Sector Insight

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Configuration Management Reduces Service and Product Lifecycle Costs

July 31, 2007

Aberdeen's Configuration Management Benchmark Report indicates that improved configuration management (CM) provides benefits across the entire product lifecycle. The report indicates that companies that are Best in Class at CM are much more likely to meet total product lifecycle cost targets than their competitors, indicating CM enables bottom line improvements in the service lifecycle. How can manufacturers employ CM to get the most out of service? What strategies should be employed to get the best results from what was once a cost center for many companies? This report furthers previous Aberdeen research on improving service chain performance, which identifies real-time access to configuration data as a core tenant of strategic service management.

Recommendations for Action

- √ Extend configuration management into the service lifecycle.
- √ Provide access to CM information for all participants in the product lifecycle, including downstream participants in service and support.
- √ Take the next step to expand what information is under CM control.

The Turn to Service

Service has moved into a more strategic role over the last decade. Traditionally many manufacturers viewed service either as a cost center or at best as a temporary crutch when product sales waned during economic downturns. Manufacturers offered product service because they couldn't sell the product without it, even when it required offering the services at a loss. Other companies went so far as to even outsource service, determining that it service was not a core capability of their business. In almost all situations, they failed to recognize the potential to gain profits from it.

Service has also become a means of competitive differentiation, as customers are beginning to look to manufacturers for solutions as opposed to simply equipment providers. As shrinking product-based profit margins are spurring the need for service-based revenue growth, service and support is now emerging as a more consistent revenue driver. Aberdeen Group research has found that after-sales service now accounts for 10% to 40% of revenue for many discrete manufacturers. This can make a significant impact on an enterprise's overall profitability, with survey respondents reporting that profit margins on service range from 25% to 1000% higher than they are on product sales.

While manufacturers are making equipment service a significant driver of total profitability across product lifecycles, it is not always being implemented in the most efficient way. Aberdeen's research found that more than 50% of original equipment manufacturers (OEMs) rely on outdated, inefficient processes and technologies to support post-sales service on their products. This can include issues in the management of call logs and tracking, work scheduling, contract and warranty management and service part management. Without clear information, manufacturing and service processes are inefficient at best. At worst, mistakes due to poor

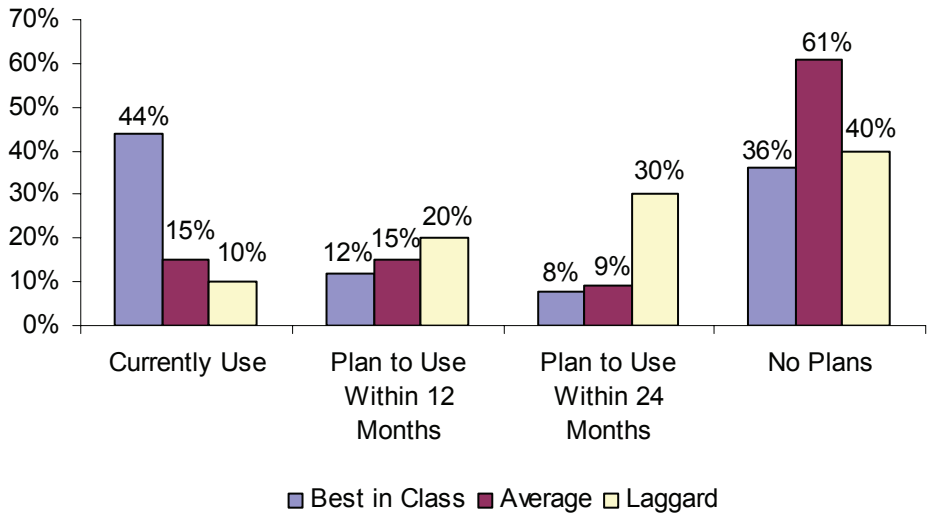
configuration information can lead to severe quality and performance issues, impacting a company's reputation as well as driving service or warranty costs out of control.

Configuration Management Improves Service Performance

Service management is about maintaining assets, whether those assets are internal and owned by the company or are serviced for others. In many industries; such as industrial equipment, aerospace and defense, medical devices, high tech equipment, consumer durables and others, these assets frequently include extremely complex pieces of equipment. Meanwhile, a collective customer base is expecting faster work order resolution and higher levels of overall service performance. The products are complex enough by themselves, but manufacturers must also take into account maintaining long lifecycles, mechatronics, equipment compatibility, and part replacement the problem becomes increasingly more difficult and complex.

This is where good configuration management can enable a manufacturer to become more efficient and see higher profits. Aberdeen Group research from *The Configuration Management Benchmark Report* indicated that Best-in-Class performers are 2.9 times as likely as average performers to have already deployed configuration management solutions to support the service lifecycle (Figure 1).

