Real-time Manufacturing Insights solution

A COVID-19 Imperative

About The Solution

For Original Equipment Manufacturers (OEMs) and Hi Tech organizations, achieving improved visibility into end-to-end operations of the Original Design Manufacturer (ODM), is a key factor that can help address unique opportunities surrounding collaboration around materials, quality and performance of the ODMs. Monitoring asset failures, scheduling delays and departures from best practices can add to increasing outsourcing and production costs. Missed delivery deadlines will invariably lead to low customer satisfaction, resulting in penalties and impacting future business opportunities.

Real-time Manufacturing Insights (RMI) solution by IoT WoRKS™ delivers real-time operational visibility from shop-floor to top-floor coupled with advanced analytics, product quality updates, and is preconfigured with ready to use connectors, dashboards and KPIs for role based viewing – for OEMs and Hi Tech customers. RMI offers a single pane of visibility into the ODM's production systems delivering a shared ecosystem between Hi Tech organizations and ODMs – thus optimizing operations, enhancing product quality, introducing better visibility into supply chains and improving end customer satisfaction.

Challenges involved in the ODM operational model

Outsourcing manufacturing increases product development and supply chain complexity

Lack of automated collaboration results in outdated and inaccurate information from ODMs

Tracking real-time tracking of product quality within four walls of the ODM is difficult

Lack of real-time analytics and replenishment procedures linked to demand requirements

Features

Real-time Monitoring & Role-based Visibility of ODM plant efficiency with user-defined KPIs. Role-based view for Quality Head, Procurement Head into ODM manufacturing and supply chain operations

Predictive Quality and Alerts: Prediction feature for monitoring product quality coupled with AI/ML and image analytics. Generate real-time notifications of operational and quality alerts to the preconfigured users via email or mobile

Single Pane of Vision: Monitor and visualize real-time insights from various ODM sites and plant operations – enabling a holistic view of the manufacturing ecosystem

Supply Chain Analytics: Enable better visibility by monitoring materials calculations (based on ODM's production and line changes) and early warning system for material shortages – preventing inventory pileup costs and optimizing supply chain operations

Optimize Workforce Safety: Enhance stakeholder management and regulations compliance ensuring social-distancing at the workplace by enabling floor automation

Benefits

Enhance Product Quality: Use AI/ML coupled with image analytics to predict product defects, improve fault prediction, enabling better planning of real-time rectifications and superior output

Enable Flexibility: Improve collaboration, optimize the time required to share data and increase responsiveness in accommodating last minute change orders

Improve Visibility: Gain visibility into ODM's orders, batch, model mix, CTQ processes achieving better control over ODM operations and product quality

Connected Supply Chain: Introduce enhanced risk management, improved delivery date prediction, enabling better planning of risk mitigation & improve end customer satisfaction

Scale and Deploy: Implement and scale easily across multiple ODM plants in multiple geos – utilize various deployment options like edge, cloud or hybrid for greater flexibility

Solving Operational Visibility

Real-Time Dashboards for C-Suite Executives

Optimize manufacturing operations, enabling minimizing OEE Losses to reduce overall costs for OEM

Share and collaborate with ODMs to adjust plans and schedule realistic shift capacity in near real-time

Flexible deployment options & creation of strong partner ecosystem

Use cases

Collect manufacturing equipment sensor data and product quality data from outsourced suppliers for pattern detection and data mining. Use of AI/ML coupled with image analytics predicting product defects, and trace products/processes to analyze impact

Real-time shared visibility and monitoring of ODM's execution and operations enable predictive planning of demand and supply cycles – monitor replenishment procedures and finished goods distribution – preventing supply chain disruptions

"Factory in a box" offering – revolving around management of single factory in edge-hardware locally – delivering single pane of vision and control into the ODM's operations