



Big Data: Vulnerabilities and Risks

Transformation of IT from On-Premise Data-Center Infrastructure to Off-Premise Cloud Drives Encryption a Mandate

Supercharging Bloombase Next-Generation Data Security with Intel Multi-Core and AES-NI Hardware Encryption Technologies

Working Together for Data-at-Rest Security from Data-Center, Virtualization, Hyperscale Computing, to Big Data and Cloud to Mitigate Data Outbound Threats

Intel AES-NI Quick Facts

- AES-NI stands for Advanced Encryption Standard New Instructions
- AES-NI bridges software for hardware cryptographic acceleration
- AES-NI delivers 3x to 10x performance gain over pure software implementation
- AES is one of the most popular block ciphers used in cryptography and is specified in NIST FIPS standard
- AES-NI module hardens key generation for higher level of randomness comparable to hardware standard

Business persistent data has extended from being business-process-centric to almost everything. This transformation brings business data from ERP and CRM, to CMS, DMS, BI, analytics and beyond.

Information used to be well-structured and managed primarily in RDBMS; now, it assumes indefinite forms and is challenging to manage: larger data sets, unstructured, stored in heterogeneous storage systems, longer life span, with sensitive business insights distributed across on-premise data systems, virtual data-centers, big data repositories, hyper-converged systems and the cloud.

This paradigm shift towards next-generation big data renders legacy point-based data-at-rest encryption tools unusable, and drives the need for a transformational, unified, application-transparent, cross-platform, non-disruptive storage security solution that supports all computing infrastructure with scalable capacity and efficiency—enter Bloombase Next-Generation Data Security.

Intel AES-NI empowers cryptographic processing of big data in real-time realizing encryption as the last line of defense in mission-critical throughput-computing business applications.



Bloombase StoreSafe Data-at-Rest Security

Leveraging Intel® Xeon® and
Core™ Multi-Core Processor and
AES-NI Technologies for Hyperscale
Computing, Big Data and Cloud
Security

Solution Highlights and Advantages

- Turnkey, non-disruptive, application-transparent encryption security of structured and unstructured data
- Mitigate data leakage at low total cost of ownership (TCO)
- Immediately meet various stringent data confidentiality and secrecy regulatory compliance requirements
- Maximize return on investment (ROI), easy-to-implement and scalable encryption for mixed operating system and heterogeneous storage environments
- Provide high bandwidth on-the-fly storage cryptography for scalable architecture
- Deliver encryption throughput at over 2Gbps for FCP, 1Gbps for iSCSI and 500Mbps for NFS, CIFS and REST/HTTP per processor-core*

For more information, visit
<http://www.bloombase.com>

+1.855.256.6622
sales@bloombase.com

Information Privacy and Trust from Physical and Virtual Data-Center, through Big Data, to the Cloud

Bloombase StoreSafe stands out as an independent, versatile, security-proven, powerful and standards-based storage security solution that enables organizations to fulfill data privacy regulatory compliance requirements easily and cost-effectively.

Bloombase StoreSafe takes a unique storage-proxy-as-a-software-appliance approach that transforms business-sensitive plaintext data into ciphertext, and effectively secures data from cyber-attacks, breaches and various exfiltration threats.

Leveraging Intel® Xeon® and Core™ multi-core processor and AES-NI hardware cryptographic acceleration technologies on commercial off-the-shelf (COTS) server hardware, Bloombase StoreSafe delivers real-time encryption protection of business big data for traditional and scale-out storage environments, as well as cloud storage services.

As a result, organizations from all industry verticals are able to take advantage of the solution to secure their next-generation data services, and assure information integrity, confidentiality and longevity, while gaining the benefits of availability, agility and elasticity brought by virtualization, hyper-convergence, big data and cloud.

Bloombase, Inc. is an Intel® Software Partner and has optimized its software for Intel technologies. This means you can be assured that our software has been engineered to take full advantage of the benefits of your Intel hardware.

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