Oracle's PLM Cloud Connects Product Master Data from Ideation to Commercialization

CIMdata Commentary

Key takeaways:

- *Oracle PLM manages the creation, maintenance, and governance of the Common Product Model which includes the complete definition of a product or item end to end from ideation to commercialization and extends that definition to include all the operational attributes and constructs needed for to support ERP, SCM, and CRM*

- *PLM Cloud provides flexible entry to managing product data in the cloud through innovation, development, and commercialization*

- *PLM Cloud enables social product development by connecting social input to product definition for long term traceability*

- *A common product approach enables data harmonization across PLM, ERP, and SCM*

More than ever, there is a heavy emphasis on innovation and ideation within product development companies. There is fresh energy around entrepreneurship and empowering collaborative innovation. From Kickstarters to the well-established, everyone is looking at how to redefine products and services with outside-the-box thinking. Yet capturing ideas, sharing ideas, and qualifying ideas in order to create new products is increasingly challenging without the proper tools to help convert those ideas into products. With Product Lifecycle Management (PLM) Cloud, Oracle has made significant strides in connecting innovation to the ultimate product commercialization.

The challenge today is that innovation is no longer happening on a napkin at a restaurant by co-located personnel. Instead, innovation is happening in the social medium across global boundaries, in essentially a text-based stream of consciousness. The ability to capture, retain, and execute on this information is often lost or fails to be seen by decision makers.

When innovative ideas are captured, there are assumptions about the underlying requirements, the consumers, the end use, and so on. As design is undertaken, those assumptions are often lost in over-the-wall communications. Oracle's solutions are focused upon eliminating those disconnects first and foremost by assuring that the defining data is carried cleanly and consistently through each communication boundary.

Oracle's new PLM Cloud is a suite of solutions that provides a single integrated product record across the three domains of a modern product value chain as defined by Oracle: Innovate, Develop, and Commercialize. The PLM Cloud solutions are intended to enable an organization to transform fragmented product development processes into an information-driven product value chains with global, 360-degree visibility into product information, real-time embedded analytics, and social cross-functional collaboration across the entire product network.

Cloud PLM takes a systematic approach to managing the entire lifecycle of a product: from selecting and translating the best ideas, requirements, and concepts into development portfolios and projects, through to the product development and release process, and into the

supply chain and sales commercialization processes. The solution suite is built on an integrated platform designed to rapidly innovate, develop, and commercialize profitable products and includes Oracle's Innovation Management, Product Development, Project Portfolio Management, and Product Hub Cloud solutions. This matches well with CIMdata's product innovation platform concept.

Cloud PLM contains three threads which can be used together or stand alone as modules. One of the three threads is Innovation Management, where ideation, social collaboration, and requirements capture take place. Using a well-defined product development funnel process, Innovation Management embraces a "social" mode for product development that enables collaboration and ideation that can involve customers and partners. Ideas, business cases, and requirements remain linked with the discussion threads for long term traceability and validation. The second thread is Project Portfolio Management developed with the combined expertise of Oracle's Agile PLM, ERP, and Primavera teams, providing integrated project and task management, again in a social-enabled context. The third thread of Product Development Cloud (PD) is where the foundational items, BOMs, and change management functions are handled. Innovation Management Cloud is tightly connected to both PD and Agile A9, given that A9 is more mature than PD. Both PD and Agile A9 provide the work-in-progress activities, leveraging the social, traceability, and change-control that are so critical in the early stages of product development. BOMs can be leveraged from A9 through the integration, supporting product concept "what if" scenarios and design reuse.

The threads of Oracle Cloud PLM are tied together using Oracle Product Hub cloud. Product Hub cloud integrates the data via a common product model. This supports the principles of a master data management approach for creating the item and product definitions. By having a common product model from the outset of the product development process, data quality and data integrity are established earlier in the product lifecycle. Leveraging supply chain in PD means that the supplier master data is incorporated from the outset, and global considerations with product sourcing and compliance are captured within the single common product model. Customers are then able to populate Oracle Cloud PLM from multiple sources to harmonize and cleanse data through incremental updating and validating of the data accuracy. Customers can avoid rekeying data entries, and even if the customer is using ERP platforms other than Oracle's, the common product model will still allow for a comprehensive and consistent product definition rather than one that has bits and pieces of the product definition residing in different and disconnected systems. This integrated, cross-lifecycle product model is critical to supporting innovation.

There are several architectural features that distinguish Oracle's approach to the cloud from some of the other cloud PLM solution provider offerings. Oracle Cloud PLM is maintained on Oracle-owned, secured, and operated platforms, as opposed to some other solution providers who are leveraging Azure or Amazon Web Services. In addition, Oracle maintains a single architectural environment allowing maintenance updates on a regular basis, while keeping data instances isolated for each customer. CIMdata believes that by focusing on the architectural savings for the customer, the flexibility needed by the customer for configuration and processes should be more evident than with a single-instanced solution. This single architecture, multi-instanced approach makes it easier to facilitate the specific data and software compliance requirements such as FDA, ITAR, or Import/Export control of given customers. However, at the time of this commentary, those compliance components are addressed on a services basis for each customer, not as standard offerings.

In conclusion, Oracle PLM Cloud provides an integrated approach for managing innovation, design, development, and commercialization in the cloud using a common product model and

a fully integrated set of applications spanning ideation to commercialization. In doing so, Oracle is enabling companies to maintain high traceability from concept to manufacturing. By providing a cloud architecture that isolates customer data, Oracle offers greater flexibility to the customer by embedding ITAR and Import/Export controls, something many cloud PLM offerings cannot support. With the flexible path of adoption of Oracle's PLM Cloud, CIMdata believes that customers can leverage the capabilities most needed to achieve their goals, and have confidence that the data model will be consistent both upstream and downstream to support product definition.

CIMdata views Oracle as not only providing a cloud-based PLM environment, but a combination of practices and a cloud road map that targets the product definitions associated with work in process (WIP). By giving customers a path that fosters innovation through Innovation Management and the ability to connect with existing Agile platforms, data integrity can be maintained as their customers evolve into a meaningful adoption of cloud. For customers who need a better front end to the engineering side of PLM usage, Oracle's PLM Cloud closes the gaps between Innovation Management and Agile 9. We look forward to seeing how PLM Cloud is enhanced and adopted by customers in the future.

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.