IGT SOLUTIONS

CASE STUDY

Automated Chatbot Improves Overall Deadhead Request Processing Time by 95% for Major Airline

IGT Solutions' RPA-powered Chatbot significantly improved flight crew management, achieving 90% accuracy in deadhead requests and 95% efficiency, halving handling time, and optimizing resources.

Deadhead deviation refers to situations in the travel industry where vehicles, like airplanes, buses, or trains, operate without any passengers. This usually happens for practical reasons such as moving the vehicle to a different location for its next trip, transporting crew members where they're needed, or sending the vehicle for maintenance.

In the airline industry, deadheading is crucial because it ensures that planes and crews are exactly where they need to be to maintain a smooth schedule. This practice, while necessary, adds extra costs and challenges to operating efficiently since it involves running flights that don't earn money directly. Airlines work hard to minimize deadheading's impact by planning better routes, scheduling effectively, and sometimes even selling seats on these otherwise empty flights to offset costs. Understanding deadhead operations helps explain some of the behind-the-scenes efforts that go into keeping airline services running smoothly and efficiently.

Our Client faced a significant challenge with a labor-intensive process for managing deadhead deviation requests, which heavily relied on crew support and scheduling teams. The inefficiency and lack of accuracy in this process necessitated a solution that would streamline operations, reduce dependency on human teams, and enhance both efficiency and precision.

LABOR INTENSIVE HANDLING OF HIGHLY REPETITIVE TASKS SLOWS DOWN DEADHEAD REQUEST PROCESSING AND IMPACTS ACCURACY

Our client was struggling with their labor-intensive process for handling deadhead deviation requests, which relied heavily on the crew support and scheduling teams. This inefficient method led to the need for a more streamlined and accurate solution to enhance operations, reduce human staff reliance, and improve efficiency and precision.

The existing process was bogged down by repetitive, manual tasks, including addressing frequent questions related to trip allocations, COVID-19 norms, trade windows, and check-in and check-out procedures. The team also managed queries and requests for deviations, time off, and duty releases. A major challenge was the authentication of flight attendants and user validation before processing service requests.

AT A GLANCE

INDUSTRY

Travel & Leisure / Passenger Air Transportation

THE CLIENT

One of the world's largest airlines operating across the USA and all six inhabited continents.

CHALLENGE

Optimize deadhead deviation request process to reduce manual effort and improve processing speed .

SOLUTION

Achieved significant improvements in accuracy, processing time, and AHT with automated solution.

RESULTS

- **Significant improvement in request processing accuracy**
- **Considerable decrease in manual workload**
- **Marked reduction in AHT**

RESILIENT. FRICTIONLESS. RELEVANT.

This inefficiency and inaccuracy in handling deadhead deviation requests had significant operational, crew well-being, and financial implications. The cumbersome process added stress to crew members and scheduling teams, leading to potential dissatisfaction and operational delays. Financially, the manual process increased crew management and scheduling costs, making it unsustainable in the long term.

CUSTOM BUILT UNIFIED INFRASTRUCTURE AND ARCHITECTURE ENABLES LARGEST SUITE OF AVIATION DATA INTELLIGENCE SOLUTIONS

Our client struggled with an inefficient, labor-intensive system for managing deadhead deviation requests, reliant on manual crew support and scheduling teams. This method was prone to inaccuracies and demanded a streamlined, precise solution to enhance performance, reduce human dependency, and improve efficiency and accuracy.

We developed an end-to-end automation solution to optimize the manual process. This involved implementing a LivePerson chatbot for initial processing, equipped to handle over 250 FAQ pairs and more than 400 intents for smooth user interaction.

By leveraging UiPath and LivePerson technologies for the CCS applications and an open-software framework designed to primarily support the development, mission operations and flight software of one or more small spacecraft, our solution significantly streamlines deadhead deviation request handling. This reduces operational strain, enhances crew and scheduling team satisfaction, decreases management costs, and offers long-term sustainability.

Chatbot Enhancement and Integration
The chatbot's capabilities were expanded through backend API integrations and an RPA solution, enabling efficient processing of deviation requests and positive space bookings. It also interfaces with the Crew Care Platform for user authentication.

Process Automation via RPA
The LivePerson chatbot passes the required information to CCS application which in-turn is consumed by the RPA bot via API calls to CCS application for further processing. Once the requests are processed by the RPA Bot, the results are relayed back to the chatbot via UiPath Orchestrator API calls.

Handling Specific Requests
The solution automates Front-End and Back-End Deviations by checking for deadhead availability, creating "fake" deadheads or reservations, and informing flight personnel accordingly via chat.

IMPROVED ACCURACY, FASTER DEADHEAD PROCESSING TIME, AND AUTOMATED CHATBOT DRIVES OPERATIONAL EFFICIENCIES

Deploying our solution significantly boosted operational efficiency and accuracy, improving flight crew management. Our client now sees a 90% accuracy in the deadhead request process, reducing errors and ensuring more reliable flight crew scheduling. Request and response times are faster, achieving 95% efficiency with no delays, leading to smoother airline operations and better flight schedule and crew management.

The solution also cut the average handling time in half by reducing manual effort and speeding up execution, making operations more efficient and reducing our staff's workload. This allows them to focus on more critical tasks.
By focusing manpower on crucial tasks, our client optimally uses human capability where it's most needed, enhancing operational effectiveness and strategic resource use.

Our BOT integration has reduced the average handling time to just 90 seconds, aiding flight crew and operational teams with swift, accurate, and dependable processing.
Overall, the Chatbot solution powered by RPA has significantly enhanced our client's operational efficiencies, positively impacting flight crew experience and operational capabilities.

Consistent Results that Drive Success

90%
Accuracy improvement of deadhead request processing

95%
Improvement in overall processing time

50%
Reduction in AHT

90 s
AHT with the bot

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Explore what IGT Solutions can do for you.

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