

# Vormetric Big Data Security



## Challenge: protecting private and sensitive data within the Big Data lake

The explosive growth of data in every aspect of our lives and in enterprises around the world has led to growing demand for business intelligence from this data. Enterprises depend on this intelligence to meet the needs of their customers quickly and with precision. However, big data exposes enterprises to numerous data security threats. If an unauthorized user gains access to big data to siphon off and sell valuable information, the losses to the data-holding organization can be severe. Without the right security, big data can pose big security challenges.

## Solution: Vormetric Data Security Platform protection for Big Data environments

The Vormetric Data Security Platform offers the granular controls, robust encryption, and comprehensive coverage that organizations need to secure sensitive data across their big data environments—including data sources, infrastructure, and analytics. By delivering a single scalable security platform, Thales helps your organization secure its digital transformation and safely take full advantage of the benefits of big data. The Vormetric Data Security Platform is composed of an integrated suite of products built on a common, extensible infrastructure with efficient, centralized key and policy management. As a result, your security teams can address your data security policies, compliance mandates and best practices, while reducing administration effort and total cost of ownership.

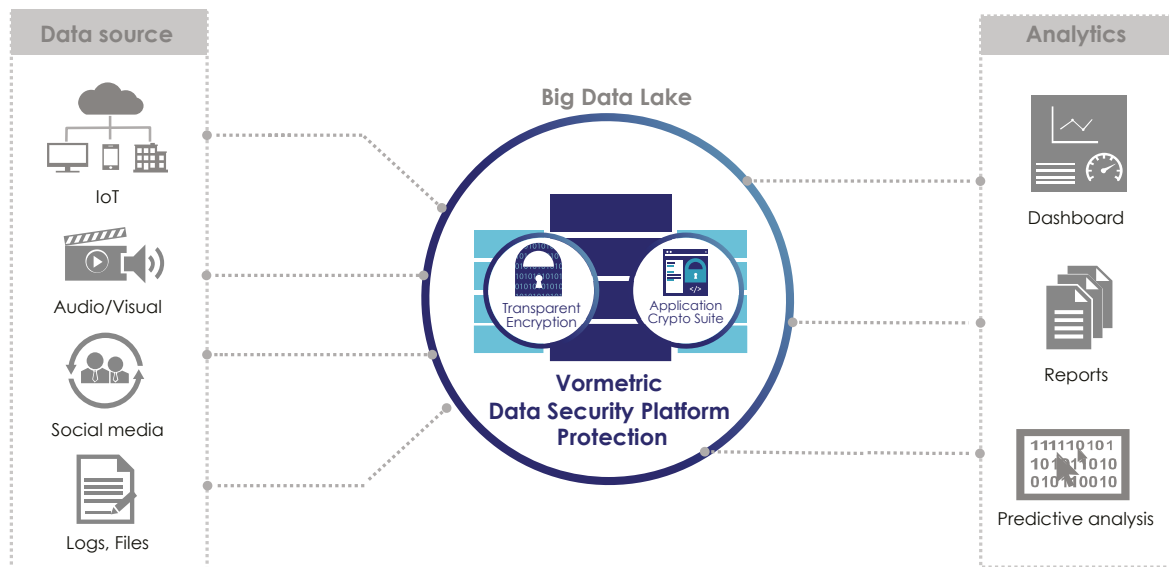
## Seamlessly protect Big Data environments

The Vormetric Data Security Platform enables customers to secure their big data deployments – whether in a Hadoop infrastructure, or a non-relational (NoSQL) database such as MongoDB – to make the most of big data analytics while addressing compliance and regulatory requirements. The extensible platform from Thales is tunable to protect data as granular as specific columns within a relational database or fields within a document, or it can protect all the data within a given directory or volume. The platform supports the broadest range of operating systems and environments in the industry, and it delivers operational efficiencies through high-performance and centralized management with the Vormetric Data Security Manager (DSM).

## Benefits

By leveraging the Vormetric Data Security Platform to secure big data lake environments, your organization can realize the following benefits:

- **Compliance.** The Vormetric Data Security Platform provides a common, scalable infrastructure that supports compliance requirements with protection for data-at-rest using encryption, enterprise key management, tokenization, access control, and security intelligence across big data environments. You can use this solution to comply with regulations and industry standards calling for encryption and access control.



- **Prevent privileged-user threats.** The Vormetric Data Security Platform provides the fine-grained, policy-based access controls, including Hadoop granular user access controls, which restrict access to encrypted data. These allow only approved access to data by processes and users as required to meet strict compliance requirements.
- **Achieve robust security.** Make the most of big data analytics with confidence that the collected and mined data, including that which is sensitive, is protected.

## Features

- **High-performance solutions.** To establish data security in big data environments, organizations can use the following Vormetric Data Security Platform products:
  - **Vormetric Transparent Encryption (VTE)** encrypts and controls access at the file-system level to protect structured and unstructured data types from APTs and privileged user abuse. VTE provides the fine-grained, policy-based access controls including Hadoop granular user access controls that restrict access to encrypted data. These allow only approved access to data by processes and users as required to meet strict compliance requirements.
  - **Vormetric Application Encryption** enables developers to easily build encryption for individual fields or specific columns in an application before it writes the field to a database. This ensures that specific fields remain unreadable, even after data is imported into, and processed within, the big data environment.
  - **Tokenization with Dynamic Data Masking** combines the scalability and availability benefits of a vaultless solution for protecting data: both format-preserving and random

tokenization. Format-preserving tokenization enables data protection without changing database schemas and offers irreversible tokens. Random tokenization offers high performance, convenient data protection.

- **Centralized Key Management.** The centralized management environment provides policy control as well as secure generation, management, and storage of encryption keys. It can enforce strong separation of duties by requiring the assignment of key and policy management to more than one data security administrator.
- **Vormetric Security Intelligence.** VTE logs report authorized and unauthorized access attempts to encrypted files and volumes. Vormetric Security Intelligence includes pre-built integration to leading SIEM systems that makes these logs actionable.
- **Simple, non-disruptive implementation.** 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.

## About Thales Cloud Protection & Licensing

Today's enterprises depend on the cloud, data and software in order to make decisive decisions. That's why the most respected brands and largest organizations in the world rely on Thales to help them protect and secure access to their most sensitive information and software wherever it is created, shared or stored – from the cloud and data centers to devices and across networks. Our solutions enable organizations to move to the cloud securely, achieve compliance with confidence, and create more value from their software in devices and services used by millions of consumers every day.