

eBook

Generative AI agent use cases for **travel** **and hospitality** contact centers



Table of contents

Introduction	03
What is a generative AI agent	05
The shifting legal and regulatory landscape	06
Our methodology	06
Travel and hospitality use cases for a generative AI agent	08
Automate customer service without compromising customer satisfaction	14

In customer service for travel and hospitality, the guest experience is everything. When travelers and guests have questions or need help, timing, clear answers, and genuine service are critical. At the same time, leaders across hotels, airlines, and travel agencies must manage high inquiry volumes, last-minute changes, special requests, and reputational risk, all while controlling costs and delivering memorable experiences.

Traditional automation and standard AI chatbots have helped streamline basic tasks, but they often fall short when handling the complexity and personalization guests expect.

15-30%

**of inbound volume for travel and
hospitality companies can be automated
with generative AI agents today¹**

Generative AI agents are rapidly filling the gap between inflexible bots and the long waits for human help. Unlike rule-based bots, these agents can understand context, adapt based on conversational context, and take action to help travelers with booking changes, loyalty rewards, cancellations, and other requests. They are capable of guiding travelers through itinerary changes, resolving service disruptions, and assisting with personalized recommendations.

1. Google Cloud Blog, "Customer Engagement Suite: Stronger results, and new AI features," 2025.

Generative AI agents create new opportunities for travel and hospitality organizations to:

- ✓ Resolve guest and traveler inquiries faster, with personalized service that's truly appreciated
- ✓ Offer consistent support tailored to each traveler's preferences and circumstances
- ✓ Reduce operational costs while improving guest satisfaction and loyalty

Put simply, generative AI agents make it possible to scale guest support with the efficiency, empathy, and attention to detail that travel and hospitality demands.

This guide highlights impactful use cases for AI agents in guest and traveler support. It is designed to help you choose the ones that will deliver measurable improvements in guest satisfaction, operational agility, and business performance.

What is a generative AI agent?

A generative AI agent is a multi-layered solution that leverages the language and reasoning capabilities of generative AI to serve customers directly over voice or chat. It integrates with other tools and systems and uses APIs to retrieve data and perform tasks necessary to resolve the customer's issue. It works autonomously and is capable of complex problem-solving.

The ASAPP GenerativeAgent® platform

ASAPP's GenerativeAgent platform is a generative AI agent built from the ground up for enterprise contact centers. Designed to manage complex, multi-turn interactions over voice and chat and autonomously resolve customer issues, the GenerativeAgent platform eliminates the need to manually script conversation flows.

The GenerativeAgent platform dynamically adapts to conversational context, knows when to involve human agents, and supports concurrent interactions with human/AI collaboration. Through its industry-first Human-in-the-Loop Agent (HILA™) workflow, GenerativeAgent can consult with a human agent in real time for guidance or approvals—without transferring the customer.

The shifting legal and regulatory landscape

As you consider generative AI agents, you'll need to be mindful of legal and regulatory compliance issues. Data security and privacy are just the start. In some jurisdictions, the agent must disclose that it's AI and specifically ask for the customer's consent to continue. In some countries, all customer data must reside in that country and cannot be transferred elsewhere. These regulations are still evolving. So, you'll need to be sure any AI agent you're considering will maintain compliance even as the regulatory landscape changes.

Our methodology

With each use case, we've included an estimated deployment time, value drivers, and relevant metrics.

Deployment time

The deployment times here are estimates based on our experience deploying the GenerativeAgent platform and other AI solutions in enterprise contact centers. They represent typical durations from scoping to live production, derived from ASAPP benchmarks and industry studies. You'll want to keep in mind that your specific deployment time could vary depending on your CX technology infrastructure, the availability of your IT and development resources, the AI agent vendor you choose, whether you work with a system integrator or other strategic partner, and other factors.

With that in mind, the deployment time estimates should be viewed only as a guide to the relative ease and speed of implementing each use case.

- 2–4 weeks (Quick win)
- 1–2 months (Structured)
- 2+ months (Complex)

Value drivers

A successful AI agent deployment can drive value in a number of ways, affecting costs, revenue, operational efficiency, and customer satisfaction. The mix of value drivers will vary from one use case to the next.