Figure 1: 44% of the Best-in-Class Support Service with CM



Source: Aberdeen Group, 2007

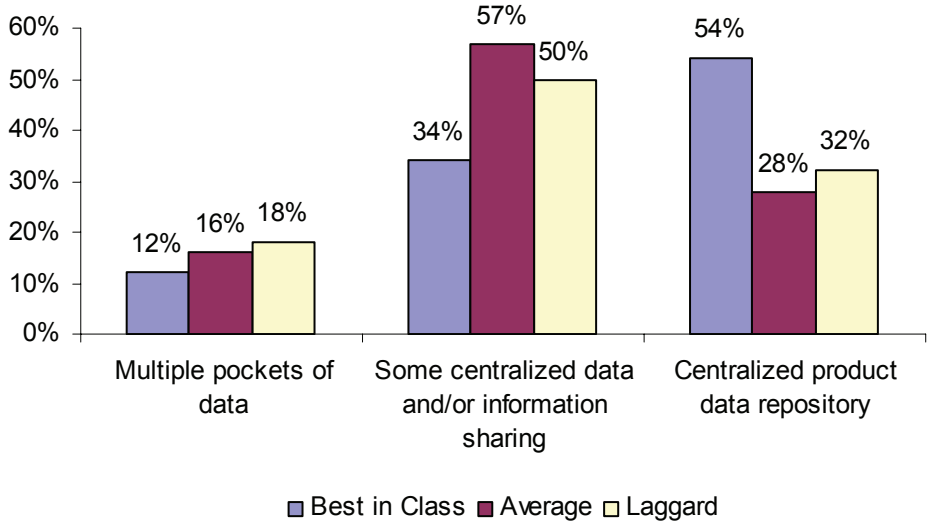
The Best-in-Class have already recognized the benefits of deploying CM in the service lifecycle. While respondents across the performance framework indicated motivating factors of improving product quality and reducing manufacturing costs in the adoption of CM practices, interestingly 39% of the Best-in-Class report adopting CM in order to reduce product lifecycle costs (versus 24% of laggards). These companies now view configuration management as a lifecycle issue that not only includes design and engineering but in-service support of the maintained asset. By contrast laggards continue to consider the reduction in product development costs as their highest CM priority. They have yet to recognize the benefits that CM practices can yield for service.

Extending & Enabling CM for the Service Lifecycle

Using CM to drive service means maintaining asset configuration as built, as installed, and as maintained. By incorporating service operations under CM control, manufacturers can better ensure that changes on products are recognized and addressed across all aspects of the commercial product including documentation, quality specifications, and manufacturing instructions. Further, when all participants in the product lifecycle are provided access to configuration information, including the downstream participants in service and support, companies can effectively improve the efficiency of their organizations. In particular, CM can permit technicians to verify equipment configurations and have the necessary tools and parts on hand prior to the service call, reducing errors and service time cycles. In other words, CM enables Lean service operations.

Best-in-Class companies indicated leveraging centralized product data to improve control of product configurations nearly twice as likely as average performers (Figure 2). By doing so, they enable all stakeholders to have real-time, on-demand access to the same configuration, product history, and other service-related data. While industry average and laggard performers are more likely to have implemented some information sharing (57% and 50% respectively), they have yet to fully incorporate an infrastructure that supports uniform data access across the entire product lifecycle.

Figure 2: 54% of Best-in-Class Have Centralized Product Data



Source: Aberdeen Group 2007

Centralized data is not enough; seeing the best results from a CM implementation requires the maintenance of clear, current and accurate product definitions and detailed service histories. Towards this end, fully half of Best-in-Class companies (versus 37% of all other performers) report extending formal configuration management into the service phase for "as maintained" bills of materials (BOMs). This includes both a complete and detailed description of how the product BOMs change as parts and subsystems get replaced as well as information such as the last service date and the engineering change order (ECO) history. Further, these companies are expanding product definitions to include not just the materials in the BOM, but a richer definition of the product. This provides a model of the product that includes materials and processes in a single, cohesive structure. Widening BOM definitions, in particular, allows companies to better coordinate the service procedures that are valid against specific product configurations. This extended model does not necessarily stop with the technical aspects of a product either, but can provide costing, documentation, and other commercial information as well; ensuring that the "full product" is in sync.

Required Actions

Equipment service represents a profit center for manufacturers only as long as the processes they have in place are efficient and well coordinated. Manufacturers should take advantage of the lessons learned by leading companies in adapting and extending their CM practices into service management. This is particularly true when it comes to broadening product definitions under CM control and expanding BOMs to encompass the needs of the service phase. This data can be better managed by implementing real-time and on-demand data access to technicians as well as others involved up

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and downstream of the product lifecycle from a central location. Adopting these practices can allow manufacturers to address the challenges found in maintaining an efficient service practice, resulting in lower costs and a higher quality of service for increased profitability and bottom line results.

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research

The Configuration Management Benchmark Report; February 2007

The Emergence of the "Chief Service Officer" September 2005

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