# Calamu Data Harbor

Cyber Vaulting-as-a-Service
for the Modern Cloud Era

Backup data is facing a number of new vulnerabilities as workloads shift to the cloud. Common best practices such as creating redundancies only exacerbate this problem as more data copies means more attack surfaces. And as IT teams balance the diametric need to keep data secure from these threats while also maintaining competitive service-level agreements, many are looking toward **virtual air gap** solutions as the much needed compliment to the 3-2-1 backup strategy.
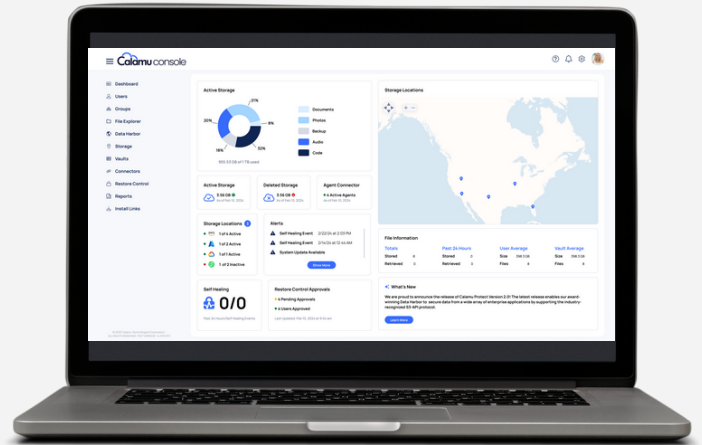
Why Virtual Air-Gapping?

The 3-2-1 backup strategy dictates three copies of data, on two different media, with one of them in an off-site location. The air-gap model in which data is stored in an isolated environment has been a popular choice to achieve this.

While secure, air-gapping is time and resource intensive with slow recovery times and a cumbersome process to update backup snapshots.

The virtual air-gap creates the logical separation between the production environment and the backup repository and maintains a critical zero-trust framework while ensuring overall data availability.

Key Market Drivers

93% of Ransomware Target Backups

Backup repositories are often the first target during an attack because they hold a wealth of sensitive information that can be used as leverage and they cripple recovery efforts.

### 75% of Victims Lose Backup Data During an Attack

Recent estimates show that most ransomware victims will lose some if not all of the data held in their backup repository during a ransomware attack.

Cloud Storage Is the Main Attack Vector

As ransomware tactics shifted to exfiltration, the attack vector also shifted to cloud storage. As businesses increasingly move workloads to the cloud, this problem will compound and persist.

Security Meets Faster Recovery

In harmonizing data security and agility, vitual air-gapping provides a perfect middle ground for businesses to secure backup repositories in the fast-moving cloud era. However, there are many approaches to virtual air-gapping and not all include the same features and capabilities.

Faster Recovery

Local Storage

Calamu™
Virtual Air-Gap

Physical Air-Gap

More Secure
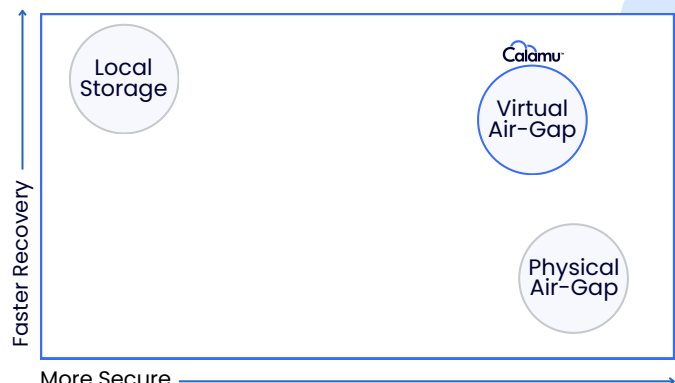
Calamu Data Harbor

Done-for-You-Protection That's as Simple as Connect | Protect | Recover

The Calamu Data Harbor is powered by a proprietary resilience algorithm that disperses encrypted data fragments across multiple cloud locations, creating a virtual air-gap with logical and physical separation from the production data and the rest of the backup systems.

The Data Harbor's transformative process is a modern approach to data isolation. Its multi-cloud architecture ensures that data is safe from ransomware and other cyber threats as no single location holds enough usable information to perform an effective attack.

