



PATHLIGHT VX 2.0

Disk-Based Backup Solution

DISK-BASED BACKUP SOLUTION

3.8 TO 2,823TB NATIVE CAPACITY

UPTO 2.0TB/HR PERFORMANCE

FULLY INTEGRATED SOLUTION

ADIC's® Pathlight VX® 2.0 is the scalable backup and restore solution that increases the capacity and reduces the cost of disk backup by integrating disk and tape in a single, unified system. Pathlight VX 2.0 starts by leveraging EMC CLARiiON ATA disk arrays to double users' backup performance and give it RAID reliability. Then it integrates the capacity and value of tape to deliver true enterprise scalability and disaster recovery support—and reduce system costs by half. Pathlight VX 2.0's embedded policy-based management lets users balance their recovery service-level objectives with value and provides backup data life cycle management that no conventional library or disk backup system can offer. Pathlight VX 2.0 integrates seamlessly into existing data protection environments so users know their backup will be fast and certain and their data protection investment will be preserved.



The Pathlight VX 2.0 disk backup solution doubles performance at half the cost of other disk backup products by integrating the capacity and value of tape in a unified storage environment.

FEATURES AND BENEFITS

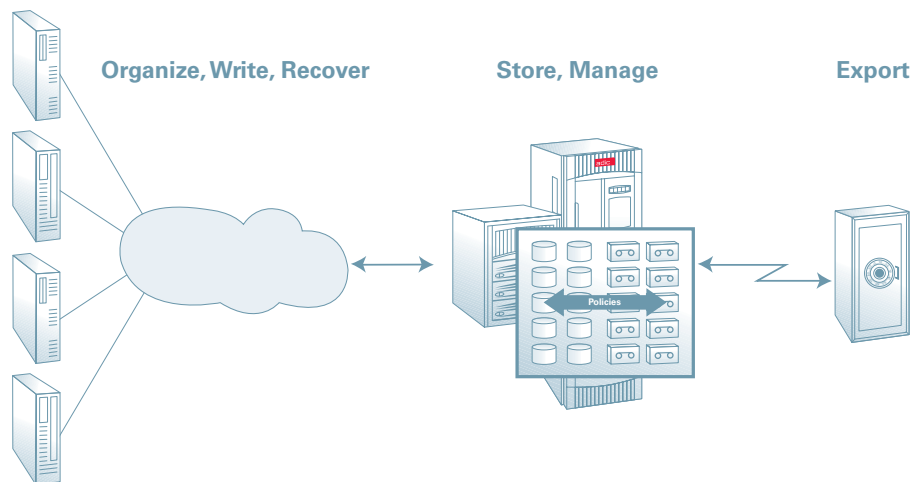
- ▶ Disk-based backup and restore using EMC CLARiiON disk—can double backup and restore performance with RAID reliability
- ▶ Integrates the capacity of disk and tape to deliver from 3.8 to 2,823TB of storage—and can reduce system costs by 50%
- ▶ Embedded data management policies balance service levels with value and provide backup data life cycle management
- ▶ Integrated solution provides single point of management for lower total ownership costs
- ▶ Presents disk-based backup system as virtual tape library—preserves user's investment in existing backup processes
- ▶ Exports media under backup software control in native application format for flexible disaster recovery
- ▶ Supports ADIC Scalar® and StorageTek L-Series libraries to preserve users' investment
- ▶ Two-year, 7x24 on-site service standard from ADIC—the leader in open systems backup solutions

EXPANDING THE CAPABILITIES OF DISK-BASED BACKUP

Pathlight VX 2.0 starts with disk performance and RAID reliability, but it expands what disk-based backup can offer to include higher capacities, easier scalability, enhanced data protection, and lower costs. With Pathlight VX 2.0 the benefits of disk and tape are integrated into a single, unified backup system with a single point of management.

