

OVERCOMING THE WEAKEST LINK TO ACHIEVE DATA-DRIVEN BUSINESS

Companies that strive to capture maximum value from customer and operational data require intelligent data solutions that deliver timely insights for optimizing business performance.



A White Paper from



EXECUTIVE SUMMARY

It's been said that data is the new oil. The savvy use of data and analytics is enabling decision-makers at banks, retailers, and companies in other industries to pinpoint and respond quickly to shifting customer behavior and market trends.

The ability for data-led companies to react rapidly to new business opportunities helps explain why companies such as Amazon and Alphabet have become the world's most valuable companies by market capitalization, according to a [study](#) by S&P Capital IQ.

However, in order for executives to use data effectively, it's critical for data to be accessible when time is of the essence. Managing and utilizing data has become a major problem for companies as the amount of data being created worldwide is expected to grow more than 18-fold between 2015 and 2025, from less than 10 zettabytes to 180 zettabytes, according to IDC. If decision-makers can't retrieve the right data quickly at the right time, business opportunities can be missed and competitors can snare market share. Companies need a forward-looking data strategy to succeed.

The data platform solution your company uses can either help make it data savvy or cause it to lose business to rivals. For instance, traditional storage systems have historically acted as a bottleneck, preventing timely access and the leveraging of data. Fortunately, modern storage solutions hasten the path to knowledge by providing decision-makers with real-time access to insights.

"By putting the right data to work at the right time, companies can transform Big Data into Big Intelligence," — *Yousuf Khan, CIO at Pure Storage*

In this white paper by **Pure Storage** and **HMG Strategy**, you will discover:

- How the breadth and availability of data are vital to actionable intelligence.
- Why speed, agility, and intelligence are the three critical components to driving business and operational improvements in today's fast-paced business environment.
- How to eliminate the "weakest link" of data bottlenecks that traditional storage solutions can impose, by leveraging faster and more agile on-premise, public cloud, private cloud, and hybrid cloud data storage environments.
- How the Pure Storage platform can enable enterprise decision-makers to accelerate the path to knowledge by putting data to work at the right time to obtain critical insights.
- Examples of leading companies that are driving innovation and improving business performance through the use of highly-accessible data.

THE PATH TO ACTIONABLE INTELLIGENCE



Data is growing faster than ever before. In fact, 2.5 exabytes of data are being generated every day, according to Northeastern University. To help put this in perspective, the total amount of data in the world in 2013 was 4.4 zettabytes. If each terabyte in a zettabyte were a kilometer, it would be equivalent to 1,300 round trips to the moon and back.

By 2020, that number is expected to increase tenfold to 44 zettabytes.

The breadth and depth of data available to executives and key decision-makers is critical for delivering actionable intelligence. For instance, in order for sales and marketing leaders to engage with high-value customers and top-tier prospects, they need a 360-degree view of customers based on different types of customer data that are available. This includes identity and transactional data, feedback that's shared by customers in contact center and other interactions, social media, demographic, qualitative, and other data types.

Sales and marketing leaders who are able to draw upon the full volume of customer data that's available are able to obtain deeper insights about individual customers, including any recent changes to their lifecycle status (e.g. children becoming college age), their most recent product purchases, and recent changes in their overall satisfaction as a customer that may influence their likelihood to purchase another product.

While the breadth and depth of data is critical to achieving meaningful insights, executives can only identify shifting customer behaviors and emerging business trends when the right data is available to them. In this next section, we'll explore how cutting-edge data storage solutions are making it possible for senior executives and other decision-makers to derive insights from data and then use those insights to gain a competitive advantage by moving faster and delivering smarter products and services to its customers.



Capturing the 3 Pillars of Business Success

The pace of business is moving at warp speed. Meanwhile, new market entrants and disruptive business models are forcing executives to re-examine their current business models. Consider this: just 12% of the companies that were on the Fortune 500 list in 1955 are still on the list today while more than 88% of the companies on the 1955 list have either gone bankrupt, merged with or been acquired by another company, or continue to exist but has fallen from the ranks, according to the American Enterprise Institute.

In today's dynamic business environment, companies must either reinvent themselves – or perish.

To succeed in today's dynamic business environment, companies need three capabilities: speed, agility, and intelligence to drive operational and business improvements. One of the common threads that unite category leaders such as Amazon, Netflix, Google, Apple and Facebook is their savvy use of customer data to get closer to their customers and to

create differentiated products and services that draw upon shifting customer behaviors and sentiments.

CIOs play a critical role in enabling their organizations to become data-driven. CIOs that approach data as a critical corporate asset and utilize cutting-edge data storage solutions to provide end users instant access to a full range of vital data sets position their organizations to succeed in today's insights-driven business environment.

“The most successful CIOs are those that find new outlets of information for organizational leaders to draw from,” — Vaughn Stewart, VP of Technology, Pure Storage

Putting the Pedal to the Metal for Faster Insights

That's certainly the case at Mercedes-AMG Petronas Motorsport, a Formula One team based in Brackley, U.K. "Accessing data has become really, really important to us," said Matt Harris, Head of IT at Mercedes-AMG Petronas Motorsport.

