

hp storage

hp OpenView
storage area manager

challenged by your storage?

The challenges facing today's enterprise IT departments have never been greater. The amount of data stored within enterprises is doubling every 12–18 months, and at the same time shrinking budgets are resulting in reduced purchasing capabilities and headcount restrictions. Consequently, IT departments are charged with supporting ever-increasing amounts of storage with less money and fewer personnel.

To address growing storage needs, enterprises are increasingly implementing network storage—network-attached storage (NAS) and storage area networks (SANs)—as well as direct-attach storage in their storage infrastructures. These storage elements may be from multiple vendors, operate on different platforms, and reside in different geographical locations. Managing these heterogeneous, often distributed storage environments is typically a time-consuming manual task, requiring individual management of each storage device. In addition, enterprises frequently experience “stranded” capacity—when one device cannot be accessed by applications that need it—or capacity that is tied up in stale or wasted storage, resulting in inefficient resource utilization.

To effectively manage distributed multivendor storage and regain control of the storage infrastructure, administrators will benefit from tools that simplify and automate storage management tasks and processes, improve utilization of existing resources, and support future storage growth.

enabling the storage utility

The ultimate goal of enterprise storage is to make information available where it's needed, when it's needed, to anyone, seamlessly—in other words, storage as a utility service.

Effective implementation of a storage utility requires a comprehensive management strategy in which storage is no longer managed from the single-point perspective of individual storage devices or subsystems; instead, storage is viewed and managed as an integrated component of the overall enterprise IT service management system. In the enterprise storage utility, administrators can manage, monitor, and view storage in the context of the complete IT infrastructure; understand the impact of storage services on other IT services; and align the services with overall business objectives.

simplified, automated storage



integrated storage area management—a new storage management paradigm

The HP OpenView Storage Area Manager (SAM) product suite supports enterprise storage utility services with integrated tools that help IT departments reduce storage management costs, protect existing storage investments, efficiently utilize resources, and deliver guaranteed quality of service to customers, partners, and employees.

Storage Area Manager's seamless integration with overall enterprise IT service management represents a significant step towards delivering storage as a utility service. This integration provides a consolidated view and reporting structure for enterprise-wide IT service management, and enables administrators to define, manage, monitor, and measure the quality and cost of storage services as a component of the overall IT service structure. As a result, IT departments can meet or exceed service-level objectives (SLOs) and increase the value of storage investments.



hp OpenView storage area manager: gain control of storage availability, performance, usage, growth, and cost

Storage Area Manager provides a comprehensive software suite that delivers integrated, centralized, enterprise-wide storage management to help administrators gain—or regain—control of storage while optimizing resources and reducing costs.

The Storage Area Manager software suite consists of five products, delivering device management, capacity management, performance management, storage allocation and virtualized access control, and storage usage metering and billing. The components function either individually or together to enable integrated storage resource and infrastructure management. The suite's flexible "building block" architecture and out-of-the-box integration capabilities ensure rapid deployment and quick return on investment (ROI), and allow enterprises to address their most urgent storage management problems first.

Storage Area Manager products enable administrators to:

- Simplify and automate management of multivendor storage resources across disk, tape, direct-attach, and network storage infrastructures
- Centrally manage and monitor availability, performance, usage, growth, and cost across a distributed enterprise
- Optimize resource utilization and operations
- Set, manage, and measure storage SLOs
- Seamlessly integrate storage and storage services with the enterprise-wide IT service management system
- Reduce total cost of ownership (TCO)

maximize efficiency, scalability, and quality of service

The Storage Area Manager software suite delivers a range of benefits that help enterprises efficiently manage storage, guarantee quality of service, and support future expansion.

order-of-magnitude increase in storage management efficiency

By providing an integrated storage management portfolio across distributed, multivendor storage resources and infrastructures, Storage Area Manager helps enterprises significantly increase operational and resource efficiency and reduce TCO. Enterprise-wide storage resource management is simplified through automated operations and services, central management, and a common reporting structure. Storage management costs are further reduced by increased resource utilization and the ability to charge for storage services.

guaranteed quality of storage services

By maximizing storage availability and optimizing storage performance, Storage Area Manager allows enterprises to meet aggressive service-level requirements. Automated threshold warning systems, baselining, and over-baseline notification provide early notification of potential problems, helping resolve bottlenecks before they impact operations. Online storage provisioning allows just-in-time storage allocation to meet critical storage demands, and historical trending and future extrapolations enable service stability by providing detailed assessments of future storage demands and storage service needs. The ability to develop customized service offerings helps ensure maximum customer satisfaction. And support for defining access privileges and multiple levels of user roles helps ensure data security, integrity, and availability.

transparent growth path for the future

Storage Area Manager is designed to scale easily and transparently, managing enterprise-wide storage systems that support up to hundreds of terabytes of data. Manager-of-Manager capabilities and security management across firewalls provide greater flexibility to effectively manage large, distributed enterprise and service-provider environments. Support for a broad range of multivendor devices and systems ensures maximum investment protection and provides an open choice for future acquisitions. In addition, Storage Area Manager's unique service-driven management approach enables the

transition to the storage utility and ensures that businesses undergoing transformation continue to operate without disruption.

