

VERITAS SANPoint Control

**SOLVING THE STORAGE
COMPLEXITY CHALLENGE**

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EXECUTIVE SUMMARY

Enterprises today face significant challenges in managing the data on which they run their businesses. Data about customers, manufacturing, product development, supply chain, engineering, human resources, sales, finances, and legal is critical. Data is the second most important corporate asset after employees. This is forcing companies and IT organizations to take a storage-centric approach to architecting and managing their IT infrastructures. Reliable, available, and fast access to this information can make or break a company.

Managing and controlling data while ensuring high availability is difficult and getting more so for several reasons:

- High customer expectations and service level agreements: the demands increase as business is more competitive.
- Increased storage and server requirements: the need only increases as companies serve existing customers and seek new ones, and implement new information systems.
- Changes in technology and in business requirements: corporate mergers, new technology projects, changed business targets, and the like mean the information-supporting systems must adapt and grow as well—storage systems cannot be static.
- Flat budgets: limited financial resources to support additional growth.
- Technical issues: interoperability, scalability, and performance demands work against each other.
- Limited resources: hardware budgets, head counts, training resources, and time are maxed out and unlikely to grow.
- ROI requirement: IT investments are mostly made on solutions that show a clear ROI within a year, not over longer periods or for indeterminate benefits as had been true in the 1990s.

Successfully meeting these challenges requires strong, adaptive management of information storage resources—the hardware and networks that store and deliver key data. Because most enterprises have heterogeneous storage systems—required by the specific demands of different departments and types of information used—management of storage resources is difficult. Disparate systems may not communicate well, so trouble in one system may cause failure elsewhere while remaining undetected. The lack of communication among devices increases downtime when failure does occur—absolutely unacceptable in today's demand-driven economy—and requires more IT and data center resources on an ongoing basis to put all the pieces of the puzzle together for both routine management and failure recovery.

VERITAS SANPoint Control™ is the answer to this set of challenges. As this paper describes, SANPoint Control lets data centers manage all the various parts of the storage environment. This management is made easy with one command console that provides a complete view of the heterogeneous storage environment, including storage area networks (SANs), direct-attached storage (DAS), and enterprise applications such as Oracle databases and Microsoft Exchange. Armed with this hardware-independent, unified control console, system administrators have what they need to set policies that significantly reduce the opportunity for failure and to respond intelligently and quickly when failure does occur.

SANPoint Control allows more efficient management of storage resources, letting you maximize existing investments in storage hardware. It lets data centers proactively manage storage resources, ensuring high availability of critical information systems. It helps save time and money down the line by identifying new efficiency and ROI opportunities.

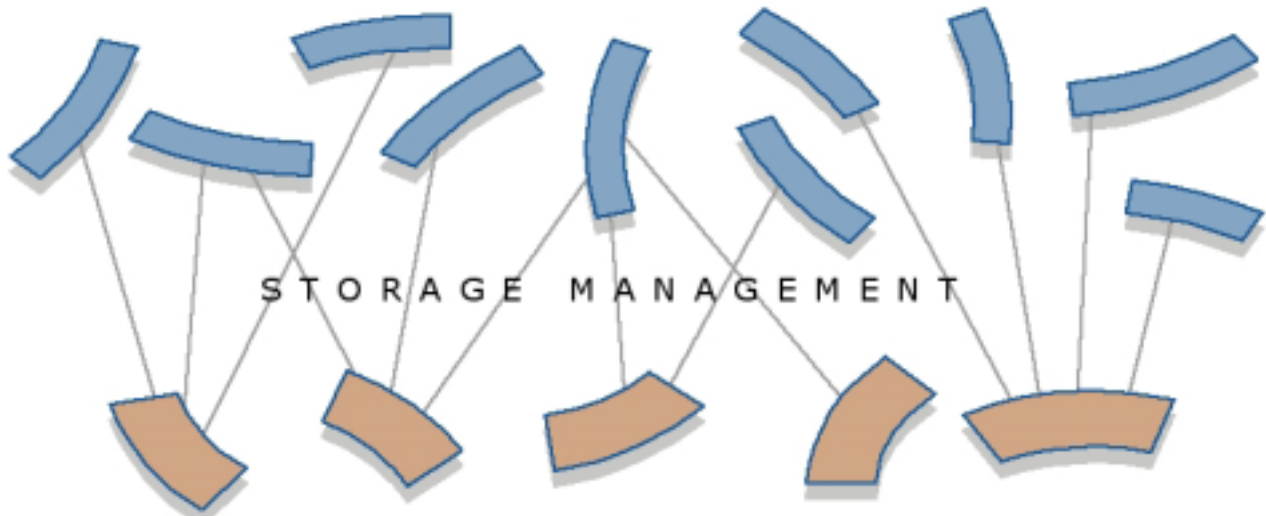
SANPoint Control lets your IT and data center staff be more flexible, since the single, easy-to-use interface reduces training time and eliminates the need for multiple specialists to handle the various pieces of the storage puzzle that an environment not using SANPoint Control must contend with. And the data center staff is no longer stuck fixing problems—it can set thresholds and policies to prevent them before they happen.

SANPoint Control brings strong, flexible, and complete management capabilities to your business's crucial storage systems. It reduces overhead, speeds recovery times, allows for efficient storage management, and permits a proactive approach to managing the enterprise's data.

THE IMPORTANCE OF UNDERSTANDING THE STORAGE ENVIRONMENT

Storage systems and the networks that access the data in them are the lifeblood of today's enterprise. The customer, sales, product, systems, purchasing, financial, operations, manufacturing, and human resources data they contain are critical to a business's ability to execute intelligently and quickly. The data a company manages resides in multiple systems, created and accessed by multiple applications. For a variety of sound reasons—such as the need to get optimal point solutions for different requirements, or the reality of having to deal with multiple systems after mergers and acquisitions—enterprises now have and will continue to have heterogeneous storage solutions.

