



CASE STUDY

LTIMindtree's New-Age IoT Solution Redefines Operations of a Leading Elevator Service Provider to Keep the World Moving

Digital Transformation -> Industry 4.0



Client

Our US-based client, an Elevator Company, is the world's leading company for vertical transportation systems, principally focusing on elevators and escalators.

Challenges

The client has a vast portfolio of two million + elevators and escalators units across geographies, which helps move more than two billion people every day. The objective of the company was to bring value to their end customers by providing -

- Transparent view of service - real-time visibility of entire portfolio
- Proactive, real-time communication - informed repairs & quicker resolution
- Predictive insights to reduce shutdowns - pre-emptive maintenance minimizing disruption

In addition, the various personas lacked real-time view of data and necessary insights that will help them in their day-to-day operations. The challenges could be listed as:

- Inability to take necessary corrective action on elevators in absence of real-time health status, thus leading to unscheduled shutdowns.
- Field mechanics not having the right data and insights, resulting in reduced first time fix percentage and delays to address the issue.
- Non-availability of relevant information regarding maintenance schedule with end customer. This led to lack of trust and right expectation setting.
- Lack of customized view of data and insights based on personas and area of responsibility and interest.

LTIMindtree Solution

LTIMindtree partnered with an elevator company in new ways to create new outcomes. LTIMindtree addressed the need for a disruptive business model for the client, with connected elevator solution. The solution provides real-time status of the unit, data insights and complete visibility of elevator portfolio.

LTIMindtree was involved in the development of IoT solution using Microsoft Azure platform. The data stream generated was operationalized into actionable insights with the help of analytics, predictive models and machine learning algorithms

**More than 200,000+ connected elevators monitored by end of 2020
across the US, EMEA, China and Asia Pacific.**

Business Benefits

This solution aimed at keeping the field technicians a step ahead in monitoring the health of an elevator and predict the need of maintenance to reduce frequent failures and avoid unnecessary maintenance visits. The cloud-based advanced analytics solution leveraged the use of sensor data, service data, alarm and events to predict unfavorable incidents for proactive response and faster resolutions.

Democratization of the IoT data enabled the stakeholders to take decisions and not depend on the experts or technician visit all the time. Making customer service representative aware of the elevator operational status, helped avoided dispatch of technicians on false alarms. This resulted in saving service call cost by avoiding unnecessary truck rolls and saving the technician's time. Additional service calls were eliminated by predictive maintenance. Improvements in remote intervention and remote troubleshooting further reduced the visits and thus improve efficiency.

Benefits for each persona

- **Field Technician:** Can access real-time data of the unit's health and performance that helps in predicting failures and scheduling maintenance activities.
- **Remote Expert:** Has access to a 'Timeline' view of the various critical events raised by the unit that helps in analysing anomalies proactively and provides recommendation to technicians. Pre-emptive maintenance of units and necessary upgrades are conducted to avoid unexpected shutdowns.
- **Passenger:** Has access to the In-Car infotainment and can also connect to emergency personnel over voice, video or text chat in case of emergencies.
- **Sales Rep:** Enhanced revenues from IoT Services & improved contract renewals. Facilitate sales support to end customers by managing subscription of IoT-led services and recommending upgrades.
- **End Customer:** Relevant information shared with customers to build trust and understand expectations better. They can view the status of service requests, invoicing and billing information and receive notifications for shutdowns and trapped passengers.
- **Customer Service Rep (CSR):** Has visibility of the real-time status of the unit when the customer calls and can proactively inform customers about shutdowns and entrapments.

Key benefits realised

- Enterprise IoT Platform monitoring **200,000+** connected elevators by end of 2020
- Reduced downtime of the elevators by **10 - 15%**
- **14%** fewer avoidable service requests
- **10 - 20%** call-back reduction
- **10 - 15%** site visit reduction

LTIMindtree is a global technology consulting and digital solutions company that enables enterprises across industries to reimagine business models, accelerate innovation, and maximize growth by harnessing digital technologies. As a digital transformation partner to more than 700+ clients, LTIMindtree brings extensive domain and technology expertise to help drive superior competitive differentiation, customer experiences, and business outcomes in a converging world. Powered by nearly 90,000 talented and entrepreneurial professionals across more than 30 countries, LTIMindtree — a Larsen & Toubro Group company — combines the industry-acclaimed strengths of erstwhile Larsen and Toubro Infotech and Mindtree in solving the most complex business challenges and delivering transformation at scale. For more information, please visit www.ltimindtree.com.