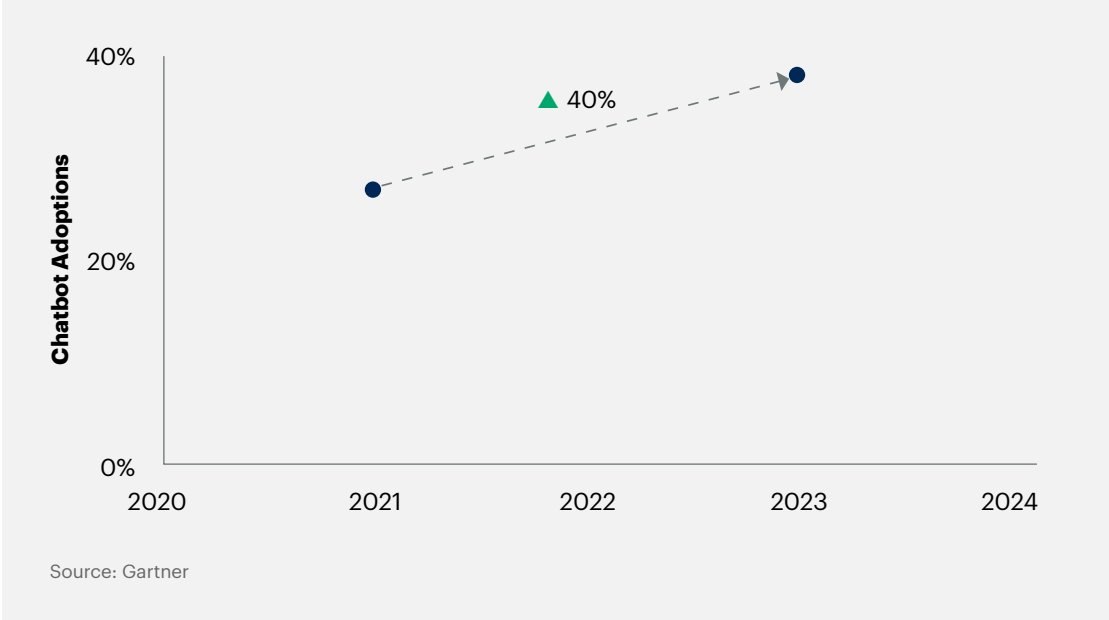
Introduction

Over the last 10 years, chatbot has evolved and become a critical technology component of a service organization’s self-service strategy. CSS leaders expect gains in value from technology investments, including chatbots, to deliver remarkable customer experience.

Per our research (see Figure 1):

- Seventy-nine percent of CIOs expect an increase in self-service investment.
- Fifty percent of enterprises will spend more per fiscal year on bot and chatbot creation than traditional mobile app development.
- Twenty-seven percent of organizations have implemented chatbots.
- In the next two years, 38% of organizations are planning to implement chatbots — a 40% increase in the adoption of chatbot technology.

Figure 1: Adoption of Chatbot Technology



A chatbot deployed using best practices delivers significant value.

Research shows:

- Fifty percent of chatbot customers trust the product recommendations made by bots, which is almost equal to the product recommendations made by sales agents.
- In the B2B space, among all contact channels, chatbots have the highest customer expectation for delivering an immediate response. This signals confidence in receiving fast service through the channel.

While investment in chatbots is on the rise, research shows:

- Although 70% of customers try self-service during their resolution journey, only 9% are wholly contained within self-service.
- In response to our survey question, “How much value does each channel or capability currently provide for your service and support function?”
51% of CSS leaders responded they find low to moderate value in the chatbots implemented.

Chatbots that are deployed without applying best practices result in:

- Poor performance and failure to meet self-service goals
- Increased negative emotions from customers, which leads to customer attrition
- Delayed deployment, which adds to the cost of deployment

To achieve the desired CX and business outcomes, CSS leaders should use this research to understand how to design for a successful chatbot deployment that provides the needed ROI.

