Geometric Enhances PLM Business Value

CIMdata Commentary

Key takeaways:

- *Engineering IT application support is different from generic IT support due to its complexity and uniqueness to each organization*
- *PLM support is commonly treated as an opportunity for cost reduction but the focus should be on value maximization*
- *Geometric's deep expertise in engineering and manufacturing enables them to provide functional and transformational services that address complex processes for developing and producing a product*

Why is Engineering IT Application Support Unique?

New Product Introduction (NPI) and Product Development (PD), processes are unique for each organization. They are unique because each organization has different people, processes, and technologies. The steps within the processes have many interdependencies and understanding how to improve and optimize them requires both functional and industry specific knowledge. These steps also employ a wide range of software applications to support complex business processes. They range from configured and customized out of the box applications through custom developed solutions optimized for specific activities. The computer-aided design (CAD) and computer-aided engineering (CAE) tools used to develop the product are complex to operate, and generate large, complicated, interrelated data sets that include 3D graphics, specifications, and other data. For multifaceted products, hundreds of applications may be used to completely define the product. To manage the data from all these applications, specialized data management solutions commonly known as Product Data Management (PDM) are required to capture and manage the data. This data then needs to be integrated with other enterprise data so that the product can be produced.

In addition, the timescale to take a product from proposal to production can range from months to years and in some cases like large defense projects or process plants, decades. Access to the product data may be required for many years after production, in some cases more than 50 years. This long lifecycle is why there are so many legacy systems within many companies' PLM environments. In addition issues and problems crop up from a multitude of directions including using the solution in new ways that were not previously envisioned, operational issues due to training, employee turnover, upgrades to individual solutions, software defects and changing business requirements. All of these make it plain that providing support for PLM related applications is a very complex and expensive endeavor.

Building a Robust Product Development Environment

Companies use several models to properly support the applications used for PLM. Common support models include in-house staff, an external or contract staff or a blend of internal and external people. There are advantages and disadvantages to each model, and doing a thorough analysis and developing a business case will lead to the best choice. The key point of support is that the team needs to be experienced and knowledgeable with the software applications, the business processes, and industry-specific requirements.

Key reasons we see for choosing an external support provider include gaining access to specific skill sets or subject matter experts that would not otherwise be affordable, to avoid

staffing issues caused by turnover, and to get access to appropriate PLM solution experience. As companies broaden and deepen their PLM environments, they implement aspects of PLM in which they may not have experience. Specialized or focused external solution support providers that already have experience in the new areas may be the most efficient way to ensure successful implementation and ongoing support.

At CIMdata we believe that the business case will provide the answer. Just because an external resource has a lower hourly rate does not mean it provides the best return on investment. Evaluating the support capabilities and costs versus the business requirements will lead to the correct choice.

Spotlight on Geometric's AMS4E program

Geometric is a system integrator focused on providing engineering IT and PLM support services to companies that develop and produce products. They provide strategic consulting services, solution support and produce software products all focused on product realization.

Geometric's support program is known as AMS4E, an acronym for Application Management Services and its four elements—Enable, Ensure, Enhance and Evolve. AMS4E is a methodology to provide PLM support based on the organization's maturity as shown in **Error! Reference source not found.**. The objective of the methodology is to improve the business value of engineering IT at a lower cost. The methodology clearly identifies the issues at each stage of maturity, the appropriate services, and benefits to be gained. Assessment tools are used to evaluate when a maturity level is achieved. A dashboard provides a holistic, strategic, top down view of AMS and the software application of lifecycle metrics. In addition to providing status, Geometric claims that the dashboard also includes a predictive analytic capability that can forecast what the metrics would be if additional AMS4E elements were adopted.

Geometric is unique among the larger PLM system integrators because of its focus only on product realization. In addition to providing strategic consulting, implementation and support services, they are also a developer of commercial software solutions within the product realization space. They have technical partnerships with the major PLM solution providers, including Dassault Systèmes, PTC, and Siemens PLM Software, which ensures Geometric's

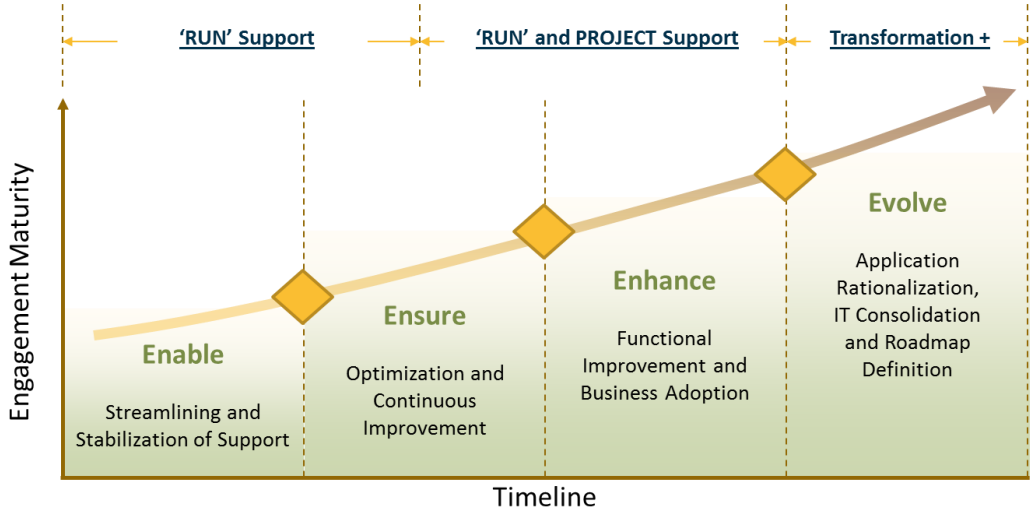

Figure 1 Geometric's AMS4E Maturity Model and Related Services

deep knowledge of the PLM solution capabilities.

CIMdata sees the commercial software development capability combined with the AMS4E methodology as a differentiator from Geometric's competitors. The "Enable" and "Ensure" phases focus on a smooth transition to the new support structure, stabilization, and minor improvements. When a company gets to the "Enhance" and "Evolve" phases of AMS4E maturity the deep knowledge of software development methodology can provide significant value. The functional improvements, enhancements, and rationalization implemented in these maturity levels all require deep understanding of software development and maintainability.

As part of the research conducted to support this commentary, CIMdata reviewed several case studies including one from a large aerospace company where Geometric were able to assume responsibility from eight service providers using AMS4E methodology. Within this engagement Geometric is working to consolidate and transform 650 PLM-related applications to a significantly smaller number removing redundancies and reducing cost. In another case study where 180 applications were being supported, twenty custom applications were retired again resulting in a significant support cost reduction.

Conclusion

Developing and implementing a PLM environment support strategy is complex. The support team needs deep understanding of the product, processes, and technologies used to develop and produce products. Ensuring that the team has the appropriate skills can be challenging especially as companies try to implement and leverage advanced PLM capabilities and concepts. The support team can consist of internal and external resources, but the right mix should be based on a business case that identifies the highest value, not just the lowest cost.

CIMdata sees Geometric as a support provider with unique capabilities that can be leveraged to get a cost effective competitive advantage. They have a proven methodology based on a well-defined maturity model. Deep expertise with a variety of tools and technologies allows Geometric to assume support responsibility and help their customers get the PLM environment under control, and then enhance and evolve the product realization process. The AMS4E support program is comprehensive and can help customers transform their product realization capabilities into a competitive advantage.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website at http://www.CIMdata.com or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.