



Highlights

- Improve your business agility with flash storage and unique heterogeneous data services
 - Optimize data economics with a powerful combination of flash and storage virtualization
 - Accelerate critical business insight with all-flash performance to improve core application response times
 - Improve utilization and efficiency with support for almost 400 different storage systems
 - Drive down total cost of ownership with dramatically reduced price per GB in flash drives that are four times¹ as dense
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IBM Storwize all-flash storage systems

Advanced performance with cost-effective flash solutions

Simplify overall IT infrastructure, ease management with all-flash VersaStack converged infrastructure. Today's organizations need to meet ever-changing demands for storage while also improving data economics. IT staff must deliver more services faster and more efficiently, enable real-time insight and support more customer interaction. Better than ever before, all-flash storage solutions from IBM® Storwize® can meet your requirements for fast, reliable and consistent access to data with extraordinary affordability.

The IBM Storwize family offers IBM Storwize V7000F and IBM Storwize V5030F solutions as all-flash, virtualized, enterprise-class storage systems designed to deliver high performance combined with advanced management functions and competitive pricing.

Application workloads vary dramatically from one business to the next, and even among various groups or organizations within a single company. Many organizations have data sets and resulting storage requirements that might be described as midsized. Quite often these same organizations labor under limited IT budgets. The IBM Storwize family is designed specifically to meet the unique data storage requirements of business groups or organizations with midsized application workloads and constrained IT budgets but that need storage with all the features and capabilities demanded in the largest of enterprise environments.

21st century organizations with midsized application workloads and limited budgets are seeking to gain competitive advantage from the data assets available to them. The IBM Storwize family provides especially powerful solutions for these organizations. With comprehensive storage services and virtualization capabilities based on market-leading



IBM Spectrum Virtualize™ technologies, IBM Storwize offers feature-rich, affordable storage solutions for the cognitive business looking to grow and thrive. When further integrated with server and networking, clients can take advantage of overall IT simplicity and tremendous savings. VersaStack, a converged infrastructure solution by IBM and Cisco, integrates IBM Storwize solutions with Cisco Unified Computing (UCS) system to deliver extraordinary levels of simplicity and ease.

High performance

The all-flash Storwize solutions deliver both high performance and dramatically improved data economics. They help accelerate multiple workloads for faster decision making with best-of-breed performance. The solutions are most often deployed to support high-performance enterprise applications, such as databases like IBM DB2®, Oracle and SAP, as well as virtual desktop infrastructure (VDI) and server virtualization.

Efficiency

IBM Spectrum Virtualize software is designed to deliver extraordinary levels of efficiency, helping to revolutionize data economics and drive down costs for cloud, analytics, virtual server and other enterprise-class deployments. As a result, organizations no longer need to choose between performance and efficiency. They can get both within a single storage solution.

IBM Real-time Compression™ with hardware acceleration, available in Storwize V7000F, enables the system to deliver higher performance for compressed data than traditional systems offer for uncompressed data. Real-time Compression increases Storwize V7000F usable capacity by up to five times.¹ The benefits include reduced acquisition cost (because less hardware is required), reduced rack space, and lower power and cooling costs throughout the lifetime of the system. And, when combined with external data virtualization, the power of Real-time Compression can be extended to existing storage systems, increasing their useful life.

When replicating block data for business continuity, Storwize V7000F and Storwize V5030F can use IP network connections for simplicity and lower cost. Integrated Bridgeworks WANrockIT technology helps improve network utilization up to three times compared with traditional approaches,¹ which can help reduce networking costs as well as accelerate replication cycles.

Data virtualization

IBM Spectrum Virtualize data virtualization technology enables applications to run without disruption, even when changes are made to the storage infrastructure.

IBM Spectrum Virtualize capabilities can also be extended to other storage systems. When virtualized, data in a storage system becomes part of the Storwize system, and it can be managed in the same way as internal drives. Data in external systems inherits all the Storwize functional richness and ease-of-use features, including advanced replication, high-performance thin provisioning, data migration and Real-time Compression. Virtualizing external storage helps improve administrator productivity and boost storage utilization while also enhancing and extending the value of existing storage investments.

Moving data is one of the most common causes of planned downtime. Data virtualization enables agile data movement between existing storage or into a new array, while data access is maintained. This function might be used when replacing older storage with newer storage, as part of load-balancing work or when moving data in a tiered storage infrastructure from disk drives to flash.

Data virtualization can improve efficiency and business value. Nondisruptive migration can speed time-to-value from weeks or months to hours or even minutes, minimize downtime for migration, eliminate the cost of add-on migration tools, and help eliminate additional maintenance charges for lease extensions. The result can be real cost savings for your business.

