A Better Way To Manage Your Storage

TeraCloud brings detailed file level management to open systems

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Abstract: TeraCloud recently released storage resource management (SRM) software and services for open systems. Their management software now enables file level management and detailed analysis for open systems. TeraCloud is committed to deliver enterprise class SRM capabilities to mid-market open systems environments.

TeraCloud, founded in 1991, has been developing storage resource management (SRM) software for more than 15 years. The core of their knowledge and experience is firmly rooted in the mainframe space. TeraCloud has a solid track record of success, providing real solutions that deliver value to their customers. This is evidenced by their 94% customer retention rate. In 2002, TeraCloud made a strategic decision to expand their portfolio of offerings and include solutions for open systems. This shift required them to re-architect their core software, a three and a half year undertaking, but having cut their teeth in large IT shops, they knew that the solutions had to be bulletproof. In late 2006, they introduced their first re-designed product, TeraCloud Storage Framework Professional (TSF Pro) that works with either open systems, mainframe environments or both. Their goal is to deliver high quality enterprise class storage resource management software to the open systems market.

IT shops in companies of all sizes are being pressured to curb their expenses and deliver higher levels of service to the business. One of the areas receiving a great deal of attention is capacity utilization. This is due to the fact that increased utilization can result in deferred capital expenses and reduced operating expenses. Basically, they do not need to buy new storage capacity nor pay for the power and cooling of the extra storage. An additional bonus is the fact that by deferring the purchase of new storage, they can take advantage of year over year declining disk prices. Clearly, the least expensive storage is the storage that you already own. Ensuring higher utilization is one way to optimize storage. Another method is to create additional space from existing storage by archiving off old data or removing irrelevant data. The key to this approach is having the granular level of information that lets you fully understand and classify what you have and how long you have had it. Only then can best practices be established that enable the removal of old or non-essential information, freeing up space for new data. Long established as an enabler of best practices in the enterprise space, TeraCloud is now bringing this discipline to the open systems world.

The reason SRM software exists is to allow storage administrators to more effectively view and manage their storage environments. TeraCloud's approach to effective storage resource management is to provide detailed information and analytics of the storage environment. Their software goes deeper than just volume information. TSF actually drills down to the file level and is capable of collecting thousands of metrics. This granular information enables more efficient decision-making and more effective management of storage resources. TeraCloud also supports their customers with TeraCloud Storage Analytics (TSA), a service that helps to fine-tune environments to business objectives based on industry standard best practices. They have been refining this technology for the last 15 years and leveraging that experience to deliver the service for the last four years.

Analysis

There is a widely known saying that "you can't manage what you can't see." TSF provides the ability to see what you have and collect the metrics relevant to managing your environment. TSF was built to give storage administrators the detailed information required to effectively manage their storage environments.

The TSF family is outlined below:

- **TSF Professional** – The flagship of the TeraCloud SRM line, TSF Professional provides file level detail to the open systems environments. Built upon 15 years of experience, knowledge and discipline from building software for the largest IT shops, this package will deliver extensive storage management capabilities to the mid-market. For those shops interested in managing open systems and their mainframes, TSF Professional provides a common interface to manage both. If these teams are separate, each can leverage their own independent view, however, utilizing a standard interface will allow cross functional support, especially important when recovering from a disaster. In addition, this software is independent of hardware, vendor and storage type (DAS, NAS, SAN).
    - TSF's core function is to find out what is in your environment. Once the environment has been identified, groups can then be created that tie the infrastructure to the appropriate business units. This allows tighter alignment between the business and the IT infrastructure that supports it.
    - Policy-based support is available for logical groups and warnings can be triggered based on these policies. This not only warns of a specific problem, but also provides IT with information regarding the potential business impact. If several problems occur at once, this knowledge helps to prioritize problem resolution, ensuring the most mission-critical applications are always corrected first.
    - Because TSF drills down deeper into the storage environment and collects detailed information, it will also be able to classify the data. Knowing this information will help administrators manage the storage environment more easily. Access to information about the type and age of data enables storage administrators to quickly make decisions about reclaiming data. It also provides them with a view of the actual usage of the allocated storage.
    - Collecting relevant metrics is important, but leveraging historical data to trend growth and determine potential problems long before they cause an actual problem is key to managing high growth storage environments. The plotting functions in TSF are easy to use and very flexible. They allow users to plot any of the collected metrics either individually or against each other. So you can quickly plot when your storage growth will exceed allocated capacity.
    - Fully integrated into mainframe z/OS environments, TSF allows views into all data regardless of media, disk, tape etc.
    - Knowing that old habits die hard, TSF has an optional "Green Screen" interface with command line for those who prefer this method. For the rest, there is an easy to use Java-based graphical user interface.
- **TSF Lite** - This fully featured software is designed for smaller organizations with open systems environments with up to 20 TB of storage and tight budgets. Pricing is structured as a monthly "pay for use" subscription service and is only $395 per month, and only for the months you actually use it. Supported environments include Windows, Solaris, Linux and AIX.

