# SHARDSECURE™ SOFTWARE APPLIANCE

## THE SHARDSECURE ADVANTAGE:

The only solution capable of breaking data into single-digit byte sizes without sacrificing performance.

**Ed Amoroso, CEO TAG Cyber Former CSO, AT&T**

*"ShardSecure's shread, mix and distribute approach provides a simple path to eliminating data sensitivity on back-end infrastructure that works regardless of one's cloud expertise."*

**Garrett Bekker, Principal Analyst, 451 Research**

*"ShardSecure has…the ability to protect data with less overhead than standard encryption or need to modify applications, and support for multiple cloud offerings as well as Box and Dropbox, etc."*

## ELIMINATE DATA SENSITIVITY

ShardSecure's Microshard™ technology shreds, mixes and distributes data to eliminate the value of data on backend infrastructure, ensuring data is protected in the event of a breach, separated from those with privileged access and that the sensitivity class is reduced. Enterprises depend on ShardSecure to accelerate cloud adoption and lower compliance costs knowing data is reliably obscured.

## SHRED, MIX, DISTRIBUTE

1. Microshard fragments can be set as small as four bytes

2. False shards are added to further obscure data. Shard size, contaminated fragment quantity and compression are all customizable. Every new piece of data provides further obsfuctation

3. Microshard data is distributed across multiple locations. Shards can be distributed to:

   > Local storage    > Google Cloud    > Microsoft Azure

   > Amazon (AWS)    > IBM Cloud    > Oracle Cloud

4. Microshard data is reassembled for the legitimate users without sacrificing performance. The possibility of unauthorized access is near zero due to exponential increase in required knowledge to access data

**Structured & Unstructured Data**

Eliminate sensitivity of files, streaming data and databases

**Single-digit Byte Shards**

The only technology capable of shards as small as 4 bytes

**Single-digit ms Performance**

Outperforms software-based encryption without adding latency

**One-click Migration**

Move shard data easily between locations with one click

**Encryption Compatible**

Shard before or after encrypting without disruption

**2-10x Cloud Performance Gains**

Streaming Microshard data can yield read, write, transfer improvements

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## HOW IT WORKS

ShardSecure is easy to deploy as a virtual machine or container either on-premises or in the cloud. The product looks like a disk and is application-agnostic (supporting files, database and streaming video). Data is protected via Microshard technology broken into tiny bits before being distributed to multiple local and cloud storage locations. Locations are unknown to each other. Using pointers in the ShardSecure engine, Microshard data for legitimate users is reassembled back into its original form without sacrificing performance.
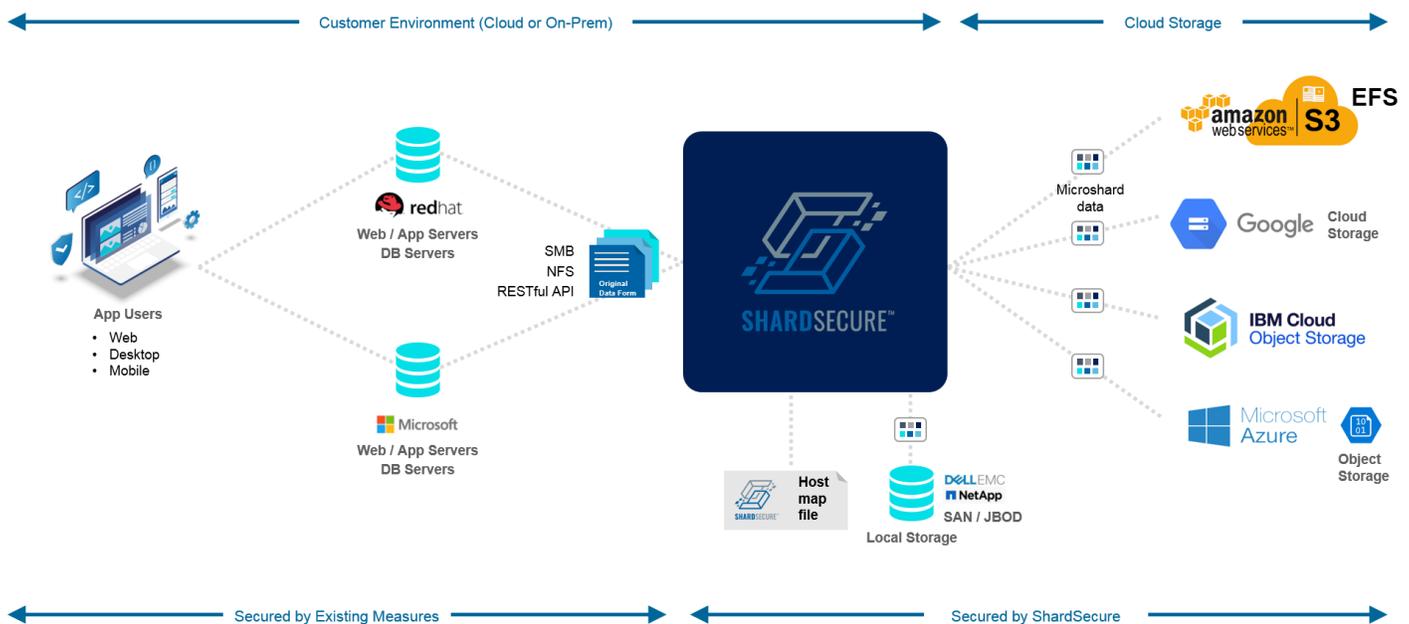