To backup applications, the Pathlight VX 2.0 system looks like a conventional tape library—so it fits easily into existing backup environments. But instead of writing to physical tapes, the data is written initially to disk, which is presented to the backup software as a virtual library. The virtual library can also include tape storage elements—tape libraries—to extend the capacity of the disk. Data stored in Pathlight VX 2.0 can exist on disk, on tape, or on both, depending on policies set by the user, but they are accessed transparently by the application through a single access point. Tapes for export, in the native format of the backup application, are created in the background for long-term data retention and disaster recovery.

Pathlight VX 2.0 policies provide life cycle management for backup data, offering capacity management and adding a layer of data protection that no other library or disk-based product can offer. These policies include automated data migration, multiple copy creation, and even co-located media—allowing export of one copy of data while a second remains in the virtual library.



The integrated Pathlight VX 2.0 disk-based backup solution fits transparently into existing backup environments, presenting its unified storage to applications as a virtual library. Export tapes are written in the native format of the backup application so they can be read in any standard tape drive.

SOLUTIONS FROM THE LEADER IN OPEN SYSTEMS BACKUP

As the worldwide market share leader for libraries used to protect open systems environments, ADIC designs, markets, and supports backup solutions that safeguard some of the world's most critical data.

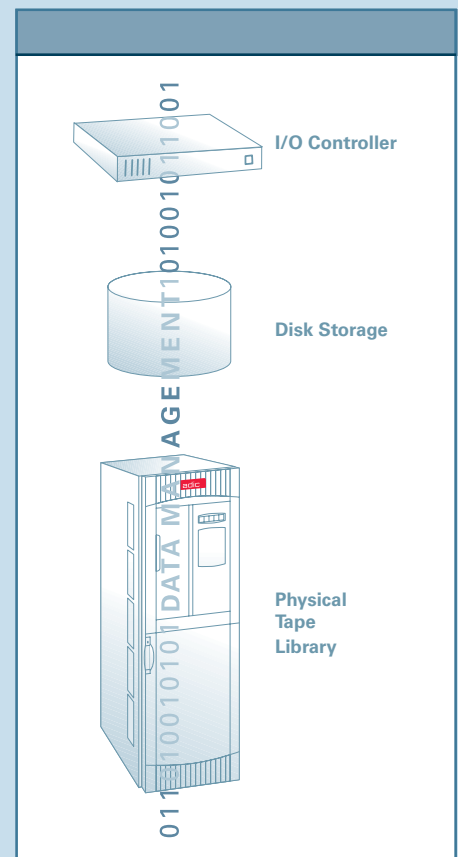
With ADIC, IT departments have a partner that understands the demands of enterprise backup, a global team of proven channel partners, and an international service organization with expertise in both system integration and post-installation support.

ADIC backup solutions give IT departments confidence in the integrity of their data, no matter what storage media they deploy.

Pathlight VX: Innovative Application of Proven Technology

Pathlight VX is built around four ADIC core technologies to bring optimized backup performance to our disk-to-tape data protection solution.

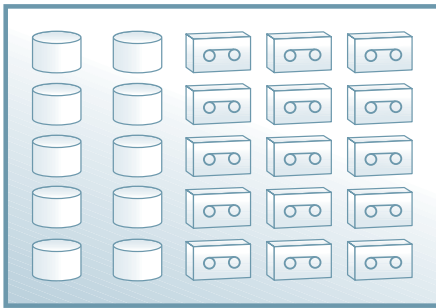
- **Virtualization software layer** allows the disk system to present itself to backup software applications as tape drives and media.
- **I/O controller technology** provides internal data transfer operations with industry-leading host-to-disk and disk-to-tape performance and easily scalable bandwidth.
- **Data management technology** from ADIC's StorNext® software provides data management across disk and tape, policy-based data movement, and optimized streaming performance.
- **Automated tape library** integrates seamlessly with the Pathlight VX and leverages ADIC's Scalar® family of tape libraries.



This technology portfolio will be used as the basis for future generations of data protection solutions based on multiple storage media, automated data migration, and an integrated design approach.

