



SCALAR i2000

The Intelligent Library
for the Enterprise

1 TO 48 DRIVES

100 TO 3,492 CARTRIDGES

CAPACITY-ON-DEMAND

INTEGRATED iPLATFORM™
ARCHITECTURE

iLAYER™ MANAGEMENT
SOFTWARE

The Scalar® i2000 intelligent enterprise library uses its exclusive iPlatform architecture and integral iLayer management software to reduce the time users spend managing backup, cut the need for service calls by 50%, and shorten issue resolution time by 30%. The Scalar i2000 integrates advanced diagnostic services, library resource, and I/O management functions inside the library, eliminating the need for external library control servers and making it easy to integrate the library with disk-backup solutions in multi-technology architectures. The Scalar i2000 uses its I/O blade architecture to offer faster, more reliable operation in SAN environments, and its capacity-on-demand scalability lets users grow their backup system easily from 100 to more than 3,400 tape cartridges in a compact, 19-inch rack-compatible form factor.



The Scalar i2000 features ultra high density and a 19-inch rack form factor and scales from 100 to 3,492 cartridges.

FEATURES AND BENEFITS

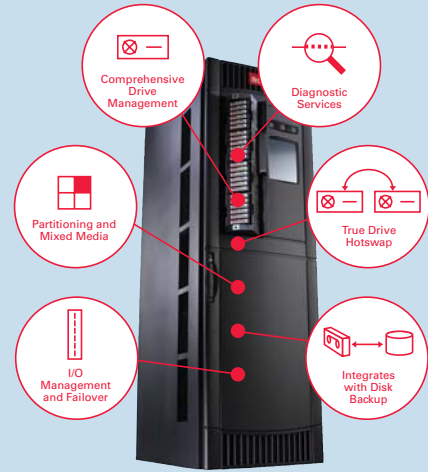
- ▶ Exclusive relational diagnostics™ reduces service calls 50% and shortens issue resolution time by 30%
- ▶ Integrates advanced management functions inside the library for more effective management of the backup process
- ▶ Designed to support integration with leading disk-based solutions
- ▶ I/O blade architecture for faster, more reliable SAN operation and reduced switch port requirements
- ▶ Advanced scalability with rack-compatible capacity-on-demand growth
- ▶ Supported by ADIC's iSurety™ service approach that provides remote diagnostics for the library and the storage ecosystem
- ▶ One-year on-site service included for the highest levels of protection

THE INTELLIGENT LIBRARY FOR THE ENTERPRISE

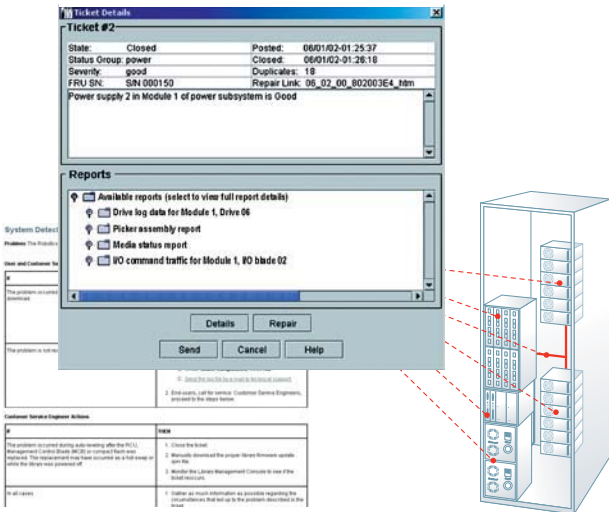
INTEGRATING EXTERNAL FUNCTIONS AND ADDING INTELLIGENCE

ADIC's iPlatform architecture and integral iLayer management software give end users an unmatched level of control over the backup process. ADIC's iPlatform provides a server-class main controller, distributed control processors, and I/O blades, all linked by an embedded communications area network. The iLayer management software dramatically improves the manageability of the enterprise backup process by integrating advanced diagnostics services, library resource management, and I/O management inside the library.

iLayer capabilities include native partitioning, true drive hot swap, proactive path verification and failover, and relational diagnostic™ logic that provides easier, more certain, and faster issue resolution. A common iLayer management software approach extends across ADIC's iPlatform tape libraries and disk-based backup products, enabling end users to transition easily to next-generation backup solutions.



The Scalar i2000 leverages iPlatform architecture and iLayer management software to integrate advanced diagnostic services, library resource management, and I/O management features inside the library.



