

Solution Brief

Bloombase StoreSafe Intelligent Storage Firewall for Amazon Web Services (AWS)

Bloombase StoreSafe Intelligent Storage Firewall provides turnkey, agentless, non-disruptive, application-transparent encryption of application workloads and storage services powered by Amazon Web Services (AWS). The solution can help:

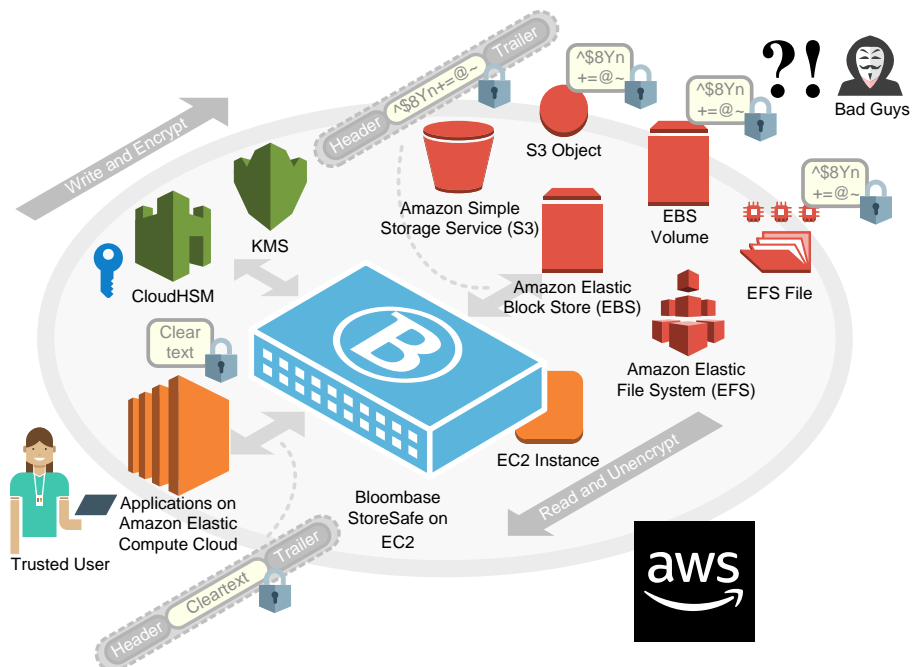
- Secure your Amazon Elastic Compute Cloud (EC2) compute instances and Amazon cloud storage services with quantum-resistant cryptography
- Provide multi-tenancy encryption protection of data-at-rest on AWS
- Protect your business-sensitive data managed in Amazon cloud storage services including Amazon Simple Storage Service (S3), Amazon Elastic Block Store (EBS), Amazon Elastic File System (EFS), and third-party storage technologies
- Mitigate data outbound threats and data leakage at low total cost of ownership (TCO)
- Retrieve your ciphertext quickly and securely by trusted AWS applications as if they are in the clear
- Meet stringent data confidentiality and secrecy regulatory compliance requirements immediately
- Maximize your return on investment (ROI) with easy-to-implement and scalable AWS cloud platform for multi-tenancy, mixed operating systems, and heterogeneous cloud storage environments
- Manage security rules and policies easily to align your data encryption requirements
- Integrate with AWS Key Management Service (KMS) and CloudHSM for centralized life-cycle key management

Amazon Web Services (AWS) delivers reliable and scalable compute and storage services in the cloud; it is one of the largest public cloud infrastructures operating on a global scale, providing high availability, agility and elasticity for mission-critical business software applications and data services.

Off-premises cloud computing infrastructures are often regarded as honeypots in cybersecurity: significantly higher exposure to cyber-attacks and data breaches than on-premises data centers. As application workloads and sensitive data are migrated to the cloud, there is a need for uplift of security to better meet data privacy regulatory compliance requirements, while keeping up with system scalability, expandability and availability.

Data-at-rest encryption is technically the last line of defense to help mitigate the risks of data exfiltration threats. Nonetheless, traditional encryption tools have downsides of limited scalability, vendor lock-in, creation of silos, and platform dependency, forbidding the extension of the technology to next-generation computing infrastructure.

