Hewlett Packard Enterprise

HPE Basic Implementation Service for Hadoop

HPE Technology Consulting

The HPE Basic Implementation Service for Hadoop configures the hardware, and implements and configures the software platform, for your Apache Hadoop cluster based on published HPE Reference Architectures for Hadoop.

Service overview

This service will configure the eligible hardware, and implement and configure the specified software, for a single rack of Hadoop nodes based on the following HPE Reference Architectures for Hadoop:

- 4AA5-9017ENW - HPE Verified Reference Architecture for Hortonworks for DL380 Gen9, configuring Hadoop, YARN, Pig, Hive, Spark, Hue, Sqoop, Ambari, Zookeeper and Oozie only
- 4AA5-9086ENW - HPE Verified Reference Architecture Cloudera Enterprise 5 on ProLiant DL380 Gen9 Servers with RHEL, configuring Hadoop, YARN, Pig, Impala, Hue, Sqoop, Cloudera Manager, Zookeeper and Oozie only

The service is designed to provide a fast, high-quality software implementation and configuration of your Apache Hadoop cluster based on the hardware and software platforms identified above along with a demonstration of the basic working cluster capabilities to help accelerate knowledge transfer to your staff. This service is delivered in four phases and includes priced options for onsite or remote delivery as described in the “Ordering information” section below. The service phases are:

Phase 1 - Preparation – you will be provided with an HPE configuration questionnaire. Following timely completion, an HPE consultant will work remotely with you to verify that any information provided in response to that questionnaire is complete and also that the required hardware and software will be readied. All hardware must be racked, cabled to power and network, powered on, and all software licenses must be available. Additionally the HPE consultant will explain the implementation and configuration process, and answer any questions relating to the service.

Phase 2 - Documentation – an HPE consultant will use the responses to the HPE configuration questionnaire and prepare the cluster configuration document that will document the configuration that is built during the deployment phase.

Phase 3 - Deployment – HPE consultants will configure the servers, the Top-of-Rack network switches, and then implement and configure the software platform as documented in the cluster configuration document on your Hadoop cluster based on the configuration plan contained in the configuration document. An example outline of the deployment configuration plan is illustrated in Table 1.

Phase 4 - Knowledge transfer – this final phase is intended to familiarize cluster operations staff with the basic operation of the cluster; it is not intended to replace normal training. In this phase an HPE engineer will run through a knowledge transfer session with your chosen representatives and explain basic cluster management steps, demonstrating these steps on your cluster as outlined in Table 1, Knowledge transfer.

The delivery options and duration of the phases provided by this service are:

Phase 1 - Preparation and Phase 2 - Documentation, via remote delivery, up to 12 hours

Phase 3 - Deployment, via the selected delivery option(*), up to 24 hours. Top-of-Rack network switches may require an onsite visit for the network switch configuration.

Phase 4 - Knowledge transfer, via the selected delivery option(*), up to 8 hours.

*Based upon the service ordered, see the "Ordering information" section below.

This service includes basic implementation and configuration of your Hadoop cluster and is not intended to provide full production readiness without additional design, planning, acceptance testing, and integration services.

However, HPE can provide limited augmentation of this basic service, which can be purchased at additional cost and can include:

- The addition of other Apache Hadoop components from the selected Hadoop distribution
- The addition of up to 2 further racks of Hadoop servers
- Substitution of the Top-of-Racks switches with another vendors' equivalent network switches

These additional services can be quoted as jointly agreed upon additional consultant days and purchased by you as an option to this service, see the "Ordering information" section below.

Service benefits

The HPE Basic Implementation Service for Hadoop is designed to help provide:

- Faster time to readiness with your HPE Reference Architecture for Hadoop platform
- Improved quality of the HPE Reference Architecture for Hadoop platform implementation
- Reduce implementation costs by leveraging HPE specialists

Service feature highlights

- Phase 1 - Preparation
- Phase 2 - Documentation
- Phase 3 - Deployment
- Phase 4 - Knowledge transfer

Table 1. Service features

Feature	Delivery specifications
Phase 1 - Preparation	In this phase the Customer will be provided with an HPE configuration questionnaire. Following timely completion by the Customer, an HPE consultant will work remotely with the Customer to verify that any information provided in response to that questionnaire is complete. Additionally, the HPE consultant will explain the implementation and configuration process, answer any questions relating to the subsequent three phases of the service. and review customer responsibilities, including but not limited to, ensuring that the required hardware and software meets all criteria prior to service delivery.
Phase 2 - Documentation	In this phase an HPE consultant will produce a configuration document that describes the Customer's target platform configuration. The configuration document will use information as supplied by the Customer in answers to the HPE questionnaire and includes the following information, as applicable: • Configuration plan • Hadoop storage configuration • HPE Reference Architecture networking requirements: – IP subnets – Host names – Virtual LAN (VLAN) connectivity – Management network

