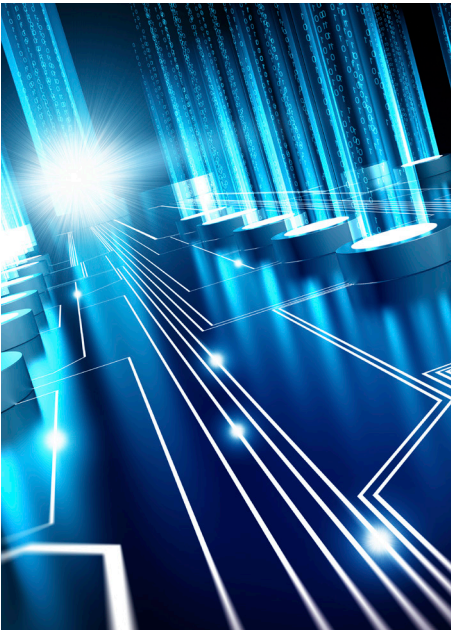




## Solution Brief

# Dell Solutions for Big Data and Analytics

Create a data-driven enterprise



## Are you capitalizing on big data?

The Dell Global Technology Adoption Index found that organizations that are most effective in leveraging data experience three-year growth rates that are 70 percent greater than those who are least effective in using data: 14 percent versus 8 percent. But the same study also found that only 39 percent of organizations understood how to extract value from data and are pursuing that goal.

## Building a future-ready enterprise

In today's digitally driven world, the success of a business is increasingly tied to its ability to extract value from data. Exploiting the untapped value of your data is now the pathway to success. By putting data-driven decision making at the heart of the business, your organization can harness a wealth of information to gain an unparalleled competitive advantage.

In a future-ready enterprise, you must make a fundamental shift from a focus on technology to a strategic business focus. Data-driven insights can guide everything from the formulation of top-level corporate strategies to connected devices that monitor and enable immediate critical decisions, to the creation of personalized customer interactions. Data is the foundation for enabling business transformation and innovation.

### So how do you get there?

Turning data into insights to drive better and faster decision making is a journey that requires thinking about much more than technology. To accelerate business outcomes, your organization must overcome three top challenges: aligning IT and business priorities, choosing the right solution tailored to your use case, and integrating siloed data environments. Your journey first requires IT and business alignment—because without specific goals and the end in mind, data initiatives can get derailed or fail to achieve the expected ROI.

Once you have IT aligned with the business, your initiatives must ensure that data is cost-effectively managed, shared by systems across the enterprise, and quickly and securely made available for analysis and action by line-of-business teams. Taking a holistic approach enables your organization to realize the full value of your big data strategy—and to capitalize on all of your data, from enterprise systems to social media and the Internet of things.

This is the Dell approach to big data and data analytics solutions.

## A pathway to competitive advantage

### Align business and IT outcomes to take advantage of big data

When you work with Dell to become a data-driven enterprise, the journey is based on a comprehensive yet modular portfolio of solutions for big data and analytics, backed by decades of experience and the expertise of thousands of engineers with certifications in key technologies for big data and analytics implementations.

As we have mentioned, in the Dell perspective, data initiatives don't start with technology. They begin with the strategic alignment of IT and business goals. We work collaboratively with your organization to achieve this alignment, and then identify and implement solutions tailored to your business goals. We work with your team to define your specific use cases and identify the opportunities best suited for you to use your data to enable business transformation.

### **A comprehensive portfolio**

Dell offers a focused big data and analytics portfolio to help you on every step of your journey. This end-to-end portfolio includes an unprecedented lineup of solutions and tools for advanced analytics, data integration, and data management.

With our agnostic approach to technology, Dell solutions for big data and analytics are able to work across data platforms. Building on this open approach, our solutions leverage technologies from such industry leaders as Cloudera, Intel, Microsoft, SAP and Syncsort.

Ultimately, the combination of technologies from Dell and its partners gives you the capabilities you need to connect all your data silos, analyze all relevant data, and act on data-driven insights.

### **Professional services and support**

Dell Deployment and Consulting can help you quickly realize the full benefit of your data warehouse optimization investments while limiting business disruptions. Dell and select partner services can provide on-site deployment of the solution hardware, configuration of servers and network switches, and installation of the solution software.

## **Choosing the right solution—tailored to your use case**

Planning, installing, designing, implementing and operating a big data and analytics environment can appear to be a daunting challenge for any organization. There are many considerations when you initiate a project, and all of these revolve around your business and its unique need.

