Solution Brief

SHARDSECURE / **Backblaze**

ShardSecure's Approach

Microshard technology desensitizes unstructured data for hybrid- and multi-cloud environments. Together with Backblaze, we tackle two of the most common hurdles in cloud adoption: pricing and security. While Backblaze provides affordable, scalable storage options, we offer robust data privacy and resilience. Here's how:

Shred: We begin by shredding data into microshards as small as four bytes. These microshards are too small to contain a birthdate, an ID number, or any other complete piece of sensitive data.

Mix: Next, we add a configurable amount of poison data, and we mix the microshards into multiple containers. We also remove identifying information like file extensions, file names, and other metadata.

Distribute: Finally, we distribute the microshards across multiple customer-owned storage repositories in the cloud. The result is stronger data protection and resilience in hybrid- and multi- cloud environments.

ShardSecure Partners With Backblaze for Easy, Secure Cloud Storage

Overview: Overcoming Hurdles to Cloud Adoption

Cost-effective, secure data storage is a major concern for the future. With reports that total global data storage will exceed 200 zettabytes by 2025, companies must optimize how they store their data. For many businesses, that optimal solution is the cloud, where they can reduce storage costs by over 70%.

Despite the cost savings, though, many businesses have hesitated to make the move. Migrating sensitive data to the cloud is a significant challenge. The complexity of storing data in hybrid- and multi-cloud infrastructures — combined with the cost of protecting it against threats — can leave companies spending much more than they initially budgeted for.

To remove the two major cloud adoption obstacles of pricing and security, and to support reliable, affordable cloud storage, ShardSecure partners with Backblaze. Backblaze's services include scalable storage, while ShardSecure's patented Microshard™ technology offers advanced data protection and resilience with self-healing data so companies can safely store their crown jewels in the cloud.

ShardSecure + Backblaze Integration

ShardSecure and Backblaze have partnered to provide advanced data protection for grow-on object storage. The integration combines the data protection benefits of Microshard technology with the scalability and transparent pricing of Backblaze cloud storage for building applications, safeguarding data, and more.

The ShardSecure-Backblaze partnership ensures that data is well protected against outages, attacks, and other forms of data compromise — and that companies are safe from the egress charges and other hidden fees common with cloud environments. Together, we effectively tackle two of the most common obstacles in cloud adoption: pricing and security.

Backblaze supports two different suites of APIs: S3-Compatible and B2-Native. We generally recommend that developers use the S3-Compatible API when writing new applications and integrations, as it is supported by a wider range of SDKs and libraries and many developers already have experience with it. However, teams can use the Backblaze B2 web console or the B2-Native API to access functionalities like application key management and lifecycle rules that are not covered by the S3-Compatible API.

ShardSecure Data Protection and Resilience

While cloud service providers (CSPs) offer strong protection against front-end attacks, the shared responsibility model means that individual organizations are still responsible for securing their own data against back-end threats in the cloud. This is where Microshard technology comes in. With our patented data protection solution, we ensure the privacy and integrity of unstructured files in the cloud.

Through a three-step microsharding process, data is kept secure from unauthorized users. Even if a storage location is left misconfigured, compromised in an attack, or unavailable due to an outage, no user can access a complete dataset without the owner's consent.

Self-healing data for improved resilience and availability in the cloud

Each instance of ShardSecure is a virtual cluster that, when deployed in different regions and different clouds, maintains high availability. If one storage location becomes inaccessible, user activity is seamlessly directed to an operational location.

Our self-healing data feature also allows us to reconstruct data when it's tampered with, lost, deleted, or encrypted by ransomware. Using an automated control, multiple data integrity checks detect unauthorized modifications and provide early detection and alerts for security teams. Our self-healing data then reconstructs the affected data automatically and in a way that is transparent to users. The result is neutralized cyberattacks, minimal downtime, less restoring from backups, and fewer disruptions to business continuity.

Ease of integration

ShardSecure offers easy integration with storage APIs, and its architecture allows for an easy plug-and-play integration with any application. It is transparent to storage locations and to applications, making deployment quicker and more efficient.

Microsharding is a zero-downtime event, with no impact to applications and no visible changes or significant lag for users. If an organization needs to migrate data from one storage location to another for cost, availability, or performance reasons, the process can be started with just a few clicks.

Maximum data control

ShardSecure allows organizations to maintain control over their data in the cloud, including by selecting storage in the geographic locations and jurisdictions of their choice. Microsharding helps companies to mitigate data transfer risk and address data sovereignty and compliance.

Microsharding does not rely on keys, so issues of third-party key ownership and credential abuse are nonexistent. It is not possible for a third party to deploy an instance of ShardSecure to reassemble another organization's microsharded data.

Summary

The cloud offers abundant opportunities to companies looking to save on storage costs, but sensitive data migration presents major obstacles. With ShardSecure's advanced data protection and Backblaze's scalability and simple pricing, these obstacles can be a thing of the past. The integration provides all-in-one protection against a wide range of threats — everything from cyberattacks and misconfigured storage buckets to speed premiums, hidden fees, and more.

Backblaze makes it astonishingly easy to store, use, and protect data. Backblaze B2 Cloud Storage provides a foundation for businesses, developers, IT professionals, and individuals to store backup and archive data, build applications, host content, manage media, and more.

To learn more about Backblaze, visit them at www.backblaze.com. Get in touch by calling 650-352-3738 or emailing Partnercontact@backblaze.com.

ShardSecure is changing the nature of data security. We believe that all organizations can easily and securely enjoy the benefits of cloud adoption without surrendering control of their data. Our microsharding solution ensures data privacy, strengthens data resilience, protects against attacks and outages, and neutralizes ransomware.

To learn more about ShardSecure, visit us at https://shardsecure.com