COMMENTARY

HCLTech's xLMCloud: Accelerating Digital Transformation

Key Takeaways

As Independent Software Vendor's (ISV's) continue their march to SaaS platforms, industrial company adoption of the cloud continues to grow.

Cloud first strategies are becoming common, but companies still struggle to integrate and support the heterogenous mix of applications required for their product R&D.

Managing applications, integrations, and licensing is complex, technically and legally beyond the scope that any single ISV or platform provider can support but easily falls within the scope of top tier systems integrators.

HCLTech's xLMCloud builds on the success of the earlier solution provider-agnostic 1PLMCloud offering by expanding the range of applications, types of business models, and solution accelerators supported.

Introduction

CIMdata was impressed with the vision and strategy behind HCLTech's 1PLMCloud[1] when we reviewed it in November 2020. HCLTech recently gave us an update on their progress over the past two years.[2] As a quick review, 1PLMCloud provided one-stop shop for a mix-and-match matrix of CAD and PLM applications hosted in the cloud. It supported a very flexible license structure ranging from customer-owned licenses with HCLTech-managed services to HCLTech providing a complete managed environment.

Cloud Benefits

As PLM-enabling software evolves and becomes more complex, companies are turning to cloud-based solutions to address their needs. By leveraging the benefits of cloud computing and Software-as-a-Service (SaaS), organizations are finding that they can more easily and effectively manage their product lifecycle processes.

[1] https://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/14539-hcl-s-1plmcloud-transforming-plm-for-the-next-normal-commentary

[2] Research for this commentary was partially supported by HCLTech

One of the primary benefits of using cloud-based PLM software is the ability to rapidly deploy the solution. Unlike traditional on-premises solutions, cloud-based PLM-enabling software can be up and running in a matter of hours or days rather than weeks or months. This allows companies to quickly realize the benefits of the solution without the need for significant upfront investment in IT resources.

Another key advantage of a cloud-based PLM solution is the ability to consolidate data in a single, secure location. By centralizing data in the cloud, organizations can ensure better data security while making it easier to access and search. Furthermore, the potential for using artificial intelligence and machine learning (AI/ML) to analyze the data can enable more advanced analytics and insights.

A benefit of moving to the cloud from an on-premises data center is accessibility. With employees working from home or different locations, having access to a cloud-based PLM solution ensures everyone can access the same data and collaborate effectively. This helps reduce travel costs and other expenses associated with on-site work. Finally, cloud-based PLM software can enable remote work, which has become increasingly important in the wake of the COVID-19 pandemic.

Moving to the cloud from an on-premises data center enhances scalability. Hyperscalers, such as Amazon and Microsoft, have essentially infinite technology resources available. Capital planning and hardware acquisition timelines are no longer issues since hyperscaler services are treated as an operating expense. Computing resources, including virtual machines, storage, global redundancy, and telemetry are available on demand. Total cost of ownership often falls, as companies eliminate the overhead of on-premises data centers, and value increases because companies can focus on business issues rather than maintaining infrastructure.

Another benefit of using cloud-based PLM software is the predictable cost structure. Instead of incurring large upfront costs, organizations can pay for the system on a subscription basis, with costs typically based on the number of users or the amount of data stored. This can help companies better manage their budgets and reduce the risk of cost overruns.

As stated above, cloud-based PLM software offers a number of benefits over traditional on-premises solutions. From rapid deployment, and better data and application access to scalability and cost savings, organizations can find value in leveraging cloud computing and SaaS for their PLM needs.

Cloud migration complexity for PLM

Migrating Product Lifecycle Management (PLM) to the cloud can be a complex and challenging process due to the range of applications involved. The PLM ecosystem includes a variety of applications, such as MCAD, ECAD, software development, EBOM/MBOM/SBOM management, analysis and simulation, office productivity suites, project management, product planning, manufacturing planning, CAM, service planning, and others. Each application has unique requirements and must integrate seamlessly with others to form a comprehensive PLM solution.

Even if a core platform is deployed, there are always legacy and best-of-breed cloud/SaaS and on-premises solutions to manage. This adds another layer of complexity to the PLM migration process. Managing the integration of these applications is critical to achieving the desired business outcomes of the PLM solution.

CIMdata has never seen an Independent Software Vendor (ISV) able to offer the full breadth of applications needed to fully define a product. Fortunately, systems integrators have the skills and experience to address this issue. They play a crucial role in ensuring the PLM system is implemented successfully and delivers the expected benefits.