At Dell, we recognize there is no perfect "one size fits all" solution. Every customer has its own challenges and its own unique environment. That's why we offer a broad array of solutions and options, based on best practices, to address your exact needs and pain points.

To help you identify the right technologies and solutions for your use cases, we provide comprehensive technology blueprints. With these blueprints, Dell enables and accelerates your big data journey with reference architectures right-sized for your

business, turnkey engineered solutions, and best-in-class software suites. Modern businesses and organizations are often resource challenged, with neither the time nor the in-depth expertise necessary to integrate and design all aspects of increasingly complex end-to-end big data and analytics solutions.

Dell offers tested and certified reference architectures for small, medium and large big data and analytics deployments. These technical resources guide your deployment of solutions that incorporate technologies from industry leaders, as well as from the vast Dell portfolio. Reference architectures cover all the hardware and software you need for a complete big data and analytics environment.

Our highly customizable reference architectures help you contain the costs and increase the scalability of the solutions you choose while accelerating time to value. They are both platform- and data-agnostic. This open approach helps you preserve the value of your existing investments while gaining flexibility for future deployments.

Our engineered solutions bring together the components of complete big data and analytics environments in turnkey appliances that are easy to order, quick to deploy and easy to scale. Dell takes the hard work out of building, deploying, tuning, configuring and optimizing environments

The appliance-based approach helps you simplify and accelerate the otherwise complex process of deploying a cluster. Rather than focusing on building and deploying a big data and analytics platform, your IT team can spend more time helping the business gain fast, critical insights from huge amounts of data.

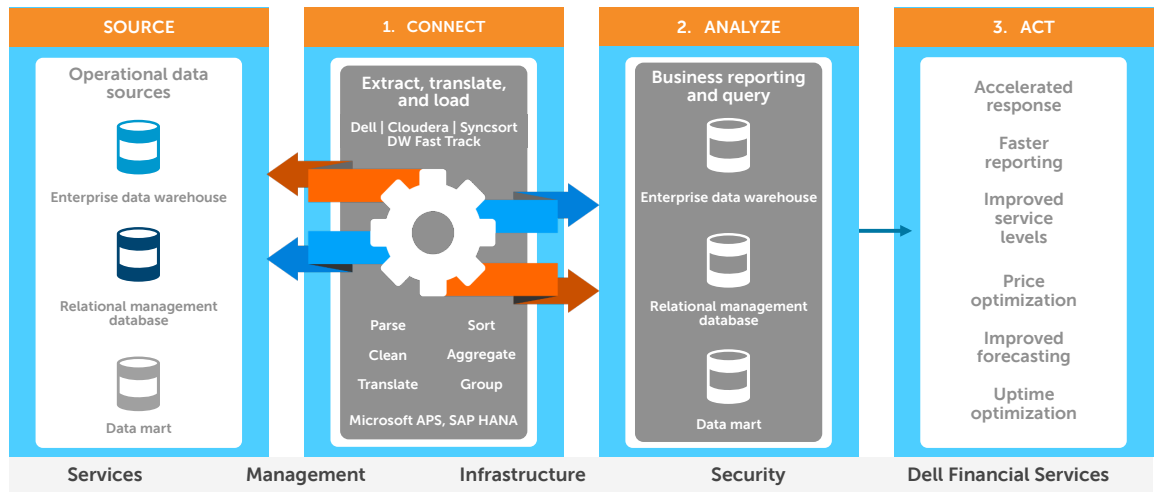
The Dell software portfolio offers an unprecedented mix of leading-edge technologies for data analytics, data integration and data management. Collectively, these software products cover the end-to-end needs of a big data and analytics environment.

### **Diverse use cases**

There are countless examples of the way organizations are leveraging Dell solutions for big data and analytics to realize the benefits of the data-driven enterprise. Here are two examples of the ways in which your organization can capitalize on the Dell portfolio to improve operational efficiency and drive business transformation.



**Figure 1.** The Dell | Cloudera | Syncsort Data Warehouse Optimization - ETL Offload solution moves ETL processes into a lower-cost Hadoop environment.

