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Energy Monitoring System
(Automotive Industry)

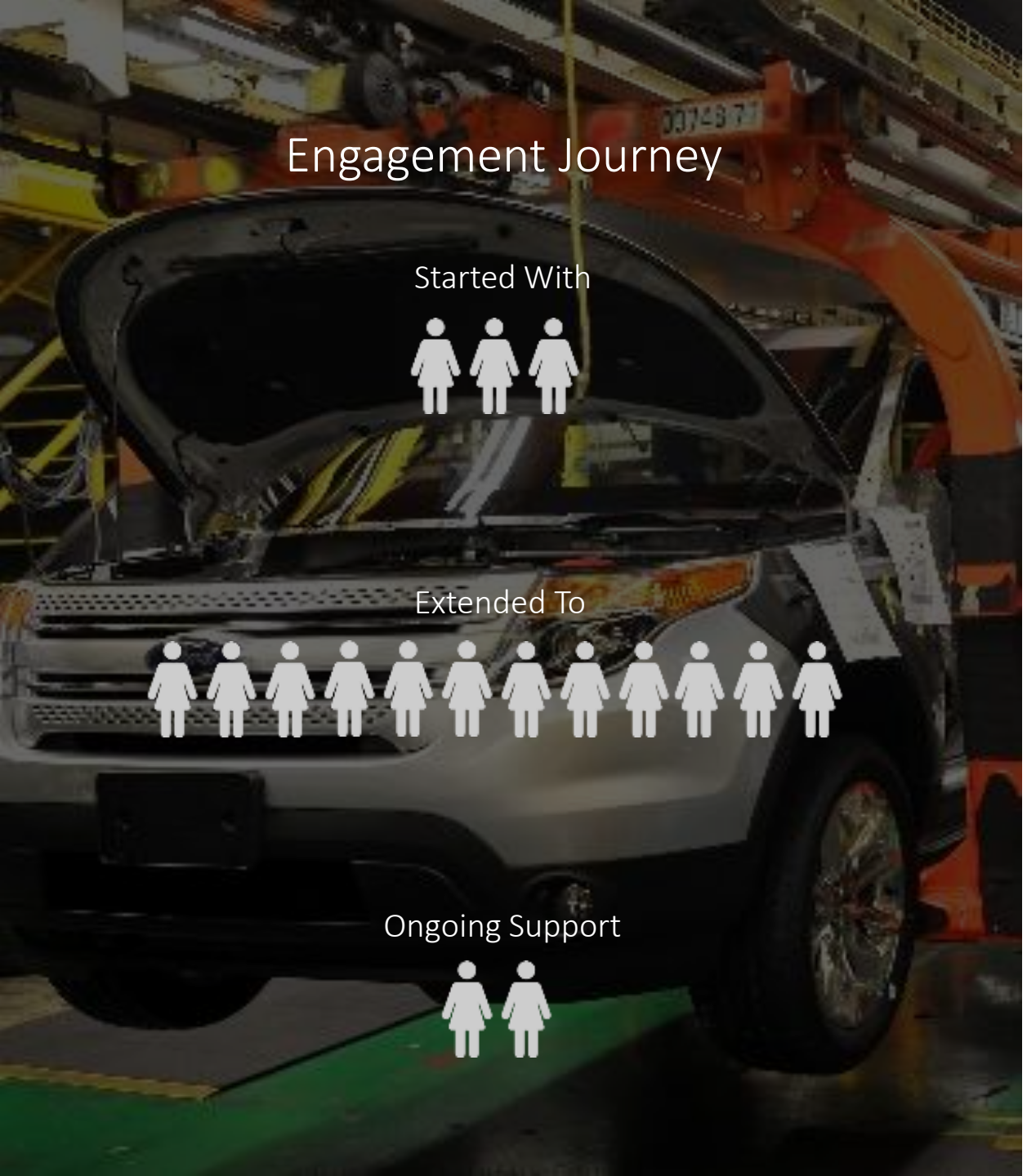
Client Background

The client is an American multinational automaker selling automobiles, commercial vehicles and Luxury vehicles. The client has had manufacturing operations worldwide, including in the United States, Canada, Mexico, China, the United Kingdom, Germany, Turkey, Brazil, Argentina, Australia, and South Africa

To streamline data and resource collection into a centralized platform for analysis to find inefficiencies and optimization opportunities in addition to identification of hidden power quality issues impacting the reliability of the electrical networks within the plant.