INDUSTRY-LEADING LIBRARY AND ECOSYSTEM DIAGNOSTICS

ADIC's iLayer management software uses its exclusive relational diagnostic™ logic to automatically select, synchronize, store, and analyze data and make it proactively available to end users and the service team. The result is 50% fewer service calls, 30% faster issue resolution, and a library that is ready to backup and restore data whenever it is needed.









The Scalar i2000's proactive diagnostic system is fundamentally different from reactive monitoring approaches. When a Scalar i2000 sensor is triggered, the library determines which subsystems are involved, automatically collects their log data, and proactively sends it to administrators and the service team. This relational diagnostics™ approach allows diagnosis to start immediately, even without an on-site visit, so issues are resolved faster and less time is spent managing them. ADIC's iLink™ technology extends remote diagnostic capability to devices in the storage ecosystem around the library.

Unlike earlier generation libraries, the Scalar i2000 uses relational diagnostics to automatically select, gather, synchronize and analyze data from over 200 components in the library. The result is 50% fewer service calls and 30% faster issue resolution.

SCALAR i2000

DESIGNED FOR THE ENTERPRISE DATA CENTER

The Scalar i2000 is designed to meet the rigors of high-duty-cycle data center operation and to support the integration of next-generation disk-based backup solutions. In addition, its form factor was carefully designed to provide maximum density, flexibility, and utilization of physical resources in enterprise data centers. Its use of a standard 19-inch rack form factor provides easy space planning and simple integration into data center environments. The Scalar i2000 offers ultra high density of 746 cartridges per square meter and has the highest media import/export capability, offering up to 96 LTO bulk loading slots in one library.

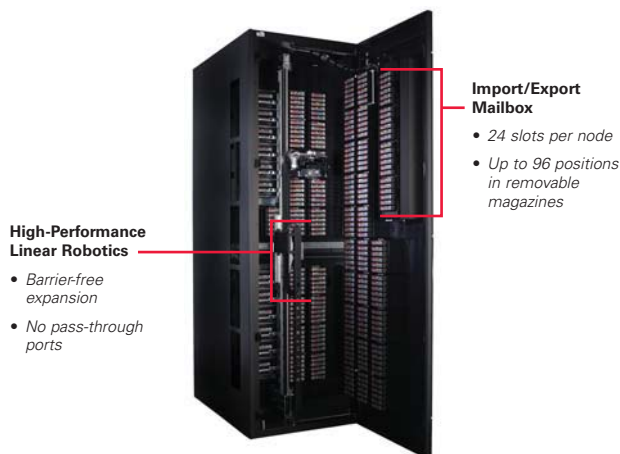
	DATA-CENTER-FRIENDLY FORM FACTOR							
								
Configuration	1 CM	1 CM and 1 EM	1 CM and 2 EMs	1 CM and 3 EMs	1 CM and 4 EMs	1 CM and 5 EMs	1 CM and 6 EMs	1 CM and 7 EMs
Physical Size (H x W x D) Inches Centimeters	77.4 x 24.3 x 38.3 196.6 x 61.7 x 97.4	77.4 x 47.9 x 38.3 196.6 x 121.6 x 97.4	77.4 x 71.5 x 38.3 196.6 x 181.5 x 97.4	77.4 x 95.1 x 38.3 196.6 x 241.4 x 97.4	77.4 x 118.7 x 38.3 196.6 x 303.3 x 97.4	77.4 x 142.3 x 38.3 196.6 x 361.2 x 97.4	77.4 x 165.9 x 38.3 196.6 x 421.1 x 97.4	77.4 x 189.5 x 38.3 196.6 x 481 x 97.4
Authorized Slots (LTO)	100 to 300	300 to 756	600 to 1,212	900 to 1,668	1,200 to 2,124	1,500 to 2,580	1,800 to 3,036	2,100 to 3,492
Drives	1 to 12	1 to 24	1 to 36	1 to 48	1 to 48	1 to 48	1 to 48	1 to 48

Control Module (CM): Contains the main controller, power supplies, I/O blade, operator panel touch screen, 24 slot import/export mailbox, and the library robotics.

