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Hiring a Director of Storage (Economics) is an ROI Winner

Creating a new position to deal with the growing storage problem can lead to tens of millions of dollars in savings for large enterprises through better visibility throughout the environment. Rather than focusing solely on improving utilization, organizations can reduce the growing cost of owning storage while improving performance and availability.

Storage costs are growing exponentially, and already storage accounts for a top three expenditure for IT organizations. Yet, most organizations do not have a director of storage on staff who can keep costs under control. Such a position could save large enterprises tens of millions of dollars through better utilization, reclaimed capacity, and automated processes.

This white paper will explore:

- The need for organizations to create a Director of Storage (Economics) position to combat the rising costs of storage
- Why utilization and cloud services are not enough to mitigate the rising cost of storage management
- Using automation to reduce the operational expense of your storage environment
- How a central storage reporting tool can help the Director of Storage (Economics) keep storage costs under control while improving services to the rest of the organization

Data Growth Explodes...

Remember a time when data was measured in megabytes and kilobytes? It was a simpler world. You'd wake up on a Saturday morning, plug in your eight-bit Atari and play Space Invaders for hours on end, none the wiser about storage area networks, private clouds, and virtualization. Now storage is measured in terabytes, and many people are talking about data in terms of zettabytes—or one trillion gigabytes.

Relieving Tension Between the Application and Storage Teams

Athens versus Sparta. Chocolate versus vanilla. Dog owners versus cat owners. Add one more to this list of natural rivalries: the application and storage teams. While seemingly working toward the same goal, application and storage groups have two divergent roles within an organization's mission. While the application team is tasked with creating and managing fast and powerful apps, the storage team's responsibilities include creating efficiencies and doing more with less. As a result, there's a constant battle between developers constantly asking for more capacity and storage teams trying to keep them in check. The tension is exasperated by a lack of visibility into storage usage on the application level. Tracking and reporting on utilization in real time can improve the dynamic between the two teams—something that a Director of Storage (Economics) can help facilitate.

How did we get here?

Listen, it's no secret that data growth is exploding. According to Gartner, the world created 1.8 ZBs in 2011, a growth rate of 9x over the past five years. Our collective knowledge, measured in total data stored on the planet, effectively doubles every two years. That's a lot of zeros. It's not just email, CRM environments, streaming video, and social media that are driving growth. Robust data protection policies in an increasingly shrinking and dangerous business environment are contributing to this expansion as well. It's not just mission-critical data that is getting backed up to multiple copies and replicated to disaster recovery facilities. Fear of losing any data is forcing companies and even individuals to back everything up to multiple platforms.

..And with It, the Cost of Storage Goes Up

With data growth on the rise with no signs of abating, organizations need to get a better handle of their storage costs. That budget would be better spent on expansion, new tools, or training. Already, storage amounts to one of the top costs for any-sized organization, making it difficult to understand why so many continue to ignore the rising cost of maintaining, securing, and protecting data.

However, it's important to look at storage economics to get a better idea of the problem we are facing. Moore's law tells us that storage costs should be shrinking, and they are. Spinning disks are becoming cheaper to manufacture every year, and managers, CFOs, and IT administrators see this line item and think it's ok to keep throwing storage at the data growth problem. Instead of asking why the basement is flooded, these organizations just keep buying more buckets. It's easy to see why storage budgets continue to rise.

The real problem isn't capital expenditures. It's with the growing operational costs of owning the storage you've already purchased. Gartner estimates that it costs $5,000 per year to own 1 TB of storage[1], nearly double the cost in 2005. That's a big problem since we're talking about petabytes upon petabytes—making the cost of owning storage a ten million dollar problem for many organizations.

[1] Gartner. Gartner Data Center TCO Study. June 2012.

A New Director of Storage (Economics)

Despite the evidence that data growth and storage demands are costing organizations tens of millions of dollars, management seems to be ignoring the problem while focusing on other priorities. It's common for large organizations to employ directors to manage other IT initiatives such as enterprise security, applications, and architecture, streamlining huge programs to get the most out of available resources without impacting services. As of March 2013, there were 40,000 listings for Director of Security on LinkedIn, 17,000 listings for Director of Architecture, and 27,000 listings for Director of Applications. Many of these resumes highlight the ability to manage ROI calculations around improving IT security, building a more robust next-generation architecture, or improving the management of enterprise applications. And Director of Storage? It includes 3,500 current listings on LinkedIn, many of which are analysts or work for storage vendors.

Despite being able to deliver tens of millions of dollars in savings, very few enterprise organizations have a Director of Storage on the payroll. This role has the potential to get storage costs under control while meeting the data needs of the business in an efficient and responsible manner. If hired, these executives could end the days of simply throwing storage at the problem and usher in a new era that embraces a smarter, more economical way of dealing with data growth in today's new dynamic business environment.

Formulating a Plan to More Efficient Storage

Organizations ahead of the curve are already dealing with rising storage costs by implementing utilization and efficiency strategies. These organizations are using advanced storage resource management techniques to reclaim storage that is not being used, move infrequently used data to a lower (ie. less expensive) tier, and eliminate data that it should not be storing such as non-compliant data or redundant files.