However, one of the top challenges that Mercedes-AMG Petronas Motorsport faced with its previous data storage provider was finding new means to collect, manage, and share ever-increasing amounts of data used to improve racecar design and performance. Meanwhile, multi-disciplinary design and engineering requirements stress the team's use of IT infrastructure in the pursuit of incremental racecar performance improvements. This requires an infrastructure that is portable.

Harnessing these capabilities was only part of the rationale for Mercedes-AMG Petronas Motorsport electing to partner with Pure Storage.

"One of the reasons we began using FlashBlade (from Pure Storage) is that we wanted to take data and apply machine learning and artificial intelligence to obtain real-time data."

Access to real-time data is vital for a racing team that puts a new product on the track every two weeks as racecars must be modified to meet the conditions of each Grand Prix event.

The cost savings and operational efficiencies achieved by Mercedes-AMG Petronas Motorsport through its partnership with Pure Storage have been impressive. By placing performance-critical workloads trackside, response times for key database queries has been slashed by 95%. Meanwhile, the time needed to open critical data files has been cut by two-thirds. Plus, the time to manage storage has been reduced by more than 90%.

Companies also require fast access to real-time data to help executive identify emerging business trends and make decisions ahead of the market. For instance, the rise of "Moneyball" statistical analysis in Major League Baseball has prompted teams such as the San Francisco Giants to become more data-focused to compete more effectively both in terms of player analyses and also in running concessions and other business activities more profitably.

In 1997, the Giants' entire scouting database fit on a floppy disk, or about 600KB of information. By 2016, that figure had zoomed to 5 billion records per year or more than 2 terabytes of data. As advanced statistics and analytics have become increasingly important in professional sports, the ability to access and obtain value from massive amounts of organizational data has become paramount. The Giants are relying on Pure Storage to access critical data more quickly and to enable it to execute better personnel decisions on the diamond along with more informed business decisions behind the scenes..

To help it prepare for the rollout of Statcast in 2015, IT leaders for the Giants realized they needed a new storage system that could provide the performance and scalability the organization needed. After consulting with its systems integrator, the Giants decided to install the Pure Storage FlashArray//m20. The array now hosts all of the Giants' SQL-backed production data and applications, including player statistics, ticket sales, fan information, marketing, and club operations.

The Pure Storage array enabled the Giants to keep pace with growing data volumes and to conduct sophisticated analysis of player and team statistics as well as analytics on ticket and merchandise sales.

In the digital economy, businesses run on data. Savvy companies such as Mercedes-AMG Petronas Motorsport and The San Francisco Giants are accelerating the path to insights for their decision-makers by investing in storage solutions that make it easy to access and act on data. In this next section, we'll examine how to eliminate the "weakest link" for data bottlenecks that traditional storage solutions can inflict by utilizing nimbler on-premise, public cloud, private cloud, and hybrid cloud data storage environments.

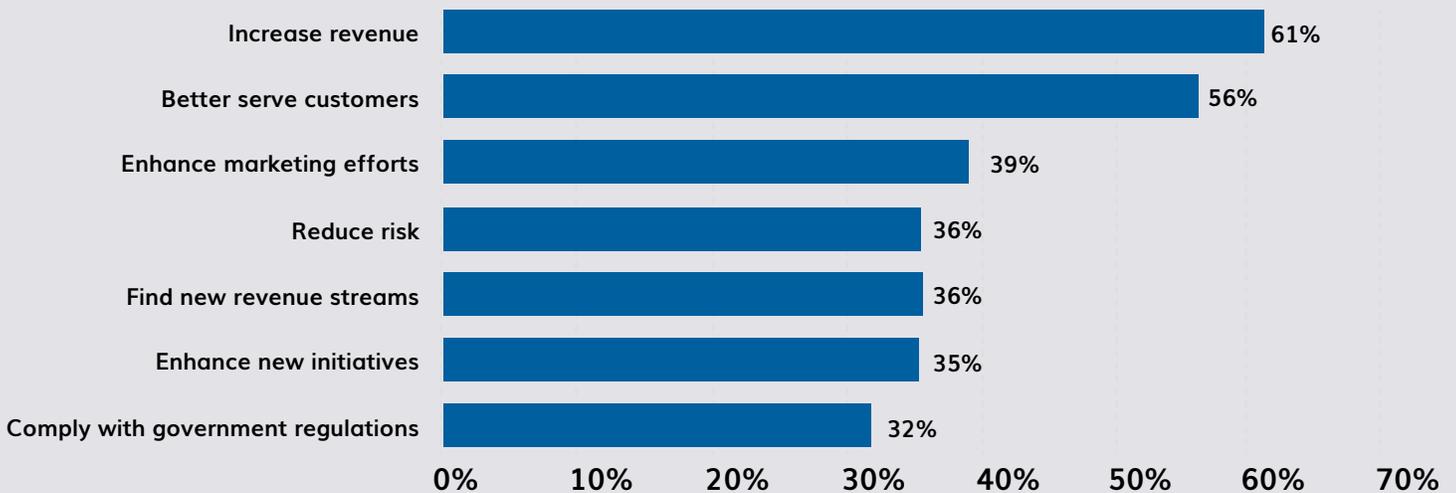


HOW DATA ACCESS POWERS BUSINESS OPPORTUNITIES



As this chart below from a global data study reveals, businesses currently use data to increase revenue (61%) and to better serve their customers (56%). But there's also a great deal of untapped potential for identifying new revenue streams and to optimize operational efficiencies.

