

Top 5 Ways that ASTI's Cloud-Integrated Storage (CiS) Addresses Cloud Concerns

Alliance Storage Technologies, Inc.
Confident Data Archiving Strategies



1

Security Risks Associated with Data Location

Some users perceive that data stored locally is more secure, while others may perceive the cloud as having a greater level of security. ASTI's CiS solution is not just a cloud-only storage option. Users have the choice of storing data locally and/or in the cloud providing an unprecedented level of control over where to store the data (locally or remote), minimizing security risks. Additionally, since access to data is restricted to only authorized users, risks are minimized.



Loss of Control Over Data

2

ASTI's Archive Management Software protects against loss of control over data by providing centralized control, monitoring and tracking of all data stored within the archiving ecosystem. Data is cached in RAID, after which it is automatically committed to media or cloud based upon user-defined, configurable policies. This eliminates multiple access points to the data stored in the cloud as data must always be retrieved through the Archive Management Software, providing users with powerful centralized control over data.

3

Unauthorized Access

According to the cloud surveys evaluated, unauthorized access is the one of the biggest concerns among current and potential cloud users. ASTI's secure Archive Management Software acts as a gatekeeper for data stored locally and in the Cloud. Access to data is enabled via configurable user access controls, including support for multiple authentication services such as Active Directory, local user level security or LDAP.



Network Security

4

Data being transferred over Wide Area and Local Area Networks using secure transfer protocols are encrypted, but security is not guaranteed. It depends on the applications, protocols, configuration options and 3rd party software that might be involved. ASTI's encryption adds an additional layer of security ensuring that data is encrypted prior to being transmitted to the cloud, ensuring protection of sensitive data during transmission and at rest.



Encryption is the only sure method of assuring that data is secure while stored off-premises. Users can enable optional encryption for some or all of the data stored in the cloud and/or media.

5

Security & Vulnerability of the Cloud

Consistent security and protection across IT infrastructures is of foremost concern for protecting data on premises and in the cloud. Sixty-five percent of respondents to one recent cloud survey cited that data encryption is the most effective method of protecting data in the cloud.

Once data is stored in the cloud, it could still be vulnerable to unauthorized or fraudulent access; therefore, ASTI recommends encrypting all cloud-stored data. ASTI's encryption option meets U.S. and Canadian guidelines with FIPS 140-2 compliant, AES 256-bit encryption algorithms with license key management implemented in accordance with NIST Special Publication 800-57 Recommendations for Key Management such that all keys are stored remotely away from the data while

simultaneously keeping control of encryption keys in your hands rather than the cloud provider's. This provides the highest level of protection for data stored in the Cloud.

To protect against vulnerability, data can be stored in both locations ensuring that a copy of last resort is always available for disaster recovery purposes.



ASTI Cloud Integrated Storage (CiS) solutions combine the strengths of multiple technologies to create a versatile, innovative data archiving ecosystem adaptable to any business, industry, or organization.



ASTI CiS provides users with affordable choices for archiving data locally or in Cloud based archives. Authenticated users have seamless access to data stored anywhere within the archiving ecosystem, whether stored locally or in the Cloud, can be accessed and viewed by authorized users.

How does ASTI's CiS Work?

- **Archive Management Software (AMS) w/ Cloud Feature**

As an integral part of the solution, the flexible software provides all the capabilities necessary for proficiently and effectively archiving, managing, and randomly accessing data. Establish policies that determine when, and to what source, the data files are to be archived, after which the files are migrated automatically to their directed source. Additional features: Encryption and Replication.