For each use case included here, we've listed the value drivers that will impact your customer service operations:

- **Efficiency Gain:** Reduces average handle time (AHT), manual work, or after-call effort.
- **CSAT improvement:** Increases customer satisfaction through faster, clearer, or more consistent interactions.
- **Revenue gain:** Drives incremental sales via better cross-sell/upsell or conversion support.
- **Cost reduction:** Lowers operational expenses by automating high-volume or low-value interactions.

Relevant metrics

Real success with a generative AI agent depends on outcomes that have a positive and measurable impact on your business. So, your goals for any use case deployment should go far beyond the mere containment you might expect with legacy automation. The relevant metrics listed for each use case provide a starting point for measuring genuine business value.

Travel and hospitality use cases for a generative AI agent

Prioritizing high-value use cases ensures that your organization gets the best return from automation investments. Each of the following use cases delivers significant value. The list is not exhaustive, but should serve as a strong starting point for identifying your first use cases for a generative AI agent.

Voluntary flight changes

Customers can contact an airline and book a flight through a voice or chat generative AI agent that handles the entire transaction, from searching flights to quoting prices, booking, and even securing payment details securely. The AI can proactively offer upgrades for seat selection or baggage allowances, apply loyalty miles, and confirm the booking by email or text. This provides fast service during peak hours when hold times are long, which frees the human agents to handle more difficult calls.

- **Deployment time:** 1–2 months
- **Value drivers:** Cost reduction, efficiency gain
- **Relevant metrics:** High call containment for simple bookings, reduction in average booking call length when AI handles vs. human (no hold or typing delays)

Flight status and notifications

Travelers often contact airlines or airports for flight status updates. A generative AI agent can instantly provide real-time flight status, gate information, or delay estimates via chat or voice. It can also proactively notify passengers of delays or cancellations and offer rebooking options via a conversational experience. This keeps customers informed and can trigger rebooking workflows without waiting for a live agent, which is critical, especially during weather disruptions.

- **Deployment time:** 2–4 weeks
- **Value drivers:** CSAT improvement
- **Relevant metrics:** Huge surge capacity—AI handles thousands of status queries per hour during storms, deflecting up to 80% of such calls from agents, higher customer trust scores during irregular operations

Pet policy

Traveling with pets has become much more common, but pet policies can be complex and highly varied based on travel mode, country of origin, destination, and the pet itself. A generative AI agent can handle pet policy interactions for airlines, hotels, and other travel contact centers with speed and accuracy, ensuring travelers are well-prepared and avoid surprises on their journey.

- **Deployment time:** 1–2 months
- **Value drivers:** Efficiency gain, cost reduction
- **Relevant metrics:** AI agent is 3.5x faster and 26x less likely to make a mistake compared to a human agent, 62% lift in containment (with no repeat interactions)

Travel advisory information

Travelers often ask about destination-specific advisories for weather, safety, and other issues. A generative AI agent, kept up to date with official travel advisories and news, can answer these questions accurately. For example, “Is there a weather advisory for the Bahamas this week?” The AI provides answers and can proactively push notifications for major advisories. This helps customers make informed decisions quickly.

- **Deployment time:** 4–6 weeks
- **Value Drivers:** CSAT improvement
- **Sample Metrics:** Improved customer trust, reduction in complaints caused by a lack of clear information

Lost baggage

A generative AI agent creates reports of lost or delayed baggage after it collects all relevant information, including last flight, bag description, and delivery address, and provides a tracking ID. The AI can offer immediate small compensations, such as a toiletry stipend as per policy, and status updates. The AI can involve a human-in-the-loop agent as needed to handle unusual issues or approvals. Customers feel heard immediately, rather than waiting in long claim lines or holds.

- **Deployment time:** 1–2 months
- **Value drivers:** Efficiency gain
- **Relevant metrics:** High percentage of baggage reports fully handled by the generative AI agent with no human intervention, average claim report time decreased, improved post-flight CSAT despite baggage issues because the initial response was immediate

Trip support and change management

Travel contact centers often handle flight changes, rebooking, missed connections, and special requests. A generative AI agent can dynamically assist customers with itinerary updates, cancellations, or changes by referencing airline, hotel, or tour booking systems via APIs. It can also notify customers proactively when a disruption is detected. Travel and hospitality enterprises benefit by automating high-volume itinerary change requests, reducing agent handling time for rebooking scenarios, and enhancing CX with fast, accurate self-service options during travel disruptions.

