



CLUDERA PLATFORM SOLUTIONS

Dell EMC, DXC and Cludera partner to offer customers a new approach to data

Overview

The data-driven age is dramatically reshaping industries and reinventing the future. As vast amounts of data keep pouring in from increasingly diverse sources, leveraging that data is both critical and transformational for your business. Today, data is currency.

As organizations of all kinds embrace the use of data and analytics, most are now moving beyond traditional business intelligence (BI) to a more advanced and comprehensive analytics environment with much richer data sources. Forward-looking executives now view data and analytics involving machine learning and AI capabilities as vital tools needed to improve customer relationships, accelerate speed to market, survive in an increasingly dynamic marketplace and drive sustainable value.

The very nature of the data revolution - driven by the four V's: volume, variety, velocity and veracity - now poses unique challenges to many organizations. Informed observers expect the global volume of data to swell to 163 zettabytes by 2025, 10 times the amount today. Unstructured data now comprises 80 percent of enterprise data, with growing volumes of data flowing from increasingly ubiquitous sensors, mobile devices, video streams and social networks. This is in addition to the varieties of data already being stored within enterprises but not easily available for analytics. Given the speed and reach of this data revolution, it is perhaps not surprising that many organizations are less than prepared to meet these challenges.

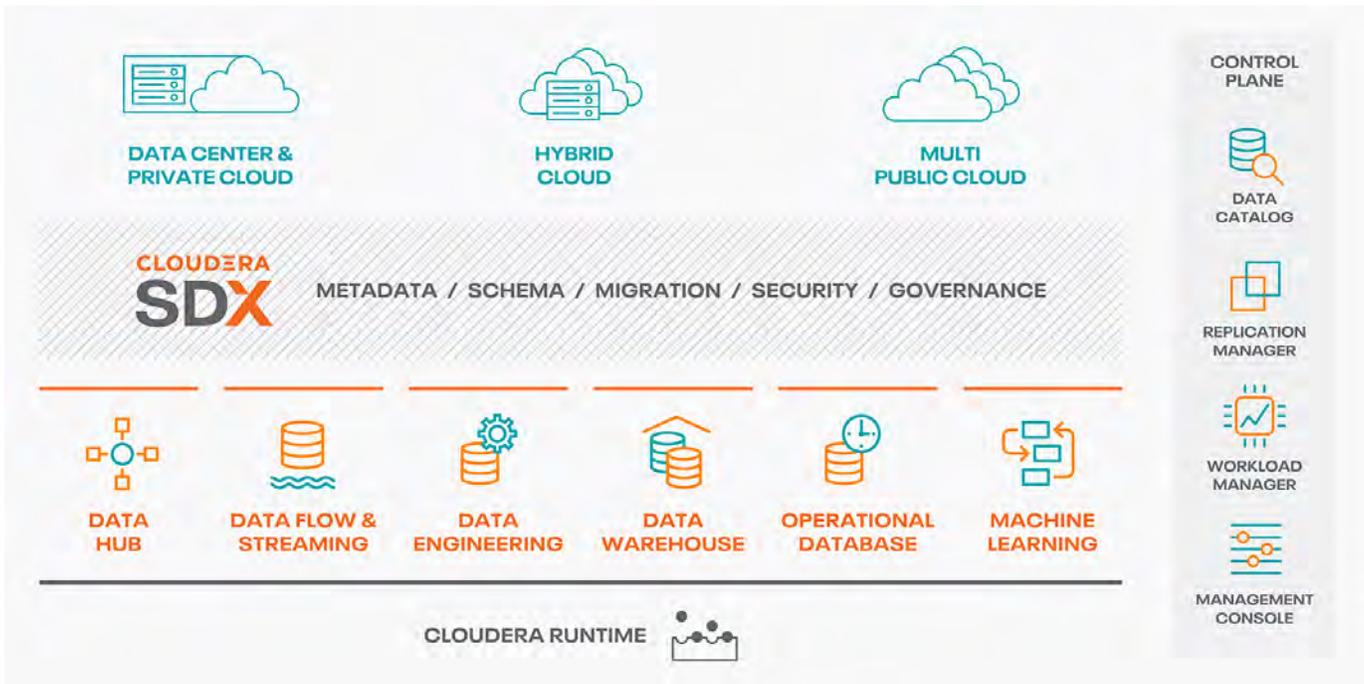
Digital transformation is causing churn, uncertainty and disruption for many business leaders who need to act quickly as pressure increases from all directions. Big data analytics is at the core of this transformation. However, without the right tools, you'll be faced with complex, costly and inefficient trial-and-error approaches to implementing an analytic workload solution from the Edge to AI all with enterprise-grade security and governance..