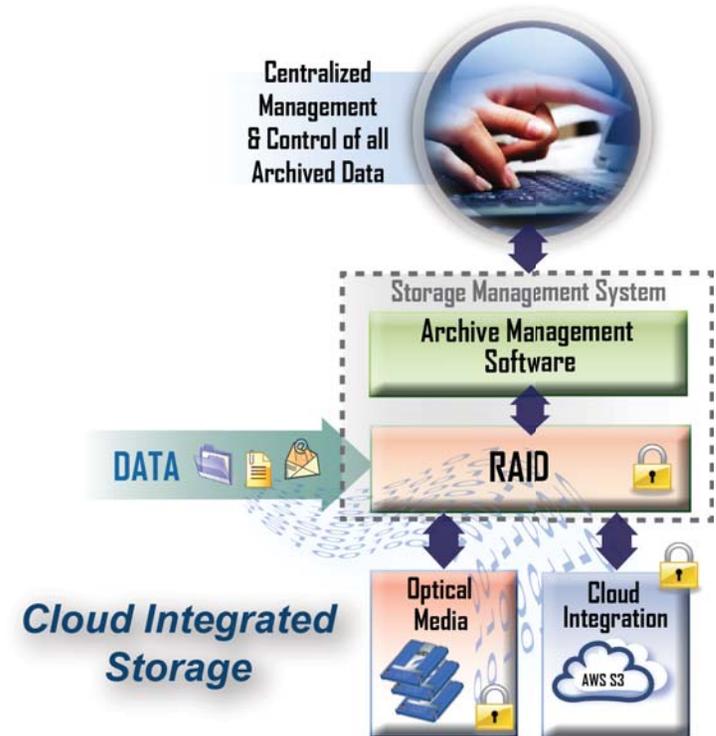
- **Storage Management System (SMS)**

Add the Elite SMS, the high-performance up-front server system with RAID and interface to optical media and Cloud. Elite offers the power, performance, and high-availability of hardware components necessary for expedient migrations and recalls.

- **Optical Libraries** Select from a variety of field-proven and reliable scalable optical libraries suitable for any sized business or organization ranging from Entry-Midrange to Enterprise libraries.

- **Amazon Web Services S3**

Clients will work directly with AWS to obtain Cloud services under the Simple Storage Service (Amazon S3) service level agreement. ASTI CiS solutions integrate seamlessly with Amazon S3 services that can be used to store and retrieve any amount of data. Amazon S3 features highly scalable, inexpensive pay-as-you-go pricing to handle growing storage needs. S3 provides a secure infrastructure with up to 99.99% durability, with 99.99% availability.



What can ASTI's CiS Solution do for you?



- Offers a low-cost Disaster Recovery solution
- Reduces Operating Costs - offers affordable alternative to traditional storage systems by combining the low operating costs of optical media with the convenience and economy of the Cloud.
- Provides multiple avenues for preserving data unaltered over the long-term
- Minimizes data archiving overhead by distributing costs over multiple IT assets and resources
- Confidently secures data both locally and in the Cloud
- Configurable systems conform to existing internal storage policies and infrastructures
- Adds extensibility to existing archive appliance libraries (where applicable) enabling more thorough utilization of investment
- Conforms to 3-2-1 Data Archiving Best Practices: 3 copies of data, 2 on different types of media, with 1 copy stored off site.
- Solutions are supported by the knowledge and expertise of data archiving innovators
- Protects against loss of control over data by providing centralized control, monitoring and tracking of all data stored within the archiving ecosystem.
- Encryption keys are stored remotely away from the data while simultaneously keeping control of encryption keys in your hands, rather than the cloud provider's.

About Alliance Storage Technologies, Inc.



Alliance Storage Technologies, Inc. (ASTI) develops and manufactures products and solutions specifically designed for professional data archiving. Innovative solutions incorporate best practice strategies and feature modular, flexible architecture and are adaptable to any business or industry. Seamlessly integrated with leading content and storage management software platforms, and directly accessible as network attached storage solutions, ASTI's archive solutions are trusted worldwide for the protection of archive data.

Archiving products and can be configured for each customer's specific environment and are suitable for businesses of any size from small organizations to the largest enterprise or government. ASTI partner affiliations include world class value added resellers, distributors, and integration partners.

Best-in-class Service Direct support programs are designed to meet the demanding needs of global 24x7 operations.

**Contact ASTI
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