SGI® Trusted Edge® for Intelligent Backup

Eliminate the need to restore data with StorHouse/Trusted Edge intelligent backup in native file format

What is Trusted Edge?

SGI Trusted Edge® is the intelligent file backup gateway to the SGI storage virtualization platform. The fabric includes tools to archive, retrieve, and backup massive amounts of information using an automatically managed pool of traditional and alternative storage devices.

Organizations deploy Trusted Edge for digital preservation programs, active archive applications, information lifecycle management initiatives, and native file format backups of terabytes to petabytes of unstructured data residing on operational systems.

What Makes StorHouse Unique?

StorHouse provides benefits over traditional backup applications because the system uses an original, native file format approach. In contrast, other backup methods store data in compressed, highly proprietary formats and require administrators to repair/format devices and restore content before it can be used. This restoration can literally take days-to-weeks to perform, causing retrieval delays and costly system downtime.

With StorHouse, applications and users have complete access to the entire contents of the virtual storage environment, which can include petabytes of information. Because StorHouse enables real-time access to individual files in native format, users can re-acquire files at any time by simply selecting and copying the information they need. They are no longer dependent on time-consuming IT-initiated restores.

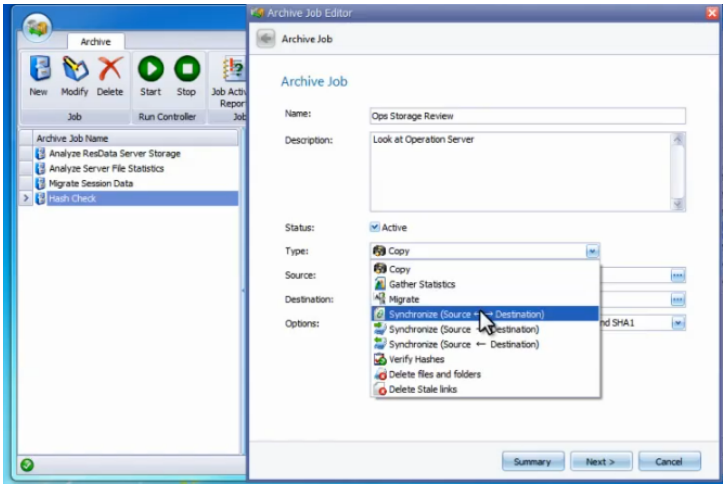
New Problems Require a New Approach. For most IT groups responsible for data backups, there has been little change to backup management applications since the early 1990s. In fact, the majority of backup systems in production today still utilize the historic grandfather-father-son approach of a weekly full backup, a daily incremental backup, and possibly a monthly consolidation or interim data snapshots. These traditional backup applications were effective when the volume of information under management was relatively small. However, they are simply no longer practical in environments where petabytes of information and multi-terabyte disk drives are quickly becoming the norm. In addition, does it make sense to continuously back up data that has not changed in 6 months, a year or more?

Can IT Avoid Fire Drills around Data Restoration?

Most restores occur under emergency or high-priority conditions (for example, a primary storage device fails, or a user accidentally deletes information). The key challenge during these events isn't the backup process but rather the ability to successfully and quickly restore very large volumes of critical information from reliable backup copies.

In most instances, when it comes to restoring a failed device or rebuilding a corrupt file system, IT managers find themselves in a chaotic, pressure-packed, fire drill condition. Nothing less than business continuity is at stake when operational systems grind to a halt. Typically, administrators restore large volumes of encrypted backup information to a mirrored storage staging location so users can access a subset of required information as soon as possible. This requires maintaining a large amount of unused storage capacity for restore while stressing IT to return data on line in a timely fashion with little room for restore failures.

StorHouse/Trusted Edge Solution. The StorHouse/Trusted Edge solution provides the tools necessary to manage backup in a more intelligent way, including the ability to create customized smart policies that overcome the many problems associated with standard backup and restore processes. Unlike most backup solutions, StorHouse/Trusted Edge provides a comprehensive analysis tool for profiling data so organizations can better understand their information and thereby make more informed decisions before initiating the actual backup procedures.



