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Accenture Unveils Digital Product Development Framework:

Every business is a digital business

CIMdata Commentary

Key takeaways:

- Increased product complexity and better enabling-technology creates an intersection where businesses have new opportunities to transform operating models and develop new revenue streams
- Accenture's Digital PLM Network enables customers to improve business performance by leveraging state-of-the-art technology across the enterprise and applying new and more interconnected processes
- The Digital PLM Network leverages Social, Mobile, Analytics, and Cloud (SMAC) technologies to deliver a robust platform to enable better business outcomes and product decisions

Introduction

Increased product complexity is a given in today's business environment. In addition to the increasing levels of mechanical, electronics, and software integration within a product, complexity is also driven by regulatory requirements, competition, cost pressures, and customer needs and wants. Thriving and sometimes surviving in this environment requires a business to continually adapt and invest in strategic enabling capabilities. Companies have to improve customer interaction and satisfaction to sustain profitability while developing and growing new revenue streams.

Companies have been addressing these issues by investing in automation, integration, big data analytic approaches, and recently more broadly in collaboration solutions (to which system integrators have historically added value). Product Lifecycle Management (PLM) has been a cornerstone of these investments as companies have migrated to using digital technologies to design, develop, manufacture, and service their products. While PLM solutions have continued to evolve to support a product's definition throughout its lifecycle, next-generation solutions and processes are emerging that enable new business opportunities, including new revenue streams, and that help companies better position themselves for sustained success.

Historically, business processes have been sequential: marketing develops a specification; engineering develops a product to meet the specification; manufacturing produces the product; logistics delivers the product; and services supports the product in the field. While this linear approach was effective in the past, a new approach is needed to create and maintain a competitive advantage.

A New, More Effective PLM Approach

Companies need PLM environments and solutions that enable them to work efficiently and leverage their human and intellectual property resources more effectively. Characteristics of this new PLM approach must include:

- Standardized virtualized hardware, operating system, and PLM platforms that incorporate social technology.
- COTS (commercial off the shelf) software technology configured to support business processes including open innovation and crowdsourcing.
- Applications extending throughout the product lifecycle including ideation, product and portfolio management, product development, supply chain management including costing, collaboration, and customer facing functions from configurators through service and support.
- Various types of networked user devices including, but not limited to smart phones, tablets, laptops, and desktops that can access and use solutions from virtually anywhere in the world by virtue of being always connected.
- Exploiting electronic, software, and communication technologies and mobile devices within products to create new or expanded revenue streams and extend the time a customer uses the product.
 - Companies can leverage such 'smart' products to gain insights into customer preferences, usage of product features, and potential issues. These insights are essential to develop next-generation products and services that meet customer needs, optimize features based on usage, and provide proactive updates and resolutions.
- Ability to leverage digital technologies that include SMAC—Social, Mobility, Analytics, and Cloud.
 - Social technology allows consumer input to be captured and incorporated into product planning and support. It also provides a new communication protocol for unstructured information formerly buried in emails.
 - Mobile technology provides 24x7 access to information, and it supports "applification" that allows easier manipulation and interpretation of PLM-related information.
 - Analytics and reporting solutions are able to produce information with diverse enterprise and external data sources to derive new and valuable insights.
 - Cloud has several impacts including more flexible and scalable infrastructure;
 simplified security and administration, especially when extending access across a supply chain; and the availability of pay-per-use subscription data services.

But the real impact of these technologies is the convergence of the technologies and the power created by their intelligent or smart capabilities. They can leverage information from multiple sources, not just a PDM database, and present it visually in ways that help workers make faster, better, more effective decisions about products and services their company can offer.

PLM solution providers are driving the paradigm shift by creating, implementing, and supporting solutions consisting of strategies, tactics, and technologies that leverage the new enabling technologies and new processes for working and creating products. Tomorrow's successful companies will take advantage of opportunities provided by these new solutions.