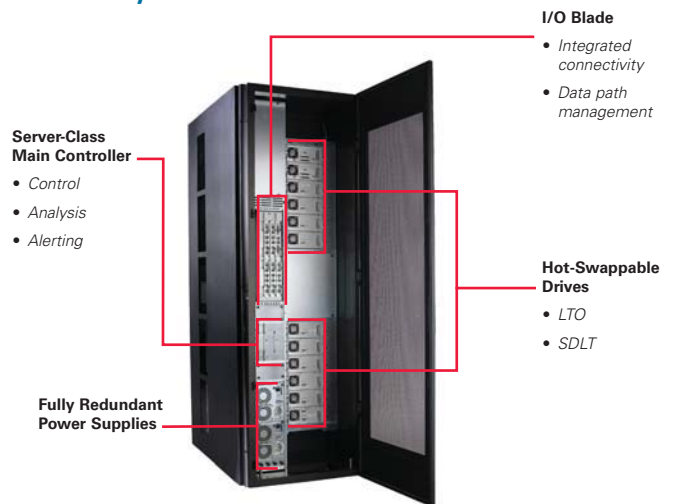
Expansion Modules (EM): Provide drive space and cartridge slots, and depending on its position, may be configured with an import/export mailbox for bulk loading and unloading of media.

INTELLIGENT, EFFICIENT ARCHITECTURE

Front Library View



Rear Library View

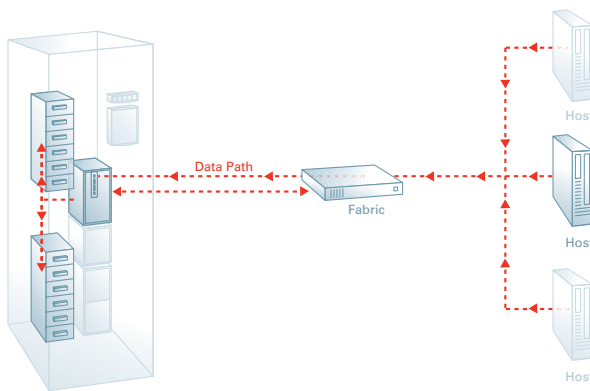


The Scalar i2000's design allows all service to be performed through the front or back of the library, eliminating the space-consuming side access requirements found in other libraries.

MORE EFFICIENT AND RELIABLE BACKUP IN SANs

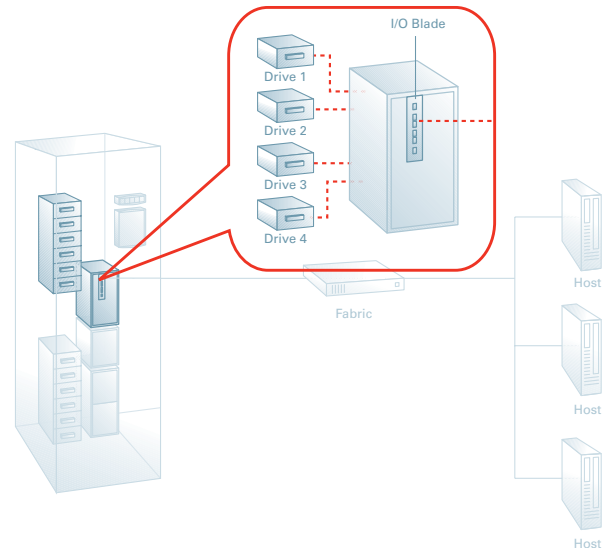
Leveraging the strength of ADIC's SAN expertise, the Scalar i2000 was designed to increase the performance and reliability of backup in SAN environments. It's the first solution to provide unified management of the library, drives, and SAN connectivity. All can be managed by a single graphical interface accessible both locally and remotely.

Data Path Readiness Checks and Connectivity Failover Improve Reliability



The Scalar i2000 provides end-to-end proactive path and fabric readiness checks, Fibre Channel port failover, and drive performance optimization for improved backup reliability and performance.

Drive Aggregation Lowers Costs



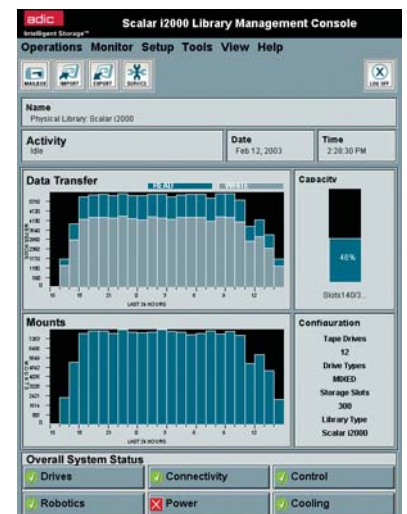
Each I/O blade in the Scalar i2000 supports up to four drives, reducing switch port and cabling requirements by up to 75%.