**LARGE VARIETY OF INFORMATION:
CUSTOMER, SALES, PRODUCT, SYSTEMS, PURCHASING, FINANCIAL,
OPERATIONS, MANUFACTURING, AND HUMAN RESOURCES**



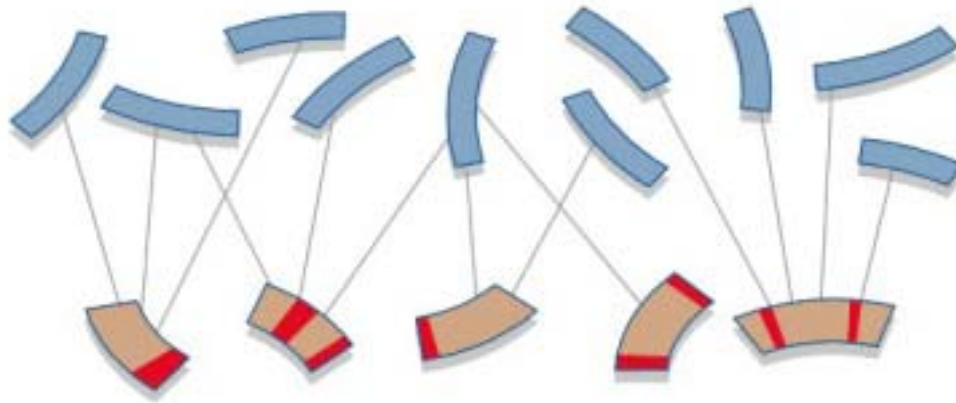
**LARGE VARIETY OF SERVER HARDWARE:
APPLICATION, DATABASE, STANDBY, BACKUP**

*Enterprises use a large variety of hardware, for several legitimate business reasons.
But the various types of hardware create management complexity.*

LACK OF UNIFICATION HINDERS EFFECTIVE MANAGEMENT

Heterogeneity introduces complexity. The more systems that the data center must connect, the more points at which crucial insight can be lost. Failure, configuration, and status information may not flow from one system or component to another, and the management tools that come with each specific hardware solution typically do not handle the systems and connections from other vendors. Similarly, local point solutions may not monitor connectivity points outside their local sphere. That means the data center must deal with multiple systems, and this introduces the risk of key information falling through the cracks where the various components and systems interface.

Not having that technical understanding across the entire storage system could cause significant delays in the ability to recover during failures. It could also add to the cost of enhancing the networked storage system, as too much administrative effort is spent in diagnosing the problems that caused the failure. That downtime costs not only staff time and data center resources, but also time, resources, and opportunities in the business departments unable to access data and left waiting for that access to be restored.



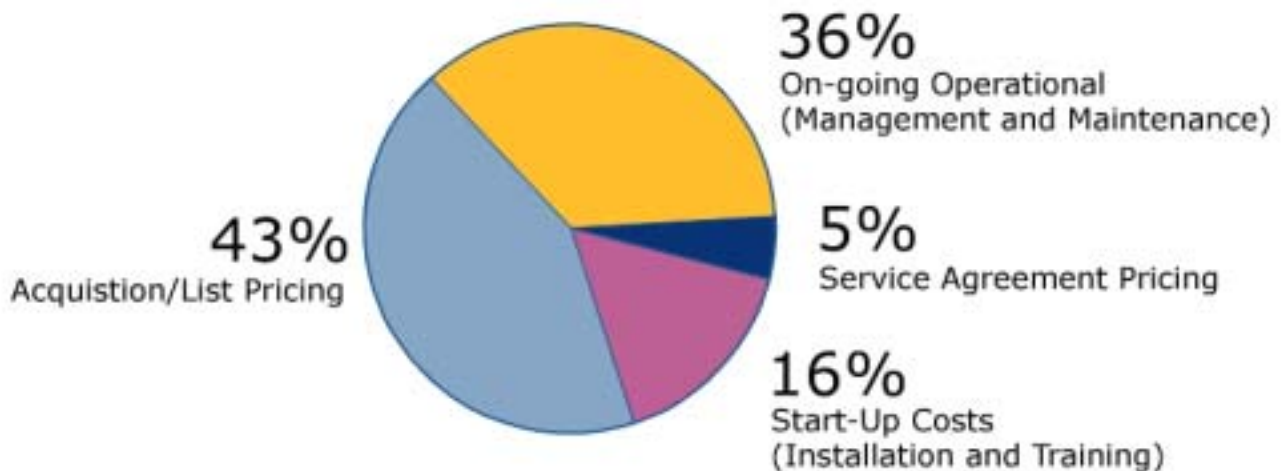
■ Hardware Utilization

To ensure local availability, the data center typically provides extra hardware to handle unexpected utilization or failover. A centrally managed solution can provide the same benefit more quickly and with less hardware because it can allocate and manage the resources globally, not just within a local system.

LACK OF COORDINATION RESULTS IN WASTED STORAGE

Another problem that storage hardware heterogeneity can allow is under utilization of storage resources. With no central, system-wide understanding of storage resources, data centers understandably add redundancy at each local point to provide excess capacity and failover resources. But this adds significantly to an enterprise's hardware outlay, a questionable use of precious resources.

BREAKDOWN OF TCO COMPONENTS



Total cost of ownership is a key issue for IT, as ongoing operations can easily account for a third of technology's actual cost to the enterprise but not be evident in the initial purchase. VERITAS' strong management capabilities coupled with its automated response systems and analysis tools reduce the operations cost, providing lower TCO to the enterprise for its storage systems.

