

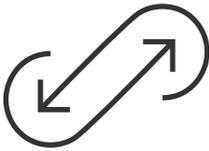


# Dell Ready Bundle for Cloudera Hadoop

An end-to-end Hadoop system, designed to address data analytics requirements, reduce costs and optimize performance

## Table of Contents

|   |   |
|---|---|
| Get the power of Hadoop faster, with less risk. . . . . | 2 |
| What is your business goal? . . . . .                   | 2 |
| Dell Ready Bundle for Cloudera Hadoop . . . . .         | 3 |
| Configuration details . . . . .                         | 3 |
| Why Dell for Hadoop?. . . . .                           | 4 |
| Complete your solution with Dell Services . . . . .     | 4 |
| Dell Professional Services . . . . .                    | 4 |
| Find out more today. . . . .                            | 5 |



### Leverage an end-to-end solution



### Reduce development costs



### Optimize performance

## Get the power of Hadoop faster, with less risk

Unlike traditional systems, Hadoop enables multiple types of analytic workloads to run on the same data, at the same time, at massive scale on industry-standard hardware. Cloudera’s Distribution of Hadoop (CDH) includes Apache® Hadoop and additional key open source projects to ensure you get the most out of Hadoop and your data, and it's engineered to meet the highest enterprise standards for stability and reliability.

Despite these tantalizing benefits, many organizations struggle — either to begin their data analytics journey or to make Hadoop projects successful once they’ve begun. They are often impeded by a lack of Hadoop expertise and end up spending too much time and effort on the front-end work before they can get to the results of a fully operational solution.

Expertise and infrastructure matter when building a Hadoop environment. That’s why Dell has teamed up with industry leaders such as Cloudera®, Intel® and Syncsort® to remove the uncertainty and barriers that may be holding you back from deploying Hadoop.

Cost-effective, future-ready Dell Ready Bundles for Cloudera Hadoop are comprehensive and easy-to-implement turnkey Hadoop solutions that help you efficiently harness the Hadoop platform and the power of data analytics to drive competitive advantage.

## What is your business goal?

The use cases for Hadoop are very diverse, but there are common patterns across industries and verticals.

This is just a sampling of possible use cases using the Dell Ready Bundle for Cloudera Hadoop.

#### Operational efficiency use cases

| Dell warehouse augmentation   | Log aggregation and analytics  | Dual storage and active archive  |
|---|--|--|
| Reduces total cost of ownership (TCO) and increases return on investment (ROI)  | Secures your enterprise  | Reduces TCO and eases compliance   |
| <ul style="list-style-type: none"> <li>Offload extract, transform, load (ETL) workloads</li> <li>Reduce licensing costs</li> <li>Enhance data accessibility</li> <li>Enable better data exploration and analytics</li> <li>Manage performance more effectively</li> </ul> | <ul style="list-style-type: none"> <li>Prevent security breaches and threats</li> <li>Detect operational anomalies</li> <li>Increase infrastructure efficiency and automation</li> </ul> | <ul style="list-style-type: none"> <li>Lower data storage costs while maintaining accessibility</li> <li>Ease compliance and reporting</li> <li>Streamline inquiry processes</li> <li>Enjoy business operations improvement</li> </ul> |

#### Business transformation use cases

| Marketing   | Finance   | Healthcare   | Pharmaceutical   | Manufacturing  |
|---|---|--|--|--|
| Anticipating customer needs   | Reducing risk and detecting fraud   | Improving patient care and reducing costs  | Ensuring regulatory compliance and validation  | Achieving continuous process improvement   |
| <ul style="list-style-type: none"> <li>Customer 360 insight</li> <li>Customer retention</li> <li>Customer segmentation</li> <li>Customer loyalty</li> <li>New product/service launch</li> </ul> | <ul style="list-style-type: none"> <li>Credit scoring</li> <li>Customer analytics</li> <li>Fraud detection</li> <li>Risk management</li> <li>Sarbanes-Oxley Act (SOX) compliance</li> </ul> | <ul style="list-style-type: none"> <li>Quality of care</li> <li>Patient safety</li> <li>Risk mitigation</li> <li>Fraud detection</li> <li>Claims management</li> </ul> | <ul style="list-style-type: none"> <li>Biomedical analytics</li> <li>Stability and shelf life</li> <li>Primary research</li> <li>FDA compliance manufacturing</li> </ul> | <ul style="list-style-type: none"> <li>Product quality</li> <li>Customer insight</li> <li>Demand forecasting</li> <li>Improved operations</li> </ul> |



## Dell Ready Bundle for Cloudera Hadoop

Dell Ready Bundle for Cloudera Hadoop is an integrated Hadoop system, designed to address data analytics requirements, reduce costs and optimize performance.

