



SCALAR i2000

The Next-Generation
Data Center Library

LTO, SDLT, AIT DRIVE SUPPORT

1 TO 96 DRIVES

100 TO 2,232 CARTRIDGES

CAPACITY-ON-DEMAND
SCALABILITY

INTEGRATED iPLATFORM
CONTROL ARCHITECTURE

The Scalar® i2000 is the next-generation data center library. Built around ADIC's iPlatform™ architecture, the Scalar i2000 integrates advanced backup functions into the library to increase overall data protection, simplify management, reduce the need for external servers and software, and save companies time and money over the life of their backup system. Designed for storage network operation, the Scalar i2000 increases the performance and reliability of SAN backup. Its advanced scalability offers capacity-on-demand growth from 100 to over 2,200 cartridges. An innovative chassis design, which matches the dimensions of standard data center racks, provides industry-leading density and makes space planning easy. To meet the rigors of high-duty-cycle data center operation, the Scalar i2000 offers the industry's most advanced features for reliability, availability, and serviceability (RAS).



The Scalar i2000 features industry-leading density and a 19-inch rack form factor. One module holds up to 306 LTO tapes; four modules hold up to 1,674 tapes.

FEATURES AND BENEFITS

- ▶ Fundamental architecture advance—integrates external components and reduces costs by embedding advanced functionality in the library
- ▶ Industry-leading density—720 slots per square meter
- ▶ Improved performance in SAN environments—through unified management, proactive data path readiness checks, and optimized drive performance
- ▶ Industry's most advanced scalability—capacity-on-demand growth from 100 to more than 2,200 cartridges in a single library
- ▶ Advanced RAS features for higher system reliability and faster, more efficient service
- ▶ Policy-based alerts—proactive system monitoring, integrated policy engine, and e-mail alerting system for early problem detection
- ▶ Real-time reporting—including data written/read, slot utilization, and library activity status
- ▶ Native partitioning and true mixed-media operation—supports enterprise backup consolidation without external servers and software
- ▶ Cost savings—drive aggregation reduces switch ports and cabling requirements up to 75%
- ▶ One-year on-site service included for the highest levels of protection

THE iPLATFORM ARCHITECTURE

INTEGRATING EXTERNAL FUNCTIONS AND ADDING INTELLIGENCE

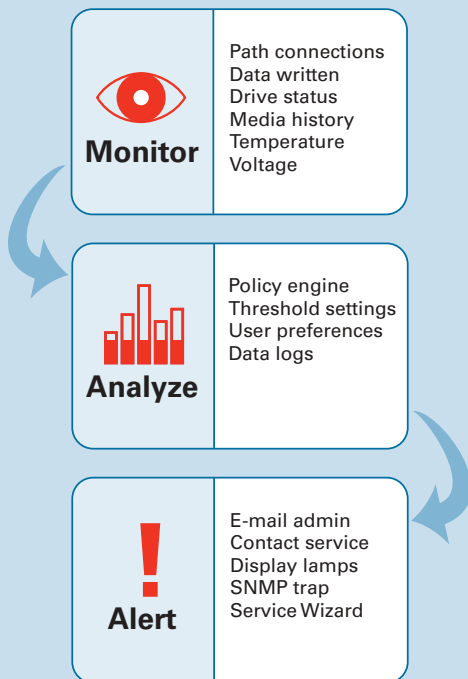
The ADIC iPlatform represents a fundamental architecture advance that provides a new generation of library functionality to reduce management time and improve the overall reliability of the backup process. The iPlatform is built around a server-class main controller and a set of distributed control nodes, all of which are linked by an embedded communications area network. This architecture saves users time and money by integrating advanced functions that required external servers and software in earlier generation products. Integrated functions include library partitioning, mixed-media operation, proactive backup system monitoring, and policy-based user alerts.

iPlatform Architecture Benefits

- Reduced backup management and overhead costs through integration of external components
- Better support for backup consolidation through native partitioning and mixed media
- Simplified operation of your SAN backup system through unified management of drives, SAN connectivity, and the library
- Higher system reliability through advanced fault isolation and RAS technologies



ADIC's iPlatform architecture eliminates the need for external management software and servers by integrating functions such as partitioning, mixed-media operations, data path readiness checks, real-time reporting, and system monitoring and alerting.



