

# MIDRANGE STORAGE COMES OF AGE AS RISING REQUIREMENTS MEET NEW CAPABILITIES

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# Midrange Storage Comes of Age as Rising Requirements Meet New Capabilities

## Introduction

Change is a constant in IT. Customers are becoming more digital, data is growing exponentially, architecture and operations are more complex, and the pace of change is accelerating. Compounding the pressure, businesses are imposing more aggressive requirements on IT and demanding faster responses, and midsize organizations are being especially hard hit. Service-level requirements have risen to levels nearly as challenging as in the largest organizations, but midsize companies often lack the large staff and specialized IT operations teams of their larger counterparts.

IDC research shows that the greatest determinant for success in this environment is a "digital first" approach focused on integrated applications, data, and analytics. This digital-first approach has elevated data integration and storage infrastructure to center stage. The new high-performance, midrange storage systems are designed to deliver the advanced capabilities of high-end systems while streamlining and simplifying deployment, ongoing operations, and ability to change to respond as business conditions and application workloads evolve.

## Situation Overview

IDC predicts that 65% of global GDP will be digitalized by 2022 and that there will be \$68 trillion of direct investment in digital transformation (DX) from 2020 through 2025. As a result, half of all companies will generate more than 40% of their revenue from digital products and services by 2023, compared with one in three companies in 2020.

This is putting pressure on companies of all sizes and in all industries to improve and transform their digital infrastructure and overall IT service delivery to function effectively across supply chain, workforce, partners, go to market, and customer experience. IDC's *WW Wave 11 Survey 2020* (n = 924) shows that this is being reflected in the overall focus on the leading digital business priorities:

- Becoming a digitally transformed software-driven enterprise
- Analytics and insights-driven decision making
- Business operations resilience
- Connecting across workforce, partners, and operations

### AT A GLANCE

#### WHAT'S IMPORTANT

The digital requirements of midsize companies have become so demanding that the expectations of what IT needs to deliver now rival that of large enterprises. But they often lack the resources or expertise needed to build and run traditional enterprise IT infrastructure effectively.

#### KEY TAKEAWAYS

Look for midmarket IT infrastructure, and storage in particular, that has evolved to provide all the features and capabilities of enterprise offerings, while being simple enough to deploy and manage for an IT generalist.

As companies transition to real time in nature, this is raising expectation levels to keep systems up and running 24 x 7 x 365. Any slowdowns or outages can cause customers to quickly consider a change of supplier. Any issues that do emerge — and this is particularly true of security breaches — can quickly enter the news or social media cycle with significant potential to cause long-term damage to brand and reputation.

This demonstrates that agility, scalability, and resilience matter more than ever. Success here requires IT leaders to have direct accountability for the resilience strategy and to better understand business requirements through more direct engagement with business stakeholders.

IDC research shows that companies that embrace digital technologies as a core part of their overall strategy are best placed for long-term success and are able to outgrow the market and better identify new opportunities for innovation. To underscore this, IDC predicts that by 2023, 55% of organizations will have expanded resilience plans to help future proof their businesses.

With this digital shift also comes a significant data dependency. Companies that can handle the complexity of collecting and analyzing an ever-growing mountain of data to mine rapid insights for optimized decision support are more able to identify and exploit opportunities than competitors.

Not all challenges stem from digitalization. The ongoing growth of data and complexity, coupled with rising availability requirements, legacy operations, and growing skills, is driving the increased need for AI-enabled intelligent automation and management to help deliver at scale.

Even simple data migrations can no longer be performed during an acceptable period of time. And the sheer number of simple, easy-to-deploy devices can still overwhelm operational staff if AI and ML automation aren't coordinated.

### *Midmarket Companies Have Complex Needs That Require Thoughtful Storage Solutions*

As midsize companies grow more dependent on their applications and data-driven insights, so too is there a growing business focus on improving the resilience of their digital operations to ensure that systems are secure and can scale effectively as demand for products or services peaks (source: *WW Wave 11 Survey 2020*, n = 924). This means that midsize companies have experienced a rise in more demanding storage requirements. As a result, they now need access to the same technologies, capabilities, and features that large enterprises have required from their storage infrastructure.

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### *Midmarket IT teams often lack the dedicated skills and specialists that larger enterprises can afford to build and operate.*

However, midmarket IT teams often lack the dedicated skills and specialists that larger enterprises can afford to build and operate. As a result, products developed for larger enterprises tend to be somewhat intimidating for midmarket companies that rely on a generalist approach to building and operating their IT infrastructure.