How data powers business opportunities



Source: "The 2017 Global Data Management Benchmark Report," Experian.



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— Vaughn Stewart,
VP of Technology, Pure Storage

ELIMINATING THE WEAKEST LINK TO DATA BOTTLENECKS



As we touched on earlier, new and expanding data types are streaming into companies. Customer, supply chain, product, transactional, operational, and other types of data are just the tip of the iceberg. Torrents of unstructured data, including audio, video, image, Internet of Things (IoT) data generated by sensors and unstructured text such as emails and text messages are also pouring into companies at staggering rates. Industry estimates project that unstructured data accounts for 70%-to-80% of all data that resides in companies.

The ability for executives and other knowledge workers to access all types of data – structured and unstructured – is vital to success as businesses continue to transition to a digital economy. Unfortunately, in many organizations, data is also a major bottleneck. Legacy storage vendors exacerbate the problem with how they've designed and configured storage systems, placing performance drags on the availability of data.

Moreover, legacy vendors that have retrofitted older storage systems to flash technologies haven't designed these modified platforms effectively to enable clients to access data quickly when response time to business opportunities is critical. Flash systems that are bolted onto legacy architectures continue to result in long wait times for users and fail to leverage the true potential of flash.

This is why a growing number of companies are turning to modern, elegantly-designed flash arrays that enable users to access structured and unstructured data quickly from a combination of on-premise, public cloud, private cloud, and hybrid cloud storage environments. Savvy CIOs recognize that ever-changing business conditions, including sudden customer and market shifts, requires companies to be adaptable in order to respond quickly to changing business demands. This helps explain why the use of business intelligence and analytics continue to represent the top opportunity for CIOs to partner successfully with fellow business leaders.

As part of this, business leaders require business models that protect technology investments and don't require a forklift replacement of infrastructure to stay modern. Companies that have switched to high-performance flash systems have gained this flexibility and are seeing dramatic improvements in worker productivity, speed to insights, and greater value from their data sets.



Next Steps

The amount of data being generated by companies and consumers each day is astounding. IDC estimates that by 2020, business-to-business and business-to-consumer transactions conducted over the Internet will reach 450 billion per day.

While the growth in data volumes is striking, ultimately, it's about getting the right data into the hands of the right people at the right time to drive effective decision-making and business performance. For CIOs who partner with the business to execute effective data strategies, this includes utilizing the right technologies to eliminate data bottlenecks in the enterprise.

One of the common characteristics of data-driven companies is that they align their data strategies with the organization's top business and operational goals to optimize performance. CIOs and other decision-makers can draw from these objectives to determine the most effective data storage platform to help achieve those goals.

"Think about the types of data that your company's decision-makers need immediate access to in order to execute on business objectives," said Khan. "This will help determine the type of data storage platform your organization needs to have in place."

The shifting dynamics of the business environment are also prompting executives to apply fresh IT/business investment justification metrics that extend beyond traditional ROI measures, particularly as business progress is now measured in terms of speed to innovation, speed to execution and speed to market. "Organizational leaders have a need for speed – speed to decisions, speed to innovation, speed to market -- in order to compete in today's fast-paced business environment," said Stewart. "To meet these requirements, companies increasingly need to invest in automation and optimized data access capabilities."

As businesses strive to become more agile and responsive to customer and market shifts, data management investments need to be looked at through the lens of where the business is going. In the digital business era, success hinges on two critical components: making data more accessible to obtain deeper insights, to continually improve operational execution, and to push business performance to new heights. And partnering with technology providers that can match the speed of the business with effective technology and consumption models.

About Pure Storage

Pure Storage (NYSE:PSTG) helps customers build a better world with data. The Pure Storage Data Platform, powered by all-flash storage, offers a simpler, more effective, and more flexible solution for cloud infrastructure and data-rich applications like artificial intelligence, machine learning and big data analytics. With Satmetrix-certified NPS performance in the top 1% of B2B companies, Pure has an ever-expanding range of customers who are some of the happiest in the world.

About HMG Strategy

HMG Strategy is the world's foremost provider of pioneering networking events and thought leadership to support the 360-degree needs of CIOs, CISOs, and other technology executives. HMG Strategy's regional CIO and CISO Executive Leadership Series, newsletters, authored books, and Resource Center deliver proprietary research on leadership, innovation, transformation, and career ascent. The HMG Strategy global network of 300,000-plus senior technology executives, industry experts and world-class thought leaders is the strongest, most trusted network of executives. Additionally, partnerships with the world's leading search firms provide vital insights into the evolving role of the CIO and CISO.