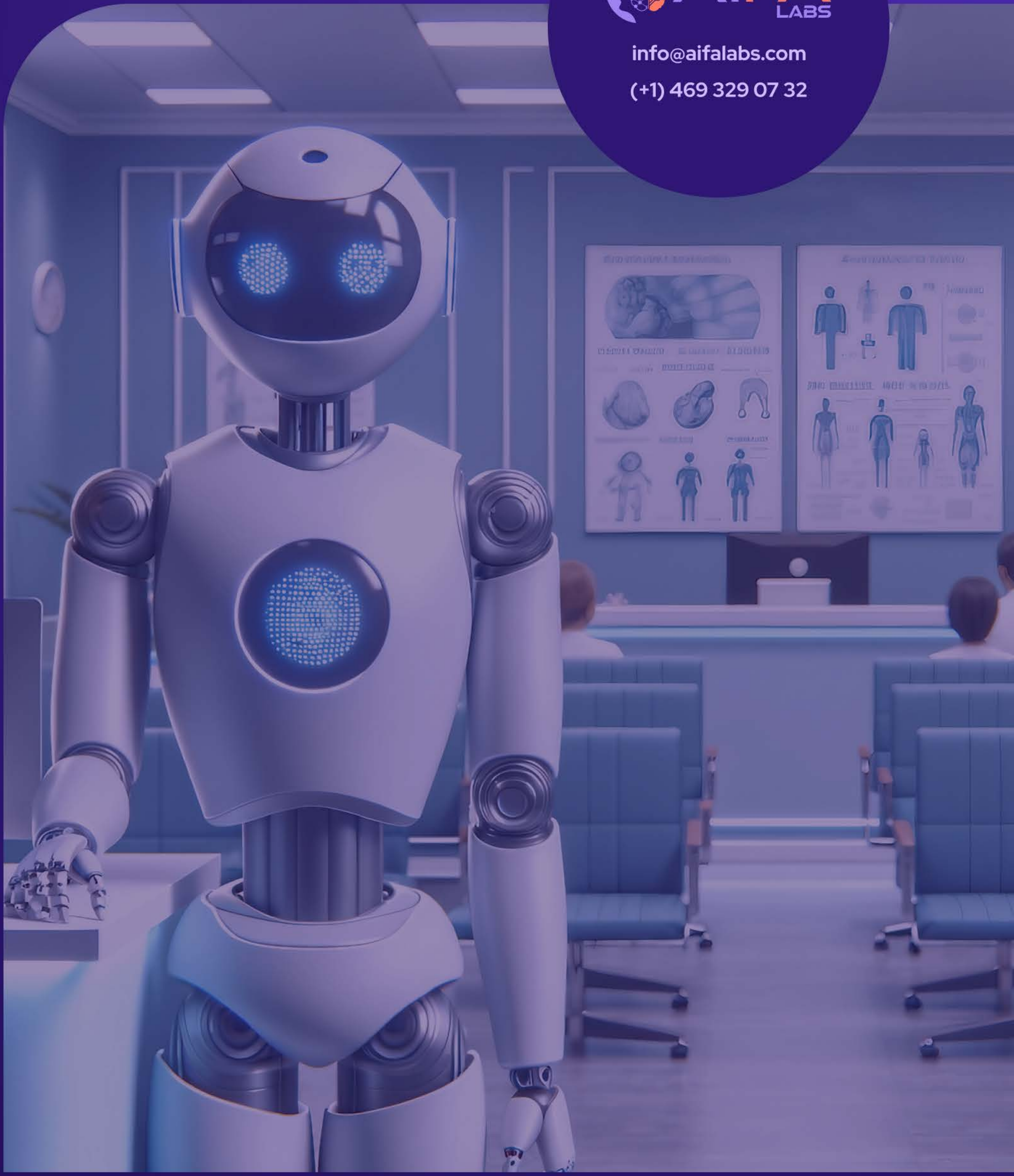# Visitor Management System: An Automated Intelligent Receptionist Case Study

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Overview

Discover how a visitor management system can improve service and reduce labor costs. Last year, a representative from a well-known tech company approached Cerebro for a lobby management solution with facial recognition. We suggested our Automated Intelligent Receptionist (AIR) lobby app as a possible fit. After several meetings, our client decided to implement AIR on a trial basis.

01 Problem Statement
Multiple Unintegrated ERP Systems

02 Current Goal
Implement the Leading Visitor Management System

03 Action Taken
Developing the AIR Visitor Management System

04 Business Impact
An immediate decrease in lobby congestion, reducing delay

05 Features
Custom Features of the Lobby Management Software

06 Technologies
Technologies that we used to achieve project's goals

07 Next Goal
Centralize and update their system at multiple locations

08 Final Steps
Expand and perfect our feature-rich lobby management

Problem Statement: Slow Service and High Manpower Costs

Our client cited lobby congestion and heightened labor costs as the impetus behind the company's search for a visitor management solution at their newly renovated, high-security facility.

