HP 3PAR StoreServ Management Console Answers the Call for Centralized, Simplified Storage Operations Management without Technical Compromise

Scalable. Reliable. Robust. Well performing. Tightly integrated with hypervisors such as Microsoft Windows and VMware ESXi. These attributes are what every enterprise expects production storage arrays to possess and deliver. But as enterprises grow their infrastructure, they need to manage more storage arrays with the same or fewer number of IT staff. This requirement moves storage array manageability center stage which plays directly into the strengths of HP 3PAR StoreServ storage arrays and HP 3PAR StoreServ Management Console (SSMC).

HP 3PAR's Legacy of Autonomic Storage Management

Since their inception HP 3PAR StoreServ systems have always delivered a robust, sophisticated set of features that are easy to implementation as a result of its autonomic storage management. The beauty of an HP 3PAR implementation is that its features do ***NOT*** require IT staff members to spend numerous hours learning and mastering each one to master them. Rather enterprises may reap the benefits of these features as they are seamlessly managed as part of an HP 3PAR StoreServ deployment.

This autonomic approach to storage management grants enterprises access to features such as:

- Adaptive Optimization
- Autonomic Groups

- Consolidated management of block and file
- Dynamic Optimization
- Priority Optimization
- Rapid Provisioning

These and other features have led enterprises to deploy multiple HP 3PAR StoreServ systems to address their numerous challenges. But as enterprises deploy more HP 3PAR systems, a new, separate challenge emerges: centrally managing these multiple HP 3PAR StoreServ systems.

HP SSMC Answers the Call for Centralized Storage Management

All of the capacity and performance management features used to manage a single HP 3PAR StoreServ array are now available through the HP StoreServ Management Console (SSMC) which centralizes and consolidates the management of up to sixteen (16) HP 3PAR StoreServ systems. Further, HP plans to extend the SSMC's capabilities to manage even more HP 3PAR StoreServ systems.

The SSMC creates a common storage management experience for any HP 3PAR StoreServ system. Whether it is a high end HP 3PAR StoreServ 10000, the all-flash HP 3PAR StoreServ 7450 or a member of the midrange HP 3PAR StoreServ 7000 family, all of these systems may be managed through the HP 3PAR SSMC.

Top Level and System Views

The HP 3PAR SSMC provides both top level and system views. The top level view displays the health of each managed HP 3PAR array. Administrators may view real time capacity and performance metrics as well as historical data for both of these items to monitor and identify longer term trends. Administrators also have the flexibility to put individual arrays into groups so they may collectively visualize and manage each array group's capacity and performance by application, department or company.

In the system view, administrators may select individual HP 3PAR StoreServ systems and view information specific to it. For instance, they may view: the available capacity of each storage tier type to include block and file storage management; the features licensed on that system; and, the system's resource utilization. By understanding how many or how few resources are available on each system, administrators may better determine where to place new applications and their data to align each application's needs with the StoreServ's available resources and features.

Centralizing management of all HP 3PAR StoreServ arrays under the SSMC also makes it easier to move an application and its data from one array to another. As the anticipated capacity and performance characteristics of a new application rarely align with how it actually performs in production, the SSMC helps administrators first understand how the application uses resources on the array and then, if a change in array is needed, helps them identify another array where the application might be better placed to give it access to needed storage capacity or improve its performance.

End-to-End Mapping

Degraded application performance, hardware failures, system upgrades and storage system firmware patches are realities with which every modern data center contends and must manage in order to ensure continuous application availability and deliver optimal application performance. Yet delivering on these objectives in today's highly virtualized infrastructures without a view into the end-to-end mapping may become almost impossible to achieve.

Doing so requires visibility into: how file shares and/or virtual volumes map to a storage array's underlying disk drives; on which storage array ports they are presented; and, which applications access these file shares and/or virtual volumes. Only by having this visibility into how virtualized

objects use the underlying physical infrastructure can they verify that each application is appropriately configured for continuous availability or begin to understand how a failed component in the infrastructure might impact the performance of a specific application.

The HP 3PAR SSMC provides this end-to-end mapping of the underlying infrastructure that is critical to maintaining application availability and ensuring optimal application performance. By identifying and visualizing the exact physical components used by each physical or virtual machine, enterprises can better understand the impact of system component upgrades or outages as well as identify, isolate and troubleshoot performance issues before they have influence an application.

Capacity and Performance Reporting

The System Reporter component of SSMC automatically and in the background collects data on a number of different object data points on all managed HP 3PAR StoreServ systems without needing any additional setup. Using this collected data, the System Reporter can generate hundreds of different, customizable reports that contain detailed capacity and performance information on any of these managed systems.

The System Reporter contains predefined reports, settings, templates and values that further help enterprises accelerate their SSMC deployment. They frees them to quickly gather data information about their environment and then analyze it using its analytical engine that helps enterprises interpret collected performance data. Once analyzed, they may configure any of the default settings to meet their specific needs.

Simplified Ongoing Management

The frequency and quality of management of storage for client-attached systems can vary as widely as the types of applications hosted on the client-attached systems. In some

cases, administrators may only need to administer the storage array on a quarterly or annual basis. While this simplifies storage management, in large environments infrequent array administration has some unintended consequences such as simply remembering a client server's name or which applications or data reside on a specific array.

The SSMC resolves these issues. Using its search functionality, administrators may search for specific clients that are attached to HP 3PAR StoreServ arrays and can quickly identify the storage array(s) in the environment that the clients are accessing.

HP 3PAR SSMC Answers Call for Centralized Storage Operations Management without Technical Compromise

HP 3PAR StoreServ systems host critical application data that are the heart and soul of many enterprise data centers as they are optimized for hosting mixed physical and virtual machine workloads. But as more enterprises implement greater numbers of HP 3PAR systems they need a better way to manage them.

The HP 3PAR SSMC answers this call for a centralized storage operations management console as it ensures all HP 3PAR systems under management remain simple to manage even as organizations add more of them. The SSMC globally manages multiple HP 3PAR StoreServ systems from a single console while preserving the automation and simplicity associated with managing a single HP 3PAR StoreServ. This serves as testament to HP's commitment to delivering technology that accelerates business and technical operations while remaining easy to implement, use and manage.