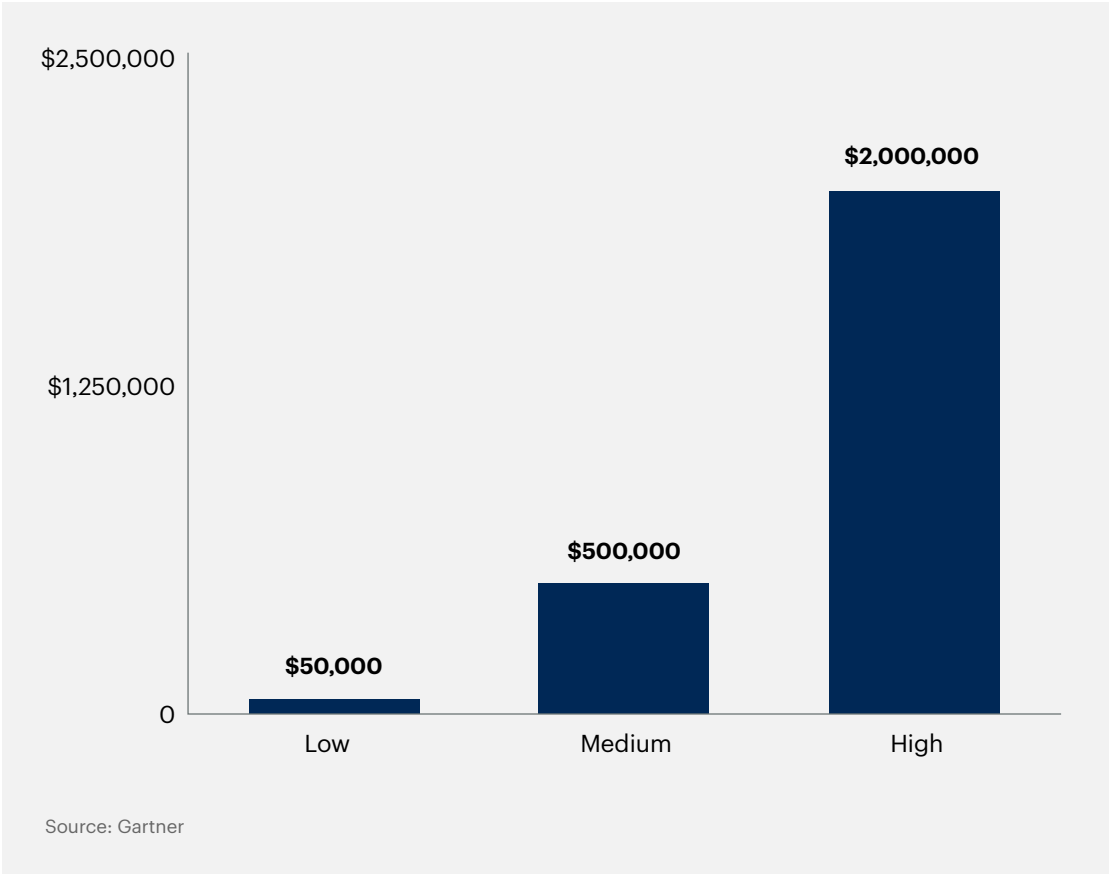
Analysis

Chatbot Deployment and Degree of Complexity

The combination of AI and chatbot technologies, backed by data and analytics, is formidable. It can be applied to different types of use cases to solve for customer intent and achieve business goals.

The use-case complexity determines the application of technologies to implement the chatbot, increasing the importance of careful use-case selection. Chatbot deployment costs can range from \$50,000 to a few million U.S. dollars depending on the use case and the technology stack applied (see Figure 2).

Figure 2: Chatbot Solution Fidelity and Corresponding Implementation Cost



The complexity of chatbot implementation depends on several factors. Table 1 shows the difference between a high- and low-fidelity implementation.

Leading conversational AI platform (CAIP) vendors offer these technology components in a package or can integrate them with existing enterprise capabilities. Low-fidelity implementations use a subset of these components, offering flexibility and a low barrier to entry. The technology components applied to build the best-fit use cases will improve CX and save costs.

CSS leaders should leverage designers with chatbot experience for their first-time deployment. This is especially true for complex chatbot applications. In the design phase, CSS leaders must do the following to improve the success factors of chatbot deployment:

- Select the best-fit use case for chatbot.
- Design the conversational flow with a user-centric approach.
- Review and plan for organizational and vendor capabilities, or a lack thereof, required to support the chatbot workflow.

Table 1: Chatbot Platform Components Categories and Solution Fidelity

Category	High Fidelity	Low Fidelity
Channel Integration	Multiple channel integration	Single-channel integration
Customer Intent Identification and Processing	AI — Natural language processing (NLP)/natural language understanding (NLU)	Table look-up
Routing	Routing engine	File-based configuration for routing
Decisioning	Decision engine	File-based configuration for decisioning
Analytics	Conversational analytics	Metrics from logs
Content Management	Content management module	File-based configurable content
Knowledge Management	Knowledge management module	None
Service Orchestration	Integration service orchestration to connect with enterprise systems and data sources	One-off integration with enterprise system/data source

Source: Gartner

Select Best-Fit Use Case for Successful Chatbot Deployment

Well-designed chatbots can successfully replace human-assisted inquiries. CSS leaders must target the deployment of use cases that are best-fit for chatbots.

Per our research, 67% of customers who use a chatbot turn to a chatbot for basic questions and to troubleshoot an issue. Initially, CSS leaders should focus on simple use cases that meet specific customer intent and can add value quickly for proof of concept and assessing the adopted vendor technology. Use the following guidance to select the use case for the chatbot:

- **Define customer and business intent at a decomposed level**
- Low-complexity use cases that generate revenue and save costs
- High-volume, low-complexity, assisted-service inquiries
- High-complexity use cases where a chatbot can be leveraged to augment assisted channel service

See Table 2 on the following page for examples and research of these criteria.

Once the initial low-complexity use cases are successfully implemented, review and prioritize the medium- to high-complexity use cases for deployment.

Apply Customer Centricity to Chatbot Design

For successful chatbot deployment, analyze and define the chatbot applicability to the customer journey, and design the chatbot workflow based on customer intent.