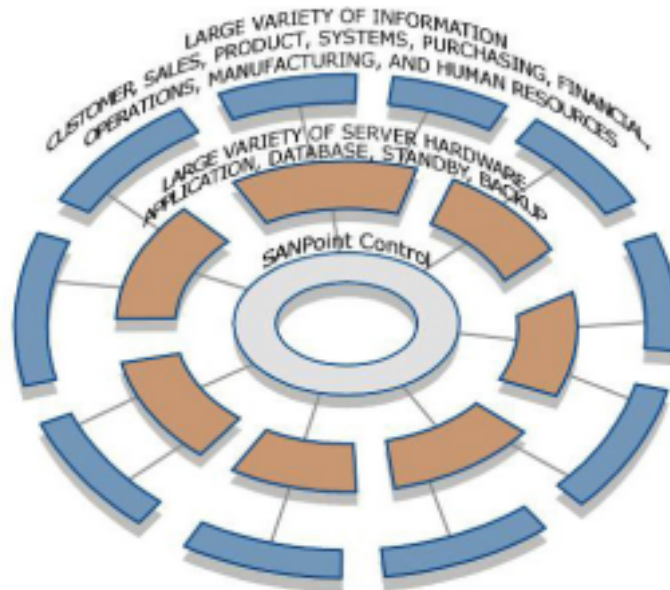


CENTRAL MANAGEMENT MEANS EFFICIENT, PROACTIVE CONTROL

When storage resources are universally controlled and managed, data center administrators can quickly identify and fix problems. In fact, having that insight and control helps prevent problems before they occur and spotlights opportunities for better usage, access, and efficiency. The data center becomes proactive, able to surpass its service-level agreements and to help drive further ROI. The data center stops being reactive, mired in time-consuming, business-stunting recovery operations and expensive redundancy investments.

The challenge for business is to manage heterogeneous, evolving storage systems and networks to achieve proactive service and the efficiency gains, cost savings, and opportunity identification that come with it. Simply put, you can't control what you don't know. As we shall see, VERITAS Software's SANPoint Control provides the central command console that lets businesses monitor and manage the entire storage system, from hardware to applications to networks.

BENEFITS OF CENTRALIZED STORAGE MANAGEMENT



SANPoint Control provides central management of all your storage systems, resulting in reduced IT overhead, reduced storage network complexity, and more intelligent, proactive management of the complete storage environment.

Centralizing the management of storage systems has many paybacks:

- Economies of scale resulting in less labor usage, as monitoring and management functions are consolidated across hardware systems
- Reducing storage network complexity by providing one command console to all the components, which simplifies training and allows more flexible staff deployment and cross-functional support.
- More intelligent management of the entire storage network because the whole system is now visible to the IT staff, resulting in better prevention, more efficient utilization (and thus slower growth in storage hardware), and faster time to recovery when problems strike.

UNIFYING THE PATCHWORK BRINGS ECONOMIES OF SCALE

Without central management, each storage solution—whether an array, a storage area network (SAN), an application server and its network-attached storage (NAS), a tape backup system, or some other configuration—requires individual monitoring and management. That in turn requires working with multiple software tools to monitor, diagnose, and control the hardware. Furthermore, it requires constant communication among the personnel working with the various components to check for problems that may occur at solution boundaries, problems that the solution-specific tools do not identify because they concern interactions with unsupported systems.

This need for multiple local management tools and the time it takes to look for possible problems at component boundaries means the data center staff must spend considerable time analyzing the storage system. By replacing this patchwork approach with a central, unified console, fewer staff members are needed to monitor storage components, and the need to detect boundary issues disappears completely. That frees up staff for higher-return tasks. Furthermore, as the company adds storage systems through growth or acquisition, administrators can easily bring in the new systems to the central console, gaining further economies of scale.

SIMPLIFYING OPERATIONS REDUCES OVERHEAD, INCREASES EFFECTIVENESS

Unifying the monitoring and management of storage systems and networks reduces job complexity for the data center staff. No longer must they learn multiple tools and have expert users available for each at all times. Having a single interface to the entire system reduces training needs and makes it easier to deploy staff members, since fewer must be tied to using and managing specific tools.

This is particularly important in a geographically distributed enterprise. In such cases, the console management can either be centralized in one location that has 24/7 staffing, or can move from one location to the next around the country or even around the world as local work days begin and end.

With a unified view of the entire storage system, the system administrator can set proactive policies to prevent downtime. If problems are detected, the administrator is alerted and can quickly pinpoint where the repair and recovery effort must go.

Having a unified view, especially when that view includes historical data, lets the data center do even more. By having a complete picture of the storage system with the VERITAS SANPoint Control central console, administrators can analyze usage, failure, service, and other trends. That analysis leads to better, more strategic storage deployment decisions that further improve ROI. Trend analysis also increases the ability to predict—and thus prevent—failures or capacity problems, again saving the enterprise time and money.

BROAD HARDWARE AND SOFTWARE SUPPORT

For central storage management to work, the tools must have broad support for today's wide array of storage hardware, networks, and application/database servers. VERITAS SANPoint Control delivers that support and will continue to do so. Today, SANPoint Control supports the following:

- Arrays: EMC, Hewlett-Packard/Compaq, Hitachi Data Systems, Sun Microsystems
- Direct-attached storage: EMC, Hitachi Data Systems, Sun Microsystems, Hewlett-Packard/Compaq
- Switches: Brocade, Inrange Technologies, McData, QLogic
- Tape devices: for a current list, see "Device Support Matrix" at <http://support.veritas.com>.
- FC-SCSI bridges: Chaparral, Crossroads, Hewlett-Packard/Compaq
- Host bus adapters (HBAs): Emulex, Hewlett-Packard/Compaq, JNI, QLogic
- Quick Loop devices: Brocade
- Storage applications: VERITAS NetBackup, VERITAS Cluster Server, VERITAS Volume Manager, VERITAS File System
- Server/database applications: Oracle, Microsoft Exchange
- Operating systems: Sun Solaris, Microsoft Windows, HP-UX

VERITAS, the company behind SANPoint Control, is a key player in all significant storage-related standards efforts, ensuring that compatibility and support for years to come.

