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## Highlights

- Easily manage and deploy storage using a breakthrough graphical user interface
  - Gain efficiency with internal storage virtualization and high-performance thin provisioning
  - Have continuous access to data with integrated nondisruptive migration
  - Improve network utilization for remote mirroring with innovative replication technology
  - Optimize costs for mixed workloads, with up to three times performance improvement with only five percent flash storage capacity using IBM® Easy Tier®<sup>1</sup>
  - Comply with Network Equipment Building System (NEBS) Level 3 and European Telecommunication Standards Institute (ETSI) specifications
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# IBM Storwize V3700

*Easy-to-use, affordable storage with advanced capabilities for small and midsized businesses*

In the era of cloud, big data and analytics, and mobile and social computing, organizations need to meet ever-changing demands for storage while also improving data economics. IT must deliver more services faster and more efficiently, enable real-time insight and support more customer interaction. The right infrastructure allows clients to share information, secure transactions and drive real-time insights.

Built with IBM Spectrum Virtualize™ software, the IBM Storwize® family, including IBM Storwize V3700, helps organizations achieve better data economics by supporting these new workloads that are critical to their success. Storwize family systems can handle the massive volumes of data from mobile and social applications, enable rapid and flexible cloud services deployments, and deliver the performance and scalability needed to gain insights from the latest analytics technologies.

IBM Storwize V3700, the entry-level system in the IBM Storwize family, is an efficient, easy-to-use hybrid system designed to complement virtual server environments while delivering flexibility and innovative storage functions provided by IBM Spectrum Virtualize.

To help address block storage requirements, Storwize V3700 is designed to provide small and midsized organizations with the ability to consolidate and share data at an affordable price, while leveraging advanced software capabilities usually found in more expensive systems. Providing up to 240 drives of capacity or 960 TB of physical storage, Storwize V3700 delivers proven ease of management, functionality and interoperability.



## Simplify management

Storwize V3700 comes with an easy-to-use management interface based on the breakthrough Storwize family graphical user interface (GUI). With dynamic and customizable views, the interface is designed to give administrators intuitive control of the system, while interactive menus, tabs and charts can also help improve productivity.

An application provides monitoring capabilities to securely check the health and performance of the system remotely from a mobile device. The built-in performance dashboard provides at-a-glance access to key high-level real-time system performance information.

## Optimize efficiency

Using thin provisioning, applications consume only the space they are actually using, versus the total space that they have been allocated. Designed to keep business overhead low, thin provisioning optimizes efficiency by allocating disk storage space in a flexible manner among multiple users, based on the minimum space required by each user at any given time. This can help organizations save power, lower heat generation and reduce hardware space requirements.

## Improve performance

Automated storage tiering with IBM Easy Tier, an optional function for Storwize V3700, is designed to help improve performance at lower cost through more efficient use of flash storage or multiple types of disk drives. Easy Tier automatically and dynamically moves the appropriate data across storage tiers to meet performance objectives at the most reasonable cost by identifying and moving less-frequently accessed data to the most economical drive tier without sacrificing performance. Similarly, frequently accessed data for busy workloads is automatically migrated to faster storage such as flash to ensure lower response times for those applications that need it. Using Easy Tier, you can improve performance up to three times with only five percent flash storage capacity.<sup>1</sup>



Storwize V3700 also includes storage pool balancing that operates automatically to distribute data across arrays in a pool to deliver balanced array performance and help eliminate the need for manual tuning. The function is sensitive to different drive types and takes their capabilities into account with no intervention required.

## Protect data

Storwize V3700 includes IBM FlashCopy® technology, which is designed to create an almost-instant copy of active data that can be used for backup purposes or for parallel processing activities.

In addition, the optional remote mirroring function enables organizations to create copies of data at remote locations for disaster recovery. Metro Mirror supports synchronous replication at distances up to 300 km, whereas Global Mirror supports asynchronous replication up to 8,000 km. Replication can occur between any Storwize family systems, and can include any supported virtualized storage. Remote mirroring works with Fibre Channel, Fibre Channel over Ethernet (FCoE) and IP (Ethernet) networking between sites. With IP networking, Storwize V3700 uses innovative Bridgeworks SANrockIT technology to optimize use of network bandwidth. As a result, the networking infrastructure may require lower speeds (and thus, lower costs), or users may be able to improve the accuracy of remote data through shorter replication cycles.

