

TRAINING OFFERING

HORTONWORKS DATA PLATFORM (HDP®)

OPERATIONS: ADMINISTRATION 1

4 DAYS 
BEGINNER ADMINISTRATOR

This course is designed for administrators who will be managing the Hortonworks Data Platform (HDP) 2.3 with Ambari. It covers installation, configuration, and other typical cluster maintenance tasks.

PREREQUISITES

Attendees should be familiar with Hadoop and Linux environments.

TARGET AUDIENCE

IT administrators and operators responsible for installing, configuring and supporting an HDP 2.3 deployment in a Linux environment using Ambari.

FORMAT

50% Lecture/Discussion

40% Hands-on Labs

Day 1: Introduction to Big Data, Hadoop and the Hortonworks Data Platform

Day 2: Managing HDFS Storage, YARN Resource Management

Day 3: YARN Applications, Managing Cluster Nodes and Rack Awareness

Day 4: HDFS and YARN High Availability, Monitoring Clusters, Installing HDP

DAY 1 OBJECTIVES

- Describe Hadoop
- Summarize the Purpose of the Hortonworks Data Platform Software Frameworks
- List Hadoop Cluster Management Choices
- Describe Apache Ambari
- Describe the Differences Between Hadoop Users, Hadoop Service Owners and Ambari Users
- Manager Users, Groups and Permissions
- Identify Hadoop Configuration Files
- Summarize Operations of the Web UI Tool
- Manage Hadoop Service Configuration Properties Using the Ambari Web UI
- Manage Client Configuration Files Using the Command-line Interface
- Describe the Hadoop Distributed File System (HDFS)
- Perform HDFS Shell Operations
- Use Ambari Files View
- Use WebHDFS
- Protect Data Using HDFS Access Control Lists (ACLs)

DAY 1 LABS

- Manage Ambari Users and Groups
- Managing Hadoop Services
- Using HDFS Storage
- Using WebHDFS
- Using HDFS Access Control Lists

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™.

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+1 855 8-HORTON
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DAY 2 OBJECTIVES

- Describe HDFS Architecture and Operation
- Manage HDFS using Ambari Web, NameNode and DataNode UIs
- Manage HDFS using Command-line Tools
- Enable and Manage HDFS quotas
- Describe YARN Resource Management
- Summarize YARN Architecture and Operation
- Identify and use YARN Management Options
- Summarize YARN Response to Component Failure

DAY 2 LABS

- Managing HDFS Storage
- Managing HDFS Quotas
- Configure and Manage YARN
- Non-Ambari YARN Management

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DAY 3 OBJECTIVES

- Understand the Basics of Running Simple YARN Applications
- Identify Reason to Add, Replace and Delete Worker Nodes
- Configure and Run the HDFS Balancer
- Decommission and Re-commission a Worker Node
- Move a Master Component
- Summarize the Purpose and Operations of the YARN Capacity Scheduler
- Configure and Manager YARN Queues
- Control Access to YARN Queues
- Summarize the Purpose and Benefits of Rack Awareness
- Configure Rack Awareness

DAY 3 LABS

- Run Sample YARN Applications
- Add, Decommission and Re-commission a Worker Node
- Configure Users and Groups
- Configure YARN Resources Queues
- User Group and Resource Management
- Configuring Rack Awareness

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DAY 4 OBJECTIVES

- Summarize the Purpose of NameNode HA
- Configure NameNode HA using Ambari
- Summarize the Purpose of Resource Management HA
- Configure ResourceManager HA using Ambari
- Summarize the Purpose and Operation of Ambari Metrics
- Describe the Features and Benefits of the Ambari Dashboard
- Summarize the Purpose and Operation of Ambari Alerts
- Configure Ambari Alerts
- Summarize Hadoop Backup Considerations
- Enable and Manage HDFS Snapshots
- Copy Data Using DistCp
- Use Snapshots and DistCp Together
- Identify Hadoop Cluster Deployment Options
- Plan for Hadoop Cluster Deployment
- Perform an Interactive HDP Installation using Apache Ambari
- Install Ambari

DAY 4 LABS

- Configuring NameNode HA
- Configuring ResourceManager HA
- Configuring Ambari Alerts
- Managing HDFS Snapshots
- Using DistCp
- Installing HDP

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