The Scalar i2000 proactively checks the data paths between all hosts and each drive in the library to ensure that the entire system—including fabric connections—is ready to perform the backup. Its performance optimization technology delivers the highest possible drive performance within a SAN, and its blade-based I/O management unit aggregates drive connections, reducing switch port and cabling requirements by up to 75%.

ENTERPRISE-CLASS RELIABILITY/AVAILABILITY/SERVICEABILITY

The Scalar i2000 provides RAS features designed to meet the availability requirements of consolidated enterprise backup. The library's comprehensive drive management capabilities offer the industry's first true drive hot swap. When drives are changed, they present the same worldwide node name and serial number as the replaced drives, eliminating the need for library power cycling, software profile rebuilds, or backup server reboots. The library even automatically sets the firmware level of the new drive to match other drives in the library based on user-defined policies.

With the Scalar i2000, full 2N power redundancy means that the library and all its drives are protected from any single point of failure in the power system. And its Fibre Channel port failover feature automatically routes data to a failover path if a library port, switch port, or the cabling connection between the switch and the library fails.



The local and remote user interface in the Scalar i2000 provides at-a-glance data on the status and performance of the library and major subsystems including drive, slot, configuration, mount, I/O, and capacity status.

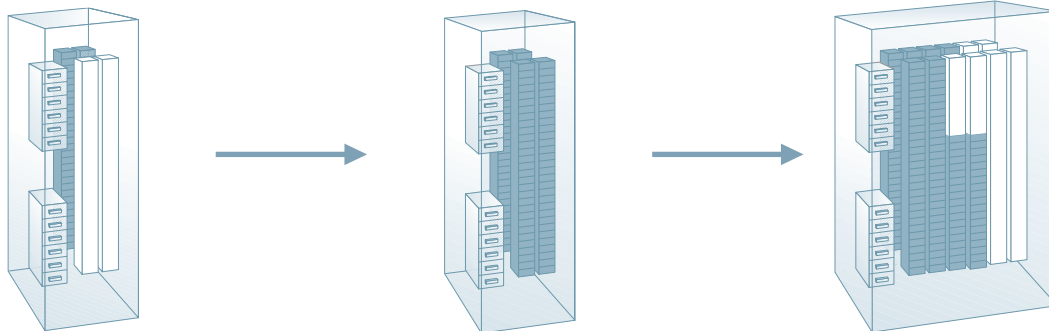
SCALAR i2000

SCALES WITH YOUR DATA AND YOUR BUDGET

The Scalar i2000 takes advantage of ADIC's industry-first scalability architecture: capacity-on-demand. Capacity-on-demand allows you to pay for only the capacity you need today, and easily plan for non-disruptive capacity upgrades as you grow. When you need more capacity, activation of additional 100 slot increments occurs simply by using a software key. To accommodate continual data growth, the Scalar i2000 expands to more than 3,400 LTO slots in a single library.

ADIC's trusted linear expansion model means additional capacity can be added efficiently and cost effectively. Our barrier free, single robotics architecture provides the industry's highest levels of performance and reliability, eliminating the delays and reliability risks of pass-through ports.

Capacity-on-Demand



Base Unit with Extra Tape Slots

The Scalar i2000 always ships with extra tape slots that you can activate using a software key when you need additional capacity.

Additional Slots Activated

You simply order more tape slots in increments of 100.

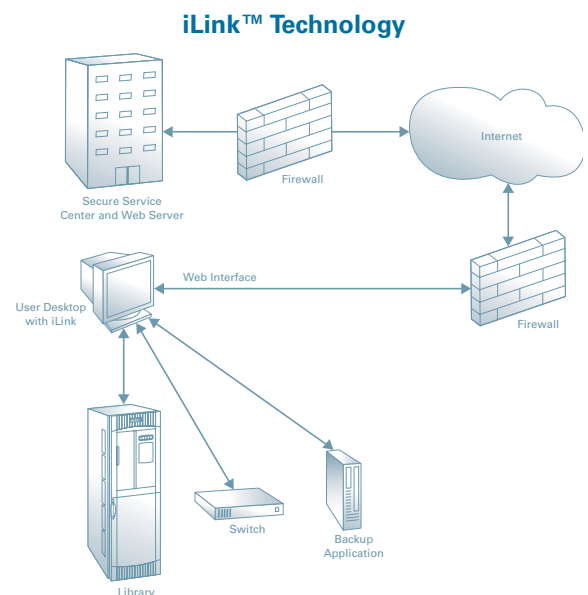
Expansion Module Plus Additional Slots

Once you exceed the capacity of your current configuration, ADIC will deliver an expansion module free of charge.

