

# cloudera® CONNECT



## CISCO

### INDUSTRY Platform

### WEBSITE [www.cisco.com](http://www.cisco.com)

#### COMPANY OVERVIEW

Cisco is the worldwide IT leader that enables businesses to seize the opportunities of tomorrow by proving amazing things happen when you connect the previously unconnected. Cisco brings together people, process, data and things to transform how organizations meet next-generation demands.

#### PRODUCT OVERVIEW

The Cisco solution for Cloudera is based on Cisco's UCS Common Platform Architecture (CPA) for Big Data, a highly scalable architecture designed to meet variety of scale-out application demands with seamless data integration and management integration capabilities.

#### SOLUTION HIGHLIGHTS

- > Best-of-breed, integrated Big Data infrastructure combines enterprise-grade Hadoop software & services
- > Streamlined big data platform deployment: tested by Cisco, certified by Cloudera
- > Performance and capacity delivered at scale
- > Simplified management with Cisco UCS Manager & Cloudera Manager

## Cloudera Enterprise with Cisco Unified Computing System (UCS)

Moving beyond its roots in Web 2.0 technology, Hadoop has emerged as an essential enterprise data management platform. Consumer, commercial, and financial industries are all finding applications for data processing and analytics, particularly as they are faced with new challenges in today's web and social-oriented content and interaction models. But taking advantage of Hadoop is not simple—it's a complex distributed system comprised of a dozen different open source projects.

Together, Cisco and Cloudera are well positioned to help organizations exploit the valuable business insights in all their data. Cloudera has revolutionized enterprise data management by offering the first unified platform for Big Data: the enterprise data hub (EDH). Powered by [Cloudera Enterprise](#), this solution offers organizations one place to store, process analyze, and derive value from all their data. Cisco has been the leader in networking for decades, providing proven solutions that meet critical business requirements, and delivering an integrated Hadoop infrastructure.

### Cisco UCS Common Platform Architecture (CPA) for Big Data

Cisco UCS Common Platform Architecture (CPA) for Big Data is a highly scalable architecture designed to meet variety of scale-out application demands with seamless data integration and management integration capabilities. Cisco UCS CPA for Big Data v2 improves both performance and capacity for enterprise Big Data deployments.

### Choice of Configuration

This joint solution, a reference architecture and Cisco UCS SmartPlay solution, provides two fully redundant Cisco UCS 6296UP 96-Port Fabric Interconnects (to connect up to 10 racks and 160 servers) along with two Cisco Nexus® 2232PP 10GE Fabric Extenders, and 16 Cisco UCS C240 M3 Rack Servers. With the M3 Rack Servers, customers can choose from either "performance and capacity balanced" or "high capacity", based on their workload needs.

#### Cisco UCS SmartPlay Solutions

Performance and Capacity Balanced (UCS-SL-CPA2-PC)	Capacity Optimized (UCS-SL-CPA2-C)
<ul style="list-style-type: none"> <li>&gt; 2 Cisco UCS 6296UP 96-Port Fabric Interconnects</li> <li>&gt; 2 Cisco Nexus 2232PP 10GE Fabric Extenders</li> <li>&gt; Cisco UCS Manager</li> </ul>	
Per rack:	Per rack:
<ul style="list-style-type: none"> <li>&gt; 320 cores</li> <li>&gt; 384TB storage</li> <li>&gt; 32 GBps I/O bandwidth</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 256 cores</li> <li>&gt; 768TB storage</li> <li>&gt; 16 GBps I/O bandwidth</li> </ul>
16 Cisco UCS C240 M3 Rack Servers, each with:	16 Cisco UCS C240 M3 Rack Servers, each with:
<ul style="list-style-type: none"> <li>&gt; 2 Intel Xeon processors E5-2660 v2</li> <li>&gt; 256 GB of memory</li> <li>&gt; LSI MegaRaid 9271CV 8i card</li> <li>&gt; 24 1-TB 7.2K SFF SAS drives (384 TB total)</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 2 Intel Xeon processors E5-2640 v2</li> <li>&gt; 128 GB of memory</li> <li>&gt; LSI MegaRaid 9271CV 8i card</li> <li>&gt; 12 4-TB 7.2 LFF SAS drives (768 TB total)</li> </ul>

## Benefits of Cloudera

- > **Powerful** – Store, process, and analyze all your data to drive competitive advantage
- > **Efficient** – Hadoop unifies compute and data to improve operational efficiency
- > **Open** – 100% open source: CDH is the world's most popular open source distribution powered by Apache Hadoop
- > **Simple** – Easy to deploy and operate with centralized administration
- > **Compatible** – Leverage your existing investments for rapid adoption and lower TCO
- > **Economical** – Rethink the economics of data management with an open source platform on industry standard hardware - up to 90% more cost effective than traditional solutions
- > **Enterprise Ready** – Equipped with critical capabilities to support mission-critical operations

## Cisco Validated Design for Cloudera

Cisco Validated Design for Cloudera provides systems and solutions designed, tested, and documented to facilitate faster, more reliable, and more predictable customer deployments.

## Unique to Cisco and Cloudera

- > **High Performance and Exceptional Scalability** – Cisco UCS unified fabric architecture provides fully redundant, highly scalable lossless 10-Gbps unified fabric connectivity for big data traffic. The Cisco Cloudera Reference Configurations can easily scale to support a large number of nodes when required by business demands.
- > **Simplified Management** – Cisco UCS Manager delivers unified, model-based management that applies personality and configures server, network, and storage connectivity resources, making it as easy to deploy hundreds of servers as it is to deploy a single server. Additionally, Cisco UCS Manager can perform system maintenance activities such as firmware updates across the entire cluster as a single operation.
- > **Coexistence with Enterprise Applications** – In building Big Data solutions, organizations need ways to transfer data transparently between their enterprise applications and Big Data platforms. This solution can connect, across the same management plane, to other Cisco UCS deployments running enterprise applications, thereby radically simplifying data center management and connectivity. Cloudera Enterprise provides a comprehensive platform for designing and managing solutions that cross the boundaries of traditional and Big Data platforms.
- > **Rapid Deployment** – Deployment of large numbers of servers can take time. The ability to create consistent configurations improves business agility and eliminates a major source of errors that can cause downtime. Cloudera Enterprise's tightly integrated platform demystifies the challenges of building end-to-end solutions that take you from data acquisition and processing to rich analytics solutions.
- > **Enterprise Service and Support** – Enterprises want to know that the vendors providing a solution have the expertise to help them quickly proceed through the design, deployment, and testing of strategic big data initiatives. The Cisco Reference Configurations bring together world-class service and support from Cisco and Cloudera.

## About Cloudera

Cloudera is revolutionizing enterprise data management by offering the first unified Platform for Big Data: The Enterprise Data Hub. Cloudera offers enterprises one place to store, process and analyze all their data, empowering them to extend the value of existing investments while enabling fundamental new ways to derive value from their data. Founded in 2008, Cloudera was the first and is still today the leading provider and supporter of Hadoop for the enterprise. Cloudera also offers software for business critical data challenges including storage, access, management, analysis, security and search. With over 15,000 individuals trained, Cloudera is a leading educator of data professionals, offering the industry's broadest array of Hadoop training and certification programs. Cloudera works with over 800 hardware, software, and services partners to meet customers' big data goals. Leading organizations in every industry run Cloudera in production, including finance, telecommunications, retail, Internet, utilities, oil and gas, healthcare, biopharmaceuticals, networking and media, plus top public sector organizations globally. [www.cloudera.com](http://www.cloudera.com)

## About Cisco

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