	– Network Time Protocol (NTP) – Data center uplinks – Firewalls • Server and compute requirements: – Compute OS and firmware – Number and type of Hadoop servers
Phase 3 - Deployment	In this phase an HPE consultant will conduct the software implementation and configuration of HPE's Reference Architecture for Hadoop based upon the documented configuration plan that can include the following: • Top-of-Rack network switch configuration and checks • Implementation and configuration of Linux® on the Management nodes • Validate data center connectivity • Implementation and configuration of HPE's Insight Cluster Management Utility • Optimize the configuration of the Hadoop nodes BIOS and SmartArray • Implementation and configuration of the Linux on the Hadoop nodes • Partitioning and formatting of the Hadoop data drives • Setup initial user accounts and 'ssh' configuration • Implementation of the Hadoop vendors cluster management tool • Setup configuration for Hadoop deployment • Deploy Hadoop to target nodes • Configure an agreed subset of the Hadoop services as documented in the configuration plan • Perform HPE standard basic configuration checks to verify that the Hadoop platform meets the documented configuration plan • Perform a Hadoop Terasort test to demonstrate the operation of the cluster
Phase 4 - Knowledge transfer	The final phase, Knowledge transfer, is intended to familiarize cluster operations staff with the basic operation of the cluster; it is not intended to replace normal training. Subject to the time allotted for this knowledge transfer, this session may include the following demonstration on the installed Hadoop platform: • Platform Cluster Management (Insight CMU) – Startup/shutdown the servers – Adding/removing a node – Building and deploying nodes – Performance monitoring – Validating the node configuration – Use of out-of-band management (iLO) • Hadoop Cluster Management – Startup/shutdown of the Hadoop cluster – Name node status – Adding, removing, and replacing a node – Checking job status – Checking HDFS status • External interfaces – Directory services - DNS, NTP • HPE and Hadoop vendor support process – who, what, and when.

Service limitations

This service is available during HPE standard work days, excluding weekend days and HPE holidays, and during country-specific standard HPE business hours. Phases 1 and 2 of this service will be delivered remotely; Phases 3 and 4 of this service will be delivered either remotely or onsite depending on the service selected, see the "Ordering information" section below.

Customer responsibilities

In addition to any prerequisites or other tasks that may be identified in discussion with the Customer during the preparation phase, the Customer is responsible for the following:

- Provision of HPE servers, networking, software media, and software licenses that meet the hardware and software requirements for the specified HPE published Reference Architecture for Hadoop platform, as specified in this datasheet.

- Provision of onsite access to the servers and infrastructure required for the HPE Basic Implementation Service for Hadoop that includes network access to the Hadoop cluster and iLO network for the purposes of installation, configuration, and management of the Hadoop cluster for the duration of the service.
- Where the remote service option has been selected, access to the required Hadoop servers and network infrastructure will be via remote access technologies such as HPE MyRoom virtual rooms (https://www.myroom.hpe.com) or any mutually agreed upon Customer-provided access technology.
- The security of the Customer's proprietary and confidential information.
- All data backup and restore operations.

The Customer acknowledges and agrees that HPE may use resources outside the country of purchase to remotely access the products in order to perform these remote services.

Additionally, it is the Customer's responsibility to provide a designated primary contact, who is:

- Responsible for all aspects of the Customer-assigned work efforts
- Authorized to make all decisions relative to this service including identification and assignment of Customer resources
- Available to interface with HPE assigned resources on day-to-day issues during the course of this service
- Authorized to sign status reports, approve consultant hours, and approve project changes
- Able to coordinate all work efforts and meeting schedules
- Provide to HPE, on request, any information that HPE may reasonably request in order to provide this service
- Purchase or provide all hardware, software, licenses, and environments necessary for HPE to deliver the service

General provisions/Other exclusions

This standard service is limited to a single installation of HPE Basic Implementation Service for Hadoop on a single rack of Hadoop node at a single customer location.

HPE reserves the right to charge, on a time and materials basis, for any additional work required to address service prerequisites or other requirements that are not met by the Customer.

Upon receipt of an acceptable order, HPE will contact the Customer within 7 business days to organize service delivery. HPE may require up to 30 days to organize resources and begin work.

The scope of this service is limited to the HPE Basic Implementation Service for Hadoop described herein only. No products, licenses, or software will be provided as part of this service.

Services are provided during HPE standard local business hours and days excluding HPE holidays.

Deliverables are accepted upon delivery.

The delivery of HPE Basic Implementation Service for Hadoop is restricted to a single IT environment under the direct day-to-day management of one IT manager in one country.

The service will expire at the end of 120 days from the date of purchase if not used. Under no circumstances shall the Customer be entitled to a credit or refund of any unused services.

The service includes travel time to and from the Customer location for the specified onsite delivery.

HPE Professional Services are governed by HPE's standard terms for professional services.

Activities such as, but not limited to, the following are excluded from this service:

- Customer acceptance, performance, custom test cases, or security testing
- Any third-party systems or software integration not described herein
- Custom scripting

- Application or workload integration or demonstration
- Custom monitoring
- Third-party load balancer integration
- Customer security policy creation, rules, or external security devices
- External VLAN configuration

Ordering information

HPE Basic Implementation Service for Hadoop can be ordered with the following product number:

- H1XG3A1: HPE Basic Implementation Service for Hadoop (Onsite delivery)

The following option adds additional consecutive consultancy days to the onsite implementation and configuration service as jointly agreed with HPE.

- H1XG5A1: Hadoop Additional Day Service (Onsite delivery)
- H1XG4A1: HPE Basic Implementation Service for Hadoop (Remote delivery)

The following option adds additional consecutive consultancy days to the remote implementation and configuration service as jointly agreed with HPE.

- H1XG6A1: Hadoop Additional Day Service (Remote delivery)

For more information

For more information on HPE Big Data Services, contact any of our worldwide sales offices or visit our Web site at:

https://www.hpe.com/us/en/solutions/big-data.html

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