Only VERITAS SANPoint Control provides the ability to monitor and manage a heterogeneous storage system. It provides the facilities for proactive, intelligent, efficient control of storage hardware and the data networks they use.

SANPoint Control Technical Reference

For more on VERITAS SANPoint Control's features from a technical perspective, see the [Features, Values, and Benefits](#) summary and the [SANPoint Control Architecture](#) white paper.

FEATURES OF SANPOINT CONTROL

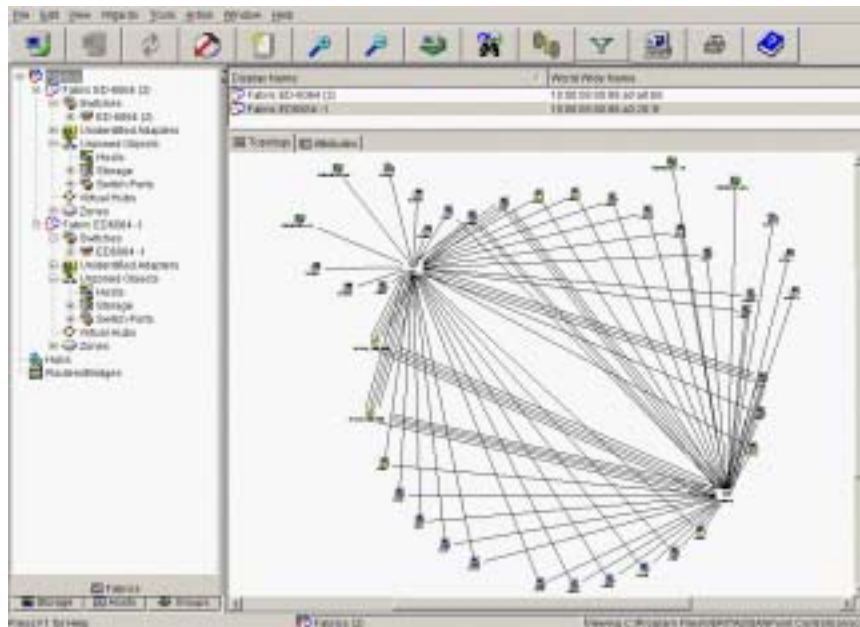
VERITAS SANPoint Control provides many benefits through its extensive set of storage monitoring and management features. These features are organized around the fundamental needs and benefits that data center staff members seek to effectively manage enterprise storage resources:

- One point of information: central insight and control for decreased downtime duration and proactive maintenance and optimization.
- Proactive failure prevention with policy setting: reduced downtime frequency.
- Maximization of storage resources: more efficient utilization to reduce future hardware needs.
- Simplified storage management: reduced need for training and less dependence on multiple specialists.
- Reporting and tracking: instant alerts when problems arise, as well as analytics capability to aid in future storage management, configuration, and build out.
- Security and recovery: constant availability, secure access connections, audit capabilities, and current and future support for devices.
- Easy installation/conversion: centralized licensing, integration with other VERITAS tools, and automatic detection of storage devices, networks, and applications.

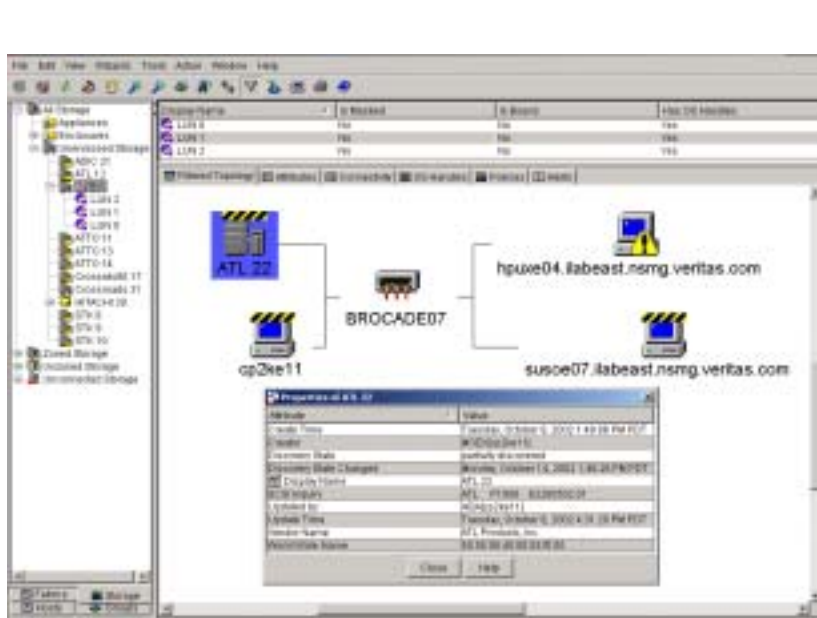
ONE POINT OF INFORMATION

The heart of SANPoint Control is the central command console. This visual application provides central access to and management of the storage environment. The console delivers visual reporting of storage structures, relationships, utilization, activity, failure points, and connection points.

For example, SANPoint Control can map the storage environment's physical topology to the four logical arrangements (fabric, host, storage, and group). Administrators can see how resources are mapped to hosts, shared among SANs, and what the zones and security segments are. All this lets data center personnel understand how components in the storage environment are used and what the interdependencies are, so that when a need arises to change, remove, or add a physical device, the implications on the full storage environment are immediately clear.