The Scalar i2000's embedded intelligence provides advanced monitoring, analysis, and alerting—without requiring an external framework tool.

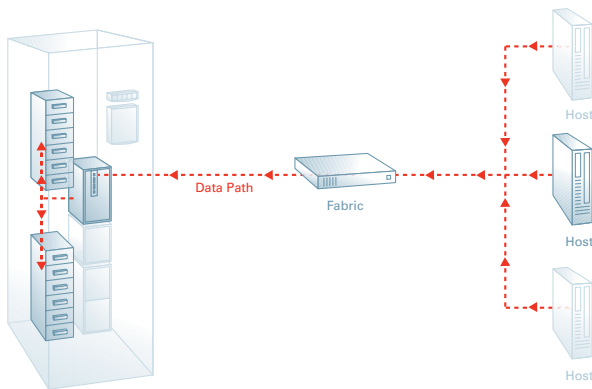
Advanced Total System Monitoring and Alerting

The iPlatform provides advanced system monitoring and alerting without requiring the use of an external framework tool. A broad range of information—including data transferred, drive and media status, fabric path integrity, and library systems status—is sensed from distributed monitors, displayed on a control panel, and analyzed by the Scalar i2000's policy-based analysis engine. Thresholds trigger a variety of actions—including e-mail and pager alerts—that give the user operational data and that can guide users or service technicians through diagnosis and corrective action.

DESIGNED SPECIFICALLY FOR SANs FOR EFFICIENT, MORE RELIABLE BACKUP

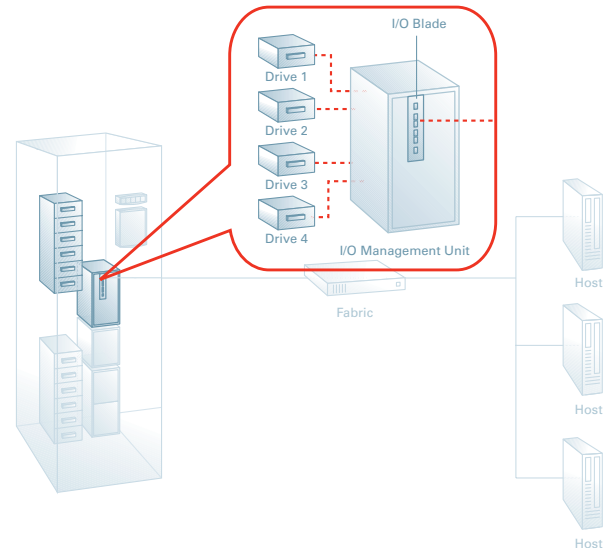
Leveraging the strength of ADIC's SAN expertise, the Scalar i2000 was designed to increase the performance and reliability of backup in SAN environments. It's the first solution to provide unified management of the library, drives, and SAN connectivity. All can be managed by a single graphical interface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

Data Path Readiness Checks Improve Reliability



The Scalar i2000 verifies the health and readiness of the data path—from the hosts through the I/O Management Unit to the drives—to improve backup reliability.

Drive Aggregation Lowers Costs



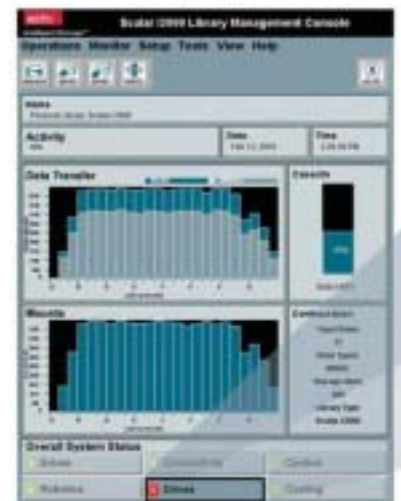
Each I/O blade in the Scalar i2000 supports up to four drives, reducing switch port and cabling requirements by up to 75%.

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%.

