

Data Drives Business



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Introduction

Today's technology is rapidly changing our lives and influencing how we interact with brands, as well as with each other. The digitization of everything, particularly the widespread use of mobile and sensor data, has significantly increased user expectations. This rapid adoption of newer technologies—mobile, digital goods, video, audio, IoT and an app-driven culture—has resulted in new ways to engage customers with improved products and services. At the heart of this transformation is how organizations use data to drive competitive advantage. Those who view data as an asset or opportunity will thrive, while those who lose sight of it will likely see significant negative business impact. IDC¹ predicts that by 2020, *data monetization efforts will result in enterprises pursuing digital transformation initiatives increasing the marketplace's consumption of their own data by 100-fold or more*. Analyzing this new class of data and taking action on it can provide greatest advantage to organizations and help them gain advantage against competition. According to IDC¹, *by 2020, organizations able to analyze all relevant data and deliver actionable information will achieve an extra \$430 billion in productivity benefits over their less analytically oriented peers*. Data is driving three key board-level initiatives: customer insights, improved products, services, and efficiencies, and lower business risks. This paper will take a deeper look at how digital transformation is affecting organizations, how organizations are using data to drive key board level initiatives, and finally, the ideal steps that an organization will need to take in order to become a data driven business.

A new approach for using data to drive business

Digital transformation is disrupting businesses and business models. What's more, this transformation is happening much faster than most organizations had anticipated. Legacy business models are feeling the pressure to adopt to the new wave of devices and methods of interactions with their customers, partners, and amongst themselves. At the same time, new entrants are innovating rapidly to gain competitive advantage and market share. Of course, Cloud is accelerating the development and providing a platform for rapid innovation.

In the past, businesses had used data sparingly, or only as needed to make decisions. This resulted in having to look at smaller sets of data from shorter time windows, as well as delayed decision making. But digital transformation is changing everything, and rapidly displacing the way businesses look at data for decision making. Customers are interacting in multiple ways, through multiple platforms, and leaving behind digital breadcrumbs that provide a rich set of information to be collected, analyzed, and used to make business decisions. Innovative organizations have successfully transformed the way they make use of the rich information and data for effective decision making. These organizations have looked beyond the traditional way of storing, processing in batch mode, and conducting simple analytics on data in a reactive fashion. They're now using real-time data processing, being prescriptive as well as predictive in their analytics, and applying advanced analytics and machine learning techniques. Consequently, business decisions using insights from this modern analytics approach have helped address board level initiatives.

Data drives Board Level Initiatives

When we look across the various industries, we see a common theme. Data is transforming businesses and helping drive board level initiatives. Apache Hadoop is, in many ways, enabling this shift. With maturity of the platform and technology ecosystem, the conversation has shifted from technology and cost savings, to driving business value with data.

Board level initiatives across industries fall under three key areas:

- Drive Customer Insights
- Improve products & services efficiency
- Lower business risk

Let's take a deeper look at each of them.

1 Drive Customer Insights

According to McKinsey & Co², 56% of all customer interactions happen during a multi-channel, multi-event journey. Capturing all these interactions and having a unified view across them is also sometimes summarized as “Customer 360,” as in “get a 360° view of your customers.” This involves collecting data about everything your customers do—from the moment they come to your web site to the moment they purchase your product and continuing on to the moment they eventually stop using it. There is tremendous insight that can be gleaned if you have a way to capture, store, and analyze all data that comes in many forms from many sources—sometimes at incredible speed. And by the way, this can be applied to far more than end-user customers; the same concept applies to supply chains, vendors, partners, suspected terrorists, etc. A great example is MarkerStudy, a UK-based insurance holdings underwriter that gleaned deeper customer insights using Cloudera to achieve a 50% increase in customer retention, and a 2x increase in policies issues.

2 Improve products and services efficiency

The second initiative we see is companies who want to use data to improve their existing products (connected cars for example), or use data to develop entirely new products or services (like selling your customers comparative data on their own use of your products, or selling completely new services based on combining live, historic, and public data in novel ways). A new wave of devices are being introduced in the market, and IoT is driving a fundamental shift that is impacting these organizations. Furthermore, irrelevant products and poor services have a massive impact—resulting in reduced market-share, lower profits, as well as customer and employee turnover. We have customers developing predictive analytics using machine learning to proactively notify customers of a problem that neither the customer nor the vendor had been aware of prior to it appearing (at Cloudera we do that ourselves with our own products). Cerner Corporation, a technology company committed to the systemic improvement of healthcare, uses Cloudera to help save lives through early detection of Sepsis with an end of end view of 2PB+ data.

