

Spanning the Digital Thread on the Cloud

The CassiniPLM Platform

CIMdata Commentary

Key takeaways:

- *Cloud is pervasive in our daily lives and is rapidly taking over many enterprise application segments. Increasingly, that includes product lifecycle management (PLM).*
- *Cloud Software-as-a-Service (SaaS) helps reduce capital expenses (CapEx) and greatly simplifies operating expenses (OpEx) when compared with traditional on-premise offerings.*
- *A recent market entrant, CassiniPLM, delivers a cloud-native SaaS platform targeting small- and medium-sized businesses (SMB) that spans the lifecycle from idea through life.*
- *CassiniPLM's flexible modular platform is designed for ease of implementation and adaptation by their SMB targets.*

Introduction

In the civilized world, it is almost impossible to escape cloud computing. Today, much of our business and personal lives are mediated by the cloud, a trend noted by the German government that is central to the Industry 4.0 vision driving investment in our increasingly smart and connected world.

Cloud is also powering a revolution in enterprise software to cloud-based SaaS. Cloud-based solutions offer a wide range of benefits, including reducing or eliminating capital expenses, greatly simplify operating expenses, and letting companies of all sizes leverage an up-to-date technology stack. Companies like Salesforce in the customer relationship management (CRM) software domain and NetSuite in the enterprise resource planning (ERP) software domain are leading that push.

In 2017 and again in 2021, CIMdata led research on cloud PLM in collaboration with some of the leading PLM solutions providers. In the 2017 study, there was some interest but there were not that many offerings in the market. Since then, a number of new, innovative firms have entered the PLM market segment and in the 2021 survey CIMdata saw a great uptick in both interest and adoption. Barriers to entry to create scalable enterprise systems are lower than ever before. Infrastructure-as-a-Service (IaaS) and platform-as-a-service (PaaS) providers offer proven capabilities on which to leverage business and process knowledge to create new solutions. CassiniPLM is one such recent market entrant.¹

CassiniPLM: Spanning the Digital Thread on the Cloud

Started by PLM and software industry veterans, CassiniPLM is a small company with a very expansive vision. Founded in India in 2015, company leaders felt there was a better way to support the end-to-end product lifecycle, and built a cloud-native SaaS offering that targets small- and medium-sized businesses. While founded in India, the company serves customers in India, Germany, and the United States, with local offices in each region.

¹ Research for this commentary was partially supported by CassiniPLM.

CassiniPLM is leveraging modern technologies to build out a platform that spans from idea through life, as shown in Figure 1. CassiniPLM is a comprehensive solution that provides a unified, integrated platform for Product Engineering, Product Manufacturing, Product Quality, and Product Service modules, as shown in the corners of the figure. The company believes that this seamless integration across the product life is their key differentiator. CIMdata agrees that this expansive vision is particularly suited to supporting the SMB market, and is even broader than the offerings of many of their much larger competitors. To support product engineering within their customers, CassiniPLM offers direct integrations with many commercial mechanical computer-aided design (MCAD) solutions including SOLIDWORKS, CATIA, NX, Onshape, and Autodesk Inventor.



Figure 1—The CassiniPLM Platform Spans Idea Through Life
(Courtesy of CassiniPLM)

As documented in our global PLM market research, the leading PLM solution providers have always struggled to effectively serve the SMB market. Their solutions are often too complex and too expensive for SMB needs and budgets. The CassiniPLM team lived in this world and focused the design and implementation of their innovative solution on slashing the long deployment cycles typically found in the PLM market. As stated earlier, making PLM an OpEx instead of a CapEx is a great benefit to companies of all sizes, one that CassiniPLM believes is especially important to SMB firms.

Their cloud-native offering includes templates for many common processes as highlighted in Figure 2. The out-of-the-box (OOTB) templates provide a great starting point for adopters to tailor their own company-specific processes. This is a common practice among PLM solution providers and should work well for CassiniPLM’s target clients. The company’s near-term plans include building out industry-focused templates, often in collaboration with partners. Again, this is an important approach common in the PLM market, one that helps companies more rapidly adopt such offerings. Their product development roadmap includes IoT integration through a strategic partnership to support the management and analysis of machine data and provide digital twin functionality accessible from their core platform.

