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## CONTROLLING STORAGE AND IT COSTS

In today's economy, companies are struggling to control costs. IT departments are being asked, even required, to do more with their current resources, the goal being to maximize the use and effectiveness of their infrastructures. Organizations are pursuing this goal in several ways:

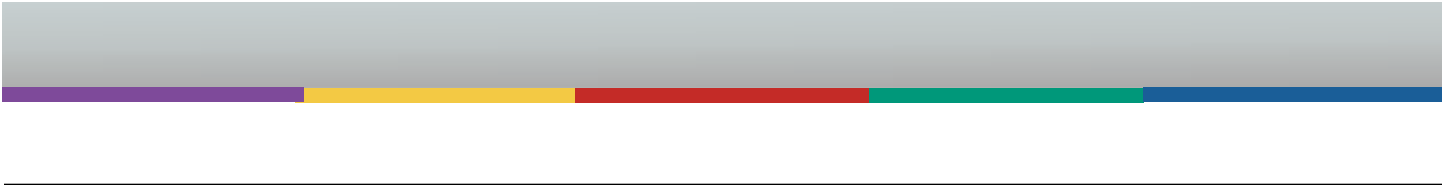
- o Virtualizing Servers
- o Optimizing Resources
- o Reclaiming Storage
- o Condensing Responsibilities

As resources are stretched, managing them is more critical and more difficult. Virtualization can obscure performance issues and complicate storage management. Administrators trying to maintain their SLAs can quickly lapse into reactive mode, delaying true management of the environment by focusing on the immediate issue without a view of the big picture. Often reactive management leads to further complications and inefficiency. Home grown scripts and tools quickly become outdated as technology and personnel change. Under such conditions, management ineffectually and incompletely evaluates the environment and plans for the future by basing its decisions on outdated, incomplete, or minimal information.

Accessing information and getting visibility into the operations of an IT environment shouldn't be difficult. But the unfortunate reality is that it is difficult. Particularly in diverse, heterogeneous, and distributed environments made up of storage, servers, and applications from different vendors and serving different purposes. Further complicating the matter are native tools that provide only limited visibility, and often only into the devices they're bundled with, preventing administrators and managers from seeing those devices and their performance in relation to the larger networked environment.


What's needed is a simple and easy-to-use tool that provides end-to-end, actionable visibility into the IT infrastructure, and that also enables cost savings and optimization. That's where Tek-Tools Profiler comes in. Profiler provides a wealth of information, but how do you align the information to your cost control strategies and alleviate the pain to implement and monitor them?


Profiler can identify opportunities for storage reclamation and resource optimization, allowing you to leverage those opportunities into real storage, performance, space, and power savings. The same data collected to optimize resources enables Profiler to also provide management with trending, forecasting, and categorization information in order to make the right decisions for their specific organization's needs.



With Profiler, customers have reclaimed an average of 30% of their storage that was unused or wasted. For every terabyte of reclaimed storage, organizations save approximately \$10,000. The average Tek-Tools customer realizes an ROI of up to 40% within three to six months.

Below are ten different ways you can reclaim or repurpose resources in your environment:

1. **Server Consolidation** - Profiler identifies candidates for virtualization via its server consolidation reports, allowing organizations to retire hardware, reduce power consumption, streamline management, and free up rack space.
  2. **Recover Resources in the Virtualized Infrastructure:**
    - a. Identify unused virtual machines that can be turned off in order to reclaim performance capacity, or deleted in order to reclaim storage.
    - b. Find orphaned VMDK files that can be deleted, freeing space and improving performance.
    - c. Expose virtual machines with over-allocated resources (storage, CPU, memory, etc.) that can be released back into the virtual infrastructure.
  3. **Array Capacity Reclamation** - find storage on arrays that is unused or allocated but free: If you are leveraging your storage fully, you can retire storage you don't need anymore, and put off future purchases of additional storage.
  4. **Clean Your Files** – Do you know what files can be archived or deleted? Identify files and directories by age, size, and ownership that can be relocated or removed, reducing primary storage usage, backup size, and duration, as well as disaster recovery requirements.
  5. **Snapshot and Mirror management** – Do you know how much storage you are using for snapshots and mirrors? If the protection policies exceed your SLAs or recovery point objectives, you could be consuming production storage with copies of data you don't need.
  6. **Identify Thin Provisioning Candidates** - Discover file systems using a fraction of their allocated storage and that are growing slowly.
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7. **Tier Your Storage** – Do you know when you can move your storage to less expensive tiers? Identify storage that can be moved to other tiers based on usage and performance, and either free up your performance storage for I/O hungry applications, or add less expensive storage in your next capital expenditure.
  8. **Save Time** - Are your administrators tracking storage the old way - with manual processes and populating outdated spreadsheets? Profiler can alleviate the data collection, correlation, and dissemination of reports with automation, allowing administrators to focus on productive tasks.
  9. **Grouping and Reports** - Do you need to perform budgetary planning, charge other departments for your storage or size your DR site (plus growth)? Profiler allows you to group resources in ways that serve your business needs and meet your business objectives of maximizing the use and effectiveness of IT resources and budgets.
  10. **Optimize Backups** - Profiler can identify underutilized backup resources, as well as identify old and stagnant data that can be removed, freeing storage, reducing the size of backups, and enabling you to maximize the use of tape drives and media servers, so that money doesn't have to be spent needlessly.

Organizations pay employees and consultants to manually track backup failures, manually collect performance and storage trending, and manually track storage utilization. Typically such efforts only add to further inefficiency, complexity, and an incomplete and ineffectual view of IT. Even without today's economic challenges, companies cannot afford to continue managing IT resources blindly and with inefficient, error-prone procedures.

Under these circumstances, a solid and proven reporting, monitoring, and forecasting tool is invaluable. Managers and administrators cannot optimize and maximize their IT infrastructures without first gaining real insight into what resources are available, how they are being used, and what will be needed both in the near and distant futures. A storage resource management suite like Tek-Tools Profiler enables organizations to do more with less, freeing up time for core tasks and utilizing resources in the most cost effective manner possible.