

ESG SHOWCASE

IBM FlashSystem 5200:

Innovation Tailored to the Needs of Young and Midmarket Businesses

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ABSTRACT: The digital economy is having an impact on organizations of every size, requiring even young, small, or mid-sized businesses to maximize the value of their data. The IBM FlashSystem 5200 is a system tailored from the ground up just for these businesses. It can deliver a potentially transformational level of value to address the storage needs of mid-sized businesses, young enterprises, and edge locations.

Overview

Data, information technology, and the strategic initiatives that they each support are essential to the success of business today. Organizations of nearly every size and type, across nearly every industry, have embarked on digital transformation activities. They are leveraging advanced technology and their valuable data to become more operationally efficient, better engage with customers, and open up new business opportunities.

According to ESG research, 98% of midmarket and enterprise organizations report that they are in some phase of digital transformation, and midmarket organizations are nearly as likely as their enterprise counterparts to identify as being mature in their digital transformation efforts (21% versus 22%).¹

In the past year, the percentage of mid-sized organizations that identified as being “in progress” in their digital transformation jumped from 36% to 48%, and the percentage that identified as being “mature” almost doubled, from 11% to 21%. The challenges of 2020 likely provided these organizations with further motivation to pursue digital business initiatives—62% of IT executives working in midmarket organizations agreed that the COVID-19 pandemic has made their companies and employees more reliant on technology.²

Therefore, midmarket organizations that want to compete and thrive in their industries must maximize the value of their data and the technology that stores, protects, and secures that data. Younger enterprises and mid-sized organizations need technologies tailored to their specific needs—technology that helps them maximize the potential of their data and digital initiatives while controlling for costs and operational efficiency.

The IBM FlashSystem 5200 is a system built from the ground up to offer the latest integrated technical advances in a form-factor optimized for younger enterprises, mid-sized organizations, and edge deployments. It is powerful enough to stand alone, while also able to fit seamlessly into a larger IBM ecosystem.

¹ Source: ESG Research Report, [2021 Technology Spending Intentions Survey](#), December 2020. All ESG research references and charts in this showcase have been taken from this research report unless otherwise noted.

² Source: ESG Research Report, [The Impact of the COVID-19 Pandemic on Remote Work, 2020 IT Spending, and Future Tech Strategies](#), June 2020.

Addressing the Data Storage Needs of Modern Businesses

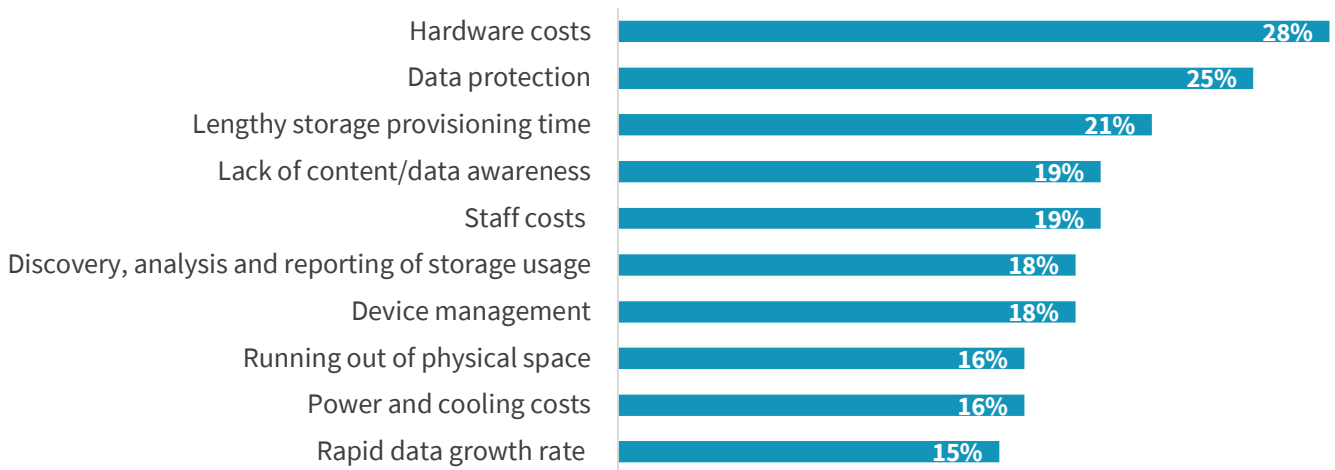
ESG research presents a deeper look into the effect of the rise of digital business initiatives on IT organizations and storage infrastructures within mid-sized organizations. The needs of smaller (and possibly younger) organizations are in some ways more advanced/extreme than those of larger, more established counterparts. The digital-business demands and the need to secure and protect the data are just as essential, but budgets and personnel are often in shorter supply—requiring the business to be more reliant on technology and smarter about what technology they leverage.

The challenges of IT have evolved in recent years. Seventy-two percent of IT decision makers working in midmarket organizations believe IT is more complex now than it was just two years ago, and 34% of those midmarket organizations identified new security and privacy regulations as a top driver of that increased complexity. Another 33% identified higher data volumes as a complexity driver. And 30% reported to ESG that they have a major digital transformation initiative underway to use technology to change the way they operate as a business.