## WHY SHARDSECURE?

- Automatically secure data with or without encryption
- Separate sensitive data from internal and third-party cloud administrators while eliminating the risk of compromised encryption keys or credentials
- Ensure data is protected prior to transfer, in transit and at rest on backup systems
- Accelerate recovery with streaming Microshard data, facilitate fast transfer with one-click secure cloud data migrations and reduce total disk space consumption
- Malicious executables and scripts, like ransomware, cannot execute in Microshard state, which will dramatically reduce your risk exposure in cloud environment

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## BUSINESS BENEFITS

✓ **Reduce Compliance Burden:** Microshard data is fragmented and distributed such that sensitivity class and economic value to cybercriminal is eliminated, reducing overall compliance burden.

✓ **Increase Productivity:** Streaming Microshard data can yield 2-10x read, write and transfer performance improvement. Improve workflow and operational efficiency with data protection that actually accelerates cloud performance.

✓ **Zero Trust Security:** ShardSecure extends beyond access control to effectively separate your data from privileged admins, employees and cloud providers, eliminating the risk of human error and insider threat.

✓ **Lower cost and RTO:** Move from on-prem backups with Iron Mountain to cloud, save on storage costs and reduce meantime of recovery.

## SHARDSECURE USE CASES

**Cloud Enablement and Migration:** Cloud misconfigurations are the number one cause of data breaches in the cloud. Microsharding drastically reduces the sensitivity of data in the cloud to protect customers from the risk of security vulnerability caused by improperly configured data. Migrate data with 'one-click' migration, ensuring data is protected prior to, in transit to and at rest on your systems. Observe faster data transfer speeds and meaningful cost savings vs. legacy data migration methods.

**Secure Cloud Backup:** Between regulatory and service requirements, the amount of data organizations are required to back up has skyrocketed. Cloud provides rapidly scalable, flexible storage to meet those demands, but security concerns prevent organizations from embracing it. By reducing data sensitivity, organizations can confidently migrate backups to the cloud without fear of data breach and increased compliance costs.

**Lower Compliance Costs:** Government agencies like the New York State Department of Finance, who classes data protection as the number one threat within their jurisdiction, have begun mandating cybersecurity compliance, discouraging companies from excessive data concentration that puts them at risk for breach or loss. ShardSecure lowers these compliance costs, as Microshard data is obfuscated such that it is no longer considered 'sensitive'.

**DevOps Security:** Accidental exposure of proprietary code on repositories (e.g. Github, bitbucket) or theft of newly developed code can derail development efforts, reveal trade secrets and make it possible for hackers to create exploits or extract credentials. Microshard technology ensures code is not readable or exploitable at rest and has zero value in transit, enabling secure sharing between intended parties on a global scale.

**Secure File Sharing:** ShardSecure makes it possible for the most security-conscious organizations to share sensitive files and documents between locations, with third parties, and on-premises with high confidence. Microshard data is only reassembled and accessible to parties with proper access credentials.

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