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# ***IIS AND HORTONWORKS – ENABLING A NEW ENTERPRISE DATA PLATFORM***





**IIS AND  
HORTONWORKS  
SEEK TO  
ENABLE A NEW  
ENTERPRISE  
DATA PLATFORM  
TO POWER  
AN INNOVATIVE,  
MODERN DATA  
ARCHITECTURE**



# *IIS AND HORTONWORKS – **ENABLING A NEW ENTERPRISE DATA PLATFORM***

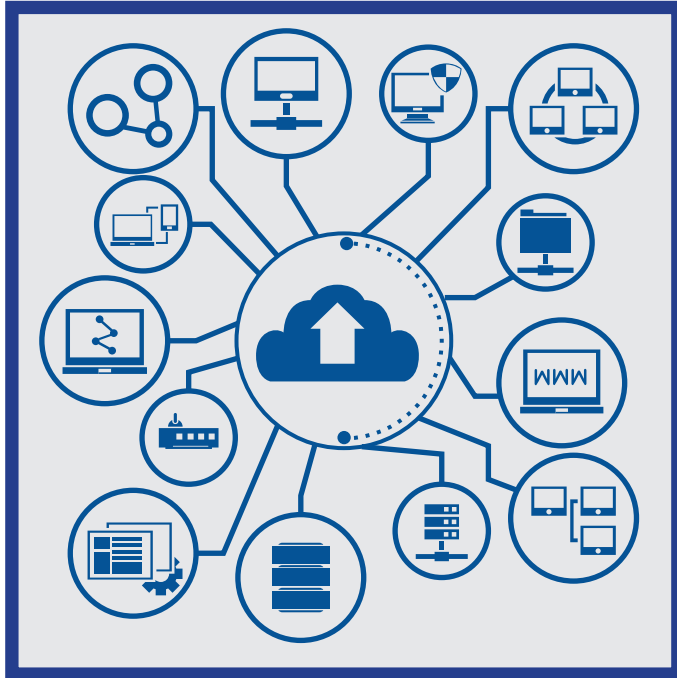
*BY 2020, ANALYSTS EXPECT THE DIGITAL UNIVERSE TO EXCEED 40 ZETTABYTES, WHICH WILL ENABLE AN ESTIMATED \$50B MARKET FOR APACHE HADOOP AND AN INNOVATIVE, MODERN DATA ARCHITECTURE DEVELOPED BY HORTONWORKS AND IIS.*

Through their partnership, **IIS and Hortonworks** seek to enable a new enterprise data platform to power an innovative, modern data architecture. As the largest contributor to the Apache Hadoop community, Hortonworks has created the Hortonworks Data Platform (**HDP**) to broaden Hadoop's adoption in the enterprise. This executive summary introduces **Hortonworks' HDP** and outlines a valuable opportunity to build the next-generation, modern enterprise data architecture through IIS and Hortonworks.



## INTRODUCING HORTONWORKS

**Hortonworks** - founded in 2011 by the original 24 architects, developers and operators of Hadoop at Yahoo! - is one of the unquestioned leaders in the Hadoop community. Over the last seven quarters, hundreds of customers have turned to Hortonworks and HDP for big data solutions. In fact, two thirds of Hortonworks' customers are Fortune 1,000 companies.



Today, **Hortonworks' HDP is currently in production on many of the largest clusters in the world.** HDP is the key platform underlying multiple clusters of over 1,000 nodes. For instance, HDP manages as many as 35,000 nodes at Yahoo! as well as 8,000 nodes at Spotify. Hortonworks remains committed to furthering the development of Hadoop and HDP in the enterprise space over the next few years.

- ✦ **Hortonworks' four-part commitment to enterprise Hadoop**
- ✦ **Hortonworks remains committed to nurturing the growth of Hadoop in the enterprise. Hortonworks' four-part commitment includes:**
- ✦ **Innovating the core of Hadoop**
- ✦ **Extending Hadoop as an enterprise data platform**
- ✦ **Enabling a modern data architecture ecosystem**
- ✦ **Staying true to the Open Source community**



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## ***THE ERA OF BIG DATA HAS ARRIVED.***



### **INNOVATING THE CORE OF HADOOP**

Hortonworks seeks to build innovation into HDP at its core. A key component of this innovation is YARN, which has transformed Hadoop into a data platform that can accommodate multiple workloads across a multi-tenant architecture. Before the advent of YARN, Hadoop adoption in the enterprise was inhibited by limited, single-use cases.

### **EXTENDING HADOOP AS AN ENTERPRISE DATA PLATFORM**

Along those lines, Hortonworks' innovations have extended the capabilities of Hadoop to the enterprise level (i.e., satisfying governance, security and operations requirements). Moving forward, Hortonworks expects HDP to benefit from the rigors of enterprise software development alongside an Open Source development strategy, which is absolutely critical to the success of HDP.