Even with three human receptionists at the front desk, the lobby's single entry point created a bottleneck in the employee check-in and visitor process. Faced with the prospect of hiring more staff to manage the company's outdated, analog tracking system, the client began investigating various visitor management software packages and found us.

Current Goal

The client stated several goals for the customization of our powerful visitor management software. With a dual focus on employee sign-ins and visitor triage, our client needed an extremely versatile product with a user-friendly interface. Over the course of four consultations, we finalized the following goals for the project:

- ⊘ Automatic employee sign-in with facial recognition
- ⊘ Voice-enabled conversational AI or greeting and guidance
- ⊘ Conversation recording, appointment setting, and access granting
- ⊘ Interactive tour of the facility in multiple languages on mobile devices
- ⊘ Downloadable app for phones, tablets, and laptops
- ⊘ Employee availability checks and GPS-guided directions for visitors
- ⊘ Decongest the lobby and avoid an increase in labor costs
- ⊘ Alert security to identification failures and unauthorized access
- ⊘ Track multiple cardholder groups

Action Taken: Developing the AIR Visitor Management System

1 Facial Recognition
Further development of our facial recognition technology and proprietary algorithms enabled AIR to distinguish between employees, repeat visitors, and first-time visitors for automatic check-in. AIR scans facial features and logs 80 nodal points to produce a faceprint. The faceprint is then compared against a secure database in search of a match.

2 Data Collection and Comparison
Employees were able to check-in automatically with facial recognition. The visitor management system identifies an employee, logs the time, records a faceprint for the database, and grants access to the cardholder.

3 Visitor Identification
Visitors were prompted to interact with the voice-enabled, AI-powered Automated Intelligent Receptionist for identification. Visitors were able to use a driver's license scanner or dictate their personal information so AIR could check the appointment schedule. If no appointment exists or the visitor details were not found, the system would alert security personnel to help visitors as they schedule an appointment within the visitor management system.

4 Visitor Access
If the visitor information is found in the appointment schedule after visitors sign in with their faces, AIR will notify hosts while its user-friendly interface guides the guests to pick up their newly printed visitor badges. Then, AIR either grants access and provides GPS-guided directions or requests that visitors wait in the lobby for their hosts.

Business Impact of the Visitors Management System

Upon installation of the AIR visitor management system, distribution of keycards, and recording of employee faceprints, the client experienced an immediate decrease in lobby congestion, reducing delays and dispelling visitor confusion. The live receptionist team also expressed relief from administrative requests from staff. Finally, the security director noted a more orderly lobby and check-in process. Some of the other business impacts included:

Improved attendance record-keeping

Increased collection of visitor information

Heightened employee and visitor satisfaction

Reduced wait times for employees and visitors

Expanded capacity to track visitors through constant monitoring

Presented a cost-effective solution for a mid-sized private firm

Decreased clerical errors and more accurate accounting of employees and visitors

Enhanced ability to manage evacuation procedures

Custom Features of the Lobby Management Software

Cerebro emerged as an industry leader in visitor management system software development. The AIR visitor management solution is faster and easier to use than other visitor management systems, minimizing technical support calls and integrating with the client's existing hardware. The database functionality helps save time during annual reporting. Some of the other custom features of this project included:

- ⊘ Calibrated facial recognition input process
- ⊘ Voice-enabled conversational AI
- ⊘ Chat window for better accessibility
- ⊘ Payroll integration

Technologies Used

Cerebro employed dozens of technologies during the development, installation, and implementation of the AIR visitor logging system. Some of the core technologies that were used included:

REST API   **Python**   **NLP**

Facial Recognition

Next Goal

The client was impressed by the rollout of the AIR visitor management solution. A few months after delivery, the client reapproached us for service at multiple locations. They wish to centralize and update their system so that when visitors arrive at one building, the security personnel of other buildings have real-time records of the event.

Our lobby check-in software's ease of use and flexibility will allow the client to register visitors, maintain an accurate attendance process, and manage evacuation plans across multiple locations.

FINAL STEPS

As we continue to work with the client, a government agency has requested information about our proprietary lobby software for one of its high-security buildings. Our team continues to expand and perfect our feature-rich lobby management systems, resulting in a robust product that can handle the day-to-day operations of a front desk for small business ventures, mid-size firms, and large corporations.

Cerebro
Platform

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