SANPoint Control's central console also discovers new and changed network resources, providing an always-current view of the storage environment, including host and application resources. That provides the key advantage of always knowing what the current situation is, so you can optimize resource usage as needed to ensure the highest level of availability.



SANPoint Control provides the data center with a complete view of the storage environment, drilling down into the key aspects and systems for more detail when needed.

The customizable views mean the ability to monitor and manage the storage environment in the ways that make the most sense for your business, IT, and environmental needs. SANPoint Control lets administrators view the storage environment from the host, application, switch, or storage hardware perspectives. This helps data center personnel understand the storage environment from all key vantage points, allowing more knowledgeable response to problems and opportunities.

Furthermore, with SANPoint Control's ability to customize device attributes, unique information—such as location and in-service dates—can be recorded. It also permits the creation of electronic asset tags to specific hardware so data center personnel can quickly see the physical location of each device and who is responsible for it.

In addition to the ability to monitor the storage environment, SANPoint Control offers several tools to manage it. From the central console, administrators can set and adjust policies for storage utilization, network usage priorities, failover, and backup. They can also launch tools specific to hardware solutions so they can incorporate those local tools into the overall management environment.

SANPoint Control's policy management allows for several thresholds per object, so administrators can assign different notifications and automatic adjustments based on the different thresholds. For example, a small increase in utilization may trigger an alert to the data center to watch for further usage escalation. A moderate utilization increase may trigger an automatic addition of server resources. A significant utilization increase may trigger a cap on resources prioritized by the user role, so executives maintain immediate access while less-critical users are denied access once a certain number of them accessing the server has been exceeded. Administrators can of course override these actions at any time.

PROACTIVE FAILURE PREVENTION

Quickly solving problems that occur is a great benefit. But it still leaves the data center in a reactive mode. Today's enterprise needs the data center to add to overall business value, not just fix problems.

With SANPoint Control, the data center can manage the storage environment proactively. By monitoring usage patterns and equipment status, administrators can quickly spot incipient failures and other problems, then correct them before they cause critical outages.

The ability to analyze historical activity provides even further advantage, letting administrators see usage patterns so they more effectively plan the storage environment's evolution as usage, business, and technology factors change. This ensures efficient storage environments with reduced overcapacity and enables better prediction of usage growth to head off capacity and network problems before they occur.

MAXIMIZATION OF STORAGE RESOURCES

Storage is expensive, so it's critical for the data center to use storage resources efficiently and intelligently. With VERITAS SANPoint Control, they can.

Using the thresholds defined in custom policies, SANPoint Control can automatically provision storage to the hosts as usage demands change, so there is no downtime as usage changes. This automatic provisioning also ensures the highest quality of service (QoS), enabling the data center to deliver on its service level agreements (SLAs) even as usage and equipment changes. With the use of VERITAS Volume Manager™ and VERITAS File System™, this automatic provisioning also adds new storage to the host automatically and grows the file system to accommodate it, all without downtime. The bottom line: Business does not have to stop; critical applications continue to run.

And storage is used more efficiently, since SANPoint Control can allocate storage across the environment, eliminating the need for redundant storage at each locality and eliminating the high cost of idle storage resources. Given that typically half of all storage hardware is unused, the use of SANPoint Control's automatic provisioning can yield significant savings in future storage hardware purchases.

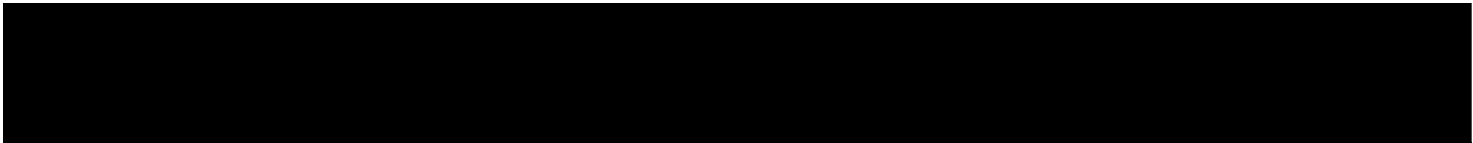
When administrators need to provision storage resources, SANPoint Control's wizards can make the job a lot easier and faster, saving time and ensuring the complete discovery of appropriate resources. The provisioning wizard can help data center personnel search for storage that meets minimum requirements (such as size, location, configuration, vendor, and cost) and have it seamlessly provisioned to a requesting host or application. This permits just-in-time provisioning with maximum efficiency.

Similarly, the Control Zoning wizard makes zone management easy, removing the cryptic commands and proprietary web-based solutions that data centers must muddle through today. The visual presentation method saves time on training and decreases errors, while the ability to work with a heterogeneous mix of resources—such as Brocade, Inrange, McData, and QLogic—permits faster, more comprehensive management of all resources in a zone.

Finally, a LUN wizard lets administrators manage logical unit numbers—the IDs given the individual drives as well as virtual drives created from pooled storage—for maximum stability and security. The wizard removes the requirement for the data center staff to master multiple proprietary, hardware-specific consoles or command sets, while supporting a broad range of equipment from vendors including EMC, Hewlett-Packard/Compaq, Hitachi Data Systems, and Sun Microsystems.

SIMPLIFIED STORAGE MANAGEMENT

While the enterprise storage environment may be complex, the management of that environment must be simplified. Simplified storage management permits faster reaction by reducing IT operational complexity, allows broader training and thus IT availability when needed, and eases system upgrades and re-architecting as the storage environment changes.



