REPLACEMENT LIMS: CONFIGURING FOR THE FUTURE

For many of the very early adopters of laboratory information management systems (LIMS), much of the return on investment in these early systems has run its course. The early LIMS were purchased and customized to address specific laboratory requirements and were effective production, automation and research tools. However, as new laboratory technology and process changes have been introduced over the past 20-plus years, LIMS to support these changes has also evolved significantly.

This has resulted in outdated systems with custom coding that is not only expensive to maintain, but only address the specific needs of one laboratory, in one isolated location. Worse yet, it may no longer even be applicable to that laboratory's needs. However, organizations are forced to keep their old, inefficient processes in place solely because that is the only way their legacy systems allow.

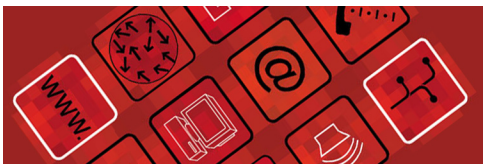
This evolution has many laboratories re-evaluating their current LIMS requirements, while keenly aware that fast-paced technology advances requires them to consider their long-term future needs when evaluating these systems. According to Jonathan Witonsky, manager and industry analyst with Frost & Sullivan, LIMS market growth will be fueled by large pharmaceutical companies replacing their aging legacy LIMS. [1] Jon Witonsky adds that laboratory requirements have changed dramatically and LIMS must provide an enterprise-wide solution capable of supporting multiple business units spread out over a variety of geographic locations. He also comments that easy-to-integrate, off-the-shelf solutions are the future-proof solutions that provide expansion flexibility that will continue to provide value over a longer period of time.

Because many of the larger companies have a global footprint for both research and manufacturing, LIMS need to be evaluated as a strategic component of an organization's overall operational and IT infrastructure. LIMS decision makers are not in the laboratory alone, but should include the operations executives and IT professionals evaluating the strategic impact and value of the LIMS on a global scale. Ultimately, LIMS should be evaluated based on its functionality, flexibility, and technology.

[1]GEN News, December 2007

FUNCTIONALITY

Expenditure and investment in both capital and human resources are usually at the top of the list for evaluation. A LIMS must provide a measurable return on investment and demonstrate a lower cost of ownership. On the one hand, point-specific systems that require either multiple LIMS or extensive customization to meet enterprise-wide needs run opposite to those objectives. On the other hand, a configurable off-the-shelf LIMS, such as LabVantage's SAPPHIRE™, can operate on the same thin-client, enterprise platform and provide out-of-the-box solutions for research & development, biobanking, stability, quality management, and more. This offers the advantage of managing only one functionally rich LIMS across the entire enterprise increasing knowledge sharing, easing end-user adoption, and reducing cost of ownership.



FLEXIBILITY

Impact on existing policies and procedures both within and beyond the laboratory play a significant role in the evaluation. Establishing standard policies and procedures can often take more time and investment when compared to technology implementation itself. Therefore, the configurability and adaptability of the LIMS should be scrutinized. Flexibility of the LIMS is critical for process adaptation, expansion, and interaction across and beyond Accordingly, decision makers should evaluate the extent of a LIMS' configuration capabilities. Are they limited to layouts and user roles, or can you configure the specific fields, labels, rules, and workflow in the LIMS. Is that configuration achieved through hard to maintain custom code, or through easy-to-use configuration tools? Will such flexibility and tools reduce validation cost & effort and eliminate the reliance on high cost programming resources? Flexibility is also demonstrated in solutions with open platform architectures that allow for ease of integration and interfacing, especially if they offer the latest in certified interfaces to critical enterprise resource planning systems such as SAP.

TECHNOLOGY

At the end of the day, the purchase of a LIMS is a technology purchase and therefore all the typical technology concerns have to be considered. At the top of the list are a few key concerns such as, how current is the underlying technology, does it fit into the organization's overall IT infrastructure, how easy is it to deploy, and how difficult is it to maintain. LIMS purchasers should seek out vendors who can best address these questions with a solution that uses current thin-client, browser technologies. A LIMS with a zero footprint architecture can provide secure enterprise-wide access with no plugins, downloads, or applets on the client, making it easier to access, deploy and maintain -- ultimately, enhancing ease of use and lowering cost of ownership. In addition, LIMS with true multinationalization support (M18N) can provide multi-site, multi-language capabilities meeting global requirements and enhancing the user's experience.

As companies continue to evaluate the pros and cons of replacing a legacy LIMS, they should keep in mind that while replacing a LIMS comes with a cost, not replacing it may have not only the actual cost of maintaining an outdated system, but an opportunity cost that could far exceed the new investment. Although business requirements and objectives will differ company to company, a configurable off-the-shelf LIMS that leverages the latest in thin-client computing is designed to meet the varied demands and deliver value today and into the future.