CassiniPLM is available in public, private, and hybrid cloud environments. CassiniPLM offers one major release and one minor release each year, a slower pace than some other providers but one that offers a good balance between functionality enhancements and the ability of customers to consume them. Their near-term plans for their platform include the introduction of low-code/no-code capabilities, launching an App Store for ecosystem partners to sell applications built on top of CassiniPLM, and the continued expansion of their partner

Product Engineering		Product Manufacturing		Product Quality		Product Service
✦ Innovation Management	✦ BOM Management	✦ MBOM Management	✦ Manufacturing Change Management	Engineering Quality	Manufacturing Quality	✦ Service BOM Management
✦ Requirements Management	✦ Variant Management	✦ Manufacturing Process Planning	✦ Shop Floor Automation	✦ CMII Process	✦ Quality Planning	✦ Spare Parts Management
✦ Project Management	✦ Configuration Management	✦ Bill of Process Management	✦ Material Requirement Management	✦ Problem Reports	✦ Quality Control	✦ Service Kits & Tools
✦ Design Data Management (PDM)	✦ Change Management	✦ OEM Data Management	✦ Production Planning & Scheduling	✦ Quality Change Requests	✦ Quality Inspections	✦ Product Service & Maintenance Plans
✦ xCAD Integrations (MCAD & ECAD)	✦ Workflow Management	✦ AML/AVL Management	✦ Production Control and Monitoring	✦ Non-Conformance Reports	✦ Test & Verification	✦ Maintenance, Repair & Overhaul (MRO)
✦ SCM / Git / GitHub Integration	✦ Relationships Management	✦ Supplier/Vendor Quality Management	✦ Digital Asset Management	✦ FMEA (Failure Mode & Effect Analysis)	✦ Manual & Automatic Data Collection	✦ Incident & Failure Reports
✦ Office Tools Integration	✦ Visualization & Markup	✦ Manufacturing Operations Management	✦ Maintenance, Repair & Overhaul (MRO)	✦ Root Cause Analysis (RCA)	✦ Supplier Material Inspections & Quality	✦ Service Requests & Work Order Management
✦ Document Management	✦ Conversations & Collaboration			✦ CAPA & Audit Process	✦ Inspection Plans & Inspections	✦ Service & Repair Digital Work Instructions
✦ Product Governance & Compliance		✦ Product Governance & Compliance		✦ Product Governance & Compliance		✦ Service Diagnostics Information
✦ Dashboards & Analytics		✦ Dashboards & Analytics		✦ Dashboards & Analytics		✦ Dashboards & Analytics

* CassiniPLM is available in public, private and hybrid cloud environments

Figure 2—CassiniPLM Offers a Wide Range of Process Templates
(Courtesy of CassiniPLM)

ecosystem. Low-code/no-code development is a hot topic in the PLM space today, one that offers companies the ability to greatly extend a solution’s capabilities to meet company-specific needs without customization or the use of solution-specific coding techniques common in this market segment. Today, almost all software companies strive to be a “platform” at the center of, hopefully, a growing ecosystem of software and service providers. Of course, companies want to be on platforms that they believe offer great business benefits, as we have seen in the explosive growth of the Salesforce platform and ecosystem. This is a trend that bears watching.

CassiniPLM claims early successes with customers in the United States, Germany, and India. Based on the customer examples provided to date their customers often start with one module in the a corner of Figure 1 and then expand to others over time. While their focus is on the SMB segment, they claim strong interest from larger companies higher up on the value chain. To serve all of these markets, and to expand into new ones, CassiniPLM plans to develop strategic partnerships with information technology (IT) services and leading consulting companies. The same phenomenon is true of growing service partner ecosystems: people will flock to platforms that they believe can help their business. CassiniPLM is just starting their App Store and partner ecosystem journeys and CIMdata is excited to see how this plays out in the market.

Conclusion

The Cloud is driving the world today, and the PLM market is growing its offerings and seeing increasing interest in moving to cloud-based offerings to support the product lifecycle from idea through life. Many new entrants have entered this market in the last five years, drawn in by the business opportunities and powered by new development approaches and cloud infrastructure. CassiniPLM is one of those companies and has a vision as broad as many companies at the top of CIMdata’s ranking of leading global PLM solution providers. Their focus on SMB is a good choice, as this is a market that those large companies struggle to profitably serve, and their broad vision is spot on to support product manufacturing companies looking to find their place in this smart, connected world. As CIMdata has learned during our nearly 40 year history, smaller companies have the same PLM needs and challenges as large ones, but do not have the financial resources or expertise to readily consume offerings from the larger solution providers. CassiniPLM’s unified platform approach and the ability for customers to start with a module addressing their most pressing challenges and easily expand into other areas will serve them well with customers of all sizes. CIMdata looks forward to seeing how well their platform

supports their growing customer base and how the company grows their technology and service partner ecosystem to support their broad vision and goals.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design, deliver, and support innovative products and services through the identification and implementation of appropriate digital initiatives. Since its founding over thirty-five years ago, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) solutions and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and 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.