ADIC'S EXCLUSIVE iSURETY SERVICE APPROACH

ADIC's iSurety enterprise service approach leverages the intelligence of ADIC solutions and advanced data access technology to provide faster and more certain resolution of even complex, system-wide backup issues. A key component of iSurety, ADIC's secure iLink™ technology provides ADIC service specialists remote interactive access to comprehensive diagnostic data from the library and surrounding storage ecosystem, including backup applications, switches, and HBAs.

Unlike conventional approaches to service that demand more user time, delay resolution, and may fail to find the root cause of a problem, ADIC's iSurety approach provides comprehensive service and support for the entire backup system, improving overall management, performance, and reliability.



LIBRARY CONFIGURATIONS

TOTAL DRIVE AND CAPACITY RANGES			
Technology	Drives	Cartridges	Capacity (TB) ¹
LTO-3	1 to 48	100 to 3,492	2,794
LTO-2	1 to 48	100 to 3,492	1,397
LTO-1	1 to 48	100 to 3,492	698
SDLT 600	1 to 48	100 to 2,910	1,746
SDLT 320	1 to 48	100 to 2,910	931

OPERATION

Drive Interface²:	SCSI-2 LVD; integrated FC interface option; Native FC interface option
Library Interface:	SCSI-2 LVD; Native FC interface
Inventory Speed:	100 slots in 20 seconds
Configuration:	Auto-discovery and auto-calibration for installed/added components (modules, tapes, drives, magazines, etc.)
Import/Export:	Up to 96 (LTO), or 80 (SDLT) positions in removable magazines

ENVIRONMENTAL

Electrical:	115-230 VAC, 2-16 kVA
Temperature:	15 to 32°C operating
Humidity:	10 to 90% non-condensing operating

RELIABILITY

Library MCBF:	Greater than 2,000,000
Library MTTR:	20 minutes
Power:	Optional 2N power for all systems and drives
Diagnostics:	Embedded monitoring of major subsystems, self-diagnostic procedures, and policy-based email and pager alerts to system administrators and ADIC Global Services
Module Upgrade:	Any storage module may be added in two hours; customer-installable components include drives, fans, power supplies, slot upgrades

PHYSICAL

Control Module (H x W x D):	77.4" x 24.3" x 38.3" (196.6cm x 61.7cm x 97.4cm)
Expansion Module (H x W x D):	77.4" x 23.6" x 38.3" (196.6cm x 59.9cm x 97.4cm)

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-to-tape 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 Built-in Backup Management

Improve the performance, reliability, and manageability of your backup with the Scalar i2000's iLayer management software and integrated relational diagnostics.



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

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CAPACITY-ON-DEMAND STARTING POINTS					
Library	Capacity (TB) ¹				
	LTO-3	LTO-2	LTO-1	SDLT 600	SDLT 320
100-Slot	80	40	20	60	32
200-Slot	160	80	40	120	64
400-Slot	320	160	80	240	128
700-Slot	560	280	140	420	224
1,500-Slot	1,200	600	300	900	480
3,000-Slot	2,400	1,200	600	N/A	N/A

COMPLIANCE AND CERTIFICATION

Safety:	UL-1950 ITE, CSA950, EN 60950
Emissions:	FCC #47 CFR, Part 15, Class A, CSA C108.9M, EN 55022, Class A
Immunity:	IEC (1000-4-2,-3,-4)
International:	CE

SOFTWARE AND PLATFORMS

Consult the most recent ADIC Software Compatibility Guide on www.adic.com for a complete list of software and platforms compatible with Scalar i2000.

DRIVES AND PERFORMANCE¹

Drive Type	Cartridge Capacity Native / Compressed (GB)	Drive Throughput Native / Compressed (MB/sec)	Data Buffer (MB)	File Access Time (sec)
LTO-3	400 / 800	80 / 160	128	68
LTO-2	200 / 400	35 / 70	64	49
LTO-1	100 / 200	15 / 30	32	54
SDLT 600	300 / 600	36 / 72	64	79
SDLT 320	160 / 320	16 / 32	64	70

Please see www.adic.com/drives for more drive specifications.

¹ Assumes 2:1 compression.

² LTO-3 is supported through Fibre Channel only.