Using SLM to Manage the Customer Experience Across the Product Lifecycle

CIMdata Commentary

Key takeaways:

- *Effective Service Lifecycle Management (SLM) can generate significant revenue and improve customer satisfaction, but an effective implementation requires clear vision, roadmap, and execution processes*
- *SLM includes many complex processes such as marketing and planning, sales and distribution, service parts management, and after sales support that must operate holistically and harmoniously to optimize ROI and the customer experience*
- *TCS' Service Lifecycle Management framework capabilities include Reliability Based Parts Management, Service Parts Catalog, and Configuration Management that can be leveraged using a maturity based methodology to organize and manage master data and improve service lifecycle processes*
- *TCS' legacy data remediation process uses systems engineering techniques to cleanse and integrate data from PLM, ERP, CRM, and other enterprise systems using service-related data and processes*

Service-Related Business Issues and Opportunities

CIMdata has included Service Lifecycle Management (SLM) within PLM for some time. Moves by leading providers, like PTC, IBM, and others show the importance of this space and are leading us to place more emphasis and coverage on SLM.

For leading companies, service and support related activities have become strategic. Today, capital equipment, durable goods, and even consumer goods manufacturers are more focused than ever on the complete lifecycle of their products, and are working hard to improve the customer experience and maximize both their customers' and their own ROIs. The revenue streams that can be generated from installed bases, especially on products that have a long life can be greater than what comes from the initial product's sale, with higher margins. In addition, customer satisfaction is maintained and potentially enhanced by service and support after the sale.

SLM, MDM, and Ecommerce

SLM consists of a wide variety of processes including contract management, spare parts management, helpdesk support, service call management, maintenance services, and equipment upgrades. Many companies that make capital equipment have longstanding service related businesses, but these businesses typically operate in silos that are only loosely connected to the rest of their organization, especially engineering and manufacturing. This disconnect makes it difficult for service organizations to get accurate data to support customers—leading to more downtime and reduced customer satisfaction.

A current trend in industry is to employ business platforms supported by software technology. These platforms including innovation, manufacturing, sales, and service, make it easier for companies to capture, manage, and leverage data necessary to operate their businesses

effectively over time. SLM must be integrated with these platforms to help manufacturers improve their margins and increase customer satisfaction.

A core element of enterprise platforms is Master Data Management (MDM). Master data can represent many different elements of a business ranging from customer data stored in CRM, to product definition data stored in PLM, to manufacturing data stored in ERP, to as-maintained data at the customer installation stored in SLM. The key aspect of master data is that it needs to be accurate and easily accessible; then the business platforms operate efficiently helping the business to adapt to ever changing requirements.

Integrated ecommerce is the latest trend in service organizations. By making spare parts and upgrades available via online catalogs, customers can place orders around the clock. This increases the customer's satisfaction and the service organization's efficiency.

An up to date SLM strategy and implementation can improve margins and customer satisfaction. The SLM solution enables faster response to product questions about upgrades and add-ons, faster response to support issues, and predictive maintenance to prevent downtime. In addition, accurate installed base data allows the manufacturer to more easily identify upgrade opportunities that improve revenue.

The steps to get to an effective SLM implementation are similar to other IT projects. A holistic vision and strategy need to be developed and implemented. A solution architecture needs to be defined to support the strategy and a roadmap defined to implement the architecture. These steps are critical, as SLM requires integration, coordination with other enterprise solutions including CRM, PLM, and ERP. The deployment requires careful scope and project management to minimize risk and ensure that all anticipated benefits are captured.

TCS' SLM Offerings

The TCS SLM solutions are part of the larger offerings in the consulting and solution space for both their Customer Experience Management (CEM) team and New Product Development (NPD) team. The CEM team also covers all the areas around sales, marketing, service, parts, MRO, rentals, and fleet management. The solutions are built on top of commercial ERP, CRM, and PLM technologies rather than being built from scratch. This improves the long-term sustainability of the solutions and reduces to complexity of integrations. Since TCS has deep relationships with and does development for many of the solution providers, they have a advantage over other organizations who might potentially attempt to offer similar solutions. Key elements of TCS' SLM offering include reliability-based parts forecasting, service parts catalogs, and service related configuration management. In addition, TCS can incorporate MDM and ecommerce processes to ensure tight integration with enterprise processes. TCS also offers legacy data remediation services.

Reliability-Based Parts Forecasting

This solution is able to forecast spare parts requirements and field failures based on warranty and other data. These forecasts enable improved parts availability, reduced inventory and logistics costs, and improved contract profitability. In addition it can provide information that allows companies to improve products based on their in-service use. TCS' experience with other enterprise solutions such as PLM and ERP allows them to redesign services processes to leverage existing BOM data to generate accurate service part forecasts.

Service Parts Catalog and Ecommerce

Historically spare parts operations have existed in a silo with incomplete and out of date information. The TCS solution consists of a service bill of material (SBOM) that is derived from the engineering bill of material (EBOM) and manufacturing bill of material (MBOM). The SBOM and master data are used to drive a catalog structure that stays current with the rest of the enterprise. Beyond part identification and tracking, this capability can also support retrofits and upgrades to older products. In addition, TCS has integrated their ecommerce platform with SLM and the service parts catalog. The end-to-end integration that TCS provides improves information accuracy, while reducing overhead and improving transaction speed and should increase both revenue and margins on service parts.

Configuration Management

Businesses with a service component need to ensure they have an accurate picture of what is installed in the field. By managing the as-maintained configuration or SBOM, companies can ensure that their customers' equipment is properly serviced and supported. In addition when issues or potential changes arise, the solution allows change impact to be assessed for products already in the field. In addition, the detailed knowledge of the as-maintained configuration enables additional revenue opportunities because the solution can support preventative maintenance and predict when component upgrades, retrofit kits, and new product options could be sold.

Master Data Management

TCS' MDM solution focuses on ensuring that master data is captured and managed across multiple business domains supporting diverse functions from CRM through product development, operations, service, and compliance. The solution ensures that the data is accurate and easy to access when and where it is needed. TCS' business consulting expertise, tools, and frameworks enable them to work with customers to establish an appropriate governance strategy and processes that ensure that master data is accurate and stays that way.

Legacy Data Remediation

TCS uses its consulting methodologies and frameworks to develop and execute a holistic plan comprised of the appropriate solutions to meet their clients' SLM related objectives. Legacy Data Remediation is the term TCS uses for data migration. At a high level, the process consists of the traditional extract, transform, load (ETL) process. TCS has a complete strategy to help customers develop a repeatable, scalable process to transform enterprise data so it can be used for SLM processes as well as integrating SLM data into other enterprise processes including product development.

Conclusion

Interest in Service Lifecycle Management has grown significantly due to the recognition of the revenue potential of service processes, advancements in technology, and the desire to improve the customer experience to improve customer satisfaction. In addition, the technology and processes that improve services can also support the front end of the businesses, providing requirements for product development and enabling a closed loop back to customers.

TCS has an extensive SLM framework that they have successfully deployed with many customers in a wide range of industries. Key elements of the framework include creation and maintenance of the service BOM to capture the as-maintained product configuration, Reliability Based Parts Forecasting, and Service Parts Catalog creation and maintenance. In addition, TCS includes integrated Master Data Management and Ecommerce functionality to ensure that data integrity is maintained across the enterprise and customers can order parts quickly and easily. Developing and deploying a fully integrated SLM solution is a complex project. TCS has the technology, methodologies, and industry experience to make their customers successful.

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.