- **TSF Express** - This will be a free version of the software available for both open systems and mainframe (TSF z Express) environments. The goal of this version is to remove the cost barrier for storage management in mid-market accounts. While this version has limited features and only retains three days of data, it should provide users with a good view of the value of SRM software. Most importantly, its ability to collect data automatically vs. manually should demonstrate significant time savings. Upgrading to the Lite or full version is a simple license key upgrade.

In an effort to make the software easier to procure, all products are available on the website and utilize a simple license key upgrade strategy that does not require reinstalling software. The free version can be downloaded for 90 days and then a simple registration is all that is required for a one year license.

TeraCloud also offers TeraCloud Storage Analytics (TSA), which leverages the powerful data collection engine in the TSF solutions. This service provides customers with valuable information, comparing their

environment to best practices TeraCloud has developed over 15 plus years in large IT environments. Based on this experience, they have developed a metric called a storage quotient. The storage quotient is used to help companies measure how they are doing relative to best practices. Most importantly, after the first service, it establishes a baseline that future progress can then be measured against. The service goes beyond just technical information, as it also provides as a deliverable a financial report to the business. By adding customer specific information like cost per MB, the report provides valuable information about potential cost savings and projected expenditures. Each chapter of the report covers a separate topic and provides a storage quotient, based on findings, against each objective. It then goes further and makes recommendations to improve the company's processes to get them closer to best practices. A periodic review (every 6 months) of their environment will allow them to mark their progress and provide a business level orientation of the storage environment.

The Bottom Line

TSF's more granular view provides the visibility required for more effective daily management. While most SRM tools are focused on volume level information, TeraCloud is focused on drilling down to the file level to deliver a unique view. This is especially true for the mid-market, which can now benefit from the same capabilities that large shops enjoy. This also combines SRM and classification software, something that is gaining more traction as customers struggle to identify what data is where and protect it accordingly.

ESG believes that data center software is converging and that eventually there will be a single screen to manage the entire infrastructure within the data center. We applaud efforts like this that allow management of disparate systems within a single interface. The question is, are IT shops ready to consume this? Typically, open systems and mainframe groups are highly isolated and a single tool to manage both may present cultural and political issues. No problem -- TeraCloud's solution allows companies to select open systems only and then upgrade as required. At the very least, this provides some level of future-proofing.

TeraCloud already has some very impressive relationships with companies like IBM Global Services and with resellers in Europe and Asia. However, most of these are focused on prior products. In order to be successful, TeraCloud will need to establish a solid go-to-market channel for the open systems mid-market. To their credit, they are ready to support them, with software that can be re-branded and a recurring revenue model that is very desirable to these VARs. This channel will also be attracted to the TSA service that can be consumed on a quarterly or semi-annual basis. Because they are targeting the mid-market, there should be limited competition from the big players that command more than six figures as an entry fee.

TeraCloud will need to elevate their presence in the market and educate potential customers about the benefits of their solution. Their latest software, TSF Express, which can be downloaded free of charge, should greatly accelerate the number of Proof of Concepts conducted. Other companies that have taken this approach have found them to be very successful. The key will be directing potential customers to their website and then having a channel to follow up. They also face formidable competitive threats from every major storage player – each telling the customer that their tools are just as good or better. We all know that reality comes in a distant second versus marketing hype, but a smaller player such as TeraCloud can find itself having to battle with much larger marketing machines.

Companies in the mid-market without a detailed management strategy should strongly consider this solution. As the saying goes, if you don't know where you are going, any road will get you there. TeraCloud's combination of TSF and TSA service provide something like a combination of Magellan GPS and the On-star service. The combination lets you know exactly where you are, provides detailed information on how to get to where you want to be and leverages its expertise to recommend the best way to get there.

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