SGI NAS and Video Surveillance Solution

Key Features
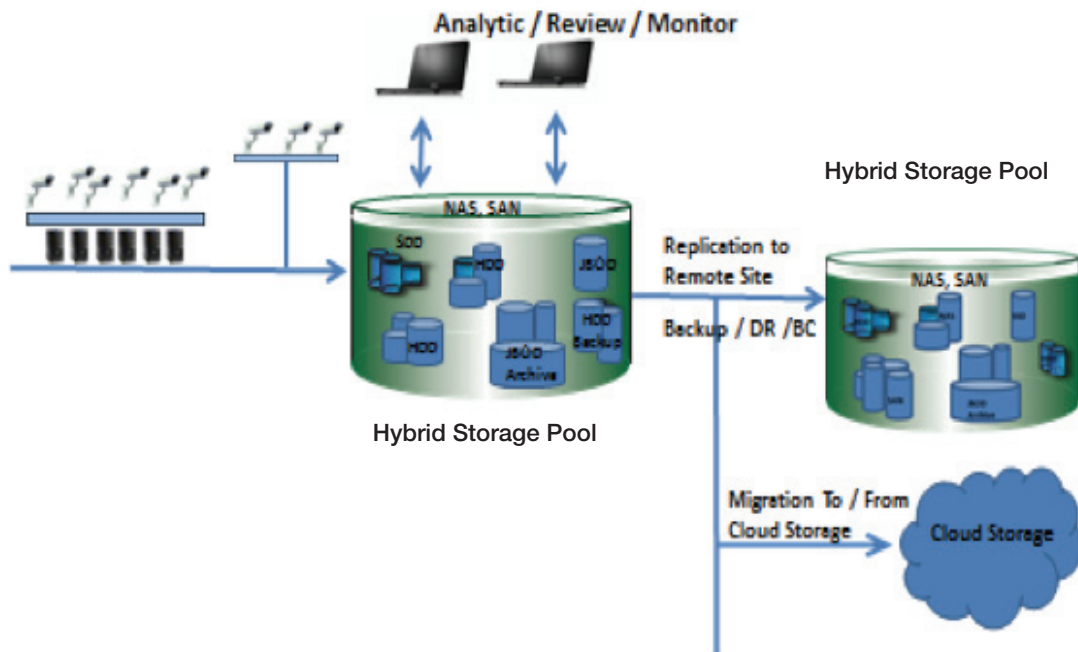
Hybrid Storage Poolsl

Accelerated Write Performance

Dynamic Scalability

Dynamic Backup and Synchronizing

Video Surveillance is being driven by new requirements for higher resolution, longer retention times, and the need to implement new technologies, such as video search, augmented reality, and cloud storage.

Most organizations can benefit from a flexible, open enterprise storage solution. SGI NAS's Unified Storage Solution for Video Surveillance provides the storage architecture and features needed to obtain the full benefits from the activities associated with the workflow of your video surveillance solution.

SGI NAS Storage Solution Diagram

Benefits of a Unified Storage Solution

Hybrid Storage Pools

- Combined I/O bandwidth of all devices is available to all file systems at all times.
- Abstract software from physical storage.
- Storage pools (combinations of SSD, HDD, and JBOD) as SAN and NAS.

Accelerated Write Performance

Dynamic Scalability

128-bit File System

- Unlimited file size, unlimited capacity, unlimited snapshots.

Dynamic Backup and Synchronizing

- To multiple local or remote destinations.

Copy-On-Write

- End-to-end data integrity.

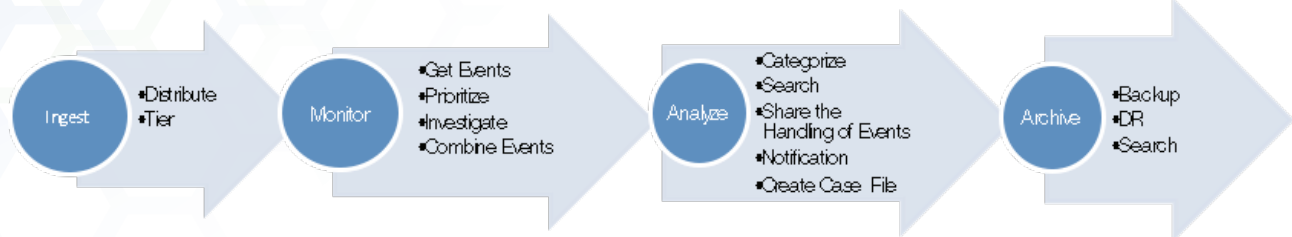### 256-bit Checksum

- Detect and correct data corruption.

Additional Features

Features	Benefits
Support for NAS (NFS, CIFS, WebDav, FTP) and support for SAN (iSCI & FC)	Flexibility to manage resources based on performance requirements.
Simplified Disk Management	Manage disks and JBODs using either command line or SGI NAS Management Viewer (NMV).
Data Deduplication and Native Compression	Inline data deduplication and compression reduce use of primary storage.
Total Product Safety	Proactive, automated alerts when configuration deviates from "Golden Image" (best configuration).
Reserve Space for Future Growth	Reserve pool space; ensure to never run out of space accidentally; Allow for work continuation without disruption (ZFS).
Encryption	Available for additional security.

Optimal Workflow for Video Surveillance Storage

Below, you can see the basic workflow of a video surveillance solution—from ingesting data to the final steps of backup, archiving, and disaster recovery.

In the table below, we can see the features and the benefits that an enterprise class video surveillance solution presents. Features / Benefits may apply to more than one activity.

Typical Workflow for Video Surveillance

Key Features and Benefits

sgi.com/nas

Activity	Feature	Benefit
Ingest	Protected Writes Clustering Dynamic Scalability Striping	Accelerated Write Performance High Availability—Protects Against Service Loss, Provides Load Balancing Scalability: The Pool can be grown or expanded while online by adding drives or replacing smaller drives with larger drives. Data is striped across all drives in the pool, thereby providing load balancing as well as increased performance.
Monitor	VDEV & ZPOOL	Class of Service (COS): Creates multiple virtual storage pools from any combination of storage (JBOD, SSD, HDD) based on your speed / capacity / safety, needed for the storage pool.
Analyze	Unlimited Snapshots, Auto-Sync, Auto-Tier, Auto CDP, Ditto Blocks, Integrated Indexing	Schedule Multiple Copies, Multiple Locations Integrated Search: Data is indexed so you can perform Boolean searches within the file system
Archive	Copy On Write 256-Bit Checksum Single, Double, Triple Parity Auto Scrub	End-to-end Data Integrity: SGI NAS creates a new block for each operation instead of overwriting the original data block. Self-healing: Checksum for metadata, user data, and additional copies of the data blocks are created. Data and Metadata Integrity Checks: Periodically force the checking of checksums. 256 Bit Checksum (Self-healing)

Global Sales and Support: sgi.com/global