

# SGI NAS

## Archiving / Backup & Recovery

### Data Security and Availability

#### Overview

Archiving / Backup & Recovery enables you to create an accessible online data store that facilitates and safeguards company-critical information for extended periods of time, significantly lowers corporate costs and risks, and increases end user productivity and organizational efficiency.

#### Industry Challenges

Thirty percent of computer users say they spend the equivalent of one week per year reconstructing lost data. Forty percent of small- and medium-sized businesses don't back up data at all. For companies of all sizes, there is an ever-increasing emphasis on protecting business-critical data from local, regional, or global disasters.

Vastly increasing file-based storage requirements make it ever more difficult to meet recovery point objectives (RPO) and recovery time objectives (RTO) with tape-based back-up systems. And yet, disk-to-disk back-up with legacy storage often is impractical due to high costs and the snapshot limitations of aging technology. So, to stay competitive, businesses need to reduce downtime, ensure critical information always is protected, and that vital data can be accessed or restored in seconds if needed.

#### Solution Overview

Customers now can protect vital business data using SGI NAS-based disk-to-disk backup, without vendor lock-in or the limitations of aged, legacy technologies.

SGI NAS supports all industry leading applications, and its unlimited file system size means that all your data can be copied, replicated, and backed up as needed, quickly meeting recovery point objectives.

SGI NAS's archiving and backup provides mirroring, RAID (software), HA Plug-in, and snapshot-based replication, which includes asynchronous (Auto-Sync, Auto-Tier) and synchronous (Auto-CDP) functionalities, thereby reducing data loss risk.

With integrated deduplication, users can optimize the network across physical and virtual environments, greatly reducing the amount of data to be backed up and stored.

SGI NAS, with ZFS technology, eliminates redundant backups, reduces business downtime, and ensures critical data always is protected and can be restored in seconds. Corporate compliance, along with rules of governance for data retention, are managed easily.

#### Archiving — Backup — Recovery

- Single console management oversees entire life cycle of storage.
- Built-in software RAID protection provides redundant array of independent disks for storing the same data in different places.
- Integrated inline (not post-process) deduplication lowers total amount of required data storage.
- Snapshot-based replication between databases, where data is updated at specified times by copying data changes.
- NDMP Integration: Open protocol used to control data backup and recovery communications between primary and secondary storage.

## How it Works

**Auto-CDP Plug-in (Automated Continuous Data Protection)** replicates storage volumes between two different appliances in real time, at a block level. This synchronous replication is in contrast to the asynchronous replication performed by the Auto-Tier and Auto-Sync capabilities of SGI NAS. Replication is performed over an IP network.

**Auto-Sync Plug-in** is one of the SGI NAS-provided data replication mechanisms. It is a schedulable, fault-managed, fully configurable (tunable) SGI NAS Data Replication service that can be used in a variety of backup, archiving, and disaster recovery scenarios.

- New remote replication protocol
- Multi-destinations now supported
- Replication status bar
- Ability to resume Auto-Sync service
- Change source and destination paths on the fly via set-up Auto-Sync edit paths

**Auto-Tier Plug-in** has a capability to snapshot its (tiering) destination upon each successful execution, (as opposed to auto-sync, which actually transfers existing snapshots from the source to its (syncing) destination).

Both Auto-Sync and Auto-Tier are designed from ground up to use a variety of transports (a.k.a. protocols), which provides required flexibility to execute over Internet and Intranet, from behind a firewall and in the environment that requires extra security.

Auto-Sync and Auto-Tier support incremental intelligent replication, whereby, once the initial replication is done, only accumulated differences (the delta) between the source and the destination is transferred during all subsequent service runs.

Both Auto-Sync and Auto-Tier support any schedule. You can schedule the services to run every minute, every hour at a given minute of the hour, every few hours, every day or at a certain day of every second month. Whatever the business needs to succeed.

## Benefits

SGI NAS can maximize your return on a storage investment with increased performance, improved data back-up and recovery, and hardware-agnostic solutions, thereby allowing organizations to leverage existing in-house machinery.

**Reduced Risk:** High performance and air tight data integrity eliminates risk. Hardware agnostic solutions leverage in-house commodity hardware, eliminating the risk and costs of a fork-lift systems overhaul.

**Powerful Management:** SGI NAS's ease of use helps administrators create and manage storage volumes with unparalleled ease.

- Unlimited number of snapshots
- Granular data recovery
- Integrated search
- Mirroring to alternative installations

**Cost Effective:** SGI NAS's hardware choices allow organizations to scale up or scale down storage and IOPS, depending on business flows, using the best hardware for its budget.

**Enhanced Performance:** With SGI NAS, productivity increases, errors are reduced, and the system, as a whole, runs much faster. SGI NAS effectively manages data growth at a price any company could afford.

## In Conclusion

Information has become the business. With SGI NAS, data is available and sustainable in a reliable and cost-efficient manner.

Data capacity is higher while infrastructure and administrative costs are reduced by up to 70%. Information always is searchable and can be shared across lines of business. Data is maintained securely, providing businesses with the critical archiving and backup they require.

And that's what matters.

### SGI NAS Differentiators

- ZFS-based solution combines unlimited full or incremental snapshot capabilities with WAN aware replication and integrated search.
- Includes the only solution with Auto-CDP capabilities for synchronous mirroring over IP.
- Unlimited file system size and unlimited snapshots ensures that all data can be copied, replicated, and backed up as needed.
- Delivers unparalleled flexibility in supported hardware, software, and applications.

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