

Volvo Construction Equipment Constructs Platform for Global Manufacturing Excellence

Volvo CE is one of the world's largest manufacturers of construction equipment, with 17 plants on four continents. Expansion has primarily been through mergers and acquisitions, so integrating its various plants and supply chains are critical for continued growth and customer satisfaction. As part of this integration process, the challenge of quickly identifying and distributing global manufacturing best-practices had been a challenge.

In order to increase efficiency, visibility, collaboration, quality and synchronization across its manufacturing operations and globally integrated supply chain, Volvo CE needed a better solution to share process innovations and best practices that could function as a framework for continuous improvement. And, it had to be installed quickly to deliver a fast rate of return while seamlessly integrating with its existing SAP Enterprise Resource Planning (ERP) system.

Global Platform for Manufacturing Operations Management

In order to accomplish these objectives, Volvo CE selected Apriso's FlexNet as a platform for Manufacturing Operations Management, or MOM. Currently operational at plants in the United States and South Korea, FlexNet executes and manages Volvo CE's operations while consolidating process data at a Center of Excellence (COE), a collection of global best practices. Assembly and fabrication is synchronized across manufacturing operations; complete integration has been achieved between production equipment – regardless of location – and Volvo CE's existing ERP, which has added new value and functionality to ERP with improved synchronization to the shop floor.

"FlexNet gives us visibility and control over our production, quality and maintenance operations. It sequences production, verifies materials flow properly and ensures components are delivered to the right place at the right time, contributing to improved performance across manufacturing operations," said Scott Park, Senior Vice President and CIO, Volvo CE. "As a platform-based MOM solution, FlexNet continuously collects global operations data that is fed to suppliers to help improve delivery performance. Best of all, our FlexNet implementation was relatively quick – about 6 months for one facility – helping to achieve a return on this investment within the same fiscal year."



Benefits Achieved

- Process integration now exists, from fabrication to assembly
- Center of Excellence established to build, evaluate and execute best practices across manufacturing operations
- Reporting consistency achieved with standardized metrics
- Efficiencies gained from accelerated deployment of best practices

Real-time Visibility for Continuous Quality Improvement

Apriso's FlexNet functions as a platform for continuous process improvement, helping Volvo CE to improve quality for a lower total cost. Production processes have begun to be standardized; real-time visibility generates alerts that notify if performance is "out-of-spec." Volvo CE uses an Andon system that draws production data from FlexNet. "With real-time visibility to manufacturing operations, FlexNet has enabled quick comparisons to production metrics. If a problem arises, operators take immediate action to resolve issues before they impact the entire line, helping to minimize potential delays while improving manufacturing and quality performance," commented Park.

Volvo CE has all the information it needs for Six Sigma programs. "It would be very time-consuming to attempt Six Sigma without FlexNet," noted Park. "Now our production status reports contain granular detail so we can quickly identify queues and bottlenecks."

Standardized Processes Reduce Operational, IT Costs

Volvo CE is leveraging their Center of Excellence COE to not only identify best practices, but to spread the standardization of these practices across their manufacturing operations. With real-time, global visibility and standardized measurement capabilities of business processes within FlexNet, continuous process improvements help to save manufacturing operations and IT costs.

"I have done implementations without a process template whereby each plant went in its own direction. It was a nightmare," said Park. "With FlexNet, we can build a COE containing all the processes we need, and then deploy it to various manufacturing plants. The COE is managed by a team of end users who own the global process and are empowered to make changes throughout the system. As a MOM solution seamlessly integrated with ERP, Apriso ensures greater consistency. As processes are implemented, modifications are straight forward, contributing to reduced IT and operations costs."

FlexNet's simplified user interface requires less training and support, ideal for workers on the shop floor. The combined Apriso-SAP solution streamlined implementation of new processes at a lower cost, which were deployed from the "top floor" to the "shop floor." Process standardization has helped Volvo CE's "Manufacturing Excellence" objective of building any product at any location. FlexNet is so successful that Volvo CE is actively engaged in expanding their implementation. "At the end of the day, FlexNet lets us quickly achieve superior quality, improved operational excellence and a globally integrated supply chain," says Park.

Volvo CE embraced Apriso's Route 66 challenge: do more with less, faster. Identify an IT project that can be implemented in six months and achieve rapid ROI within a six month period or less. Volvo CE accomplished their objectives. Are you up to the challenge?

About Apriso

Apriso Corporation is a software company dedicated to helping manufacturers achieve and sustain operational excellence. Apriso serves 180+ customers in 40+ countries across the Americas, Europe and Asia. Learn more at <http://www.apriso.com>.

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