- **Deployment time:** 1–2 months
- **Value drivers:** CSAT improvement, cost reduction
- **Relevant metrics:** High containment for pre-trip queries, rebookings, and special requests, improvement in CSAT, reduction in repeat calls from travelers unsure about documentation or policies

Hotel guest service requests

Hotel brands often centralize customer service across properties with a contact center that handles common guest requests like late checkouts, special accommodations, Wi-Fi issues, and billing questions. A generative AI agent can triage and resolve these high-frequency inquiries at scale, accessing reservation data and loyalty profiles to personalize responses and initiate workflows, like scheduling housekeeping or issuing room upgrades. The value of the generative AI agent is in deflecting calls from front desk staff and property teams, improving service speed and consistency for repeat guests, and handling a high percentage of non-urgent guest inquiries autonomously.

- **Deployment time:** 1–2 months
- **Value drivers:** Efficiency gain, cost reduction
- **Relevant metrics:** High percentage of guest requests handled via automation, no hold time even during high-occupancy periods, guest satisfaction scores improved for service responsiveness

Multilingual hotel booking

A hotel chain deploys a generative AI agent for voice that can handle reservation calls in many languages simultaneously. The AI checks room availability, makes bookings, applies loyalty discounts, answers questions (pool hours, parking, etc.), and easily handles high call volume. This dramatically cuts the need for multilingual human staff while improving service accessibility.

- **Deployment time:** 1–2 months
- **Value drivers:** Cost reduction, efficiency gain
- **Relevant metrics:** Thousands of calls handled per day by AI across languages, call center operating costs for bookings reduced, customer wait times for non-English service nearly eliminated

Upsell/cross-sell eligibility monitoring

On calls for high-value travel products like cruise packages or all-inclusive resorts, a generative AI agent not only answers questions but also provides real-time promotions and upgrades if the customer expresses interest in a premium offering, such as an ocean view. AI provides details and pricing, and can suggest add-ons, like travel insurance or tours. This ensures there aren't missed revenue opportunities.

- **Deployment time:** 1–2 months
- **Value drivers:** Revenue gain, efficiency gain
- **Relevant metrics:** Incremental revenue per call increased, conversion rate on optional add-ons improved

Customer sentiment and recovery

During a travel customer support call for a complaint, such as a flight delay, the generative AI agent can analyze the caller's tone and words to gauge sentiment. If it detects high frustration or key words and phrases, like "cancel" or "never again," it dynamically adapts to retention or recovery tactics, such as offering loyalty points or a voucher, or asking a human-in-the-loop agent for help. This ensures approved, timely save offers are made to appease the customer and prevent churn.

- **Deployment time:** 1–2 months
- **Value drivers:** CSAT improvement, efficiency gain
- **Relevant metrics:** Save rate of at-risk customers improved, overall complaint call satisfaction scores improved due to proactive recovery actions, fewer complaint calls reach live agents

Flight delay communication

Airlines use generative AI agents to create detailed, empathetic SMS and app notifications explaining flight delays and disruptions. The AI synthesizes data from operations, crew reports, and external sources to generate transparent and reassuring messages at scale, boosting passenger trust and allowing human agents to focus on complex issues.

- **Deployment time:** 3–6 months
- **Value drivers:** CSAT improvement, efficiency gains
- **Relevant metrics:** Improvement in trust and customer satisfaction, reduction in manual message-drafting workload

Loyalty program support

Frequent travelers often have questions about their loyalty points balance, status tier benefits, or how to redeem rewards. A generative AI agent can tell a customer their points balance, help them redeem points for a booking or upgrade, and answer policy questions, like how many points are required for a particular upgrade? By integrating with the loyalty database, the AI can apply points and rewards to customers' bookings. This instant service keeps loyal customers happy and eases the burden on loyalty program call centers.

