



Home Storage

Product Guide



www.solphy.com



Introduction

Your data kept in storage devices is priceless.

Solphy Company has responded to the market needs and developed a product that can safely store large amounts of data in connected disk drives. The total available storage space can reach a generous 8TB, for a single device. Because stored data has different characteristics and formats, we allow customers to modify the device to meet the user's specific needs. By separating the physical and logical layer, the user's ability to optimize the configuration seems almost endless. To make the device user-friendly, an integrated management system was developed. Thanks to the technology developed by our company, configuration can be done by an inexperienced computer user and the whole configuration takes a short amount of time.

As we realize that noise generated by today's electronic devices is not only annoying but can be harmful, our company has endeavored to minimize any background noise by focusing on the construction materials and new design solutions. For example, we have used a special system for attaching disks, a low-noise design cover and a specially constructed digital control temperature system (temperature information is passed to the driver that determines the optimal cooling temperature for the device). All of this has reduced the emanating noise to the minimum.



Usage

This device is packed with features and latest technology. Its can be used both at home and in the office (small to midsize firms). It can be used anywhere, especially where large storage space is needed and storage safety is paramount.

Home Use

The resources of this device can be used by many home PCs. This, and the fact that its noise level is low and access to it is very fast, makes it perfectly suited as a central (archival) device to be utilized by home users. It allows the users to have complete control over their files and clean up any mess that may exist with their CDs, DVDs, and other formats written on disk drives. To better illustrate the capabilities of the Home Storage device; imagine that by utilizing 20 of its disks, it can hold 10000 CDs or 1500 DVDs. It can store around 7500 movies compressed to formats such as DIVx, Xvid, WMV and 2000000 files in MP3, OGG, WMA format. It can store installation copies of various programs and PC games (disk image). These advanced solutions allow our most important data (family photos, important documents, favorite music, etc.) to be absolutely safe, no more worrying about scratched CDs or faulty hard drives.

Multimedia Use

Thanks to its powerful performance and large storage space, Home Storage is perfectly suited for saving large video and music material (in an uncompressed format - RAW). When archiving (in Home Storage), access to the needed data is almost instantaneous and its management extremely easy. By creating a cataloged structure and including access rights, users can optimize the file system to their needs. The flexibility of the Home Storage system allows the user almost limitless possibilities of arranging their files and catalogs.

Network Use

Local and neighborhood networks are becoming more popular each year. Such networks allow large numbers of users to communicate with each other. Neighborhood networks provide users with cheap access to the Internet, which is quickly becoming a primary information and communication vehicle. Thanks to the use of the FTP protocol (File Transfer Protocol) our device is perfectly suited as a storage repository for files downloaded by local network customers. Additionally, this also relieves some network traffic, as users need only download files once; the files are then available for all users in Home Storage. By using NFS or SMB, access to those files is as easy, as if they were on our local hard drives.



Redundant Array of Independent Disks (RAID)

Redundant Array of Independent Disks is an assembly of two or more hard disks that are employed in combination to increase data integrity, fault-tolerance and/or performance. In this context, redundant means that data can still be recovered even if one disk fails.



RAID levels available in Home Storage

RAID 0



[Data striping]

Provides data striping (spreading out blocks of each file across multiple disk drives) but no redundancy. This improves read/write performance but does not deliver fault tolerance. If one drive fails then all data in the array is lost.

RAID 1



[Data mirroring]

Provides redundancy by writing same data to two or more drives. The performance tends to be faster on reads and slower on writes compared to a single drive. If one drive fails, all of the data is available on the other one.

RAID 5



[Data redundancy]

Provides redundancy by striping both data and parity information across three or more drives. It has good read performance, medium write performance and good fault tolerance. If one drive fails, all the data can be recreated.

Logical Volume Manager (LVM)

To manage disk space, Home Storage uses LVM technology (also used by world's leading companies). LVM delivers the flexibility and freedom to manage the large amount of data across multiple storage devices. LVM enables robust, enterprise-level disk volume management by grouping arbitrary physical disks into virtual disk volumes. In addition to enabling fast, consistent backups, LVM increases availability and performance by providing online addition and removal of physical devices and dynamic disk volume re-sizing. LVM also allows IT managers and system administrators the ability to make effortless upgrades, remove failing disks, reorganize workloads and adapt to changing system needs quickly and easily.



*calculated cost of 1GB for storage loaded with twenty hard drives

Our years of experience resulted in a solution comparable with products manufactured by the world's largest companies, while the latest technology made it possible for our company to create a storage device for you.

Home Storage

Processor

Intel® Celeron® 32-bit 2.4 GHz; 128KB L2 cache

Memory

256 MB DDR SDRAM

Storage

Five front-loaded enclosures, each containing four 3.5" slots for SATA HDD's.

Network Connectivity

One integrated 10/100/1000 MBit Ethernet LAN port

Ports and Connectors

Serial: one 9-pin connector
NIC: one RJ45 connector for integrated 10/100/1000 NIC
PS/2: style keyboard: 6-pin mini DIN connector
PS/2: compatible mouse: 6-pin DIN connector
Video: one D-SUB 15-pin connector

Video

Intel® Extreme Graphics 2 controller; VGA connector; 8 MB memory

Chassis

Height: 49.26 cm (19.39 inches)
Width: 33.08 cm (13.02 inches)
Depth: 57.66 cm (22.7 inches)

Power

Wattage: 810 watts
Voltage: 95-250 VAC; 50-60 Hz

Supported Disks Drives

Disk interface: SATA II up to 7200 rpm
Disk capacity: 20 disks up to 400GB* each

*Current maximum capacity of one SATA drive.

Functionality

Protocols

Windows® Protocol (CIFS/SMB) with Active Directory
File Transfer Protocol
Network File System

RAID Levels:

0, 1, 5

LVM options:

Disk space management
Filesystem migrating

Filesystem:

Access Control Lists

Software Administration:

Web-based Administration Panel
Automatic On-line Updates System

Updates:

Manual updates

Partners

INTEL | SEAGATE | TAGAN | PROMISE TECHNOLOGY INC | BLACKNOISE



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