Challenge

To install Energy meters & smart ACBs and interfacing to centralize all equipment which distributed to 700 Square meter. The customer need one application that can be accessible through internet to calculate area-wise energy spend, to visualize the status and controlling of all breakers and alert functionality which can provide whole day energy consumption notification to area managers.

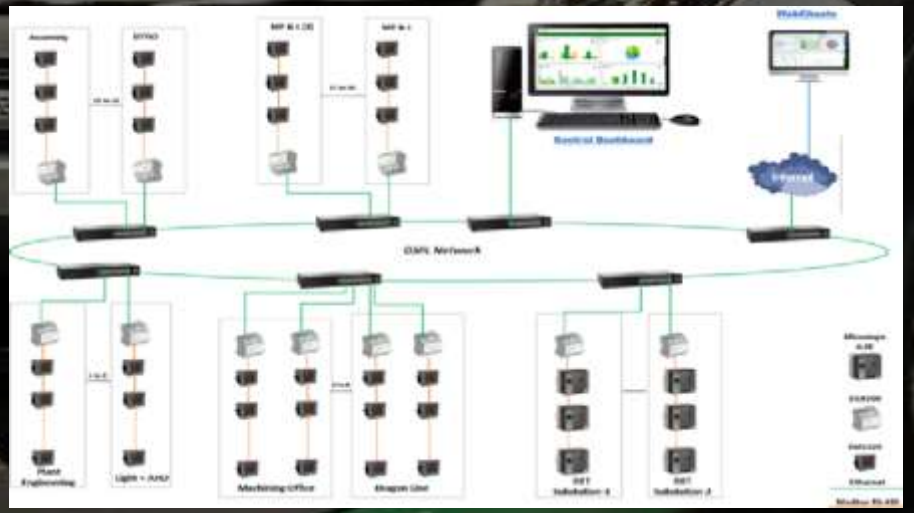


Solution

Optimized Solutions delivered and implemented Energy management system on time and within allocated budget, providing customer with the ability to improve their operational efficiency, The solution was tested over Five months and well-accepted by customer.