- **Deployment time:** 4–6 weeks
- **Value drivers:** Efficiency gain, cost reduction
- **Relevant metrics:** High containment for loyalty-related inquiries, increased engagement with the rewards program, fewer loyalty inquiries in live agents' queues

Rental car reservations

A generative AI agent can manage incoming reservation calls or chats. It can quote rates, make new reservations, modify existing bookings, and answer common questions about insurance or policies. For standard cases, no human involvement is needed. The AI's speed and 24/7 availability can improve the customer experience, especially for international travelers dealing with different time zones.

- **Deployment time:** 4–6 weeks
- **Value drivers:** Cost reduction, revenue gain
- **Relevant metrics:** High containment for rental bookings and changes, labor cost per booking reduced, customers able to secure or change cars after hours, lifting overall rental bookings slightly

Travel cancellation and refund

When unforeseen events happen, customers flood contact centers to cancel. A generative AI agent can handle standard refund processes, applying cancellation policies and initiating refunds or credits for eligible cases. For instance, if a fully refundable hotel booking is canceled, the AI processes it end to end. For partial refunds or exceptions, it gathers information and consults a human-in-the-loop agent or offers the best approach per policy. This dramatically speeds up resolution during high-volume cancellation events.

- **Deployment time:** 1–2 months
- **Value drivers:** Efficiency gain, cost reduction
- **Relevant metrics:** Standard cancellation requests fully automated, call volumes during travel disruptions managed with fewer live agents, average refund processing time (from request to confirmation) improved by days in many cases

Reservation support

Travel and hospitality contact centers frequently field customer calls about restaurant, spa, or excursion bookings. A generative AI agent integrated with booking systems can check availability, make or modify reservations, and suggest upsells like wine pairings or cabana rentals. This reduces live agent workload and increases conversion on ancillary services. The value to the enterprise is in automating a large volume of repetitive reservation requests, driving incremental revenue through smart upsells, and improving CSAT with fast, convenient service.

- **Deployment time:** 1–2 months
- **Value drivers:** CSAT improvement, revenue gain
- **Relevant metrics:** High containment for service reservations, increased CSAT due to real-time confirmations, higher conversion on ancillary services through upsell prompts

Reaccommodation / rebooking

During unplanned events like weather delays or unexpected cancellations, travelers overwhelm contact centers with frantic requests to rebook flights and accommodations. A generative AI agent instantly scales to efficiently handle these complex interactions, with no waiting, and fast, high-quality service. AI can provide accurate options, maintain company policy, and complete the booking process.

- **Deployment time:** 2–3 months
- **Value drivers:** Efficiency gains, cost reduction
- **Relevant metrics:** Faster resolution (GenerativeAgent® rebooked passengers for a major US airline in an average of 8 minutes, compared to 29 minutes with a live agent), 20+ point increase in containment, even for previously low-automation tasks (now reaching 70% self-service)


Automate customer service without compromising customer satisfaction

Each of the use cases listed here demonstrates how a generative AI agent can automate customer-facing interactions in travel and hospitality contact centers, delivering benefits ranging from cost savings and efficiency gains to improved customer satisfaction and new revenue opportunities. By selecting the right initial use cases and gradually expanding AI automation, airlines, hotel chains, and other travel businesses can modernize their customer service while tracking metrics to ensure each deployment delivers real value.

For more information on the ASAPP process for identifying the best use cases for your business, check out this guide:

[Identifying the Ideal Use Cases for GenerativeAgent.](#)

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About ASAPP

ASAPP is an artificial intelligence solution provider committed to solving the toughest problems in customer service. Our flagship product, GenerativeAgent[®], is a platform built from the ground up to handle complex, multi-turn conversations with enterprise-grade performance, safety, and control. Because we automate what was previously impossible to automate, our AI-native[®] solutions deliver more than efficiency gains. They redefine the role of AI in the contact center and lay the groundwork for businesses to reimagine their customer experience delivery for the age of AI. Leading enterprises rely on ASAPP's generative and agentic AI solutions to dramatically expand contact center capacity and transform their contact centers from cost centers into value drivers. To learn more about ASAPP, visit www.asapp.com.