StorHouse Features

- Transparent individual user file re-acquisition requests in real-time
- Elimination of expensive mirrored storage for restore
- Storage virtualization of all data regardless of the storage type
- High data availability at all times
- User-definable version control and retention management
- Automated data access during recovery
- Continuous data protection against silent corruption and bit rot through monitoring and failure analysis for all media types
- Reduced operational backup and recovery times by offloading static data to StorHouse
- Complete compliance support with individual backup file deletes on any media, including tape and shelf
- Ability to retrieve any historical file backup through point-in-time recovery
- Decreased need for costly D2D backup solutions

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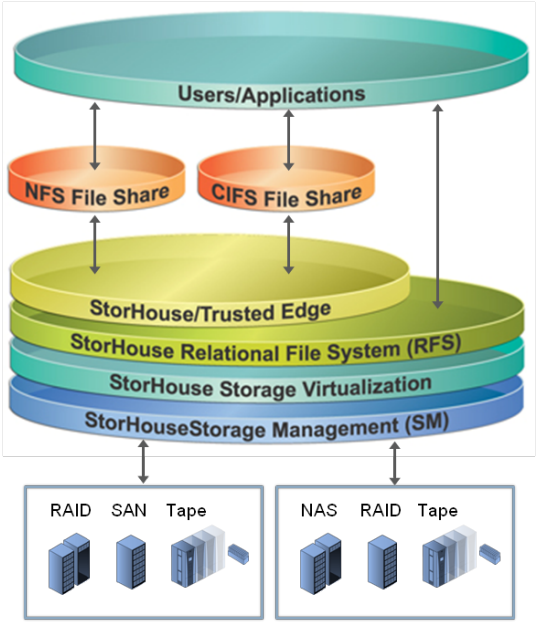
StorHouse Native File Format Backup: A New Approach

StorHouse backups can be read in native file format, the same format used by the originating application. Unlike backup applications that store data in a vendor-specific, proprietary format, StorHouse provides direct, transparent access to all data in native file format in real-time, on time, any time. Native file format backups support faster time-to-data because they eliminate the need to restore and stage data to disk prior to access, which also eliminates the cost of maintaining an expensive mirrored storage layer. If the primary RAID device should fail, the backup copies on StorHouse are immediately available during the RAID rebuild process. The benefits are reduced costs for unnecessary mirrored storage, eliminated recovery times, uninterrupted data availability, and a more reliable, secure, and cost-effective way to safeguard and protect critical enterprise information.

Data on StorHouse is always secure because StorHouse supports active content validation and repair features that ensure data integrity and improve operational efficiency. However, if desired, administrators can configure StorHouse to create additional file copies based on enterprise disaster recovery roadmap specifications and/or specific load balancing requirements.

For traditional file-base applications, StorHouse/Trusted Edge is a seamless intelligent file system gateway layer to backup any data format without the need for interface changes or code modifications. StorHouse backups can grow to trillions of files with no performance degradation by using a replicated relational model for storing and indexing file metadata. Because of this strategy, the number of stored files is never subject to individual file system constraints. Data always remains highly accessible from a blended storage pool.

The following figure illustrates a sample StorHouse architecture. As the figure indicates, StorHouse/Trusted Edge provides a backup gateway to a virtualization layer over diverse storage devices to make them appear as one large storage pool. The benefit is cost-optimized secure storage that enables organizations to match storage performance characteristics with retrieval requirements.



Summary

StorHouse/Trusted Edge native file format backup provides many benefits over traditional file backup applications. It captures and moves selected content to the backup environment in real-time, maintains and manages the integrity of all backup data, and enables users to perform self-service re-acquisition of their content in native file format at any time. Furthermore, the software promotes data integrity, eliminates potential fire drill conditions, reduces the amount of operational data requiring backup, offers an automatically managed virtualized storage environment that lowers storage and storage administration costs, and ensures that data and application migrations will be transparent and secure for the long-term – all this for an extremely low cost per terabyte for the second data copy.

For more information about how Trusted Edge can protect and manage your critical enterprise data, or to learn about other SGI products, contact an SGI sales representative, or e-mail your questions to http://www.sgi.com/sales/askarep.html.

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