Since 2011, Dell and Cloudera have built validated solutions to help customers speed time to insights. With our deep roots in data analytics solutions and Hadoop — and other leading partners in data analytics — Dell has the expertise, tools and solutions needed to drive successful, flexible and scalable Hadoop deployments.

## Configuration details

Dell Ready Bundles for Cloudera Hadoop offer a variety of configurations to meet your needs.<sup>1</sup>

|                             | Dell Cloudera Hadoop solution on PowerEdge R730XD Server  | Dell Cloudera Hadoop solution on PowerEdge FX2 Server   | Dell Cloudera Syncsort ETL offload Hadoop solution on PowerEdge R730XD Server   | Dell Cloudera Syncsort ETL offload Hadoop solution on PowerEdge FC630 Server   | Dell QuickStart for Cloudera Hadoop                               |
|-----------------------------|---|---|---|--|---|
| <b>Use cases</b>            | Active archive/customer 360-degree  | Active archive/customer 360-degree  | ETL offload   | ETL offload  | Testing and proofs of concept (POCs)                              |
| <b>Sizing</b>               | Scales from 5 to 252 nodes, 3.8PB   | Scales from 5 to 252 nodes, 3.8PB   | Scales from 5 to 252 nodes, 3.8PB   | Scales from 5 to 252 nodes, 3.8PB  | 48TB  |
| <b>Software</b>             | Cloudera Enterprise OpenManage/iDRAC with Lifecycle Controller  | Cloudera Enterprise OpenManage/iDRAC with Lifecycle Controller  | Cloudera Enterprise Syncsort DMX-h and SILQ™  | Cloudera Enterprise Syncsort DMX-h and SILQ  | Cloudera Basic Edition OpenManage/iDRAC with Lifecycle Controller |
| <b>Pod network</b>          | 2 x Networking S4048 10GbE pod switches<br>1 x S3048 iDRAC switch   | 2 x Networking S4048 10GbE pod switches<br>1 x S3048 iDRAC switch   | 2 x Networking S4048 10GbE pod switches<br>1 x S3048 iDRAC switch   | 2 x Networking S4048 10GbE pod switches<br>1 x S3048 iDRAC switch  | Networking S3048-ON switch<br>Networking S4048-ON switch          |
| <b>Cluster network</b>      | 2 x Networking S6000 40GbE cluster switches   | 2 x Networking S6000 40GbE cluster switches   | 2 x Networking S6000 40GbE cluster switches   | 2 x Networking S6000 40GbE cluster switches  |   |
| <b>Infrastructure nodes</b> | 1 x PowerEdge R630 Server admin node<br>3 x PowerEdge R730XD Server name nodes<br>1 x PowerEdge R730XD Server edge node | 1 x PowerEdge R630 Server admin node<br>3 x PowerEdge R730XD Server name nodes<br>1 x PowerEdge R730XD Server edge node | 1 x PowerEdge R630 Server admin node<br>3 x PowerEdge R730XD Server name nodes<br>1 x PowerEdge R730XD Server edge node | 1 x PowerEdge FC630 Server admin node<br>3 x PowerEdge FC630 Server name nodes<br>1 x PowerEdge FC630 Server edge node | 2 x PowerEdge R730XD Servers                                      |
| <b>Worker nodes</b>         | 10 x PowerEdge R730XD Servers with 3.5" Drives — 48TB or<br>10 x PowerEdge R730XD Servers with 2.5" Drives — 24TB       | 10 x PowerEdge FC630 Servers<br>10 x PowerEdge FD332 Storage — 32TB   | 10 x PowerEdge R730XD Servers with 3.5" Drives — 48TB or<br>10 x PowerEdge R730XD Servers with 2.5" Drives — 24TB       | 10 x PowerEdge FC630 Servers<br>10 x PowerEdge FD332 Storage — 32TB  | 3 x PowerEdge R730XD Servers                                      |

**Dell PowerEdge R730 Server:** Impressive processor performance, a large memory footprint, extensive I/O (input/output) options and a choice of dense, high-performance storage or low-cost, high-capacity storage.

**Dell PowerEdge FX2 Server:** Modular server, storage and networking blocks are neatly combined in a compact, converged 2U rack chassis to redefine data center agility.

**Dell Networking S4048-ON 10/40GbE:** Top-of-rack, high-density 1U switch with forty-eight 10GbE uplinks. It offers ultra-low-latency and line-rate performance that is optimized for data centers.

<sup>1</sup> The quantity and configuration of each system depends on the specific size and use case.