Other organizations are embracing cloud technology to streamline storage economics. These companies have figured out that outsourcing storage management (OpEx costs) to a third-party works economically. They are able to pay a flat rate per gigabyte

of storage and don't have to worry about the rising complexity and costs of data protection and security. The cloud model also fits well with the new mobile workforce, providing ubiquitous data availability wherever users are able to log on. Now organizations are embracing the best of both worlds by implementing private cloud networks where they are able to combine the security and performance of data center architecture with the flexibility and economics of the cloud. IT managers are able to calculate the cost of data storage on multiple platforms and better align architectures with limited budgets and based on business needs.

Enabling Utilization and Efficiency Requires Manual Maintenance

However, while in-house storage utilization strategies and the efficiency of the cloud help bring storage costs down, it's simply not enough. Data center infrastructure, cloud computing, and hybrid private cloud architectures require a lot of manual maintenance to maintain a robust storage environment that is able to comply with dynamic data protection, security, availability, and SLA requirements. Reporting on capacity, usage, backup status, forecasting, and compliance all require manual administration that unfortunately relies on massive spreadsheets with tens of thousands of rows. Keeping track, much less analyzing the information, requires an army of administrators who must process fulfillment requests, internal audits, and regulatory compliance—much of it across disparate platforms.

IDC's Digital Universe study estimates that while file growth from 2005-2015 will be 75x, headcount to support all the new files will be only 1.5x. This shortage of hiring to keep up with storage growth will continue to put IT departments in a position where storage administrators are consistently forced to do more manual processes across a larger environment with less people. As organizations expand globally, enter new markets, and launch new products and services, data will continue to grow out of control, and there is simply not enough budget to hire administrators to maintain these utilization and efficiency strategies. One problem begets another.

Three Steps to Achieving Visibility Throughout the Storage Environment

This is where the new Director of Storage (Economics) comes in. By implementing automation throughout the storage reporting process, a Director of Storage (Economics) can help reduce the amount of manual administration required to create visibility throughout the storage environment. Management information such as capacity, usage, and backup state can be collected automatically and viewed in a single dashboard. The information could be updated in real time, providing a snapshot of the storage environment as well as historical and forecasted information.

Getting a better handle on the storage environment while proactively identifying and meeting the needs of the business dramatically reduces the operational expense of owning storage, helping to reduce the $5,000 annual cost of owning 1 TB. At the same time, fire drills, emergency buys, and large labor-intensive fulfillment requests can be mitigated or eliminated altogether.

Here are three steps that a Director of Storage (Economics) can follow to create visibility into the storage environment and reduce storage costs:

1. **Create a Baseline:** The first step is to figure out how much storage the organization has and how much it costs to purchase and own the storage. Administrators don't have time to run capacity reports for each LUN so a storage reporting solution that continually monitors capacity in real time and provides end-to-end visibility is required. By knowing exactly what they have, organizations can then make smarter decisions about tiering, provisioning, procurement, and compliance. In emerging pricing models, they can check vendor billing by comparing allocated storage versus used storage. The same comparison can be used to track baseline utilization rates for traditional enterprise storage purchases. Complete and accurate visibility procured automatically would increase transparency and make over-billing customers much less likely.

2. **Determine Utilization:** Secondly, it's important to determine how storage is being used—and whether it is allocated appropriately. Human nature dictates that everyone wants the latest and the greatest, but do group managers really need all their data to be stored on tier one storage? It's likely they don't, but lack of insight into the true cost of storage prevents them from being frugal. It's just much easier to go with the platinum option. However, once they know that they can save the organization 20 to 40 percent annually by migrating to a lower tier, they're likely to take that option (and then take credit for the cost savings). Administrators can also identify redundant files or types of data that shouldn't be on the network—such as a marketing manager's iTunes library. This reclaimed storage can delay purchases and save the organization millions of dollars. Visibility into the utilization of storage and the types of data being stored helps enforce IT policies and better align IT services with real business needs.

3. **Make the Information Relevant:** All the information in the world is useless unless it can be turned into action. Giving department managers insight into true storage costs allows them to take the cost of managing storage into account when figuring budgets. It also puts the onus on them to justify the cost of new business initiatives and the associated burden on the IT department. The Director of Storage (Economics) should work with them to automatically generate easy-to-read reports with pertinent information. This would extend storage visibility and analysis from the IT team to the rest of the organization so everyone can make smarter business decisions. Ultimately, this will show that IT is serious about creating cost savings for the rest of the organization, elevate IT in the eyes of the operations staff, improve efficiencies throughout the company, and increase user productivity.

Conclusion

The need for a Director of Storage (Economics) is real and can help large enterprise organizations save millions of dollars through better utilization and new cloud infrastructures. However, automation can enhance savings by reducing the cost of managing and owning storage—the real problem of explosive data growth. This requires a central reporting tool that can provide administrators holistic visibility throughout the storage environment and the ability to drill down to individual systems for in-depth reporting and analysis. The right solution can eliminate manual reporting while making it easier to meet availability and performance SLAs as well as compliance requirements.

The potential for a quick ROI makes a Director of Storage (Economics) a good deal—one that makes perfect business sense. For more information on how you can streamline storage reporting to help keep costs under control, please visit **APTARE.com.**