### **ENABLING A MODERN DATA ARCHITECTURE ECOSYSTEM**

One of Hortonworks' goals in developing HDP is to enable an innovative, modern data architecture ecosystem. Enterprises will be able to integrate HDP to extend their data platforms or adopt new paradigms, enabling companies to leverage the Hadoop expertise they already possess.

### **TODAY, HORTONWORKS HAS ALREADY FORMED PARTNERSHIPS WITH INDUSTRY LEADERS SUCH AS:**

- + IIS
- + Microsoft
- + Red Hat
- + HP
- + SAS

**THESE STRATEGIC PARTNERS SET THE STAGE FOR A TRULY INNOVATIVE ECOSYSTEM.**

## STAYING TRUE TO THE OPEN SOURCE COMMUNITY

Lastly, Hortonworks remains committed to staying true to the Open Source community, which has allowed Hadoop to reach new heights under the aegis of the Apache Software Foundation (ASF). Hortonworks believes strongly in a community-driven approach to enable the fastest path to innovation.

No single vendor can match the relentless tide of development and progress inherent to the Open Source community. Hortonworks collaborates with a broad community of developers with unique business, technology and financial drivers. Employing several luminaries in the field, Hortonworks contributes more to the Hadoop ecosystem at ASF than any other company.

HADOOP ADVANTAGES SCHEMA-ON-READ CAPABILITY	ADDRESS LACK OF STRUCTURE IN NEW DATA & THEIR INITIAL VALUE
ACCOMMODATE MULTI-USE CASE, MULTI-WORKLOAD DATA PROCESSING ENGINES	FASTER TIME-TO-INSIGHT
OPERATES ON INDUSTRY STANDARD HARDWARE AND DIRECT-ATTACHED STORAGE BY DESIGN	IMPROVE STORAGE COSTS

## ENTERPRISE GOALS AND CHALLENGES

An innovative, modern data architecture should accomplish the following goals:

- + Consolidate siloed data sets, both structured and unstructured
- + Centralize data sets on a single cluster
- + Handle multiple workloads across batch, interactive and real-time processes
- + Coalesce services for enterprise governance, security and operations
- + Preserve existing IT investments
- + Create a single view of customers, products and the supply chain



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***YARN ENABLES  
MULTIPLE  
DATA-ACCESS  
ENGINES  
ACROSS BATCH,  
INTERACTIVE  
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WORKLOADS ON  
A SINGLE SET  
OF DATA***



**THE ISSUE HAS BEEN THAT PREVIOUS VERSIONS OF HADOOP SUFFERED FROM A FEW LIMITATIONS.**

In short, some of Hadoop's primary shortcomings used to be:

- + **Deploying Hadoop primarily as a purely batch system, which limited applications**
- + **Limited to one cluster per use case**
- + **Integration challenges in existing IT environments**
- + **Lacking in enterprise capabilities**

In essence, these shortcomings very likely created more data silos, not less. Until Hortonworks developed HDP, these barriers were inhibiting the enterprise adoption of Hadoop.

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***ENTER HORTONWORKS' HDP***

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**HDP addresses each of these challenges completely** in Open Source, which guards against vendor lock-in. The key component of HDP is YARN, which extends Hadoop to integrate with existing systems in the data center. Mostly importantly, YARN enables multiple data-access engines across batch, interactive and real-time workloads on a single set of data.

As a comprehensive data management platform, HDP was developed with one goal in mind: to enable an innovative, modern data architecture with Hadoop. Delivering on the critical enterprise requirements of governance, security and operations, HDP supports the widest range of deployment options from Linux to Windows to cloud-based solutions. In fact, HDP is currently the only Hadoop offering for Windows, which shows Hortonworks' commitment to nurturing Hadoop in the enterprise in myriad use cases.

## THE VALUE OF HDP FOR ENTERPRISE HADOOP

HDP addresses and improves upon many of the limitations of previous versions of Hadoop through the development of YARN, which can integrate interactive and real-time workloads in concert with batch processes. This capability transforms Hadoop from a single-application data system to a multi-application, integrated and innovative modern data platform via Hortonworks' HDP.

*IN TANDEM WITH THE EXPERTISE AND SOLUTIONS IIS PROVIDES, HORTONWORKS AIMS TO BUILD UPON ITS INNOVATIVE HADOOP OFFERINGS. THROUGH A STRATEGIC PARTNERSHIP, IIS AND HORTONWORKS SEEK TO ENABLE THE NEXT GENERATION OF HADOOP USE CASES, WHERE REAL-TIME INTELLIGENCE INTO TODAY'S BUSINESS CHALLENGES BECOMES A REALITY. CHOOSING TO COLLABORATE WITH IIS AND HORTONWORKS POSITIONS COMPANIES FIRMLY AT THE FOREFRONT OF BIG DATA INNOVATION.*

HDP overcomes many of the barriers that inhibit the broader adoption of Hadoop in the enterprise space. As the largest contributor to the Hadoop community since the company's founding, Hortonworks has taken further steps to strengthen its offering, such as partnering with IIS to develop end-to-end solutions to today's business and IT challenges.



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