## MetaScale

Achieved ROI in just 3 months<sup>2</sup>

## Texas Advanced Computing Center (TACC)

Gained up to 50X performance improvement<sup>3</sup>

## Dell

40% increased automation of standard sales reports<sup>4</sup>

60% faster response times for prescriptive and predictive analysis<sup>5</sup>

“We’ve completely redesigned how we capture, store and provision data with the new Dell Hadoop cluster. We can gather larger amounts of data, and our analysts and statisticians can mine that data in ways they couldn’t before.”<sup>6</sup>

Tony Giordano, Executive Vice President of the Technology Solutions Group, Merkle, United States

**Dell FC630 PowerEdge Server nodes:** The 2-socket, half-width 1U workhorse server blocks are ideal for a wide variety of business applications.

**Dell FD332 Storage:** Flexible, high-density, half-width 1U storage modules enable you to rapidly scale direct attached storage (DAS).

The Dell Ready Bundle for Cloudera Hadoop Services includes:<sup>5</sup>

- Onsite hardware and Operating System (OS) deployment services via Dell [ProDeploy](#).
- [Dell Cloudera Accelerator Services](#): Best practice guidance, hands-on labs, roadmap planning and knowledge transfer so you can get from install to full productivity, with the skills and knowledge to get the greatest value from your big data solution.
- [Dell Cloudera Hadoop Health Check Services](#): Reviews your current data technologies and processes, and makes recommendations for Cloudera tools, testing and operational practices.
- [Dell Consulting Services](#) for Hadoop, including software installation and configuration, data migration and Microsoft® Azure® integration.
- Hardware and software support services via Dell [ProSupport](#).

## Why Dell for Hadoop?

At Dell, we design our solutions to create maximum value by continually driving up capabilities while driving down costs and complexity. This is how we give organizations the power to do more.

**We drive up capabilities:** We combine organic development with joint partnerships and targeted acquisitions to develop practical innovations that deliver robust functionality at any scale.

**We drive down costs:** We focus on driving down initial and ongoing expenses, ensuring a low total cost of ownership to help customers achieve maximum results on minimum budgets.

**We drive down complexity:** We believe technology should be sophisticated yet simple, to help our customers save time so they can focus on other priorities.

## Complete your solution with Dell Services

### Dell Professional Services

Solutions customized for your needs

[Dell Hadoop Consulting](#) is a best-in-class service delivered by certified Cloudera Hadoop experts to help you get the business value of data analytics using Hadoop. The services include a data analytics assessment, workshop, testing, proofs of concept and production implementation. These Hadoop experts help determine where Hadoop is a good fit for your organization. They also help you build your own team of Hadoop experts through knowledge transfer at each step.

### Support always on for you

[Dell ProSupport](#) offers a single point of accountability from experts with solution-specific training, along with premium hardware and software support available 24x7x365. ProSupport also includes collaborative support for Cloudera Enterprise software. Additionally, ProSupport includes next-business-day onsite service with four- and eight-hour parts and labor response options, and escalation management with customer-set severity level options.

<sup>2</sup> Dell case study, "[Accelerating big data ROI with Hadoop](#)," April 2015.

<sup>3</sup> Dell case study video, "[Dell Drives Big Data Solutions at TACC](#)," November 2016.

<sup>4</sup> Dell case study, "[Unlocking data's value for better insights and decisions](#)," May 2015.

<sup>5</sup> All Dell Services are standard in the US and Canada. For all other regions, services are custom.

<sup>6</sup> Dell case study, "[A powerful new foundation for creating customer campaigns](#)," May 2015.

“Addressing exhausted enterprise data capacity can cost up to \$800,000 per terabyte of data. But with Hadoop’s extreme scalability, adding terabytes can cost as little as \$5,000 using MetaScale’s big data appliances based on Dell PowerEdge Servers.”<sup>7</sup>

Ankur Gupta, General  
Manager, MetaScale,  
United States

#### Deployment assistance when you need it

Dell offers a broad menu of installation and implementation services for Hadoop solutions through [Dell ProDeploy](#). Dell Services include onsite hardware and software installation, optional rack integration at a Dell facility and validation of the installed solution. Dell takes care of the complete project management, from order drop to your acceptance.

For more information, visit [Dell.com/ServiceDescriptions](http://Dell.com/ServiceDescriptions).

#### Find out more today

Don’t wait to harness the benefits of Cloudera Hadoop on a purpose-built solution designed from the ground up to address data analytics requirements, reduce development costs and optimize performance for deep data mining and analytics. Contact your Dell representative to find out more today.

<sup>7</sup> Dell case study, "[Accelerating big data ROI with Hadoop](#)," April 2015.

#### Contact us

To learn more, visit [dell.com/hadoop](http://dell.com/hadoop) or [contact](#) your local representative or authorized reseller.