Mastering data and data analytics holds tremendous potential for dramatically growing revenue and controlling costs. And, while some companies are well down the path to becoming data-driven organizations, others are just starting out. This is because it's often difficult know where to begin. That's where Dell EMC, DXC and Cludera can help.

Cludera Data Platform (CDP): The world's first enterprise data cloud

CDP is an integrated data platform that is easy to deploy, manage, and use. By simplifying operations, CDP reduces the time to onboard new use cases across the organization. It uses machine learning to intelligently autoscale workloads up and down for more cost-effective use of cloud infrastructure.

CDP manages data in any environment, including multiple public clouds, bare metal, private cloud, and hybrid cloud. With Cludera's Shared Data Experience (SDX), the security and governance capabilities in CDP, IT can confidently deliver secure analytics running against data anywhere. CDP is a new approach to enterprise data, anywhere from the Edge to AI.



Hybrid & multi-cloud

CDP manages, controls, and analyzes data anywhere:

- Multi-cloud: Organizations have the flexibility to use their cloud provider of choice
- On-premises: For performance, cost, and security purposes, use data centers where that is the optimal infrastructure
- Hybrid cloud: Consistent management and control across combinations of public clouds and on-premises for ultimate choice

Secure & governed

CDP's Shared Data Experience (SDX) technologies ensure an enterprise data cloud is secure by design:

- Consistency: Security and governance policies are set once and applied across all data and workloads
- Portability: Policies stay with the data even as it moves across all supported infrastructures
- Self-service: Users can efficiently find, curate, and share data, enabling access to trusted data and analytics

Edge to AI analytics

CDP delivers easy-to-use analytics that work better together, supporting the most demanding use cases:

- Complete: All functions needed to ingest, transform, query, optimize, and make predictions from data are available, eliminating the need for point products
- Integrated: Unified analytic functions simplify the creation of big data applications and pipelines
- Consistent: Standardized user experience across functions makes it faster and easier to analyze data

Data Center software

The industry's most powerful, comprehensive data management and analytics platform for on-premises IT environments. CDP Data Center delivers an integrated suite of analytic engines spanning stream, batch data processing, data warehousing, operational database, and machine learning in support of a diverse set of use cases.

There are three key reasons to move to CDP Data Center:

- Get something new, regardless of whether you currently use CDH or HDP
- Innovate faster with unified distribution, which means more features and bug fixes, sooner
- Expand to new experiences with the foundation for a new wave of containerized compute applications

Operational DB

Extract real-time insights at low latency for data-driven, mission-critical applications

Data Warehouse

Modernize your analytics with high-concurrency, scale, and security

Data Science & Engineering

Run advanced data engineering, exploratory data science, and machine learning at scale



Built on the latest technology

Innovate your data analytics core with Cloudera Runtime—the new, fully integrated open source distribution - and Cloudera Manager for complete security, governance, and control of your Edge to AI workloads.



Raise the bar on security

Achieve new levels of security with advanced authentication and authorization capabilities spanning attribute-based access control (ABAC), dynamic masking, fine-grained access, and more.



Alleviate resource contention

Add new applications and empower new teams easily with Virtual Private Clusters (VPCs) that decouple compute from storage to improve isolation and boost multi-tenancy.



Enterprise-grade security and governance

Secure and govern platform data and metadata, and control capabilities with dedicated, integrated interfaces to manage it. Data security, governance, and control policies are set once and consistently enforced everywhere, reducing operational costs and business risks while also enabling complete infrastructure choice and flexibility.

Dell EMC Ready Architectures for Cloudera

Expertise and infrastructure matter when building a Hadoop environment. That’s why Dell EMC teamed up with industry leaders DXC and Cloudera to remove the uncertainty and barriers that may dissuade you from deploying Hadoop. Dell EMC Ready Architectures for Hadoop provide a faster way to harness the power of data analytics to drive competitive advantage.

Leverage an optimized solution

Dell EMC Ready Architectures for Hadoop are jointly engineered with Cloudera. These solutions are tested, tuned and optimized so you can realize Hadoop benefits up to 12 months faster versus implementing on your own.¹ Based on nearly a decade of Dell EMC experience with enterprise Hadoop installations, Dell EMC Ready Architectures for Hadoop can be delivered as integrated solutions, with all the hardware, software and services from DXC to quickly get Hadoop into production.