device management

Administrators who wish to gain control of enterprise storage will benefit from tools that help them visualize their complete storage environment and allow them to identify, monitor, and manage all storage resources from a central location—regardless of device type, vendor, operating system, or infrastructure topology.

hp OpenView storage node manager

provides a central management console and launch platform to manage, monitor, and troubleshoot all storage resources across the distributed enterprise. Automated device discovery and customizable topology mapping provide a graphical view of storage devices and their physical and redundant connections, including zone representation. Continuous event monitoring and status information enable administrators to quickly identify, isolate, and resolve bottlenecks that jeopardize your network storage systems' health.

capacity management

Efficient resource utilization requires the ability to meet changing capacity demands before systems are strained. Efficient utilization is enabled by reporting tools that monitor enterprise storage inventory and identify potential shortfalls before they affect business operations.

hp OpenView storage builder provides comprehensive inventory management and enables administrators to easily identify and reallocate free or inefficiently used storage to increase overall utilization rates. Automated capacity thresholds provide early warning of potential capacity shortfalls, enabling administrators to allocate additional storage before your business is affected. Historical trending and future extrapolation help reliably predict future storage demands, and just-in-time capacity acquisition avoids potential service-level agreement (SLA) penalties and downtime.

performance management

When storage systems fail to operate at optimal performance levels, data and application access may be slowed, resulting in an unsatisfied user community and lost revenue potential. Tools that enable administrators to evaluate, monitor, and manage storage performance will help ensure optimum performance and data accessibility.

hp OpenView storage optimizer enables real-time performance monitoring and reporting for all storage components in the network. Its comprehensive baselining and over-baseline notification allow administrators to identify and isolate performance bottlenecks before they impact operations or violate SLAs, and its historical trending supports proactive planning for growth and maintenance.

storage usage metering and billing

To reap financial benefit from the delivery of storage services, IT departments need a way to identify the associated costs. Enterprises need tools that enable storage usage metering to help identify over- and underutilized services for financial analysis and determination of overall storage costs, and that also support automated billing to pass these costs on to the appropriate parties.

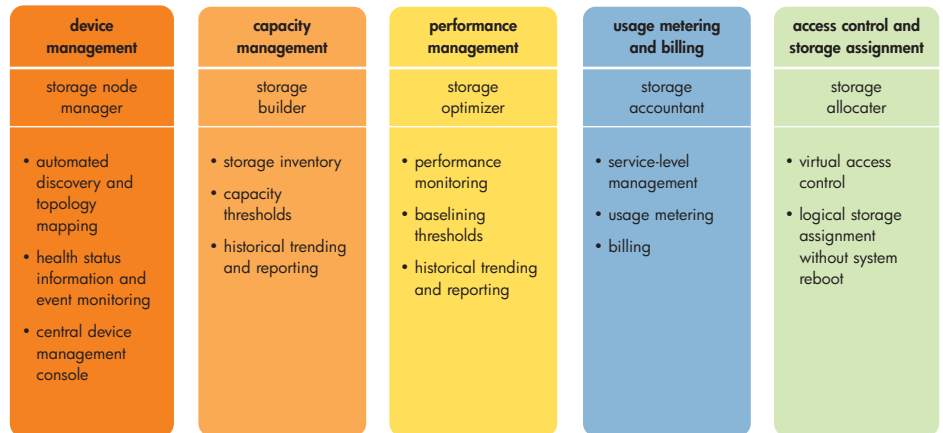
hp OpenView storage accountant

provides a toolset to measure storage service usage for financial analysis, budgeting, and charge-back, which helps control storage costs and increase storage-associated revenues. Automated calculation of storage cost and billing makes it possible to charge for storage services provided, and the ability to differentiate storage service offerings helps to better meet customers' demands.

virtualized access control and storage assignment

As enterprise data grows in volume, integrity for mission-critical data is crucial. Administrators are charged with protecting data from unauthorized access while ensuring availability for authorized users. Furthermore, they need a way to assign new storage to meet capacity demands without disrupting existing services.

hp OpenView storage area manager



hp OpenView storage allocator

provides a centralized, uniform mechanism with a convenient drag-and-drop interface to dynamically add, remove, or assign multivendor storage to one or more hosts without system downtime. Storage Allocator allows multivendor storage to be treated as a virtual pool and assigned to any host, ensuring flexibility and increasing utilization rates. Centralized access control ensures that only authorized hosts have access to assigned storage, ensuring data integrity and avoiding data loss.

integrated service-driven storage management

Storage Area Manager integrates seamlessly with HP OpenView enterprise service management solutions to enable management of storage services as a fundamental component of the overall enterprise IT service delivery. Integration with HP OpenView extends Storage Area Manager's support for centralized automated health monitoring and fault management, integrated storage service reporting, storage service mapping, and enhanced SLA management.¹

support and services

HP is a global leader in providing consulting services, infrastructure development, management, and support operations with unparalleled customer service. We work directly with clients to develop custom Storage Area Manager solutions, including consulting, implementation, and support services. In addition, HP offers innovative solution blueprints that describe tailored Storage Area Manager implementations that meet specific business challenges.

For more information about the HP OpenView Storage Area Manager product suite, visit our Web site at www.openview.hp.com/go/sam.

¹Customizable portal-based monitoring for storage services and automated storage service configuration will be available in 1H2003.



www.openview.hp.com/go/sam

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