Success Story
IoT Manufacturing

Unlocking Peak Performance

How a Leading Automotive Manufacturer Maximized Uptime Through Enhanced Equipment Insights

The SITUATION

A Tier 1 globally-distributed automotive manufacturer faced a significant challenge: siloed IT and OT data spread across multiple sites in the United States. This fragmentation made it difficult for the manufacturer to gain a comprehensive understanding of their manufacturing operations. The inability to generate concise reports on equipment effectiveness and predict potential failures led to frequent unplanned downtimes and increased maintenance costs.

The fragmented data also hindered communication and collaboration between operation managers and team leads, further exacerbating the challenge of maintaining optimal equipment performance. Without a unified view of equipment health and operational effectiveness, the manufacturer struggled to take proactive measures to reduce failure rates and ensure maximum equipment availability.

RESULTS AT A GLANCE:

- 30% Increase in Equipment Availability
- 25% Reduction in Equipment Failures
- Improved Collaboration
- Unified Operational View

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OBJECTIVES

The manufacturer set out to overcome these challenges with clear objectives:

Reduce equipment failure rates

They sought to implement a system that could notify operators of potential issues before they led to unplanned downtime.

Consolidated operational view

The manufacturer needed an integrated solution that could provide an overall equipment effectiveness (OEE) score across all plants and machines.

Anomaly detection and predictive maintenance

The goal was to implement advanced capabilities that could identify potential issues in real-time and automatically generate work orders based on predictive maintenance needs.

Seamless integration

The solution needed to seamlessly integrate with their existing work order system, ensuring a smooth transition to the new approach without disrupting ongoing operations.

SOLUTION

The manufacturer partnered with Milvian Group experts to tackle these challenges. The first step was a thorough analysis of the existing problem areas. The Milvian Group team worked closely with the manufacturer, adopting a reverse-engineering approach to design a bespoke solution tailored to their specific needs.

Over the course of the project, the team connected more than 5,000 assets across the manufacturer's facilities, integrating data from both OT and IT systems. This data was then ingested into a custom-built, intuitive interface that provided a unified, real-time view of equipment health and operational effectiveness across all sites.

The solution also included advanced anomaly detection and predictive maintenance capabilities, allowing for early identification of potential issues. When an anomaly was detected, the system automatically generated a work order, ensuring that maintenance teams could address the problem before it escalated.

RESULTS

The implementation of this comprehensive solution delivered significant business value:

Increased Equipment Availability: With a unified view of equipment health, the manufacturer could proactively address issues, resulting in significantly higher equipment uptime.

Reduced Failure Rates: The predictive maintenance capabilities led to a noticeable decrease in equipment failures, minimizing costly downtimes and improving overall operational efficiency.

Enhanced Collaboration: The solution fostered closer collaboration and communication between operation managers and team leads, creating a more cohesive and responsive operational environment.

Complete Operational Awareness: The manufacturer now had complete visibility into the operational state of their equipment across all plants, enabling more informed decision-making and continuous improvement.

Are you ready to transform your operations and achieve lasting success?

Contact us today to learn how Guided Operations can help your organization overcome the challenges of digital transformation and secure a competitive edge in the marketplace.

About Milvian Group

Industrial, commercial, and public sector customers seeking to enhance situational awareness of their machinery, assets, and environment turn to Milvian Group for data-driven solutions that improve operational decision-making and costs reductions. As an applied technology company, Milvian Group recommends, integrates, and implements top-tier hardware and cloud-native services, including IoT, data analytics, and AI technologies.

References

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