Reduce costs

By extracting, transforming and loading data from legacy data warehouse environments into Hadoop (ETL offload), organizations can realize significant hardware, software and administrative cost savings. In fact, with Dell EMC Ready Architectures for Hadoop, customers report saving \$15M in hardware alone with data offload and storage.¹

Deliver outstanding performance

With Dell EMC Ready Architectures for Hadoop, queries and analytics that took days could be completed in hours or less, and certain jobs could be completed near instantaneously thanks to Hadoop's parallel processing power.¹ At the same time, improved system administration efficiency can save up to \$540k per year, while supporting larger data sets than with traditional data warehouses.¹

Solution components

- **Dell EMC PowerEdge R740xd Server:** Maximum storage performance and scalability ideal for software-defined storage. With up to 24 NVMe drives, the R740xd ensures application performance scales to meet company demands
- **Dell EMC PowerEdge R640 Server:** Get scalable computing and storage in a 1U, 2-socket platform with an ideal mix of performance, cost and density for most data centers
- **Dell EMC Networking S3048-ON 1GbE Switch:** 1GbE top-of-rack (TOR) switch with an industry-hardened operating system (OS) and support for open networking, providing freedom to run third-party operating systems
- **Dell EMC Networking S4048-ON 10/40GbE Switch:** TOR, high-density 1U switch, with 48 10GbE uplinks, offers ultra-low latency and line-rate performance.
- **Dell EMC Networking S6010-ON 10/40GbE Switch:** Disaggregated hardware and software TOR networking solution that empowers you to deploy modern workloads and applications designed for the open networking era
- **Dell EMC Networking Z9100-ON 25/100GbE Switch:** Purpose-built for applications in high performance data centers, the compact Z9100-ON design provides 32 ports of 100GbE or 128 ports of 25GbE
- **Dell EMC Isilon H600 hybrid scale-out NAS** brings the performance of 120 SAS drives, SSD caching and built-in multiprotocol capabilities. Management stays simple as you grow with the single file system, single volume architecture and automation features of Isilon OneFS

¹ Forrester Research study commissioned by Dell EMC and Intel, "The Total Economic Impact of Dell EMC Ready Solutions for Hadoop," updated August 2018.

DXC Analytics Modernization and Migration Factory

DXC Analytics Modernization and Migration Factory offers a cost-effective approach to addressing the challenges of aging EDW and Business Intelligence (BI) environments. DXC's services help your organization identify, prioritize and transform data workloads and modernize the data analytics and AI fabric. DXC can show you how to use these technologies to optimize business outcomes, remain relevant and streamline costs. DXC introduces the agility and advanced capabilities you need to support future analytics and AI applications.

DXC's methodical factory-model approach leverages established delivery centers of excellence across multiple regions to execute change consistently and efficiently throughout your enterprise. The service, designed to assist you in your digital transformation and cloud journey, covers everything from assessment through implementation and on-going run phases.

Delivering results

DXC Technology enables clients to consume, manage data and run analytics at a performance level and a price point inaccessible in their existing environments. DXC's clients have proven you can:

- **Achieve analytics agility and performance enhancements:** A U.S. financial institution enhanced performance significantly, reducing queries to minutes and hours instead of two to five days. In addition, they now have five database administrators (DBAs) supporting 420TB of legacy data, compared to three DBAs supporting 100TB previously
- **Mitigate legacy EDW constraints:** By introducing and migrating to new technologies and cloud, a U.S. telecommunications giant avoided \$11 million in costs for capacity expansion
- **Leverage skilled resources to integrate new open source and commercial technologies:** An Australian public sector client transitioned from a costly, tightly coupled and proprietary technology stack to a lower cost, loosely coupled open architecture

Why DXC?

- **Proven Delivery:** 10,000+ customer engagements, serving 900+ Analytics clients.
- **Analytics Expertise:** Established Analytics Data Labs and Manufacturing Center of Excellence; best-in-class analytics and AI platform solution, offering choice and flexibility.
- **Skilled Resources:** 3,600 BI consultants worldwide; 1,200 global analytics professionals; secure and scalable Analytics Modernization and Migration Factory sites -- in Bangalore, India; Manila, Philippines; Warsaw, Poland -- with dedicated staff for modernization, migration and managed services.
- **Partner Ecosystem:** In addition to the Dell EMC and Cloudera partnership, DXC leverages cloud provider partners like Microsoft Azure, Google Cloud Platform (GCP), and Amazon Web Services (AWS) within the DXC Partner Network and maintains an ecosystem of leading technology companies in the data management and analytics, artificial intelligence, machine learning, and visualization domains to ensure the right technology options for DXC customers seeking to modernize their data and analytics environments, and deploy solutions to address a wide variety of business use cases.

Next steps

Start your transformation journey by attending a Dell EMC, DXC and Cloudera analytics modernization and migration factory workshop to:

- Define your analytics modernization strategy and high-level architecture
- Identify critical cost, performance and functionality issues
- Identify the business value of transforming critical workloads and the savings potential of modernizing your environment



[Learn more](#) about the Dell EMC Ready Architectures for Hadoop



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