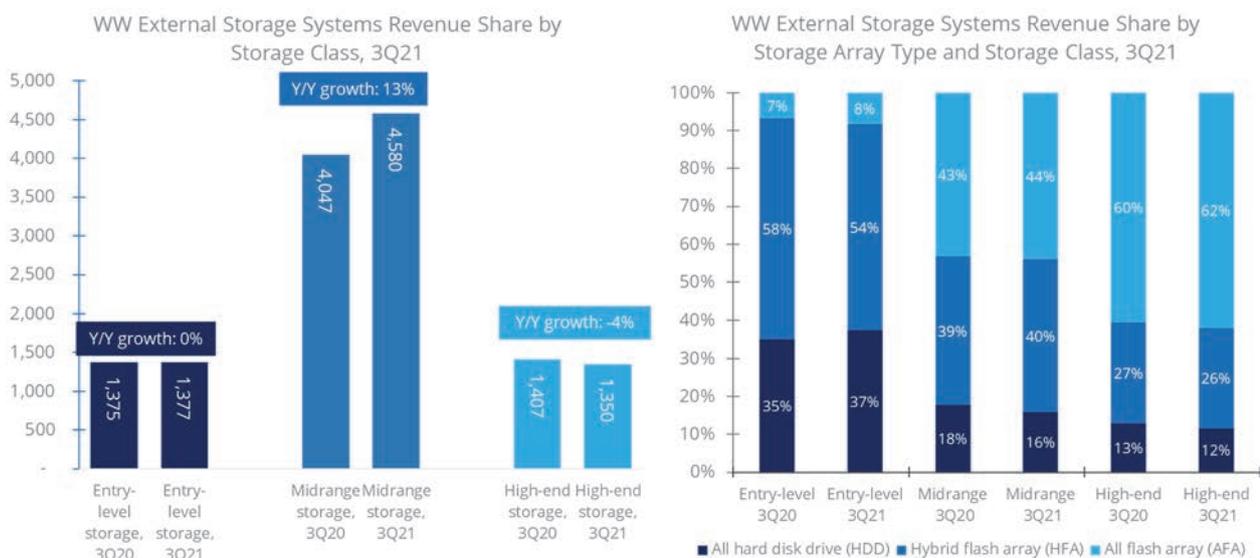
## Midrange Storage Tackles Underlying Complexity with Intelligent Assistance

Midrange storage has evolved to meet the needs of midsize companies. The state of the art is now a fully featured, high-performing, scalable, secure, and resilient storage infrastructure that is coupled with significant improvements in management and automation. This makes it easier for a midsize company with mainly IT generalists to deploy, integrate, and manage.

The growing demand, coinciding with the increase in performance and manageability, means that midrange storage is the sweet spot of the external storage systems market. Midrange storage (systems valued at \$25,000 to less than \$250,000) has made up a bigger segment of the market than both entry-level (less than \$25,000) and high-end (\$250,000 or more) segments combined since 2014.

A large part of the recipe for success for midrange storage systems is that they have a wide array of storage features, performance, and capabilities, but are also more flexible in configuration. They can take on many of the workloads that previously only high-end storage systems could handle. With the move to modern, cloud-native workloads this trend will continue to accelerate.

FIGURE 1  
The Shift to Midrange Storage Systems Accelerates



Source: IDC Quarterly Infrastructure Trackers, January 2022

The move to all-flash arrays (AFAs) is well underway, and midrange storage is no exception. In fact, there is a secondary migration happening as NVMe-native AFAs are being deployed in preference to SAS/SATA AFAs. However, there is still a lot of demand for high-capacity storage for workloads with lower performance requirements, and hard-disk based storage is still very much in demand. Having different architectures and management across storage types adds complexity and unnecessary overhead.

With a modern midrange storage system designed to take full advantage of NVMe but also able to incorporate HDDS and SATA/SAS SSDs, it's possible to have one storage architecture for configuration and management that can dramatically simplify storage operations.

## *Storage as a Service Can Help Deliver Benefits Today Without Draining Cash Reserves*

One of the critical aspects of traditional storage investment is predicting future needs and planning investment over a multiyear cycle and deciding when to commit to storage capacity to cover future needs. With new flexible consumption-based approaches, storage capacity predictions and the cash drain of upfront investment in future capacity needs can be reduced or eliminated as storage capacity is provided on a pay-as-you-use basis. The "as-a-service" approach shifts operational responsibilities and service-level commitments to the provider. The goal is to improve the quality of service while lowering the operational burden on staff. This shift achieves a "cloud-like" model for infrastructure resources and delivers the agility and flexibility that digital businesses need in erratic and unpredictable market conditions.

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## *Digital-first companies are embracing flexible consumption models as a way to sustain investment to deliver transformational IT and enhanced revenue growth, without breaking the bank.*

This approach is becoming increasingly popular, and the most digitally advanced companies are already embracing this as a way to sustain their IT infrastructure investment to deliver transformational IT and enhanced revenue growth, without breaking the bank.

## *Considering Hitachi Vantara VSP E Series*

Hitachi Vantara has long been a trusted provider of high-end storage systems with a reputation built on high performance and a 100% data availability guarantee. With the launch of the Hitachi Virtual Storage Platform E series (VSP E series), Hitachi Vantara brings this high-end heritage to midrange storage systems. The VSP E series features the same SVOS RF storage operating system that is trusted by Hitachi Vantara's largest enterprise customers to deliver class-leading low latency, IOPs, and bandwidth — but delivered in a package that suits midsize companies' capacity and budget requirements.