SUPERIOR RELIABILITY/AVAILABILITY/SERVICEABILITY

Designed to meet the availability requirements of 24-hour backup environments, the Scalar i2000 offers true non-disruptive hot-swap capabilities for drives, fans, and power supplies. The redundant power architecture provides full 2N redundancy for both AC line sources and all internal DC power supplies so that all drives and the entire library are protected from any single power component failure.

The Scalar i2000's connectivity failover provides dual data paths to drives to keep backups operating consistently through connectivity interruptions. When configured, data flow is automatically routed to a failover path in the event that fault conditions in a switch port, a library input port, or cabling between the switch and library block the primary path.



Enhanced graphical user interface. Functions including library and connectivity setup, library partitioning, import/export media, and security control can be initiated either locally or remotely through the library management console.

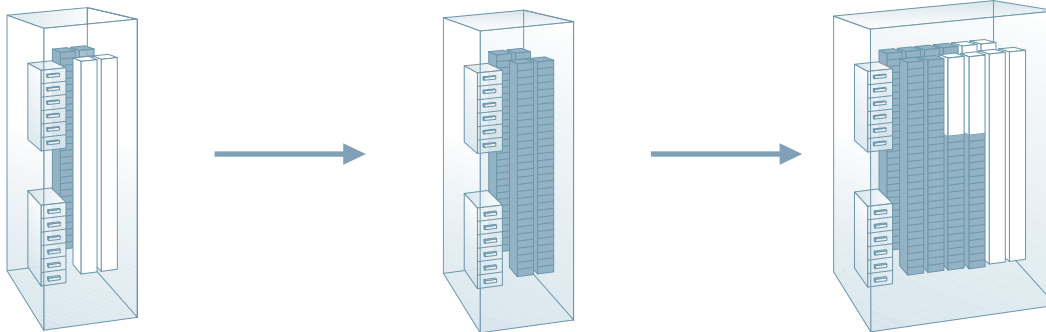
SCALAR i2000

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 up to 2,232 AIT slots in a single, barrier-free 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.



The Scalar i2000 isolates specific failed components for faster repair of common problems including drive errors, connectivity disruptions, and power failures.

Fault Isolation for Better Service





The Scalar i2000 integrates advanced logic schemes to isolate faults to the specific field replaceable unit. Unlike alternative library solutions that only identify general service areas, the Scalar i2000 identifies the specific failed component, ensuring that the right part is repaired the first time.



The Scalar i2000's processing power enables faster problem resolution—keeping enterprise backup up and running.

DESIGNED FOR THE DATA CENTER

The Scalar i2000's 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 the industry's highest density—720 cartridges per square meter—beating the alternatives by a margin of 80%. It has the highest media Import/Export capability, offering up to 96 LTO bulk loading slots in one library.

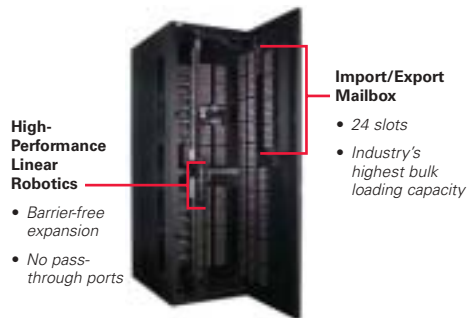
DATA CENTER FRIENDLY FORM FACTOR				
				
Configuration	1 Control Module	1 Control Module and 1 Expansion Module	1 Control Module and 2 Expansion Modules	1 Control Module and 3 Expansion Modules
Physical Size (H x W x D)	77.4" x 24.2" x 37.4" 196.5cm x 61.5cm x 95cm	77.4" x 47.8" x 37.4" 196.5cm x 121.5cm x 95cm	77.4" x 71.4" x 37.4" 196.5cm x 181.5cm x 95cm	77.4" x 95" x 37.4" 196.5cm x 241.5cm x 95cm
Authorized Slots (LTO)	100 to 300	300 to 700	600 to 1,100	900 to 1,674
Drives (LTO)	1 to 12	1 to 24	1 to 36	1 to 48

