



# SECURITY ENHANCEMENT SERVICES OFFERING

The Hortonworks Security Services package will help you beef up the security of your Apache Hadoop® investment quickly and more effectively. Investing in a secure cluster is important, but the many features, products, and configuration parameters make this a daunting task. A Hortonworks Certified Professional will guide you through some of the complexities and help you enhance your security framework.

## HIGHLIGHTS

- Add safeguards to help prevent unauthorized access to data in your data lake
- Assists with enabling and leveraging security tools within your cluster(s)
- Add and enhance authentication, authorization, encryption, and perimeter security to Hortonworks Data Platform (HDP®)
- Leverage the collective expertise and best practices from Hortonworks, the leader in Open Enterprise Hadoop

## ENGAGEMENT DETAILS

- **Security workshop**
  - Conduct interviews regarding your desired level of security and control choices
  - Document current and future state
  - Work with customer to help customer determine users and groups who require access
  - Review currently enabled security features
- **Connect HDP to centralized authentication service**
  - Enable HDP connectivity to LDAP provider such as Active Directory, FreeIPA, OpenLDAP, other another provider
  - Create Kerberos principals and keytabs to authenticate HDP services
  - Create Kerberos principals for the users of HDP

- **Create authorization policies**
  - Implement permissions you specify to control who can read and write files in HDFS
  - Restrict read and write access to tables stored in Hive
  - Isolate workloads in YARN by mapping users and groups to differing queues
- **Enable perimeter security tools (Apache Knox and assistance with BI tool)**
  - Install and configure Apache Knox
  - Support customer through the integration of one BI tool into the HDP cluster via Knox
- **Enable centralized audit collection**
  - Install Solr for audit log indexing and search capability
  - Enable centralized audit log collection in each HDP component
  - Demonstrate search capabilities through audit information
- **Enable data-at-rest encryption**
  - Install and configure Ranger Key Management Service (KMS)
  - Enable encryption for individual directories in HDFS as identified by customer
- **Mentoring and Transition**
  - Provide high level mentoring to customer resources
  - Conduct client meetings to discuss accomplishments and next steps
  - Finalize relevant documentation
  - Transition to Hortonworks Customer Success

## DELIVERABLES

- Enable authentication, authorization, encryption of data-at-rest, and perimeter security of your HDP cluster
- Engagement Summary document

## KEY ASSUMPTIONS

- Implementation will install and configure tooling on one cluster
- HDP cluster is installed and available
- Hortonworks will have direct access to critical resources
- Customer is responsible for integration, system and user acceptance testing
- HDP will run in a supported Linux environment
- The Customer team will be actively involved in all tasks listed above and will provide Hortonworks with the necessary support
- Accounts used to log into Windows machines are the same used to login to Linux

## KEY CUSTOMER TASKS AND DEPENDENCIES

- Ensure alignment with Active Directory and OS teams before engagement
- Provide access to all necessary resources required to support this initiative, such as:
  - On-site resources with Hadoop knowledge
  - A member of the team that manages centralized authentication system (Active Directory, FreeIPA, or others)
- Client is responsible for integrating Linux machines w/ Active Directory, managing user and group accounts (i.e. Centrify, SSSD, Winbind/Samba)
- Identification and encryption of any sensitive data must be done at the source

## OUT OF SCOPE

- Wire Encryption
- Column or cell level policies in Ranger
- Determining if data is PII, SOX, PCI, etc.
- Providing legal or security risk management advice

## OUR GOAL

Our goal is to ensure that your team has an ally in working through the nuances and complexities of designing and implementing a robust solution to ensure that your HDP cluster is secured and protected by leveraging Hortonworks expertise and the best practices used across many customers in numerous verticals.

This document does not constitute an offer. The security of your IT system is very important to us, but of course, no single product or service can make your IT systems completely secure or prevent all improper disclosures or access. This service should be viewed as a tool in a layered approach to information security, which will require additional systems, products, services and operational policies and procedures.

**HORTONWORKS DOES NOT WARRANT THAT ANY SERVICES, SYSTEMS OR PRODUCTS PREVENT ILLEGAL OR MALICIOUS CONDUCT OF ANY PARTY.**

## FOR MORE INFORMATION

For more information about the HDP Security Services offering or any other Hortonworks Professional Services offerings, contact your Hortonworks representative or visit our website: [hortonworks.com/services](http://hortonworks.com/services)

# About Hortonworks

Hortonworks is a leading innovator at creating, distributing and supporting enterprise-ready open data platforms. Our mission is to manage the world's data. We have a single-minded focus on driving innovation in open source communities such as Apache Hadoop, NiFi, and Spark. Our open Connected Data Platforms power Modern Data Applications that deliver actionable intelligence from all data: data-in-motion and data-at-rest. Along with our 1600+ partners, we provide the expertise, training and services that allows our customers to unlock the transformational value of data across any line of business. We are Powering the Future of Data™.

## Contact

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