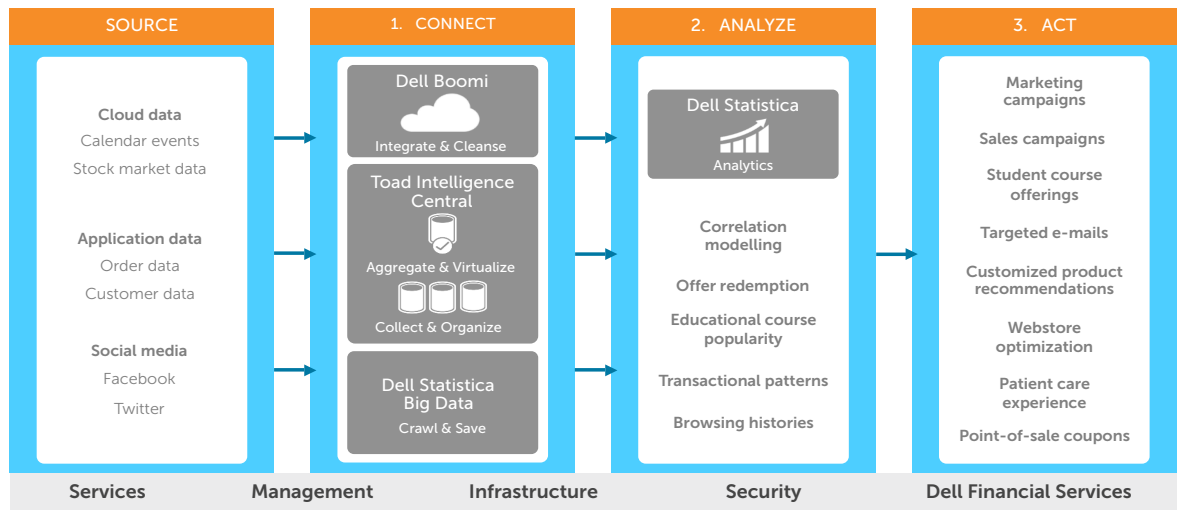


**Example: Improving operational efficiency**

As the volume, velocity and variety of data increases, many enterprise data warehouses (EDWs) are being pushed to their limits. This overload stems in part from the many processes, such as data transform jobs, that have been moved into the EDW because traditional extract-transform-load (ETL) tools could not deal with the size of the data volumes.

The Dell | Cloudera | Syncsort Data Warehouse Optimization – ETL Offload solution solves this problem. It enables you to move ETL processes into a lower-cost Hadoop environment and make better use of your existing EDW investments.

**Figure 2.** The Dell Business Transformation Architecture helps you gain a 360-degree view of your customers.



**Example: Transforming the business**

In today's competitive environment, enterprises not only need to work harder, but also to work smarter, to retain their existing customers. This reality of the modern business world recognizes that, across a wide range of industries, it costs far more to acquire a new customer than to retain an existing customer.

Increasingly, the path to customer retention runs through mountains of big data. The key is to use big data analytics to gain a 360-degree view of each customer, identify customers who are most likely to defect to a competitor, and then work

proactively to retain those customers. The Dell Business Transformation Architecture enables this comprehensive view.

This architecture brings together all the technology components your organization needs to gain a 360-degree view of customers, including Dell technologies for data analytics, integration, storage and management, along with a Hadoop environment based on Cloudera Enterprise. The result is a transformative, end-to-end solution that helps you work proactively to maintain customer loyalty.



## The Dell difference

**All data**—Break down silos to deliver secure, self-service access to all your data—including structured and unstructured data held in different environments.

**Lower TCO**—Leverage existing investments as you integrate quickly and easily for workload and use case solutions

**Choice and flexibility**—Compete in the data economy with confidence by leveraging Dell's data- and platform-agnostic approach, including technologies from Cloudera, Intel, Microsoft, SAP and Syncsort.

**Tested and validated solutions**—Increase your confidence with customizable solutions based on proven reference architectures.

**No lock-in**—Dell big data solutions integrate with existing investments, adapt to changing needs, and prepare you for the future.

### Dell helps you ensure your success

Dell has decades of experience in building and supporting secure end-to-end solutions that enable the integration, management and analysis of diverse types of data. No other technology vendor can comprehensively and holistically meet your big data and analytics needs without necessitating vendor lock-in, further propagating data silos, or requiring a rip-and-replace technology approach to get started.

Dell couples its open approach with a big data and analytics portfolio that delivers the value of advanced BI tools, the industry's first and leading cloud integration tools, unique

preconfigured Hadoop offerings, a 30-year analytics history from Statistica, deep services expertise, and access to the network of global Dell Solution Centers to assist with solution testing and proofs of concept.

Whether you're looking to enhance the customer experience, optimize operations or improve IT economics, Dell can help you get above the hype to solve tangible business problems—and turn data into a competitive advantage.

To learn more, visit [Dell Tech Center](#)

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