One of SANPoint Control's most powerful simplification tools is its ability to create groups. These groups, which a wizard helps the administrator easily create, are composed of business lines, applications, servers, and so on. Thus, the data center could have a finance group, a sales group, and an operations group. If users in the finance group experience problems, the data center can quickly isolate all the hardware and systems they use. Similarly, the data center can manage the resources of the finance group so performance and access is optimized for those users. And the data center can see the effects on the finance group when changes are made to specific hardware, even if the person making the change wasn't aware that the finance group used that hardware.

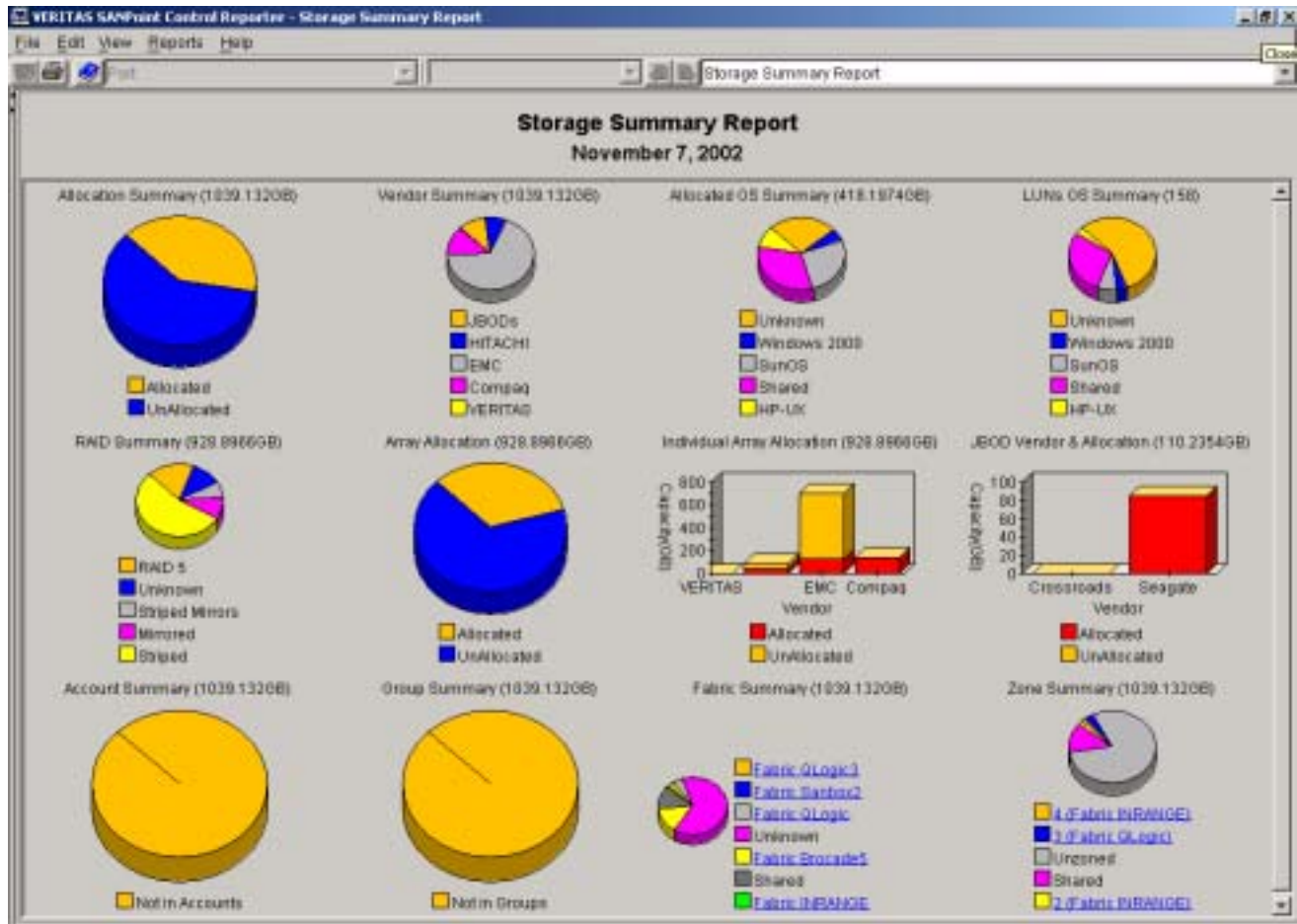
Centralization is a key benefit of SANPoint Control; one that eliminates the need to have multiple IT specialists dedicated to specific storage management tools. The centralized policy and event management consoles give the data center the ability to use a common interface in one location to manage resources throughout the enterprise—even around the world. Training can be standardized and more IT staff members can be trained in storage management to allow staffing flexibility and backup. The command center can even be moved to other locations in case of disaster recovery, headquarters relocation, merger/acquisition, or hand-off between data centers in a global business as workdays come and go throughout the 24-hour "day." SANPoint Control's unified view and control eliminates needless specialization and multiplicity of tools, simplifying both storage and IT personnel management.

Another key aspect of simplification is visualization. Command-line interfaces require users to be fluent and precise in the use of arcane codes. As systems become more complex, remembering and entering these codes is error-prone. Plus receiving information as text reports requires IT staff to create an image in their heads that may or may not be accurate. That's why visualization is so important—the IT administrator can see at a glance where resources are being used, which resources are close to capacity, where failures have occurred, what components are affected by other components, and so on. There's no guesswork involved—and the consoles to act on these visual representations also use the graphical interface to make it easy to control the resources.

SANPoint Control takes the power of visualization one step further. It allows the data center to customize resource views and console views to meet the data center's preferences, operational style, and architectural approach. This lets the IT department work with the views that match its needs and the specific storage architecture while still benefiting from centralized, standardized visualization across all users.

