Streamlining Guest Communication in Hospitality

Devsinc collaborated with a hospitality innovator to develop an advanced web application that streamlines guest communication through automated responses. This innovative solution leverages microservice architecture to generate and route messages efficiently, significantly enhancing the guest experience in the hotel sector.





Problem Statement

Hotels faced several challenges in managing guest communication effectively, including:

Complex Guest Communication:

Delays and inefficiencies in addressing routine guest inquiries.

System Reliability:

• Communication disruptions during server downtime, negatively impacting guest satisfaction.

Optimized Message Routing:

• Inefficient routing of guest requests to appropriate departments or staff.

Efficient Data Management:

• Difficulty handling high volumes of messages while maintaining performance and data integrity.

Campaign Management:

• Challenges in managing and scheduling targeted text campaigns for diverse guest categories.

Results Achieved

Enhanced Communication Efficiency:

Automated responses and optimized routing reduced guest query resolution time by 40%.

System Resilience:

Backup server ensured seamless communication during downtimes, improving guest satisfaction.

Improved Message Delivery:

Optimized message queues facilitated timely and accurate message routing.





Targeted Campaigns:

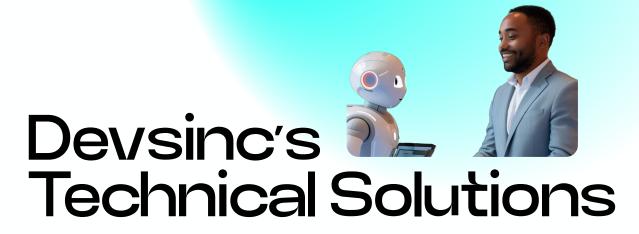
Precision text campaigns increased guest engagement, improving ROI by up to 30%.

Streamlined Data Management:

Multi-tenancy architecture enabled efficient data processing, leading to faster insights and

Increased Guest Satisfaction:

Prompt responses, targeted campaigns, and optimized communication channels boosted guest satisfaction, solidifying the platform's value in the hospitality sector.



Automated Response Mechanism

- Developed an Al-driven system to automatically generate replies to common guest queries.
- Implemented intelligent routing mechanisms to direct guest requests to the appropriate contacts, reducing response times by up to 50%.

System Resilience

- Built a redundant backup server to ensure uninterrupted guest communication during main server downtime.
- Synchronized data seamlessly upon server recovery to maintain consistency.

Optimized Message Queues

- Designed independent workers and queues to handle large message volumes efficiently.
- Ensured optimized routing and delivery for timely guest communication.

Text Campaign Module

• Created a dedicated module for scheduling and managing targeted text campaigns, enabling precision messaging for various guest types.

Multi-Tenancy Architecture

• Deployed a secure multi-tenancy database architecture, ensuring data segregation and up to 99% data integrity across multiple hotel clients.

Third-Party Integrations

- Integrated Twilio for automated number assignment and advanced messaging capabilities.
- Incorporated Landbot.io and Dialogflow for dynamic message flows and guest confidence scoring.