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

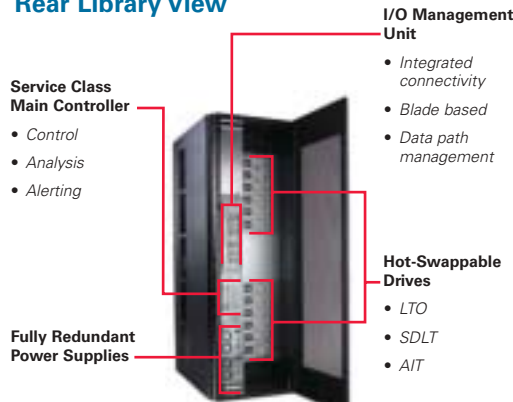
Expansion Module: Contains both drive space and cartridge slots, and may be configured with an import/export mailbox for bulk loading and unloading of media.

Intelligent, Efficient Architecture

Front Library View

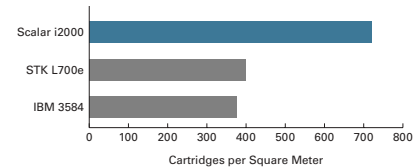


Rear Library View



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.

Industry-Leading Density



With 720 cartridges per square meter, the Scalar i2000 has the highest density of any half-inch media library—80% higher than the nearest alternative.



The Scalar i2000 is designed for maximum tape density.

Qualified Compatibility

The Scalar i2000 is qualified with all leading SAN and NAS providers.

• Brocade	• HP
• CA	• IBM
• CommVault	• Legato
• Dell	• McData
• EMC	• NetApp
• HDS	• Veritas

Please see www.adic.com for the most up-to-date compatibility information.

LIBRARY CONFIGURATIONS

TOTAL DRIVE AND CAPACITY RANGE			
Technology	Drives	Cartridges	Capacity (TB) ¹
LTO-2	1 to 48	100 to 1,674	670
LTO-1	1 to 48	100 to 1,674	335
SDLT 320	1 to 48	100 to 1,395	446
AIT-3	1 to 96	100 to 2,232	580

CAPACITY-ON-DEMAND STARTING PACKAGES			
Package	Drives	Cartridges	Capacity (LTO-1/LTO-2) (TB) ¹
100-Slot Package	2	100	20/40
200-Slot Package	2	200	40/80
400-Slot Package	4	400	80/160
700-Slot Package	6	700	140/280

Starting packages include drives, licensed cartridge positions, I/E mailbox, on-site service, professional services, and installation. Users can add drives (increments of 1), cartridge positions (increments of 100), an I/E mailbox, as well as power and service upgrade options.

OPERATION

Drive Interface:	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), 80 (SDLT), 128 (AIT) positions in removable magazines

ENVIRONMENTAL

Electrical:	115-230 VAC, 2-16 kVA
Temperature:	10 to 40°C operating
Humidity:	10 to 90% non-condensing operating

RELIABILITY

Library MCBF:	Greater than 2,000,000
Library MTTR:	20 minutes
Power:	2N power for all systems and drives
Diagnostics:	Embedded monitoring of major subsystems, self-diagnostic procedures, and policy-based e-mail 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

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-2	200 / 400	35 / 70	64	49
LTO-1	100 / 200	15 / 30	32	54
SDLT 320	160 / 320	16 / 32	64	70
AIT-3	100 / 260	12 / 31	18	27

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

¹ Assumes 2:1 compression for LTO and SDLT/DLT, 2.6:1 compression for AIT.

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 and storage networking appliances provide IT managers innovative tools for storing, managing, and protecting their valuable digital assets. ADIC storage products are available through a worldwide sales force and a global network of resellers and OEMs, including Cray, Dell, Fujitsu-Siemens, HP, IBM, and Sun.

* IDC 2001 worldwide revenue and unit market share data for all automated systems using DLT, SDLT, LTO, 8mm or AIT drive, and Gartner Dataquest, 2002 Market Shares and Forecasts for Tape Automation Systems, F.Yale, August 2002.

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www.adic.com

Intelligent Storage is Built-in Backup Management

Improve the performance, reliability, and manageability of your backup with the Scalar i2000's embedded SAN connectivity, library partitioning, system diagnostics, and policy-based service alerts.

