IBM® STORWIZE® V3700

Advanced Capabilities for SMB

ENTERPRISE-CLASS SOLUTION

Data has become the new currency of business, their most critical asset. But organizations often spend too much money and time managing where their data is stored. The average firm purchases 24 percent more storage every year[1], but uses less than half of its capacity[2]

The right infrastructure allows clients to shift spending and invest in projects that improve business results. The infrastructure must ensure the most value from data at the least cost with the least effort and the greatest flexibility.

Building an effective infrastructure starts with software-defined storage, which frees data from the physical storage and provides better access to applications. Software-defined storage helps make an infrastructure simple, easy to manage and more responsive to changing business needs. The IBM® Storwize® V3700 Storage System, the entry-level system in the Storwize family, is an efficient, easy-to-use system designed to complement virtual server environments while delivering flexibility and innovative storage functions.

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, Storwize V3700 delivers proven ease of management, functionality and interoperability.

SIMPLIFIED 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[3].

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

IBM® 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 SANSlide 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.

AVOID DISRUPTIONS

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LEVERAGE PROVEN ISV SOLUTIONS

Lenovo is committed to the continuous improvement and seamless application integration of disk 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.

WHY LENOVO ENTERPRISE STORAGE

Lenovo is the leading provider of x86 systems for the data center. The portfolio includes rack, tower, blade, dense and converged systems, and supports enterprise class performance, reliability and security. Lenovo also offers a full range of networking, storage, software and solutions, and comprehensive services supporting business needs throughout the IT lifecycle.

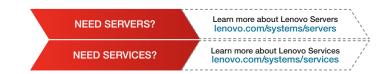| FEATURE	BENEFITS
Graphical user interface (GUI)	Enhance IT productivity with an easy-to-use GUI and point-and-click system management capabilities
IBM Systems Director	Provide integrated management for physical and virtual server infrastructures, including monitoring and repairing for higher availability and operational efficiency
Distributed RAID	Improves data protection and availability with significantly smaller rebuild time
IBM FlashCopy	• Create a near-instant copy of active data that can be used for backup or for parallel processing activities; support backup for recovering corrupted data • Make better use of space with incremental or space-efficient (thin-provisioned) snapshots
Thin provisioning	• Support business applications that need to grow dynamically, while consuming only the space actually used • Use available storage across supported host platforms to improve storage utilization
Data migration	Provide efficiency and business value in a non-disruptive migration function
IBM Easy Tier	Provide automatic migration of frequently accessed data elements among tiers of storage, including flash
Metro Mirror and Global Mirror	• Allow synchronous or asynchronous data replication between any Storwize family system for maximum flexibility and backup efficiency • Help optimize the use of network bandwidth with IP replication and Bridgeworks SANSlide technology
Turbo performance	Increase system maximum input/output operations per second (IOPS) by 50 percent and maximum throughput by 100 percent‡
DC-powered models	Meet the telecommunication standard -48 V dc power source requirement
NEBS Level 3 and ETSI compliance	Improve resiliency in the most intense and harsh environments

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PRODUCT SPECIFICATIONS

Part number	6099L2C - Storwize V3700 3.5" Storage Controller Unit 6099LEU - Storwize V3700 3.5" Storage Expansion Unit 6099S2C - Storwize V3700 2.5" Storage Controller Unit 6099SEU - Storwize V3700 2.5" Storage Expansion Unit 6099T2C - Storwize V3700 2.5" DC Storage Controller Unit 6099TEU - Storwize V3700 2.5" DC Storage Expansion Unit
Host interface	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)
Single/dual controller	Dual controller
RAID levels	RAID 0, 1, 5, 6 and 10 Supports Distributed RAID 5 and 6 (requires 8 GB/node cache)
Fans and power supplies	Fully redundant, hot-swappable
Rack support	Standard 19-inch rack-mount enclosure*
Advanced functions included with system	Internal virtualization, thin provisioning, one-way data migration and FlashCopy (up to 64 targets), IP Replication acceleration, Bridgeworks SANSlide technology
Warranty	3-year limited warranty with optional upgrades available
Optional licensed functions	FlashCopy upgrade (up to 2,040 targets), Easy Tier, Remote Mirror and turbo performance
Cache per controller	4 GB upgradable to 8 GB
Drive type	Dual-port, hot-swappable 6 Gb SAS disk drives
User interface	Storwize V3700 graphical user interface
Supported drives	Small form-factor 2.5-inch SAS disk drives: • 300 GB, 600 GB at 15k rpm • 600 GB, 900 GB, 1.2 TB, and 1.8 TB at 10k rpm • 1 TB and 2 TB at 7.2k rpm Nearline SAS Large form-factor 3.5-inch SAS disk drives: • 2 TB, 3 TB, 4 TB, 6 TB, 8 TB at 7.2k rpm • 900 GB, 1.2 TB, 1.8 TB at 10k rpm • 300 GB, 600 GB at 15k rpm Solid-state drives (SSD) drives: • 200 GB, 400 GB, 800 GB, and 1.6 TB
Maximum drives supported per enclosure	• Small form-factor enclosure: 24 x 2.5-inch drives • Large form-factor enclosure: 12 x 3.5-inch drives
Total number of drives supported	• 240 drives per system

FOR MORE INFORMATION

To learn more about the IBM® Storwize® V3700, contact your Lenovo representative Business Partner or visit
lenovo.com/systems/storage

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