<b>IBM Storwize V3700 hybrid system at a glance</b>	
<b>Host interface</b>	1 Gbps iSCSI and 6 Gbps SAS (optional 8 Gbps Fibre Channel, 1 Gbps iSCSI, 6 Gbps SAS or 10 Gbps iSCSI/ Fibre Channel over Ethernet)
<b>User interface</b>	Storwize V3700 graphical user interface
<b>Single/dual controller</b>	Dual controller
<b>Cache per controller</b>	4 GB upgradable to 8 GB
<b>Drive type</b>	Dual-port, hot-swappable 6 Gb SAS disk drives
<b>Supported drives</b>	<p>Small form-factor 2.5-inch disk drives:</p> <ul style="list-style-type: none"> <li>• 1 TB and 2 TB at 7.2k rpm SAS nearline</li> <li>• 600 GB, 900 GB, 1.2 TB and 1.8 TB at 10k rpm</li> <li>• 300 GB and 600 GB at 15k rpm</li> </ul> <p>Large form-factor 3.5-inch disk drives:</p> <ul style="list-style-type: none"> <li>• 2 TB, 3 TB, 4 TB, 6 TB and 8 TB at 7.2k rpm</li> <li>• 900 GB, 1.2 TB and 1.8 TB at 10k rpm (2.5-inch drive in a 3.5-inch drive carrier)</li> <li>• 300 GB and 600 GB at 15k rpm (2.5-inch drive in a 3.5-inch drive carrier)</li> </ul> <p>2.5-inch flash drives:</p> <ul style="list-style-type: none"> <li>• 200 GB, 400 GB, 800 GB, 1.6 TB and 3.2 TB</li> </ul>
<b>Maximum drives supported</b>	240 drives per system
<b>RAID levels</b>	RAID 0, 1, 5, 6, 10, and distributed
<b>Fans and power supplies</b>	Fully redundant, hot-swappable
<b>Rack support</b>	Standard 19-inch rack-mount enclosure*
<b>Management software</b>	Storwize V3700 machine code
<b>Advanced functions included with each system</b>	Internal virtualization, thin provisioning, one-way data migration and FlashCopy (up to 64 targets)
<b>Optional licensed functions</b>	FlashCopy upgrade (up to 2,040 targets), Easy Tier, Remote Mirror and turbo performance
<b>Warranty</b>	<ul style="list-style-type: none"> <li>• 3-year limited warranty</li> <li>• Customer-replaceable units</li> <li>• On-site service</li> <li>• Next-business-day 9x5</li> <li>• Service upgrades available<sup>†</sup></li> </ul>
<b>Supported systems</b>	For a list of currently supported servers, operating systems, host bus adapters, clustering applications and SAN switches and directors, refer to the IBM System Storage Interoperation Center at: <a href="http://ibm.com/systems/support/storage/config/ssic">ibm.com/systems/support/storage/config/ssic</a>
<b>ISV solutions</b>	For a list of high-quality solutions with our partner ISVs, including access to solution briefs and white papers, refer to the ISV Solutions Resource Library.
<b>Size, operating environment and heat dissipation</b>	For more information on size, operating environment and heat dissipation visit: <a href="http://ibm.com/storage/storwizev3700">ibm.com/storage/storwizev3700</a>



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Statements regarding IBM’s future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

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

\* To assure installation and serviceability in non-IBM industry-standard racks, review the Storwize V3700 publications for any product-specific installation requirements.

† Warranty service upgrades via IBM ServicePac® and maintenance agreements.

<sup>1</sup> IBM lab measurements – August 2010.



Please Recycle

Distributed RAID technology helps improve data availability by allowing data to be distributed across more physical drives that are used simultaneously, achieving faster rebuild time. Additionally, this technology can also deliver increased performance, since data can be read from/written to more drives for a given I/O.

## Avoid disruptions

Storwize V3700 includes a dynamic data migration function that is designed to move data from existing block storage into the new system while maintaining user access to data. The data migration function might be used, for example, when replacing older storage with newer storage, as part of load-balancing work.

## Leverage proven ISV solutions

IBM is committed to the continuous improvement and seamless application integration of IBM systems to optimize your business results and time to value. Our commitment is evident through our ongoing work and enduring partnerships with independent software vendors (ISVs) such as Microsoft, Oracle, SAP, Symantec and VMware.

IBM Spectrum Virtualize software in V3700 provides advanced storage functions that enable VMware vSphere Virtual Volumes (VVOL) and support the latest capabilities in key operating environments including Microsoft ODX and VMware vSphere v6.

## Why IBM?

The Storwize family of products from IBM, a recognized leader in the storage industry, is known for providing efficiency and high-performance storage for any type of workload. IBM storage offerings, customized for small and mid-sized 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 the IBM Storwize V3700 hybrid system, please contact your IBM representative or IBM Business Partner, or visit the following website:

[ibm.com/systems/storage/disk/storwize\\_v3700](http://ibm.com/systems/storage/disk/storwize_v3700)