Include the following when designing the chatbot flow:

- **Seamless** — Understanding customer intent is key to customizing the chatbot flow.
- **Customer-intent-specific content** — Relevant and personalized content provides direction to the customer and conveys the organization knows and cares.
- **Trust** — Low-effort but highly secure authentication and authorization mechanisms improve customer trust.

Chatbot design teams can leverage websites such as Botmock and MockingBot to design and mock up the chatbot application for UX analysis.

Table 2: Criteria for Selecting the Best-Fit Use Case for Initial Chatbot Deployment

Criteria	Examples	Research
Define customer and business intent at a decomposed level	<ul style="list-style-type: none"> I want to provide additional information on my profile required for processing my loan application. I want to learn about the specific product your company offers. 	Chatbots: Identify and Prioritize Tasks to Improve Your Self-Service Effectiveness (Verizon) — Chatbots implemented for specific customer intent have reduced assisted volume calls by 33% and increased the visits to chatbots by 98.25%.
Low-complexity use cases that generate revenue and save costs	<ul style="list-style-type: none"> Sixty percent of the customer’s mobile number information is not available, limiting the ability to send promotional campaigns. New customers are not opting in for paperless on the registration portal, resulting in additional costs in paper statements. 	Chatbots: Identify and Prioritize Tasks to Improve Your Self-Service Effectiveness (Verizon) — Applying “issue to task” deconstruction approach for self-service adoption, Verizon increased chatbot visits by \$7.86M in two years.
High-volume, low-complexity, assisted-service inquiries	<ul style="list-style-type: none"> I want to know the status of my loan application. I want to know the status of my order. 	A case study published by Kore.ai speaks of 40% of about 450,000 inquiries were contained within the chatbot, which was trained with 26 key customer intent and 1,500 utterances.
High-complexity use cases where a chatbot can be leveraged to augment assisted channel service	<ul style="list-style-type: none"> I want to discuss my options to select the best-fit product. I want to learn about my forbearance options on my mortgage loan. 	<p>Per IBM research on IBM cost savings enabled by IBM Watson:</p> <ul style="list-style-type: none"> Chatbot-augmented calls can save 10% in average handle time. Chatbot-assisted routing of the calls can save \$7.75 per call and reduce call waiting time by 70%.

Identify Dependencies to Plan and Mitigate Risks

Map the prioritized chatbot flow steps to identify enterprise ecosystem dependencies. The flow map should detail the transfer of the control (e.g., multichannel scenario) and integration needs to generate the dependency list of the technology components required for chatbot deployment.

Review the dependency list to identify the following:

- Existing technology capabilities that can be leveraged as-is
- Existing technology capabilities that require enhancements
- New technology capabilities that are required
- Chatbot vendor capabilities' fit with use-case requirements

Review with key stakeholders from technology, operations, business, security, risk, compliance, and data and analytics, as well as chatbot technology vendors, to find alternative approaches that can help mitigate any risks identified in the dependency exercise.

The dependency list is a critical input for staffing and expertise requirements, estimating the cost, the implementation timeline, and the overall success of the chatbot deployment and continuous improvement. Conduct this exercise in the initiation phase before committing to specific deployment timelines.

Conclusion


Chatbots' potential to automate and streamline activities is indisputable and can quickly improve enterprise productivity as well as boost employee and customer engagement. While chatbots can be deployed for simple to highly complex use cases, the technology stack, including AI, will only become more sophisticated and capable in the coming years. Organizations are best-served by reviewing their customer needs and matching them with chatbot solutions to improve CX and save costs.

Your First Next Steps

- Share the best practices with your chatbot implementation team.
- Identify a simple use case (low complexity, high volume) to pilot a chatbot.
- Elaborate the selected use case and create the chatbot flow, applying a customer-centric approach.
- Identify dependencies and review with all stakeholders.
- Develop the plan for chatbot deployment.
- Begin building the chatbot.


Actionable, objective insight

Explore these additional complimentary resources and tools for customer service and support leaders:




Guide
Increase Digital Customer Service Adoption
10 key actions to optimize customers' search results

[Download Guide](#)



eBook
The Customer Service Experience
Top trends, channels and behaviors to watch in 2022

[Download eBook](#)



Framework
Customer Service AI Use Case Prism
A strategic framework for customer service AI

[Download Framework](#)

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

Connect With Us

Get actionable, objective insight to deliver on your most critical priorities. Our expert guidance and tools enable faster, smarter decisions and stronger performance. 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 and Support

gartner.com/en/customer-service-support

Stay connected to the latest insights



© 2022 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. It consists of the opinions of Gartner's research organization, which should not be construed as statements of fact. While the information contained in this publication has been obtained from sources believed to be reliable, Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner research may address legal and financial issues, Gartner does not provide legal or investment advice and its research should not be construed or used as such. Your access and use of this publication are governed by [Gartner's Usage Policy](#). Gartner prides itself on its reputation for independence and objectivity. Its research is produced independently by its research organization without input or influence from any third party. For further information, see "Guiding Principles on Independence and Objectivity." CM_GBS_1799302

Gartner[®]