REPORTING AND TRACKING

To respond, manage, and adapt a storage environment most effectively, the data center needs up-to-the-minute reporting and tracking, as well as access to historical data. SANPoint Control provides current, robust reporting and tracking that results in the critical insight for efficient, cost-effective IT decision-making.



VERITAS SANPoint Control offers extensive reporting capabilities, from summary overviews to drilled-down details on specific equipment.

For example, SANPoint Control lets IT staff trace the physical connections of devices and see which have failed, been removed, or been added. It also provides the ability to locate storage components based on specific criteria.

The screenshot displays the VERITAS SANPoint Control interface. At the top, a menu bar includes File, Edit, View, Wizards, Tools, Action, Window, and Help. Below the menu is a toolbar with various icons. The main window is divided into several sections:

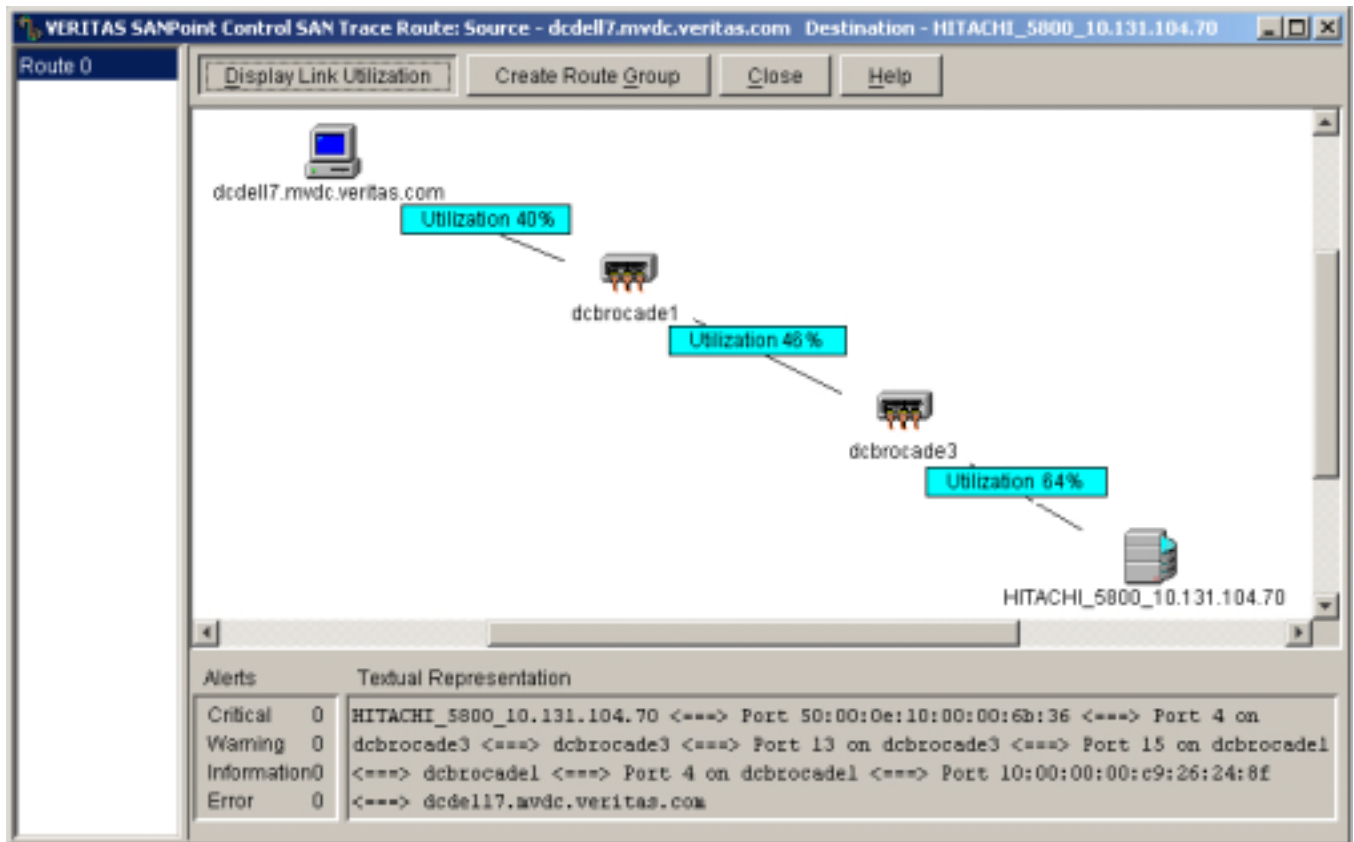
- Left Panel:** A tree view showing the network hierarchy, including 'dcbrocade3' and its various ports (Port 0 through Port 15).
- Table:** A table with columns: Display Name, Port State, Port Type, World Wide Name, GBIC Type, and Discovery State. It lists three ports (Port 0, Port 1, Port 2) all in an 'Offline' state.
- Center Panel:** A network topology diagram showing interconnected nodes, including switches and storage devices, with some nodes highlighted in red to indicate issues.
- Bottom Panel:** A status bar showing 'Connected to 10.180.192.180'.

Display Name	Port State	Port Type	World Wide Name	GBIC Type	Discovery State
Port 0 on dcbrocade3	Offline	F Port	20.00.00.60:69:15:08:af	Shortwave	Discovered
Port 1 on dcbrocade3	Offline	F Port	20.01.00.60:69:15:08:af	Shortwave	Discovered
Port 2 on dcbrocade3	Offline	F Port	20.02.00.60:69:15:08:af	Shortwave	Discovered

SANPoint Control offers real-time reporting so IT can quickly see which components are offline or otherwise not behaving as needed.

