Scaling IoT Solutions for Office Space Management

Estimote, Inc.'s sensor-based technology transforms how businesses interact with customers in physical spaces. Using Bluetooth Smart technology, the company enables seamless interaction between smartphones and real-world environments.

INDUSTRY	HEADQUARTERS	TECH STACK
IoT	NYC, United States	Backend

Project Description

The **space management application** was designed to monitor staff contacts and comply with social distancing guidelines during the COVID-19 pandemic. The application used sensors to detect the distance between users, guaranteeing that anyone approaching within a 2-meter range would sound an auditory alert, promoting safe distance.

The platform also had a contact tracing system, which enabled administrators to immediately identify individuals who were near someone who tested positive for COVID-19. This expedited the procedure of sending quarantine notices. The robust architecture was built for great performance and scalability, allowing for real-time data processing for huge user bases.

Challenges

- **Time Pressure and Execution:** One of the major problems was completing the project during the peak of the epidemic, which necessitated rapid development and deployment to address immediate workplace safety demands.
- **Real-Time Monitoring:** Creating a system capable of tracking interactions and distances between users in real-time across wide areas.
- **Scalability:** Developing a platform that could effectively scale with the addition of more users and data points

Approach & Results

We focused on developing a straightforward and user-friendly frontend that enables smooth interaction between office managers and staff. The interface was built with simplicity in mind, allowing non-technical users to effortlessly navigate the system. Our team was responsible for both the frontend and backend development, ensuring the platform was not only efficient and responsive but also capable of handling large-scale real-time data processing.

The backend was designed for scalability, supporting massive amounts of data while maintaining optimal performance. Given the sensitivity of health data, strong encryption and tight access controls were implemented to maintain security. Regular updates were planned to ensure compliance with current regulations and health standards.

Client's Opinion

The solution followed wireframes and met the specifications. THE CODEST produces high-quality deliverables and their developers implement an excellent work ethic. They're effective communicators and transparent in their estimations. Professionalism and company culture are hallmarks of their work.

JAKUB KRZYCH
CEO, Estimote