IT complexity almost invariably includes storage-specific challenges. As Figure 1 shows, the need to keep costs under control is a common challenge, as is the need to reduce the cost and time associated with operations.³

Figure 1. Top Ten Block Storage Challenges for Midmarket Organizations

In general, what would you say are your organization’s biggest challenges in terms of its on-premises storage environment, for block storage environments? (Percent of respondents, N=68, five responses accepted)



Source: Enterprise Strategy Group

The IBM FlashSystem 5200

Enter the IBM FlashSystem 5200: It offers capacities starting at 38.4 TB and supports four-way clustering to scale capacity *and* performance. Notably, this is a 1U system, which is much easier for one person to install than heavier 2U systems. That feature should appeal to smaller companies that don’t have a lot of available IT staff. It is also a pertinent advantage for deployments in edge environments, where just one IT admin would be needed onsite to perform the installation.

The FlashSystem 5200 is imbued with the latest advancements in high-performance storage technology, such as NVMe-based IBM FlashCore and storage-class memory (SCM). It also supports all-flash and hybrid flash configurations. According to IBM, the FlashSystem 5200 offers 66% more performance than predecessor systems: 1.5 million IOPS per system and 40% more throughput—21GB/sec per system.

³ Source: ESG Master Survey Results, [2019 Data Storage Trends](#), November 2019.

According to IBM's measurements, a FlashSystem 5200 with only three NVMe FlashCore Modules provides the same performance as a FlashSystem 5030 with 24 SAS SSDs—at a *reduced cost*. According to IBM's own VDBench (I/O workload generator) measurements, this system delivers 200,000 IOPS when supporting a 70/30/50 workload mix, which is a good representation of an average workload.

The FlashSystem 5200 also offers essential enterprise-level data protection and security capabilities, with six-nines availability, high-availability configurations (with high availability, an organization can arrange to receive a 100% data availability guarantee), multi-site replication, data reduction and encryption, and integration with VMware and Red Hat OpenShift Container Platform.

As part of the FlashSystem family, the 5200 offers a common management approach and API. It comes with integrated IBM Spectrum Virtualize software to virtualize heterogeneous storage environments. That means data center and edge locations all use the same storage software—they're just different-sized systems that all work the same way. The 5200 also integrates with IBM Storage Insights for AI-based monitoring, predictive analytics, and proactive support.

The key business-level benefits of the FlashSystem 5200 include:

- **Density without compromise**—As a 1U storage system, the 5200 can serve as the centerpiece for a consolidated storage infrastructure. Thanks to the system's Easy Tier capabilities and its integrations with VMware and Red Hat OpenShift, organizations can consolidate multiple applications on the FlashSystem 5200 while ensuring performance and availability.
- **Cost-effective performance**—The 5200 offers the latest in advanced performance (i.e., proprietary NVMe IBM storage technology that is more advanced, denser, and more capable than off-the-shelf SSDs). Such performance ensures that midsized organizations can consolidate their application environments without negatively impacting performance, while also maintaining headroom to support future growth. Essentially, the 5200 is a viable, cost-effective alternative to SAS-based all-flash arrays that makes NVMe-level speed affordable at the entry level.
- **Future-proof scale and flexibility**—The 5200 can scale up and scale out. Scale is not only about capacity, but also about adding performance as business demands grow. Digital-centric midsized and younger organizations often grow at a faster rate, and they need greater flexibility in terms of scale.
- **Transformational simplicity that allows organizations to do more with less**—It is possible to transform an entire data center with Spectrum Virtualize software, integrated as part of the 5200. Leveraging Spectrum Virtualize, the 5200 can virtualize and consolidate any pre-existing storage systems in an environment under one common set of management features. As a result, the FlashSystem 5200 enables midmarket organizations to embrace the latest technology while also integrating their existing storage assets (rather than ripping them out and replacing them).

The Bigger Truth

Midmarket companies today are pulling in huge amounts of data, often from the edge. They're starting to do inventory tracking and a range of other interesting work tied to leveraging data. But the amount of data they are accumulating and the number of places they are sharing that data are both growing. These smaller and younger organizations don't want to have to administer and manage and think about storage too much. They tend to strive for simplicity. The IBM FlashSystem 5200 meets those needs.

Too many organizations still don't see IBM as a player in the midmarket space. When they think of IBM, they envision big boxes, Watson, cloud IT, and so on. And they believe that if they do get something from IBM meant to suit a smaller

company's needs, it will be a product with its guts stripped out and cut down to the bare minimum to squeeze it into the right price bracket. *The 5200 isn't that at all.* It is a brand-new offering designed from scratch to meet the needs of the midmarket space, not a watered-down version of a giant box.

These days, the ability to be agile and do things such as use AI capabilities to manage applications is compelling. Midsized organizations shouldn't be held down by legacy infrastructure. They need a modern, open storage infrastructure environment that gives them a competitive advantage. Instead of buying 20 boxes, they can buy just one that possesses an incredible level of density and consistent management features that will enable them to easily support their applications. The FlashSystem 5200 gives smaller and younger organizations one less thing to worry about as they go forward and grow.

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