

A New Approach to SRM: The Modular Advantage

Storage Resource Management (SRM) is the current hot industry buzzword, sparking a frenzy as enterprises and small to midsize businesses rush to evaluate their SRM options and hope to cash in on the potential cost savings promised by SRM technology.

As with most buzzwords, SRM can be defined in a variety of ways to describe a broad range of functionality much of which goes beyond just administering storage, but in a nutshell, it is all about providing a toolset that optimizes the management and utilization of existing storage/server/backup resources to improve the availability and reliability of business-critical data while lowering the TCO of enterprise storage. The typical SRM solution encompasses a broad range of functionality including the processes and technologies required for capacity planning, discovery, configuration, monitoring, provisioning, performance and reporting of storage/backup devices and the underlying infrastructure.

SRM is designed to solve what is perhaps the biggest challenge facing IT administrators: how to control the soaring costs of storage management. Excessive storage management expenses are part of a fundamental paradox in the storage industry where as the storage capacity becomes cheaper to deploy, the cost of managing that storage continues to increase. As demand for storage continues to increase at an accelerated pace, the storage management problem becomes even more acute. The need for effective SRM is apparent when considering that the growth in the demand for storage is not about to abate any time soon. According to projections from IDC, external storage-system capacities will continue to grow at a compound annual rate of about 50 percent through 2007.

Against a backdrop where CIOs and other IT executives are scrambling to reign in the exploding IT costs, SRM has been proposed as the answer to all their problems. While attempting to bring an overarching solution to storage management, a comprehensive SRM solution can sometimes be counterproductive in terms of the cost, internal manpower and

the extended timeframe required for design, development and deployment.

There is also another gap in the concept of an enterprise SRM solution: It imposes a top-down decision-making structure and presupposes that every department or application throughout the enterprise will experience the same storage pain points. In effect, by imposing a one-size-fits-all set of management rules throughout an organization, enterprise SRM might just be inflicting more pain than it eliminates.

A more useful approach is the "SRM-by-the-slice" model that puts the SRM decision making at the same level as the storage pain point. Such a modular approach to SRM enables the administrator that is directly responsible for the storage or application performance to select the best tools to eliminate his specific storage pain points. Modular SRM also addresses the budgetary and time constraints of conventional SRM solutions, enabling IT departments and small to midsize businesses to solve a very specific backup, availability or other application-specific pain point quickly without launching an all-inclusive storage management solution right away.

For example, it makes little sense for a company that is operating with DAS and NAS storage to have to pay for SAN management functionality. In the past, the option for a mid size business that has not ventured into deploying a Fibre Channel SAN has been the unnecessary expense for the comprehensive feature set of an enterprise SRM package or having to go without. Similarly, a customer that needs reporting and analysis of a backup bottleneck should not be forced to pay for database monitoring and reporting functions.

The modular SRM model benefits can be summarized in three key areas:

- **Cost:** the pay-as-you-go SRM model enables organization to solve their most critical storage management problems with

immediate payback, but without the budget-busting expense of investing in a complete enterprise SRM solution. Instead, they can build a total solution piece-by-piece as budget allows and end up with an enterprise SRM package over time, if that's what's needed.

- **Time to Deploy:** an organization with an urgent storage, server, backup, or application pain point can quickly get that problem resolved with a single targeted SRM module rather than going through the evaluation, bid and budget approval and extended deployment timeframe required for a total enterprise SRM installation.
- **Precision:** Modular SRM enables IT managers to deploy an SRM point solution that specifically targets their most serious storage/backup pain points, ensuring that the SRM deployment will actually produce the desired results.

In addition to the benefits it offers to end users, modular SRM can also be a potent and innovative sales tool for storage vendors. A backup solutions provider could deploy a backup SRM module at the customer site and quickly provide a detailed assessment and analysis of the customer's existing backup infrastructure, precisely identifying pain points and even potential future problems. The SRM reports are a powerful sales tool, allowing the vendor to demonstrate to the customer exactly where the shortcomings and bottlenecks are in the storage installation and how the vendor's solution can alleviate those problems. At the same time it reassures the customer that he is not overbuying, and allows him to quickly and easily evaluate how the product will solve his newly-identified storage problems.

There is an important distinction to remember when considering deploying a modular, scalable SRM solution: modular should not mean standalone. As an organization's SRM requirements grow and additional SRM modules are deployed to address new storage pain points, the framework must support a management of all deployed modules from a centralized console. At any time, if the organization chooses to add another module or launch an enterprise-wide storage/server/backup resource management initiative, the investment in the existing modules is protected as they always fit together as part of an integrated SRM software suite across the entire heterogeneous storage enterprise.

An example of a powerful, yet modular, SRM offering is Profiler. The modules perform asset management, alerting and notification, performance management, capacity planning, forecasting/trending, backup reporting, policy management, file analysis and more, in both real time and historically, and users can implement as little or as much pain relief as they need as their network grows. Profiler modules currently include tools for the most popular operating systems and databases, DAS, NAS, SAN and backup. Profiler easily integrates with existing systems and a variety of operating environments such as Solaris, Microsoft Windows NT, 2000 & Exchange, Linux, Netware, HP-UX and AIX.

SRM is a powerful tool to combat the extreme costs of managing storage assets. The value of a dependable SRM solution will continue to increase as organizations face increasing storage challenges beyond the ever-increasing data loads. New regulatory demands and data retention and archiving requirements, the need for more secure storage, and performance optimization and improved storage utilization are key requirements that directly impact a business bottom line if not adequately addressed.

While there is no doubt that SRM technology is the best hope for IT administrators to solve these storage issues to optimize their storage environments and reduce storage management expenditures, there is no single best answer as to how to deploy an SRM solution. For some organizations, an all encompassing total enterprise deployment might be the best answer. However, not every organization has the same SRM requirements. The modular SRM model recognizes this reality and allows IT operations to selectively deploy SRM solutions that can produce the best ROI by targeting the major storage pain points that are impacting an organization's storage operations, application performance and ultimately, profitability. The cost, time to deployment and targeted pain point resolution make modular SRM an attractive option, enabling organizations to take a modest first step into SRM with an optional compatible growth path into a future full enterprise deployment.

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