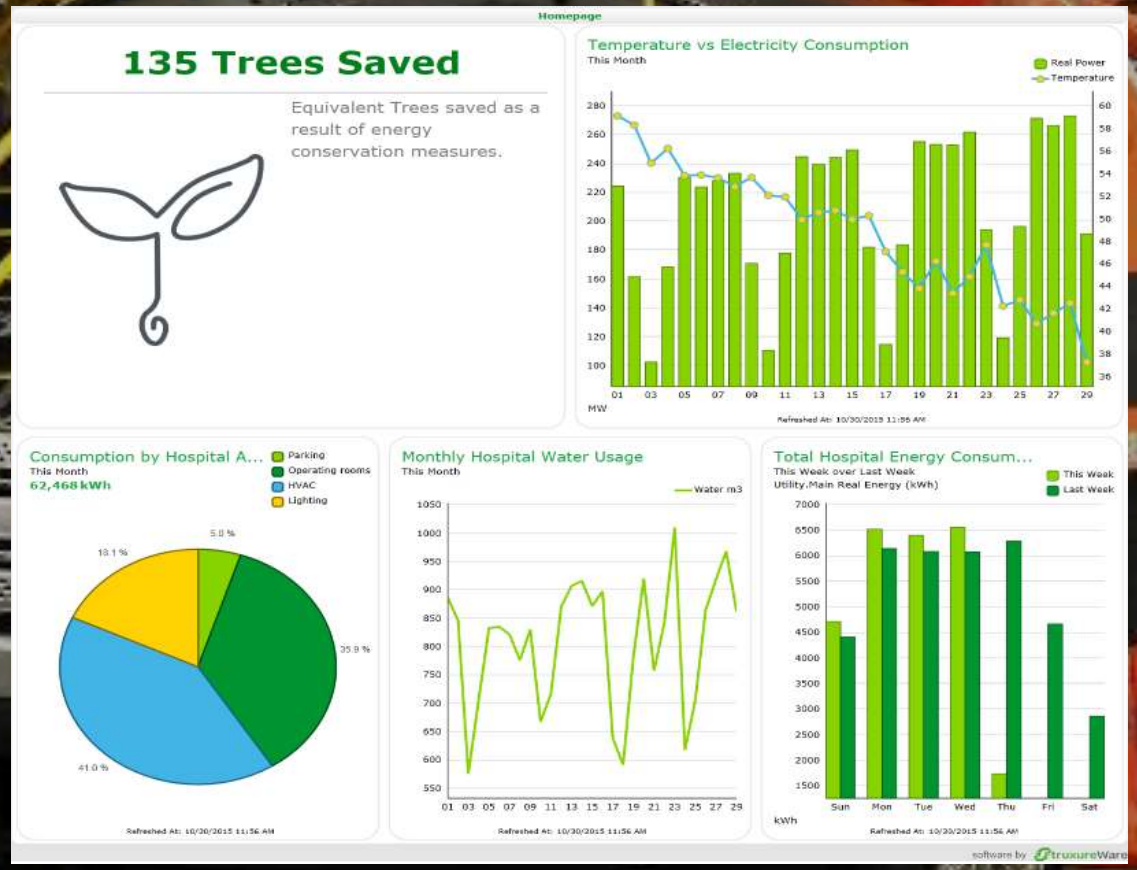
The information from the controller is fed to the PME software, which offers advanced reporting and analytics on data, converting raw numbers into shareable dashboards with actionable information.

Developed accurate reporting of billing information meant that customer could no longer rely on manual collection of data and made a fool-proof system to address issues like automatic data collection and detect meter abnormalities like tampering. The reports developed with this information allow operators to set the system to respond automatically.



Solution

Additionally, with this capability, operators can aggregate metered energy/consumption data with production assets throughout the factory to start monitoring energy utilization. Correlating energy with production information allows people to make more informed decisions regarding equipment and production – ultimately resulting in lower energy costs and improved production and also it has been running since July 2015.



Benefits

- After implemented the edge control PME software on the architecture, operators increased visibility into operations across the entire system. With the ability system performance based on various trends, the customer projects an annual reduction in energy usage of approx. 7-8 percentage.
- Additionally, users are enjoying more convenient, useful reports, dashboards and KPIs from a solution that can now derive the information for energy and cost savings throughout the plant.
- This smart automatic meter reading solution in which would allow them to remotely collect the data of their energy meters at a central location automatically through use of Serial Gateway and Ethernet Ring Topology and pass on this information to their Area Manager.

Benefits against alternatives

The energy monitoring system project offers distinct advantages over alternatives:

1. Enhanced Operational Insight: Edge control PME software provides operators with comprehensive visibility into system performance, leading to an anticipated annual energy reduction of 7-8%.
2. Improved Reporting: Users benefit from convenient access to informative reports, dashboards, and KPIs, facilitating informed decision-making for energy and cost savings.
3. Smart Metering: A smart automatic meter reading solution enables remote data collection from energy meters via Serial Gateway and Ethernet Ring Topology, empowering Area Managers with real-time insights for efficient resource management.

These benefits drive proactive maintenance, detailed event analysis, root cause identification, and asset optimization, ensuring streamlined operations and enhanced energy efficiency.

Value Proposition

Our energy monitoring system project delivers unparalleled value with advanced edge control PME software, providing operators enhanced visibility and enabling proactive decision-making for a projected 7-8% annual energy reduction. Users benefit from streamlined reporting, accessing insightful data for informed energy and cost savings decisions. Leveraging smart metering technology, remote data collection ensures real-time insights for efficient resource management. These advantages drive proactive maintenance, detailed event analysis, root cause identification, and asset optimization, ensuring streamlined operations and enhanced energy efficiency.