PLM in the Cloud: The Next Approach to Customization Challenges

Industrial equipment companies can overcome customization challenges by lifting PLM capabilities dedicated to specialized demand beyond the organization’s four walls into the Cloud.

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Increasing demand for customized industrial equipment (IE) products—from specialized tools to “smart” machinery—is presenting IE manufacturers with a wide range of new opportunities in the global market. But it also is creating greater challenges that will require new solutions. The application of product lifecycle management (PLM) systems, of which a few are starting to run in the Cloud, provides one of those solutions.

Although customized products have given rise to more revenue potential, they also have made it necessary for IE manufacturers to constantly adjust their operations to meet specialized and differentiated product demand, adding time and cost to the manufacturing process. This shift has placed companies under greater pressure to innovate faster and shorten product lifecycles. Along with raised customer expectations for faster launches, this all impacts the ability of IE companies to compete in a hyper-competitive marketplace.

In this business environment, not only is it more critical than ever that organizations maintain a highly collaborative focus on product execution, they must also be agile enough to respond to increasingly volatile demand. PLM has been a valuable strategy on both fronts, integrating people, processes, data and business systems in support of products—from inception and market launch through disposal—and helping companies accelerate market delivery. But more is needed as customization adds greater complexity.
IE manufacturers will need a faster and more flexible approach to satisfying specialized demand, especially since such demand spans multiple markets with potentially different design specifications at varying volume levels. An approach that is emerging as a highly effective solution to this challenge is the integration of traditional PLM capabilities with the Cloud. It is a practice that will likely increase in the next few years, and is one that IE manufacturers are now considering.

IE companies can overcome many of today’s customization challenges by lifting their PLM capabilities dedicated to specialized demand beyond the organization’s four walls into the Cloud. Doing so will not only help them balance tailored and traditional production, but save them time, reduce cost, provide geographic scalability and enhance collaboration.

Time has never been a more valuable commodity. Cloud-based PLM gives companies the ability to quickly set up IT applications for planned or urgent demand without disrupting on-premise IT operations. This approach also accelerates customized design processes, and enables faster collaboration with suppliers and partners and improved speed-to-market.

Cost is dramatically reduced because no upfront capital investment—which can include setup charges and financing interest—is required. Nor is there a need to apply for a large capital budget to purchase software upfront. IE manufacturers can grow their Cloud installation as needed by adding expensed subscriptions rather than using an in-house capital budget. This also provides the flexibility needed to manage costs that can be impacted by unpredictable demand. To enable a flexible Cloud environment, PLM software providers are also developing on-demand usage-based licensing models that allow IE manufacturers to pay only for what they use. This makes infrequent usage of the PLM applications much more cost-effective and encourages real-time dissemination of accurate information across the global enterprise. In the past, infrequent usage would have been considered too cost-prohibitive to pay for a user’s license that remained idle a majority of the time.

Scalability is key to managing custom product demand in the global market. For example, there may be demand for the same product in China and Brazil. But to manage costs, each market requires a localized supply chain, which could mean temporarily collaborating with multiple design partners captive in each local supplier. Cloud-based PLM can adjust the scale of the PLM operations managing the number of users up or down, depending on the need, as well as satisfy diverse user demand across geographies, truly enabling design anywhere and build anywhere.

Collaboration is essential to develop specialized products, especially since the value chain needed to support them will continue to evolve, including not only product designers, engineers and IT specialists, but a growing list of disconnected partners like software suppliers, technology companies and offshore partners. PLM in the Cloud improves and enables a secure collaboration process, giving companies the flexibility to quickly assemble as many or as few project participants as needed.

Demand for customized products in the IE market will continue to grow, largely driven by the rapid pace of innovation that is influencing the market. But demand also will add new competitive challenges. Embracing the PLM in the Cloud approach will help IE manufacturers greatly enhance their competitive position and their ability to benefit from the growth of specialized products.

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