Major power distribution company addresses power theft challenge, gains real-time field visibility, and grows bottom line with qubesense field force management solution

Energy Management Software Solutions For Utility Companies
Case Study On Utilities Management Solutions

Ikeja Electricity distribution Company, addresses power theft challenges, and increases revenue through qubesense enterprise applications metering solutions

Background

The Ikeja Electricity Distribution Company (IKEDC) is Nigeria's largest power distribution company, owning and operating the country's largest electricity distribution network. It is based in Lagos and offers electricity and power to over 1 million consumers in various households and industries.

Initially, the utility firm was administered as a government service, and it relied significantly on manual operations.

The customer wanted a seamless, cost-effective energy management software solutions for utilities that could be deployed rapidly.

> " *Since our engagement with qubesense, we have seen an increase in our billing efficiencies to over 82% while collections efficiency is currently at 74% while ATC&C (Aggregate Technical, Commercial, and Collections) loss is down by 42 %* "

Mr. Trust Ahworegba
Head Revenue Monitoring, Mobilization and Assurance - Ikeja Electric

Challenge

Because of the difficulties in monitoring a large field staff, it was virtually impossible to hold employees accountable. Also, a lack of real-time visibility made it impossible for them to connect with customers and offer excellent service.

Meter readers visited homes, workplaces, and factories to take in-person meter readings, which were entered into paper-based forms and subsequently entered into billing accounting software to create payment invoices. Moreover, due to energy theft, the company did not receive full payment, and as a result, the company suffered a significant loss each year.

Due to a lack of automated energy management software solutions for utilities, the company could not measure, monitor, or control its aggregate technical and commercial losses. Customers were facing significant challenges due to manual paper-based processes.

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A modular approach to build custom solutions for our customers, to mitigate their specific challenges rapidly, securely, and cost effectively, by leveraging qubesense, our robust, adaptable, scalable, and intelligent business transformation platform

Staff

+ The manual process of data collection and data entry was tedious, error-prone, and time-consuming

+ Field officers lacked immediate access to customer files and records, which was essential for job performance

+ The paper-intensive workload required office trips to submit records

+ Since all the work was done on paper, submitting a work report without GPS or photograph evidence was challenging

+ There was no access to real-time notifications about job scheduling and modifications

+ Consumer records were non-existent or sparse outside the billing application

+ Request coordination was a slow process with book records and physical presence needed for approval

Management

+ A longer billing cycle impacted revenues

+ Lack of real-time visibility in field activities, task progress, and completion, negatively affected the business and profitability

+ Paper-based job forms were error-prone, time-consuming, costly, and impacted productivity and efficiency

+ Inability to schedule and dispatch jobs quickly and easily resulted in missing and recurring appointments

+ Due to a lack of real-time reports, it was not easy to make data-driven decisions

+ Employee performance and KPIs were difficult to track

+ Associated costs of managing paper-based records were high

Consumer

+ Appointments were not always met on time, due to a lag between complaint registered and implementation

+ There was a delay in getting the complaint resolved due to various manual channels of approvals

+ Maintaining accurate paper-based user profiles and records was difficult and time-consuming

+ Human mistake would result in incorrect billing, with the consumer being overpaid or undercharged

Approach

The company did have an application from another company that converted paper forms into a digital format, but that's where it stopped. The question of what to do with the data collected was a crucial question that needed a solution.

qubesense provided a perfect energy and utilities digital transformation solution to Ikeja's What's Next? Ikeja got precisely what they wanted along with the ability to connect to any third-party API and effortlessly automate business processes.

The most difficult components of developing such a large and enterprise-wide system are timely execution, asset management, scalability, and stability.

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qubesense team's extensive knowledge and understanding of utility operations, along with its project management abilities and expertise, and the sheer power and customizability of the qubesense digital transformation platform, enabled Ikeja to exceed customer expectations.

Solution

The solution team analysed the existing manual process of meter reading system and found several irregularities. The customer's team and qubesense created a customized modular utility management solution that was just right for Ikeja's unique business need.

The qubesense team collaborated closely with the Ikeja team to deploy various modules as per the schedule and assist the employees in coming up to speed. All modules of the meter data management system were developed and deployed within six weeks.

Key Highlights

- Nigeria's largest electricity distribution network
- 3,500 Employees
- Over 1 Million Customers
- Up to 1,350 qubesense users (combined Mobile and Web users)
- 3 Million Data entries
- 16.7k Completed tasks
- 105 Mobile Apps
- More than 300 different reports and modules running concurrently

Benefits

qubesense empowered the electricity distribution network with a more effective home energy audit and monitoring system to reduce power theft, increase efficiency in billing, and strengthen its vision of providing a 24x7 electricity supply.

The business value that qubesense enterprise applications solutions for utilities delivered is much higher. According to Ikeja, qubesense utility solution's key USP is its "ability to execute the seemingly impossible."

Staff

+ Makes appointments more quickly

+ Gets accurate and real-time job notifications

+ Field officers have access to consumer's usage records from any device

+ There is no longer a need for paper-based job forms

+ Field personnel can communicate with the backend office while on the move

+ Meter readings are now accurate

+ Job completion happens promptly

+ Field officers have updated and real-time data on their devices, which helps in taking preventive measures

+ Field personnel can use mobile forms to capture video, audio, and images to prove any theft and illegal work

+ Field teams can now cover larger areas and plan visits due to the GPS-based route planning feature

Management

+ Spot billing application addressed power theft problem and directly contributed to bottom-line

+ Transparency across all operations simplified workflows and improved productivity

+ Operational costs have been reduced across the board

+ The compliance data tracking system is more efficient

+ Billing/collections cycle time has reduced

+ Resources are more effectively utilized

+ Utility management solutions by qubesense enabled to collect data, centralize it, and then analyze it into meaningful representations

+ Role-based access to reporting portal ensured data protection

+ Cloud based system enabled 24x7 access to all evidence and collateral in one place

+ The company achieved a high return on investment

Consumer

+ There is a significant improvement in customer service, and a massive reduction in complaints

+ The automated bill payment system is accurately scheduled

+ Consumer has the convenience of making online bill payments effortlessly

+ Consumers can now get their monthly bills on their mobile devices

+ New connections, disconnections, and the tracking of service changes and complaints are done through mobile apps

+ The approval process is now online saving precious time resulting in quick actions

+ The services are now fast and seamless, with minimal touchpoints

+ Cost efficiency benefits attained by the company is transferred to the end-user

+ The time it takes for complaints to be resolved has dropped from weeks to a few hours

Results

"High-Efficiency Solutions" is the tag name awarded to qubesense by Ikeja. qubesense utility metering solutions have made the company's processes more efficient, resulting in Ikeja bagging many operational excellence awards and certifications.

- Ikeja has received three new ISO certifications for its successful execution of workplace safety and health, environmental management, and quality management processes: ISO 9001:2015, ISO 14001: 2015, ISO 45001: 2018
- AfriSAFE Merit Award 2020
- Nigeria Risk Awards 2020: Runners-up for the most responsive organization for the COVID-19