Systems integrators have been transforming themselves as on-premises work has changed from physical deployment and support of solutions in the data center and desktops to virtual, which was accelerated by the pandemic. They have developed new skills and capabilities to address the challenges of migrating PLM to the cloud. They can help identify the right mix of Cloud/SaaS and on-premises solutions, manage enterprise application integrations, and ensure that the PLM system is scalable, flexible, and secure.

In conclusion, migrating PLM to the cloud is complex and requires a comprehensive approach to address the integration of a broad range of applications. While ISVs may not be able to manage the entire PLM ecosystem, systems integrators can help organizations achieve their PLM goals. With their skills and experience, systems integrators can play a critical role in ensuring a successful migration to the cloud and help organizations realize the full benefits of PLM.

HCLTech's xLMCloud Offering

HCLTech's xLMCloud is a comprehensive cloud-based offering that includes a range of services, technologies, and solutions designed to help industrial companies migrate their PLM environments to the cloud. The xLMCloud offering includes cloud consulting, transformation, and operation services to assist companies with their cloud journey.

In terms of technologies, xLMCloud supports graphics intensive MCAD and ECAD as well as collaborative applications such as requirements management, ALM, PDM, and SLM from the top solution providers in a mix and match matrix enabling customers to create a heterogeneous, best of breed environment. xLMCloud also includes various solutions and accelerators, such as test automation and DevOps, which are crucial to keeping industrial solutions current with business processes.

One of the essential components of xLMCloud is its Cloud Bridge suite, it accelerates the transition of custom legacy applications from on-premises solutions to cloud-ready or cloud-native platforms with analysis, solution architecture, and low-code application development capabilities. Cloud Bridge makes it possible for companies to leverage their existing investments in on-premises applications while taking advantage of the benefits of the cloud.

In terms of business models, xLMCloud offers flexibility that lets customers choose options that best meet their needs. Customers can choose from a catalog of PLM services that includes cloud infrastructure services, PLM licenses, and cloud subscriptions. This allows companies to choose the option that best suits their needs.

Overall, xLMCloud is a broad and deep technology and service offering that is technically, financially, and operationally flexible. It has been proven effective in helping industrial companies migrate their PLM systems to the cloud. As an SI, HCLTech captures best practices from their engagements and builds them into deployment templates, enabling companies to benefit from HCLTech's experience and expertise.

Customer Successes

HCLTech's xLMCloud and its predecessor 1PLMCloud have proven track records of success in supporting heterogeneous solutions across various industries and support areas. HCLTech has a long history of providing application management services to improve performance and lower total cost of ownership for their customers. They have been able to take over responsibility for harmonizing and rationalizing software and business processes for their customers, resulting in significant benefits.

HCLTech supports major platform providers such as Aras, Dassault Systèmes, PTC, Siemens, Infor, and Ansys, while leveraging major hyperscaler platforms like AWS, Azure, and Google Cloud. This has allowed them to provide a comprehensive and flexible solution to customers looking to migrate to the cloud.

HCLTech has described to CIMdata some of their successes with xLMCloud and its predecessor 1PLMCloud. They have supported a wide range of industries, including auto and aero OEMs and suppliers, high-tech companies, and food and beverage companies. They have also provided support for a variety of areas, from CAD and PDM to simulation and end-to-end support.

Overall, HCLTech's xLMCloud has proven to be a successful solution for customers looking to migrate to the cloud while maintaining support for a wide range of applications and industries. HCLTech's expertise in application management and its partnerships with major platform providers and hyperscalers have allowed them to provide a comprehensive and flexible solution to their customers.

Conclusion

In conclusion, the trend toward SaaS platforms continues to grow as more industrial companies adopt the cloud. However, these companies often face challenges in managing the complex mix of applications required to develop and manufacture their products. This includes managing integrations, licensing, and various technical complexities, which fall beyond the scope of any single ISV or platform provider.

Fortunately, top-tier systems integrators possess the skills and experience to address these challenges. HCLTech's xLMCloud is a solution that builds on the success of their previous offering, 1PLMCloud, by expanding the range of applications, business models, and solution accelerators supported. This allows companies to effectively manage their PLM needs in a cloud environment while leveraging the expertise of experienced systems integrators.

Therefore, as companies continue to implement their cloud-first strategies, it's important to consider the challenges of managing a heterogenous mix of applications and the need for support from experienced systems integrators like HCLTech.

About CIMdata

CIMdata, a global strategic management consulting firm, provides services designed to maximize an enterprise's ability to design, deliver, and support innovative products and services. For more than forty years, CIMdata has provided industrial organizations, providers of digital technologies and services, and investment firms with world-class insight, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) topics and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and international conferences. To learn more, visit www.CIMdata.com or email info@CIMdata.com.