

Implementing a Secure Big Data environment

Thales Data Security for MongoDB



The evolution of Big Data is in high gear. It is an exciting time for marketers, scientists, analysts and others looking for competitive advantages and new discoveries by examining their data sources in new and unique ways. As organizations increasingly leverage Big Data, they are looking at ever-larger data sets across files and databases, as well as building on their previous results. These strategic and aggressive efforts to draw enhanced insight out of a growing number of data sets commonly involve sensitive or regulated information.

MongoDB is among the leaders in next-generation database technology, empowering businesses to be more agile and scalable. Found in more than 1/3rd of Fortune 100 companies and startups alike, MongoDB is being used to create new classes of applications, improve customer experience, accelerate time to market and reduce costs. With its dynamic schema, MongoDB is built to store, manage, and analyze rapidly changing structured, semi-structured, and unstructured data. MongoDB was designed to ensure data security and offers a host of protection technologies including robust authentication, role-based access control, encrypted communications, and strong auditing capabilities.

However, it is also critical to protect sensitive data in MongoDB against unauthorized users and privileged users who can bypass database and operating system controls and gain unauthorized access to sensitive data. The [CipherTrust Data Security Platform](#) from Thales delivers comprehensive data-at-rest protection and granular

access control for a variety of databases including MongoDB, by providing options to encrypt entire database files or encrypt databases at the field or column-level.

Thales, a MongoDB Advanced Partner, complements MongoDB security by delivering high-performance encryption, centralized key management, privileged user access control, and generates security intelligence that security information and event management (SIEM) systems can use for threat hunting and security analytics.

The CipherTrust Data Security Platform

- CipherTrust Transparent Encryption protects both structured and unstructured data and provides fine-grained access control without making any changes to applications
- CipherTrust Application Data Protection adds document level encryption using APIs (Java, C/C++) with sample code for MongoDB application integration
- All access to protected database files/folders are audited and the log data can be forwarded to security information and event management (SIEM) systems for security analytics
- The CipherTrust platform enables organizations to maintain SLAs with a high-performance encryption and high-availability data security architecture

Example Customer Use Cases

A leading healthcare organization launched a service powered by MongoDB making use of Private Health Information (PHI), requiring them to adhere to HIPAA/ HITECH regulations. The combination of MongoDB and Thales enabled the company to deploy their service with the required performance and security level.

A Fortune 500 industrial manufacturer was required to collect sensitive and valuable data from systems in the field and provide that data to regulatory agencies. MongoDB with Thales was selected by IT and approved by the agency auditors to handle this large data set, to satisfy compliance requirements, without disrupting the existing SLAs.

MongoDB

MongoDB makes development simple for tens of thousands of organizations, MongoDB provides agility and the freedom to scale. Fortune 500 enterprises, startups, hospitals, governments, and organizations of all kinds use MongoDB because it is the best database for modern applications. Through simplicity, MongoDB changes what it means to build. Through openness, MongoDB elevates what it means to work with a software company. Please visit www.MongoDB.com to learn more.

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