Unlike other cyber vaulting solutions, a Data Harbor has unique built-in protection layers including AI-driven attack detection, automatic quarantining and self-healing. Done-for-you-protection means the confidence to absorb an attack and carry on with no lost data or inaccessibility.

Reconstitute · Fragment · Encrypt · Distribute · Retrieve · Decrypt
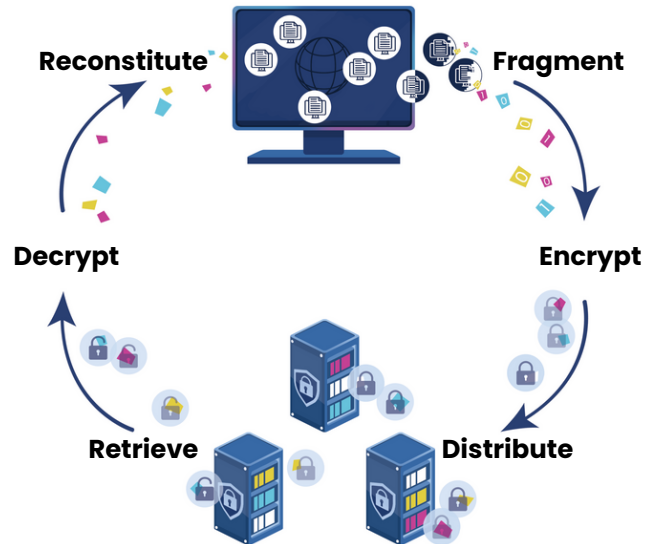
Key Benefits of Calamu

SECURE
Backup data is physically and logically isolated

RANSOMWARE PROOF
Immutable with data fully obfuscated and encrypted

BREACH PROOF
Multi-site file sharding renders exfiltration attempts useless

CYBER RESILIENT
Geo and zone redundant with no single-point of failure

AUTOMATIC SELF-HEALING
Real-time data accesibility to meet stringent SLAs

SCALABLE
Dynamic scaling with infinite capacity

MULTI-CLOUD FREEDOM
Migrate workloads across clouds and hybrid securely

AS-A-SERVICE CONSUMPTION
Pay-as-you-grow model that works within your existing environment

WIDELY COMPATIBLE
Veritas, Veeam, Dell, Minio, AWS, GCP, Azure, Wasabi, Backblaze and more

PROACTIVE ATTACK DETECTION
AI-Driven detection with automatic quarantining

Plugs into any environment | The Calamu Data Harbor is the only solution of its kind that works with any backup software or tooling.

Up and running in minutes | Fast deployment and seamless integration for true plug & play protection.

SPECIFICATIONS

Virtual Air Gap	✔	• Logically and physically separated from production environments and other backup systems • Data isolation achieved with no rolling blackout windows required
Immutability	✔	• Object Locking at fragment/shard level
Data Security	✔	• AES 256 encryption in-transit and at-rest • Zero trust and fully redundant key management system
Access Control	✔	• Multi-factor authentication for administration console access • Restore Control™ multi-party verification for critical file actions such as read, restore, and delete
Ransomware Detection	✔	• AI-based anomaly detection and self-quarantining
Rapid Recovery	✔	• Always-on availability means no lockout periods or rolling blackout windows • Parallel cloud processing accommodates stringent RTO
Self-Healing Remediation	✔	• Fully redundant distribution across multiple locations • Self-quarantines infected data and redirects logic to unaffected data locations within the Data Harbor
Public Cloud Availability	✔	• Data fragments can be stored in AWS S3, Azure Blob, Google Cloud Storage, Wasabi, Backblaze, more • Flexible storage classes for long term archival (coming soon)
Wide Compatibility	✔	• Connectivity with Veritas, Veeam, Dell, and all S3-compatible software • Connector agents available for direct protection of file system data and Microsoft OneDrive
As-a-Service Consumption	✔	• Pay-as-you-grow pricing based on data volume • Rapid deployment and configuration takes only minutes to connect, protect, and recover
Centralized Management	✔	• Central management console to set policies, and to monitor security and usage analytics

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Get Started

www.calamu.com/data-harbor-as-a-service