Bloombase StoreSafe Intelligent Storage Firewall fosters unprecedented software-defined, drop-in approach for data protection: powering information discovery and security at the storage tier from physical data center, virtualization, hyper-converged infrastructure (HCI) and to the cloud. Bloombase StoreSafe delivers powerful, turnkey, bump-in-the-wire, non-disruptive data cryptography that fits seamlessly into the cloud, enabling customers to meet stringent data privacy regulatory compliance



requirements easily and cost-effectively. The Bloombase Cryptographic Module is NIST FIPS 140-2 certified, supporting standards-based and post-quantum cryptographic cipher algorithms, open protocols in storage security (such as IEEE 1619), AWS Key Management Service (KMS), Amazon CloudHSM, and industry-leading key management technologies (such as PKCS#11 and OASIS KMIP).

Bloombase StoreSafe empowers transparent encryption technologies to protect Amazon storage services including Amazon Simple Storage Service (S3), Amazon Elastic Block Store (EBS), and Amazon Elastic File System (EFS), enabling software applications running on Amazon Elastic Compute Cloud (EC2) to interface the encrypted data objects, databases and Big Data repositories with zero application and operational change.

Bloombase StoreSafe allows flexible deployment in form factor of Amazon EC2 compute instances on AWS and beyond delivering encryption-as-a-service for virtual machines (VM) on cloud and containerized applications on Docker/Kubernetes. Bloombase StoreSafe works almost like a storage proxy, offering high-bandwidth, low latency ciphering and deciphering of stored data at near-limitless capacity and scalability.

Trusted hosts and applications on AWS can easily leverage Bloombase StoreSafe virtual storage resources for autonomous encryption and un-encryption of sensitive data managed at Amazon storage services. When plaintext data are written through Bloombase StoreSafe, the data payload is turned into ciphertext on-the-fly and stored in Amazon storage services. On the other way round, when data are pulled from the storage backend, Bloombase StoreSafe decipheres the encrypted data and presents them to trusted host applications as virtual plaintext. Business data in Amazon storage services are permanently encrypted and stored in their natural forms as Amazon S3 objects, Amazon EBS volumes or Amazon EFS files. Authorized data owners can access the encrypted data as if they are in the clear, whereas all administrators can see is the unintelligible and meaningless ciphertext. Therefore, business trade secrets and crown-jewels remain private and safe.

Based on open technologies, Bloombase StoreSafe secures data for longevity and is future-proofed for platform heterogeneity and the evolving IT: from traditional to the next-generation data center technologies. Bloombase's comprehensive security features help fulfill information compliance requirements of the diverse range of industry verticals and demographics. Growing data protection needs are met dynamically and efficiently, as Bloombase scales flexibly in sync with dynamic allocation of computing resources and future software upgrades. With design principles of fault tolerance and high availability, Bloombase

StoreSafe Intelligent Storage Firewall helps close the gap between mission-critical applications and the cloud, thereby accelerating secure cloud adoption to unleash the power within defense-in-depth utility computing.

What is Amazon Web Services (AWS)

Amazon Web Services (AWS) delivers a set of services that together form a reliable, scalable, and inexpensive computing platform "in the cloud". The most central and well-known of these services are Amazon EC2 and Amazon S3. One of the key benefits of cloud computing is the opportunity to replace up-front capital infrastructure expenses with low variable costs that scale with your business. With the Cloud, businesses no longer need to procure servers and other IT infrastructures weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster. Amazon Web Services provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers hundreds of thousands of businesses in 190 countries around the world. With data center locations in the U.S., Europe, Brazil, Singapore, Japan, and Australia, customers across all industries are taking advantages of the following benefits: low cost, agility and instant elasticity, open and flexible, last but not least, data security.

What is AWS Partner Network (APN)

The AWS Partner Network is made up of a strong and growing community of companies that offer a wide range of products and services on AWS platform. AWS Technology Partners include independent software vendors (ISVs), SaaS, PaaS, developer tools, management and security vendors. For more information about AWS Partner Network, visit <https://aws.amazon.com/partners>.

Bloombase is an APN Select Technology Partner.

Learn More

To learn more about Bloombase StoreSafe Intelligent Storage Firewall for AWS, check out

<https://aws.amazon.com/marketplace/pp/B07FNS7P4Q>

<https://aws.amazon.com/marketplace/seller-profile?id=277af30e-567f-4076-a7c2-8bb6ec439138>

For more information, contact your Bloombase sales representative, or visit <https://www.bloombase.com>.

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