LTIMindtree

Enhancing customer experience through IoT platform consolidation for a Facility Management Company

Client

Client is a leading workplace experience and facility management company which provides placemaking solutions that contribute to better business performance.

Challenges

The major objective of workplace management companies is to ensure their customer's satisfaction. With that objective, companies look out for better ways to consolidate their data from multiple sources to a singular cloud platform to ensure that the facility management is optimized.

The client wanted to evaluate, if the facility management platform would be built on a cloud platform like AWS which can onboard its existing and futuristic use cases and was looking for -

- Improving the Customer experience.

- Bring out a unified experience to view various building KPIs.

- A scalable multi-tenant framework to onboard existing and future use cases.

- Improving the productivity of the company's personnel for better efficiency.

- To have a real time view of the building/floor occupancy, washroom occupancy or space utilization for effectively planning and work assignment.

- Leveraging the sensor data to provide additional service to customer with/without additional cost for future.

LTIMindtree Solution

LTIMindtree has been playing a major role in various workplace and facility management solutions, developing best in the class solutions which showcases our technical expertise. The Solution enables digitalization of facility management operation to improve customer experience, effective planning & improve staff productivity.

The solution consists of the following features –

- Consolidate all applications across disparate IoT platforms into one Global Platform on AWS.

- Define a scalable architecture framework which can readily be enhanced to support the future use cases.

- The solution would be supporting the high-lev el use cases like

  - Space Management

  - Workplace Occupancy

  - Meeting Room Occupancy

  - Washroom Monitoring

Business Benefits

Improvement in Overall customer experience by providing a unified user experience

Improved worker and personnel productivity

Effective planning and assignment of work based on occupancy and usage

Technology Components:

The solution majorly consists of the following AWS Components –

> **AWS IoT Core** - IoT Core allows the data movement over MQTT, HTTPS, and LoRaWAN. It is used for moving the sensor data from Cloud Solution.

> **Kinesis Data Stream** – Kinesis Data Stream is an AWS Service which enables application to collect and process large streams of data records in real time.

> **AWS Timestream** – Timestream provides inbuild functions to store the timeseries data as dimensions and measures.

> **AWS DynamoDB** - Spatial building data and device meta data is stored in DynamoDB's NoSQL database to enable future schema change possibilities.

> **AWS Lambda and API Gateway** – Serverless functions are used for enriching raw timeseries data before storing in Timestream DB and performing KPI calculations. Amazon API Gateway is an AWS service for creating, publishing, maintaining, monitoring, and securing REST services developed for performing KPI calculations.