The VSP E series are fully featured storage systems, with integrated storage services that previously were the domain of high-end storage systems. These include 100% data availability, data reduction (deduplication and compression), storage virtualization, replication and copy data management, analytics and automated management, and non-disruptive migration. With storage virtualization capabilities, this automation enables many third-party arrays to also be integrated and managed alongside the VSP E series.

With a comprehensive set of storage services, ease of use is critical for the VSP E series. Hitachi Ops Center Clear Sight is an easy-to-use, cloud-based monitoring and management software solution that enables a "self-driving" storage management experience. Built-in predictive analytics slashes downtime and speeds up problem resolution. Automated data collection in Remote Ops strategically identifies needs in advance to create an efficient mitigation plan, while AI-driven insights give an on-demand, single-source view of operational and business metrics.

Backed by over 20 years of storage experience and more than 4,000 patents, Hitachi Vantara VSP storage systems are engineered to have no single points of failure and feature multiple levels of

redundancy — such as active-active controllers and metro clustering — and are extensively tested before release. They are engineered with proactive alerting to identify and resolve issues before they become outages. As a result, Hitachi Vantara can offer a 100% data availability guarantee across the VSP family, including the midrange VSP E series.

Building on these automation capabilities, non-disruptive migration is a key focus for Hitachi Vantara to enable midsize companies to easily move their data from existing storage systems to the VSP E series with an automated driven system that collapses a data migration from tens or hundreds of individual steps to fewer than 10, vastly simplifying the initial setup of a new storage system.

The VSP E series are designed as all-NVMe AFAs, to deliver fully on the potential of NVMe and storage class memory. They have also been engineered with intelligent tiering and data management to automatically support hybrid storage approaches integrating SATA/SAS SSDs and HDDs, enabling companies to easily tailor their storage performance and capacity to cater for their full range of workloads.

Hitachi Vantara also offers a full range of financial payment solutions for customers to choose from, including "X as a service" under the EverFlex brand. EverFlex offers a range of options for storage as a service, for example. The scope of service outcomes will fit almost any situation and requirement. Regardless of the scope of services or the type offering, all EverFlex offerings provide guaranteed SLAs and a simple, cost-effective way to move to "as a service."

### Challenges

Hitachi Vantara is an established provider of extremely-high-performance and high-reliability enterprise storage systems and has won a significant proportion of this market. Due to its high-end focus, it has relied on direct sales for more than half its storage business, while established midrange storage vendors typically rely on channel partners for around two-thirds to three-quarters of their storage sales. This may make it more challenging for customers to find a preferred partner that is able to sell, integrate, and support a midrange Hitachi Vantara VSP E series system.

### Conclusion

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Midmarket organizations are just as demanding as larger enterprises when it comes to IT infrastructure and storage. Due to their smaller, more generalist IT teams they need tailored midrange storage solutions that are designed to give high-end levels of performance and capabilities, and — critically — are also easy to integrate and operate without the need for dedicated teams with specialist skills.

Hitachi Vantara, with decades of experience as a leader in high-end storage, has developed a flexible and consistent virtual storage platform architecture based on SVOS RF, enabling the development of the midrange VSP E series. Sustained investment in enabling intelligent automation has brought a level of sophisticated simplicity to the series, making it a compelling proposition for midsize companies to consider for their storage needs.

## MESSAGE FROM THE SPONSOR

### About Hitachi Vantara

We guide you from what's now to what's next. By connecting our unmatched digital industrial capabilities with your data, we spark unparalleled competitive advantage that rapidly scales your digital business and propels society forward.

For us, it's not enough to ask, "What can we do?" Instead, we ask: "What can't we do together?"

Building on over 50 years of information technology innovation, 25 years of consulting expertise, more than 700 cloud migrations, deep vertical experience, and global partnerships, we take a holistic approach to infrastructure, data, and application modernization. Our experts will guide you on your modernization journey to make smart decisions, drive faster results, and achieve your desired business outcomes.

Learn more about Hitachi Vantara midrange storage solutions [here](#).

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## About the Analyst

[Andrew Buss](#), Research Director, European Infrastructure Strategies



Andrew Buss is based in London and is responsible for driving IDC's research covering present and future trends impacting servers, storage, networking, and IT service delivery. Central to this is understanding how on-premises IT is evolving under the emergence of open source, software-defined enterprise, multicloud adoption, and cloud-native development practices, and how this will impact everything from low-level silicon underpinnings and system design, to the design and integration of the different infrastructure components, to platform management and service delivery. His research focuses on understanding the convergence of different technologies and capabilities and how they need to integrate and work together to deliver efficient, effective, and agile IT services from the datacenter or cloud right through to the end user.

## About IDC

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