Big Data Without Big Security Headaches

No SQL for data centers and connected devices coupled with the right encryption to ensure your data remains yours.

Data stored in Couchbase may contain either sensitive, protected information or key intellectual property. With the Couchbase – Vormetric solution, leveraging Big Data no longer means a potential big headache due to a security or compliance breach.

Defending Your Big Data Environment

If you are leveraging Big Data, you are likely dealing with multiple data streams including customer data, multi-media, payment information, system logs, configuration files and much more. All of this information, both structured & unstructured data, is stored in Couchbase. The data is your “crown jewels” and what makes your business run...but the data is also the target for traditional hackers as well as insider threats, such as rogue privileged users, APTs and malware that compromise privileged user credentials in order to gain access to the data for nefarious activity.

What would data do if it could defend itself? It would leverage industry leading encryption, data masking and tokenization technology. Vormetric, the leader in data security solutions that span physical, virtual and cloud environments, offers a comprehensive solution that is specifically tailored for big data environments in order to achieve optimized data and security performance.

“...Our partnership with Vormetric gives our customers best in class security controls needed for compliance, data breach protection and for safeguarding critical intellectual property through powerful data-at-rest encryption, key management and access controls to our platform.”

Rod Hamlin
Vice President
Couchbase

Figure 1: Logical depiction of the Vormetric Transparent Encryption- Couchbase architecture.
The Couchbase & Vormetric Joint Solution

**Couchbase Server** is a high-performance NoSQL distributed database with a flexible data model. It scales on commodity hardware to support large data sets with a high number of concurrent reads and writes while maintaining low latency and strong consistency.

**Vormetric Data Security Platform** is a powerful data security solution that encrypts both structured and unstructured data, controls user access and creates auditable logs of access for the entire Couchbase and reporting environment. With tokenization, or column level encryption, sensitive data can be removed before it even enters the Couchbase environment so that regulated or sensitive data is not exposed in an uncontrolled environment.

Vormetric transparent encryption features a software agent that runs in the file system to provide high-performance encryption and least-privileged access controls for files, directories, and volumes. The agent runs at the file system level or volume level on a server. It is available for a broad selection of Windows, Linux, and Unix platforms, and can be used in physical, virtual, cloud, and big data environments—regardless of the underlying storage technology.

**Features & Benefits**

- Fully integrated functionality for Big Data and NoSQL environments
- Granular access control limits access to privileged data
- Tokenization with Dynamic Data Masking helps address compliance objectives while gaining breakthroughs in operational efficiency
- Central management of security keys and policies
- Full scalability as traffic flows change or new demands are added to the environment
- No development changes are required to existing applications or infrastructure. Scalability for high throughput, high demand environments with easy expansion to protect growing amounts of data.

**Couchbase**

- Virtual and physical appliance
- Web, CLI, and API interfaces
- FIPS 140-2 certified

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**ABOUT COUCHBASE**

Couchbase delivers the world’s highest performing NoSQL distributed database platform. Developers around the world use the Couchbase platform to build enterprise web, mobile, and IoT applications that support massive data volumes in real time. The Couchbase platform includes Couchbase Server, Couchbase Lite - the first mobile NoSQL database, and Couchbase Sync Gateway. Couchbase is designed for global deployments, with configurable cross data center replication to increase data locality and availability. All Couchbase products are open source projects.

**ABOUT VORMETRIC**

A leader in data security solutions, Vormetric (@Vormetric) protects data-at-rest in physical, virtual, big data and cloud environments. Trusted by businesses and governments for over a decade, the Vormetric Data Security Platform secures the data of more than 1,500 global enterprises—including 17 of the Fortune 30. With Vormetric, a single infrastructure and management environment protects data wherever it resides with file, volume and cloud storage encryption, tokenization with dynamic data masking, field-level application encryption, sophisticated access control policies, third party and integrated encryption key management. For more information, please visit: www.vormetric.com.