With Automation, IT Can Move To Private Storage Clouds

The possibility of a data explosion burning out talented IT staff is driving the popularity of storage automation and storage-as-a-service within enterprises.

By Brent Rhymes, CEO, iWave Software

While there is no doubt that public storage clouds are useful for certain applications, not all have the right availability, performance and protection for an enterprise's business critical information. The public cloud is effective for a portion of business, direct attached storage for other parts. However, many companies want to keep their core data on internal systems, and they can do it through private storage clouds with automation.

Why the push toward the cloud at all? To answer that question, one need only look at the enormous weight sitting on the shoulders of IT administrators. Last year, data storage grew at unprecedented levels. IDC estimates that by 2020, data storage will grow by 20 times, while the staff tasked with supporting this demand will inch along at a paltry rate of 1.5 times. The possibility of a data explosion burning out talented IT staff is driving the popularity of storage automation and storage-as-a-service within enterprises.

While IT administrators see the need for private, cloud-based storage of mission-critical data, many fear such initiatives are too difficult because of the complexity of their storage environments. Today's more sophisticated environments are made up of a range of storage equipment from multiple vendors. The sheer number of issues to consider — from block and file storage types, differing protocols, and storage fabrics to storage hosts, multi-patching technologies and data protection technologies — only begins to describe the difficulty of these environments. It's no wonder why private clouds seem difficult for corporate IT departments to achieve. Automation, however, changes the equation.

IDC predicts that by 2015 public cloud services will grow by more than 25%. The share of this growth (enterprise versus consumer) is not clear, but with chatter about IT-as-a-service, a decent percentage of this expansion will come from corporate IT departments. Such departments are more able to handle that growth in-house than they might suspect. CIOs want increased collaboration, staff flexibility, and business process optimization to gain cost savings. They don't have to rely on the public cloud venue to get it if they approach private storage clouds and storage automation simultaneously.

Command And Control Of Mission-Critical Data

Storage automation addresses the data deluge using the available administrators. With automation, IT gains a myriad of functions and tools within the private storage cloud environment, including:

- Device discovery and registration
- Device inventory and topology to manage and maintain the inventory of devices in a storage-specific configuration management database
- Service levels that tier storage based on physical device attributes combined with data protection policies
- A storage rules engine to select the optimal storage devices
- Advanced storage integration, which integrates with auto-tiering technologies to ensure allocated storage remains optimal over time
- Storage-as-a-service portal, which offers users a self-service portal and storage services catalog to procure and manage internal storage resources
- Storage APIs, which provide an interface accessible by cloud orchestration platforms, information technology policy office (ITPO) products and customer-developed portals
- A storage execution engine to support an embedded workflow engine
- A storage scheduler to ensure that the execution of automated storage services can be scheduled and maintenance windows are supported and
- Storage chargeback and reports for administrators, business executives and end users, formatted for billing systems to ensure tracking of chargeback information.

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Automation: A Clear Path To Private Storage Clouds

Today, companies are data reliant and data aware, which is leading business units to look to the cloud as a means for storing, accessing, and sharing data. Private storage clouds deliver the availability, performance, and protection users expect. The state of many businesses' competitive differentiation, customer service, intra-departmental collaboration, and business process management is based on the planning and execution of the storage administrator.

This is why private storage clouds — made possible through automation — provide an invaluable insurance policy that ensures storage administrators can keep pace with organizational needs. Over time, storage automation will become the only way to manage private cloud infrastructure. It also remains the only way to leverage the investments made in existing storage infrastructure. ●