



Partner Brief

A Data Protection Strategy to Enable Big Data Initiatives



With the momentum behind Big Data and use of the Apache Hadoop architecture increasing, a comprehensive data protection strategy is needed to mitigate risk of breach and assure global regulatory compliance of sensitive data. Many projects are evolving from pilot tests into more active use in large

data environments like banking, healthcare, and pharmaceuticals. Any industry leveraging Big Data for business insights, using very sensitive data like financial information, healthcare records and other Personally Identifiable Information (PII), is also subject to governance, risk, and compliance regulations.

As Hadoop matures for these enterprise applications, meeting regulatory requirements is becoming one of the key barriers for its adoption. The business goal is faster time-to-insights, but the challenge is how to liberate the value in data without increasing risk.

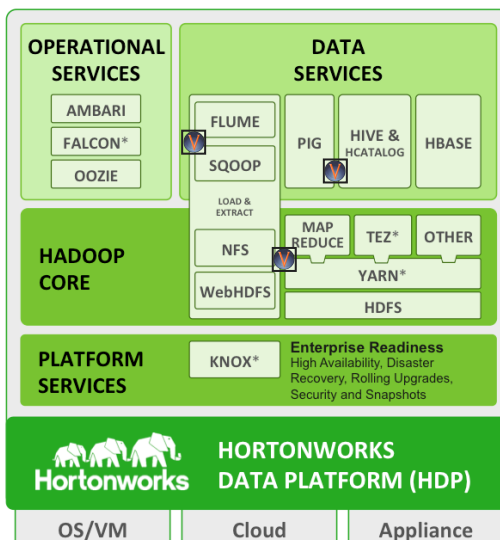
Voltage Security partners with Hortonworks; the only 100% open source distribution of Apache Hadoop explicitly architected, built and tested for enterprise grade deployments. Voltage SecureData™ for Hadoop delivers the data protection strategy organizations need to deploy Big Data initiatives for competitive advantage. Using Voltage Format-Preserving Encryption™ (FPE), or Voltage Secure Stateless Tokenization™ (SST) ensures that sensitive data is secured at all times through the data life-cycle.

Voltage delivers a single data protection framework, enabling comprehensive compliance with PCI DSS, Sarbanes-Oxley, HIPAA, HITECH, ARRA and state and international data privacy and residency regulations.

Features & Benefits of Combined Solution

- Protects data on ingestion, inside MapReduce jobs, or with UDF's for PIG and Hive
- Protects data at field and sub-field level, preserving data format and value; protected data has an appearance that matches the original data (e.g. credit card, Social Security Number, national ID) – a vital characteristic for analysis and applications processes
- Provides reversibility, so original data can be securely retrieved as business policy dictates
- Delivers standards-based, patented and NIST-recognized security, with published security proofs

Three Insertion Points into Hortonworks Data Platform (HDP)



- Upon Ingest: APIs, CL, Batch tools for ETL, SQOOP, Flume, etc.
- UDFs for PIG, Hive, etc.
- Executed as Map Job

*included HDP 2.0

What Business Challenges are Solved?

- **Secure sensitive data in and before entering Hadoop**
Protect data from any source, of any format. Set policies enabling which applications and which users get access to which original data, with protection of sensitive data that maintains usable, realistic values for accurate analytics and modeling on data in its encrypted form.
- **Assure global regulatory compliance**
Securely capture, analyze and store data from global sources, and ensure compliance with international data security, residency and privacy regulations. Address compliance comprehensively, not system-by-system.
- **Optimize performance and scalability**
Integrate data security fast, with quick implementation and an efficient, low-maintenance solution that won't degrade performance and will scale up. Leverage IT investments by integrating with the existing IT environment and extending current controls and processes into Hadoop.

Voltage is a Certified Technology Partner

Voltage is a Certified Technology Partner on Hortonworks Data Platform (HDP). The Hortonworks Certified Technology Program reviews and certifies technologies for architectural best practices, validated against a comprehensive suite of integration test cases, benchmarked for scale under varied workloads and comprehensively documented.

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Industry Successes

Voltage SecureData secures over 100 terabytes of patient healthcare information in an agency of the U.S. government. Independent, external medical and R&D institutes across the country access and analyze the data for emerging risks and patterns. All data is de-identified at the field level before release in full HIPAA/HITECH compliance. When researchers identify health risks that may impact a population with living members represented in the data, the agency is able to quickly and securely re-identify and contact the affected individuals for proactive treatment.

"As Hadoop platforms go deeper and wider into business critical applications, our enterprise customers need security tools that fit and scale inside their big data environments. Voltage's proven data-centric approach and encryption technology leadership make them a perfect strategic technology partner for us and it's exciting to know that together we will ensure that our users can fully realize the potential and business value of their data," said Mitch Ferguson, VP Business Development, Hortonworks.

About Hortonworks

Hortonworks develops, distributes and supports the only 100-percent open source distribution of Apache Hadoop explicitly architected, built and tested for enterprise-grade deployments.



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