3 Lower business risk

With the explosion of touch points, organizations across the globe are challenged with protecting their business from internal and external risks. One of the most powerful byproducts that comes from analyzing huge amounts of data is the ability to spot trends and anomalies that were invisible before. By looking at huge populations and vast numbers events over very long periods of time, things come into focus in a way that wasn't possible when you were only looking at a few hours, or a few days, worth of data. That new capability can be directly applied to problems like defending your network against cyber attacks, understanding the behavior of your customers more deeply, detecting insider trading, improving the efficiency of supply chains, allocating financial risk in new and more sophisticated ways, or meeting internal and external compliance requirements. Dell SecureWorks designs better defenses through complex analytics on historical security breaches. Dell SecureWorks investigates ~1,000 potential security incidents, analyzes ~20,000 pieces of malicious software each day, and processes over 20 billion events using Cloudera. At the same time, they have been able to reduce the cost of storage from \$17 to 21 cents per gigabyte—a huge savings with additional functionality.

To achieve these board-level initiatives, organizations will need to **modernize data architecture**. By taking advantage of the same technical concepts that formed the foundation of Google's IT infrastructure, you can implement solutions in your company right now that radically reduce the cost to store, process, and analyze virtually any amount of data—and you can do it affordably. What's more, you can use the same powerful analytic tools you rely on today to derive much deeper insights, far more quickly than before.



Instead of looking at a *small sample* of your users, or *some* of your network devices, or keeping data online for a *few days* before it's archived or deleted, you can now affordably keep data on *all your users*, data from *all your sources*, and keep it available for analysis for *months or years, even decades*. And that data, combined with modern analytic tools, gives you the ability to spot issues across a much larger surface area than ever before—making your existing systems more effective.

How would I get started?

We are here to help. The first step is to arrange for an initial meeting with our team to understand what you're trying to accomplish, and identify business-impacting use cases. After that, most of our customers prefer to do some form of proof-of-concept to get a sense of the power of our solutions.

In some cases, we'll recommend one of our systems integrator partners, or perhaps you'd rather engage directly with Cloudera's professional services team—either way is fine with us. And, whether you want to deploy on-premise or in the cloud, we will support you 100%. Generally, our customers can get an initial solution up and running quickly, while a proof-of-concept project can often be live in a matter of a couple of months.

Lastly, to help ensure the likelihood of success, we strongly recommend you provide your team with training. In fact, Cloudera trains more people on Hadoop than anyone else in the world. In addition to making sure you get the the most out of your Cloudera deployment, our training will help you with recruiting and retention of the dev/ops people essential to Hadoop.

Summary

Digital transformation is happening rapidly and it is transforming businesses. Adoption of mobile devices and use of sensor data from IoT is creating new and rich data that needs to be harnessed. Successful organizations are transforming their businesses and using data as a strategic asset for making business decisions. Data is driving businesses and addressing board level initiatives. Organizations are modernizing their architecture to harness the new class of data that is available. Data is a huge threat and a tremendous opportunity, which if harnessed successfully, can lead to competitive advantage. And, if ignored, it can be a threat to business growth. Increasingly, organizations are monetizing their information by using advanced analytics techniques and machine learning to be predictive and prescriptive in their approach to solve business problems. Cloudera is here to help you realize the value of new and untapped data. We'll help you successfully use data to drive your business.

About Cloudera

Cloudera delivers the modern platform for data management and analytics. The world's leading organizations trust Cloudera to help solve their most challenging business problems with Cloudera Enterprise, the fastest, easiest, and most secure data platform built on Apache Hadoop. Our customers can efficiently capture, store, process, and analyze vast amounts of data, empowering them to use advanced analytics to drive business decisions quickly, flexibly, and at lower cost than has been possible before. To ensure our customers are successful, we offer comprehensive support, training, and professional services. Learn more at cloudera.com.

cloudera.com

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