USING POLICIES TO BALANCE RECOVERY SERVICE OBJECTIVES AND VALUE

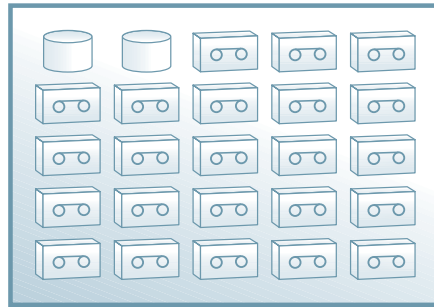
Need shorter recovery time for more data?



3 weeks of data stored on disk

With the majority of the system storage on disk, most file restores take place at disk speed—typically more than twice the speed of conventional backup systems.

Need lower acquisition cost?



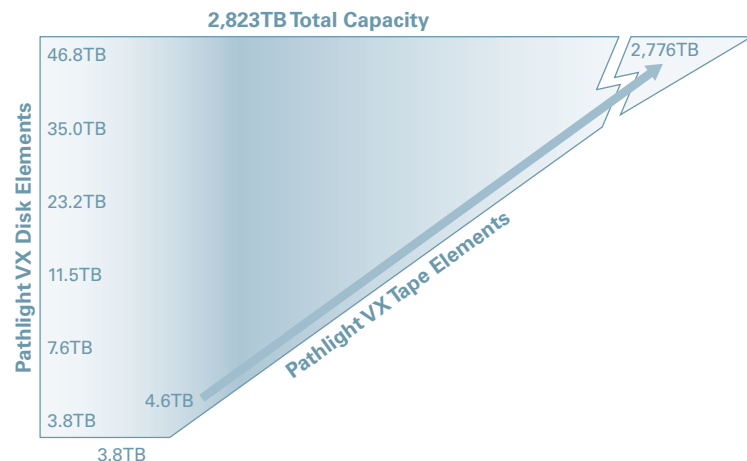
3 days of data stored on disk

Shifting the majority of the storage to tape retains disk backup performance and can reduce total systems by half or more.

Pathlight VX 2.0 gives users an unprecedented ability to use the ratio between different storage elements to balance their recovery service objectives with cost. When users want to recover a high percentage of their backup data at disk speed, they can build a Pathlight VX 2.0 system with most of the storage on disk. When total system cost is the more critical parameter, users can increase the percentage of tape. With either system, users see disk backup performance and automated restores. The difference—which the user controls—is the age of the data which is available for disk recovery service levels.

FLEXIBLE CONFIGURATION AND ENTERPRISE SCALABILITY

Pathlight VX 2.0 lets disk-based backup scale to meet the capacities needed for even large-scale enterprise environments. Each Pathlight VX 2.0 solution includes disk elements that range from 3.8 to 46.8TB. Users then add the capacity of leading tape libraries to any of the disk elements, providing single-system total backup solutions of up to 2,823TB (native). Virtual cartridges move seamlessly between disk and tape based on capacity needs and policies set by the user. Increasing the capacity of the virtual backup system is as simple as adding additional tape slots. With capacity-on-demand libraries, like the ADIC Scalar i2000, that upgrade can be accomplished non-disruptively using a simple software key.



With Pathlight VX 2.0, users can match six different disk elements with seven different tape library models to create backup systems that scale to nearly 3,000TB, native. Supported libraries include ADIC Scalar 24, Scalar 100, Scalar 1000, Scalar i2000 and Scalar 10K models, as well as legacy StorageTek L180 and L700 units.

PATHLIGHT VX

INTEGRATED DISK-BASED BACKUP SOLUTION FOR PERFORMANCE, SCALABILITY, AND VALUE

ADIC's Pathlight VX 2.0 provides a fully integrated disk backup solution with a single point of management to combine performance, scalability, and simplicity of operation—and to reduce cost.