Starting with PLM strategy, systems integrators are then leveraging industry and technology knowledge via their consulting frameworks to help their customers significantly improve business performance. Their approach includes:

• Integrating PLM within the larger extended enterprise including suppliers, manufacturers, distributers, and even customers

- Developing industry-focused intellectual property, including best practices for implementation and operations
- Delivering these capabilities by deepening technical capabilities organically or via strategic acquisition to support advanced PLM functionality

This new operating environment creates a fundamental shift that enables companies to move from the more traditional linear processes, to a network of mutually reinforcing processes, incorporating information from diverse sources that support continuous improvement and innovation. This will enable companies to reimagine what business they are in, what business model they can use, what products and services they can offer, and how they can impact their customers to better compete in today's fast paced, global marketplace. The result is simple—getting the right products to market faster at lower costs, and sustaining longer revenue streams and customer loyalty.

Accenture and Digital PLM

Accenture is one of the world's most experienced and leading providers of PLM strategy and technology services. It operates globally and supports a wide range of industries including automotive, industrial, communications, high-tech, aerospace and defense, and consumer goods. Recent acquisitions of PCO Innovation and PRION enhanced Accenture's PLM expertise and solution portfolio by adding technical depth and capacity to the firm's PLM strategy, technology, and services organization.

Accenture recently reviewed its Digital PLM Network and client strategy with CIMdata. The strategy consists of a new model to leverage modern PLM-enabling technology, including SMAC, to transform business processes from a linear topology to a network topology that improves business performance throughout the extended enterprise. Digital PLM is designed to provide companies with state-of-the-art capabilities to manage product definition across their extended enterprise throughout a product's lifecycle. The strategy goes beyond technology enablement, and drives the paradigm shift from optimizing the development and production of products, to an integrated network of people, processes, and technologies. This network enables companies to implement new operating models that improve ROI and business outcomes and better satisfy customer wants and needs.

In Accenture's Digital PLM Network shown in the figure below, product definition data resides at the center, and all organizations that need access can get it within the limits of security settings. This enables any organization to directly access the information they need. For example, the service organization can access product configuration definitions to do spare-parts planning for a new product release. This network style of information access improves time to market, quality, and cost. It also enables business processes to be transformed from their traditional linear flow. Conversely, this new model enables designers, engineers, and analysts to access information that is pertinent to their work from beyond the traditional PLM environment.

Research / Ideation Connected Intelligent Prototype / Validate Products in Service Retire / EOL Products in Service Partner / Sustain

Digital PLM, A New Platform to Support Innovation

This is the Product Development Value Network

Accenture's Digital PLM Network

CIMdata believes the most important benefits of Digital PLM are in how leveraging information across multiple sources can be used to drive innovation in a company's products and services. Today the comprehensive PLM technology providers are creating platforms that are flexible technology environments built on industry standards. PLM-related applications are deployed and integrated based on these standards. The platform also supports more seamless integration with other business systems and processes. Digital PLM provides a methodology and discipline to ensure that platform, applications, and processes meet company objectives.

To implement this new, flexible PLM framework and overall enterprise environment, Accenture works with clients to develop a strategy and roadmap that support organizational, process, and technology requirements. Digital PLM solutions are designed to work in both onpremise and cloud-based environments, so users can access and work with needed information regardless of their location or the device they are using. The real key is that Accenture helps their client develop and deploy new processes that better integrate and span multiple areas of the business. The cornerstone of Digital PLM is the ability to aggregate information from multiple business sources and apply analytics across that information to provide workers at all levels with comprehensive views and knowledge they need to make more informed and better decisions faster. It delivers a new discipline that will enable companies to create new services and products that form innovative solutions.

Conclusion

Increased product complexity and market pressure are today's reality for most manufacturers. This is not likely to get any easier. Counterbalancing this rise in complexity are the latest PLM capabilities, including SMAC, which can support product data and process growth. Accenture's Digital PLM Network is a state-of-the-art platform and process strategy for enabling companies to reimagine and optimize their business processes while remaining flexible to meet future requirements. Accenture continues to impress CIMdata with the broad

scope and scale of their consulting engagements and their industry knowledge. By leveraging Digital PLM, Accenture has a new, solid formula to help small and large customers succeed.

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.