High availability

Clients are increasingly deploying virtualized servers using IBM PowerVM®, VMware and other technologies in high-availability configurations. IBM HyperSwap® functionality enables a single Storwize V7000F or Storwize V5030F system to support servers in two data centers. In this configuration, the solution allows servers at both data centers to access data concurrently. When combined with server data mobility functions such as VMware vMotion or PowerVM Live Partition Mobility, IBM HyperSwap enables nondisruptive storage and virtual machine mobility between data centers, up to 300 km (186 miles) apart.

Increased affordability

IBM Storwize V7000F and V5030F have now added a new category of solid-state drives (SSDs) to their configuration options. The new flash drives help lower Storwize deployment costs, offering extraordinary cost benefits for essentially any storage use case where the volume and the velocity of business-critical data is increasing exponentially.

Protect your most valuable asset—your data

To help protect sensitive data from unauthorized users, Storwize V7000F and Storwize V5030F give IT teams the full power of storage encryption. IBM Spectrum Virtualize software includes encryption capabilities in its management layer that enable organizations to add encryption across their existing heterogeneous storage arrays, while leveraging a single point of control for encryption throughout the storage layer.

Ease of use

Storwize V7000F and Storwize V5030F are designed to be easy to use from the very start. The innovative Storwize management interface enables administrators to easily manage any storage task. In fact, studies confirm that tasks performed using the Storwize GUI are almost half as time-consuming as when using a competitor's system.²

IBM Spectrum Control™, a member of the industry-leading IBM Spectrum Storage™ family of software-defined storage solutions, can provide organizations with an end-to-end view of storage health, long-term performance analytics and capacity statistics for Storwize V7000F, Storwize V5030F and the surrounding storage infrastructure.

What's more, IBM Spectrum Virtualize technologies—including Real-time Compression and IP replication with Bridgeworks WANrockIT technology—operate automatically and require little or no customization.

Dependability

Storwize V7000F and Storwize V5030F are part of the proven IBM Storwize family, with more than 90,000 enclosures and 2 exabytes of capacity deployed in organizations worldwide.

With their virtualized storage design and tight affinity with PowerVM, OpenStack, Microsoft ODX, VMware vSphere v6 and VMware vSphere Virtual Volumes (VVOL), Storwize V7000F and Storwize V5030F are an ideal complement for virtualized servers that are at the heart of cloud deployments.

Choosing Storwize all-flash storage

How do you know which Storwize all-flash storage solution is right for you? Options include:

- **IBM Storwize V7000F** is an all-flash, highly scalable, virtualized, enterprise-class storage system designed to consolidate workloads into a single system for ease of management, reduced costs, superior performance and high availability.
- **IBM Storwize V5030F** is an all-flash storage system for smaller configurations, offering the same highly flexible, easy-to-use, virtualized storage designed to overcome midsized application workload challenges with superior performance and advanced functionality.

Additionally, Storwize solutions are pre-integrated with server and networking systems. VersaStack is a converged solution where server, storage and networking are pre-integrated to simplify IT and help accelerate innovation. The solution is jointly offered by IBM and Cisco.

ISV support

IBM is committed to continuous improvement and virtually seamless application integration to optimize your business results and minimize time-to-value. Our commitment is demonstrated through our enduring partnerships with independent software vendors (ISVs) such as Microsoft, Oracle, SAP, Symantec and VMware.

Combining Storwize systems with leading ISV applications can provide increased flexibility and deliver a more robust information infrastructure for your business. Solutions have been qualified for Storwize systems for backup/restore, high availability, server virtualization, and database and performance optimization, among others. IBM is also committed to certifications with key ISVs aligned with various industries including healthcare, financial services, telecommunications and the public sector.

Why IBM?

The Storwize family of products from IBM is known for providing efficiency, flexibility and high-performance storage for any type of workload. IBM storage offerings customized for small, midsized and large organizations are specifically designed to deliver performance in streamlined packages that are easy to buy, deploy and manage.

For more information

To learn more about IBM Storwize all-flash storage systems, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/systems/storage/storwize/all-flash

Additionally, IBM Global Financing provides numerous payment options to help you acquire the technology you need to grow your business. We provide full lifecycle management of IT products and services, from acquisition to disposition. For more information, visit: ibm.com/financing



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Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.

¹ Based on IBM lab measurements

² Edison Group, "Competitive Management Cost Study: IBM Storwize V7000 vs. EMC VNX5500 Storage Systems," April 2012. http://www.lighthousecs.com/_resources/common/userfiles/file/V7000.pdf



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