▶ Leverages EMC CLARiiON ATA arrays for high performance and fault tolerance

▶ Integrates capacity of disk and tape in a single, unified environment

▶ Total native system capacity scales from 3.8 to 2,823TB

▶ Unified system presented as virtual library to retain full investment in current backup processes

▶ Flexible disk-to-tape ratio allows users to balance recovery service objectives with cost

▶ User-defined policies provide advanced life cycle management for backup data

▶ Tape export controlled by backup software in native application format for flexible disaster recovery

CONFIGURATION

Total Capacity: 3.8TB to 2,823.2TB (native)/5,599.6TB (compressed)¹
Virtual Libraries: 1 to 32 virtual libraries
Drive Support: Up to 40 logical drives accessible simultaneously
Throughput: Up to 2.0TB/hr
Restore Path: Restore path can be from disk, directly from tape to host, or from tape to host via disk

RELIABILITY

MTTR: Less than 30 minutes
Diagnostics: Embedded monitoring of major subsystems, health checks, self-diagnostic procedures, and email alerts to system administrators and ADIC Global Services
System: ATA technology with hot-swap capability, redundant metadata file locations, optional 2N power

OPERATION

Configuration: Auto-discovery for installed/added components
Upgrade: Meantime to upgrade is less than 30 minutes
Tape Libraries Supported: ADIC Scalar 24, Scalar 100, Scalar 1000, Scalar i2000, Scalar 10K; StorageTek L180, L700
Export Tape Format: Exports tapes using standard backup application format

SYSTEM CAPACITY AND PERFORMANCE

Tape Elements (MAX. TB) ¹	Scalar 24		Scalar 100		L180		L700		Scalar 1000		Scalar i2000		Scalar 10K			
	Native	2:1	Native	2:1	Native	2:1	Native	2:1	Native	2:1	Native	2:1	Native	2:1		
	4.6	9.2	14.2	28.4	34.6	69.2	135.4	270.8	187.4	374.8	334.6	669.2	2,776.4	5,552.8		
Disk Elements	3.8	0.6	8.4	13.0	18.0	32.2	38.4	73.0	139.2	274.6	191.2	378.6	338.4	673.0	2,780.2	5,556.6
	7.6	0.6	12.2	16.8	21.8	36.0	42.2	76.8	143.0	278.4	195.0	382.4	342.2	676.8	2,784.0	5,560.4
	11.5	0.6	16.1	20.7	25.7	39.9	46.1	80.7	146.9	282.3	198.9	386.3	346.1	680.7	2,787.9	5,564.3
	23.2	1.2	27.8	32.4	37.4	51.6	57.8	92.4	158.6	294.0	210.6	398.0	357.8	692.4	2,799.6	5,576.0
	35.0	1.7	39.6	44.2	49.2	63.4	69.6	104.2	170.4	305.8	222.4	409.8	369.6	704.2	2,811.4	5,587.8
46.8	2.0	51.4	56.0	61.0	75.2	81.4	116.0	182.2	317.6	234.2	421.6	381.4	716.0	2,823.2	5,599.6	

MAXIMUM COMBINED CAPACITIES (TB)¹

¹All compressed capacity specifications assume LTO-2 media and average 2:1 compression for tape storage elements.

ABOUT ADIC

Advanced Digital Information Corporation (ADIC[®]) is a leading provider of Intelligent Storage™ solutions to the open systems marketplace. ADIC is the world's largest supplier of automated tape systems using the drive technologies most often employed for backing up open system, client-server networks.* The company's data management software, storage networking appliances, and disk-based data protection solutions provide IT managers innovative tools for storing, managing, and protecting their most valuable digital assets in a variety of disk and tape environments. ADIC storage products are available through a worldwide sales force and a global network of resellers and OEMs, including Cray, Dell, EMC, Fujitsu-Siemens, HP, IBM, and Sun.

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Intelligent Storage is Disk-based Backup

Need faster restore and better fault tolerance? ADIC's Pathlight VX enhances your current backup and restore process while retaining what works today.



* Market share from Gartner Dataquest, Tape Automation Systems Market Shares, 2003, F.Yale, April 2004.

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