SANPoint Control's centralized, real-time reporting allows for quick troubleshooting. There's no delay, so the data center can take steps based on complete, current information, rather than solve an outdated problem that has gone away or changed or make erroneous decisions based only a partial view of the storage environment.

For example, the SAN Trace Route wizard lets IT monitor host and application resources and their paths, permitting IT to identify issues that may hinder application availability or performance before the end user sees any detrimental effects.



The SAN Trace Wizard is just one of several tools to help monitor resources and their paths, giving IT the ability to identify issues that could hinder performance before they occur.

The reports are customizable, so IT and business management can view just the aspects they need for specific decisions and analyses. SANPoint Control includes a broad range of preconfigured reports that address most IT and business situations, and these of course can be modified as required.

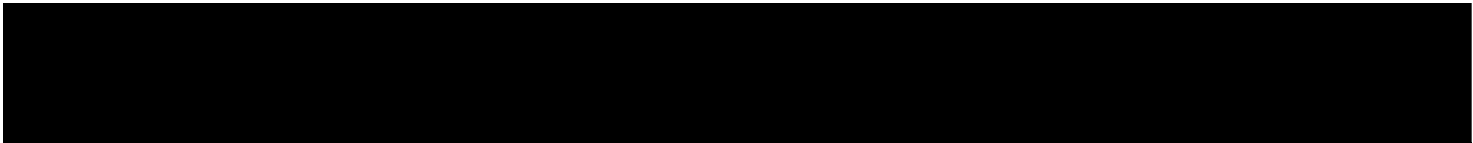
SANPoint Control reports not just current data but also historical data, so the data center staff can see trends in usage, failures, configuration, and other components over time. This permits powerful trend analysis to help the data center modify and grow the storage environment based on actual usage and technical trends.

SANPoint Control can also be integrated into enterprise frameworks, permitting monitored events to be forwarded to any SNMP-based framework so other enterprise management applications can be used. This is particularly useful in closing the loop between network and storage management.

SECURITY AND RECOVERY

SANPoint Control's consoles provide the data center the information and control needed to quickly recover from failure, overloads, or other issues with storage components. But SANPoint Control also is designed to provide secure access and fast recovery for itself in case of failure, outages, or other issues that affect SANPoint Control itself.

SANPoint Control is always available—the data center can use the graphical consoles or a command-line interface (especially useful when using remote connections such as dial-in) either directly or via a Telnet connection. This ensures that IT can manage the storage environment even if the main facility is unavailable. Support for VERITAS Cluster Server™ permits high availability of SANPoint Control in case of network or



equipment failure, since VERITAS Cluster Server can switch the SANPoint Control Server and consoles over to other equipment. The centralized yet customizable approach to storage reporting and tracking in SANPoint Control also provides a significant benefit for business management in addition to the IT advantages. The ability to monitor both historical and current usage patterns, failure patterns, and service-level agreement fulfillment provides business management the insight needed to make informed, effective decisions on storage infrastructure, performance, ROI, priorities, and goals.

The use of SSL connections between a SANPoint Control client application or console and the SANPoint Control Server ensures that outsiders do not compromise the system. Role-based administration provides user authentication as well as levels of control based on the user's role. This minimizes inappropriate access. And administrative auditing lets the data center isolate unauthorized changes and then quickly correct configuration issues that may have resulted.

To ensure minimal downtime, SANPoint Control automatically saves Brocade switch configuration information to a specified host, which allows quick switch replacement and recovery in case of failure or replacement.

SANPoint Control's broad device support also aids in recovery, since the data center can use different hardware when storage devices fail. This can eliminate delays in replacing equipment, since the IT department must no longer find an exact replacement. VERITAS extends this benefit to future hardware, which future-proofs the storage environment by ensuring that new hardware will be compatible.

EASY INSTALLATION/CONVERSION

SANPoint Control quickly pays for itself and then saves the enterprise additional money by reducing IT overhead and ensuring maximum usage and productivity of your storage infrastructure. Enterprises save by reducing training, the number of tools to buy and manage, and the need for future storage hardware. It also speeds deployment of new storage components and lets both IT and business management focus on gaining new ROI from their storage investments.

The data center can also save on license administration overhead, thanks to SANPoint Control's centralized license management of SANPoint Control agents and switch ports.

SANPoint Control's broad hardware, network, and application support permits easy installation. Automatic device detection and configuration, coupled with centralized push installation, allows fast, accurate installation and conversion of existing management tools, so enterprises can quickly enjoy the benefits of centralized, complete storage management.

Conclusion

VERITAS SANPoint Control offers a wealth of features to monitor and control storage resources across the enterprise. It provides the unified, complete view of storage resources, allowing the data center to quickly respond to failures and changing needs and to focus on proactive management to gain efficiencies and cost savings as business and technology demands change. SANPoint Control also reduces IT overhead by unifying the tools and expertise required and reducing training costs. This makes IT staff deployment more flexible as the need for specialists is reduced and the ability to provide more cross-functional support is increased.

SANPoint Control provides a secure, flexible, compatible, powerful environment that permits better IT management and crucial insight for both IT and business management in their technology decisions. Because the data managed in the storage environment is the foundation of the modern enterprise, having an efficient, responsive, highly available, and highly capable storage management system is critical to business success. Effective storage management not only reduces downtime and minimizes costs, but also aids in identifying and taking advantage of the data and the storage management system in new ways that can unlock more efficiencies and revenues.

You can't control what you don't know. SANPoint Control provides that critical knowledge of your storage environment and then the ability to act quickly and effectively on it. SANPoint Control provides the nexus for more efficient and effective IT management as well as for more strategic IT/business decision-making. That combination of immediate responsiveness and forward-looking insight is a powerful tool to help today's enterprise tap into its lifeblood of internal, supply chain, and customer data for maximum competitive advantage.



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