



Just Buy Another Hard Drive
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Treadstone 71

Who uses the most disk space in your company within your LAN environment? How quickly can you find out? Does your IT staff monitor and manage your data storage across all platforms (Windows, UNIX, Linux, Novell)? How many copies of the same file exist in multiple locations and how much wasted space do you have in your organization? Who uses the most disk space in your company within your email environment? Do you have policies for data storage for your enterprise email and LAN environments? How much do you spend each year in additional data storage hardware because the knee-jerk reaction is simply to add more storage to your ever burgeoning IT budget? Data storage is pretty cheap and relatively easy to implement so why not *just buy another hard drive*?

If you already have the answers to these questions at your fingertips, read no further. Chances are you will continue reading.

Storage is the highest growth area in computing environments today. This means that storage must be available, capacities monitored, policies implemented, and resources utilized optimally. In part, storage resource management can help solve your problems. The other half of this equation comes in the form of implementing storage policies that you ease into the corporate culture over time. This article will focus on storage resource management.

So just what is storage resource management (SRM)? SRM is the ability to monitor, notify, report, define and enforce processes and practices that support storage best practices within your highly complex, heterogeneous storage infrastructure. SRM provides automated management of both physical and logical storage focusing on capacity management, configuration control, availability and optimal performance.

Failure to strategically manage your storage environment is a very costly proposition and can put you and your organization at extreme risk of data corruption and or loss. All organizations without exception need to develop and implement a storage management strategy that ensures data availability and scalability for now and the future. This can also ensure that costs are controlled while actually utilizing storage resources that heretofore seemed non-existent.

In acquiring a solution for SRM, there are a few standard feature-sets that must be considered. Your SRM tool must be able to track and monitor disk usage and performance; detect and generate alerts prior to errors automatically; provide historical information based upon usage patterns for capacity planning forecasting and trending analysis; identify wasted space across a heterogeneous, multi-vendor storage environment; provide usage quotas and prevent outages; centralize management from a single interface; manage switches and bridges; have the capability to provide mirroring, zoning, LUN masking and mapping for the secure concatenation of multiple physical drives creating a large virtual pool of data storage

resources in a multi-vendor storage environment (storage virtualization); instant copying; and the ability to remotely administer all of the above.

Storage virtualization, the ability to make your multi-vendor storage environment look like it is all the same providing a shared, logical pool of data storage, is a highly cost effective way to improve your storage utilization. Your IT staff will be able to incrementally allocate storage for efficient and cost effective growth of your environment. By utilizing the single, centralized interface, your IT staff can magically make one hard drive look like many or many look like one. Instead of having one gigabyte on your Unix-based device, eight hundred megabytes on your Linux server and four hundred megabytes on each of your eight Windows servers, you now have five gigabytes of storage available through one interface. Your IT staff can create mirror drives for added redundancy and higher availability. They can manage from this one interface across their UNIX, Windows, Linux, and Novell platforms and even manage SCSI, fibre channel, or JBOD (just a bunch of disk) raid arrays. With the administration through one central interface for all your storage needs including backup and recovery, the amount and sheer cost of hardware and software is significantly reduced.

Imagine the ability to fully utilize your storage environment and the capability to instantly create highly available environments for your mission critical data. Imagine how your servers and network will perform with LAN-less backups that sweep data from your mirrored standalone raid arrays. SRM is a way to manage your storage costs, improve information technology efficiencies and improve the performance and reliability of our data storage infrastructure.

Data resides on a storage device at both ends of every electronic transaction. At the epicenter of each transaction is data storage. Whether this transaction takes place internally or is due to ecommerce, email, or web-based downloading, storage is in the mix. This indicates a need for a centralized management solution and team to utilize SRM techniques. Maybe your IT team is not up to the task. Most likely, they are already overburdened and spend most of their time fighting fires. The question that needs to be asked and answered is: How valuable is my data and how long can I afford not to have access to it? In most cases, anything more than a few minutes is a few minutes too long.

If your IT staff is already over tasked and over utilized, maybe the answer is to outsource this to someone who already knows how to implement and manage such a solution. Does your IT staff have time to learn the special skills and acquire the experience required to carry out a storage resource management strategy? As much as 40% of your systems administrators' time is spent managing storage. As much as 30% of your systems administrators' time is spent backing up and recovering your mission critical data. Having knowledgeable operational staff manage this can free up your staff to focus more time and effort on other systems administration tasks that will improve the efficiency of your IT environment and deliver greater service to your end users and customers alike.

The SRM toolset coupled with solid storage policies that your information technology department can implement across the enterprise *with the full support of all department heads*, you can begin to reap the rewards you are entitled to. You can start avoiding premature hardware and software purchases. You can reduce capital expenditures for new hardware as well as the labor costs of managing storage resources. You can more easily manage the same and more devices with fewer

resources. You can begin aligning your storage strategy with your business requirements while reducing your overall IT costs and potentially giving your company a competitive advantage. Begin protecting both your business-critical and mission-critical data today. There is absolutely no reason not to. Or, if you prefer, you can *just buy another hard drive*.

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