



Picture by Susie Eustis

Storage Area Networks and Data Centers: Strategic Positions Market Analysis

**Market Forecasts 2000 to
2005**

***Video / Internet / Storage
Cross Platform/ Application***

Dynamic Enterprise Storage

ESN Functions / Positioning

Data Center Suites

Partnership Initiatives

Market Strategies:

Dot Com

Enterprise

Internet ISP

Internet ASP

E-Businesses

E-Services

Value Added

**Worldwide Storage
Network Markets:**

Fibre Channel / Backup and Restore

Web Hosting / Director / Gateways

System Management Tools

The Study Addresses These Issues:

- High growth storage area network market segments***
- Enterprise network storage market growth segments***
- Driving forces in data center markets***
- Trends in storage network and data center markets***
- Role of applications services providers***
- E-commerce and e-services as market driving forces***
- How suppliers are positioning***

➤ *How storage networks are used by industry*

COMPANIES PROFILED

ADIC	Crossroads	Interactive Effects
Adaptec	CTSinc.net	JNI / Legato / Vinca
Agilent	DATADIRECT	McDATA / Netmarks
Ark Research	DBS International	Microsoft / NEC / Prisa
Amdahl / Fujitsu	Dothill	Silicon Graphics
Ancor	EMC / Data General	SAN Valley Systems
Berkshire Computer	Emulex	SmartSAN Systems
BMC Software	Gadzoox Networks	Storage Dimensions
Brocade / Cambex	Heroix Corporation	Sun Microsystems
Ciprico / Compaq	IBM / Intel	Veritas / Xiotech

**Report Outline --
Executive Summary**

1 STORAGE NETWORK MARKET DESCRIPTION

Internet Driving Market	IT Infrastructure	Dynamic Enterprise Storage
E-Services Imperatives	Quality of service (QoS)	ESN Functions /
Independent Function	Application Availability	Positioning
Intelligent Storage Networks	Enterprise Storage Networks	ESN Integrated Suites
Availability of Information	Incremental Value	Partnership Initiatives
Storage Area Networks	Enterprise Storage	
SAN Solutions	Networks	

2 STORAGE AREA NETWORK (SAN) AND DATA CENTER MARKET FORECASTS

Dynamics / Driving Forces	Desktop Multimedia	Combined Hub And Switch
Market Forecasts / Shares	Redundant Array Information	Port Shipments
Storage Area Network Market	Devices (Raid)	Use Methodology
Constraints	Host Adapters	System Management
Host SAN / Directors	SCSI Hardware and Software	Storage Management
Server Proliferation	CD-R/Rw Software	EAI Market

3 SAN AND ESN PRODUCT DESCRIPTIONS

Storage Area Networks	File Servers	SANs Adapters
SAN Switches	Middleware	Management Systems
Enterprise Storage Networks	Consulting Services	Business Process Systems
Fibre Channel	Fibre Channel	SAN Services / Methodology
Directors / Gateways	Storage Solutions	Service Level Management
Storage Servers	Storage Resource Security	

4 STORAGE NETWORK TECHNOLOGY

Standards / Interoperability	Distributed Systems	Benchmark / Classes /
DMTF and SNIA Join	Fibre Channel	Metrics / QoC /
Forces	SCSI-to-Fibre Channel	Methodology / CPU
Fibre Alliance	Bridge	
Specialized Networks	Host Bus Adapters / Drivers	

5 SAN AND ESN COMPANY DESCRIPTIONS

6 SAN AND ESN MARKET STRATEGIES

Partnership Programs PRISA / Silicon Graphics Channel Strategy	Datadirect Networks E- Channel Partners LEGATO Continuum	EMC Logo For Web Sites Agilent / Adaptec
--	--	---

7 STORAGE NETWORK APPLICATIONS

Web hosting / PSINet Value added Application Service Provider Systems Application Service Providers	NASDAQ / AMEX Bell Atlantic Mobile Commerce Bank CBIS Telecommunicaitons Snap-on Tool Solutions	barnesandnoble.com Polk City Directories
---	---	---

List of Tables and Figures Forecasts for Services by Type & Industry

Market Shares / Forecasts, 2000-2005 Storage Area Networks / Data Centers

Classic Network Elements	Mcdata Fabricgate Eb-1200 Features
Comprehensive San Solutions	Mcdata Eb-1200 Specifications
Information Storage Systems Changing Balance	SCSI Bus Features
Information Storage Component Groups	Enterprise Storage Network Server Functions
Types Of Modules / Quality Of Service	Enterprise Storage Software Positioning
SAN Application Availability Continuum	EMC Enterprise Storage Software Functions
SAN Data Availability Ranges	Distributed Transaction Middleware Functions
ESN Functions / Elements / Positioning	EMC ESN System Positioning
ESN Infrastructure / Integrated Suites	ESN Consulting Functions
Benefits Of Partnership Initiatives	Enterprise (ESN) System Functions
Storage Solution Positioning	Enterprise Storage Networking (ESN) Systems
Market Dynamics / Host SAN / Directors	Prisa Storage Area Network Adapter Features
Server Proliferation / Desktop Multimedia	Datadirect SAN Appliances Features
Redundant Array Information Devices (Raid)	Levels Of Storage Secutiry
Host Adapters / SCSI Hardware and Software	Role Of Service Level Management
CD-R/Rw Software	Legato Continuum Building Blocks
Combined Hub And Switch Port Shipments	Legato Systems Storage Product Types
Storage Server Market Growth	Features Of The Adaptec Raid Product Family
Servers Targeted	Adaptec CD ROM Software Features
Companies With Fibre Channel Technology	Enterprise Networking (ESN) Requirements
Companies With Storage Network Technology	Enterprise Storage Network Architecture
Worldwide Fibre Channel Markets	Storage Networking Industry Association
Storage Systems Market Opportunities	SAN QOC Class 5 Architecture
Storage Area Network Market Constraints	Ancor Strategic Positioning
Primary Computing Platforms	Datadirect Target Markets / Platforms
Enterprise Storage Network Functions	Datadirect Applications
EAI Market Shares	EMC Computer Companies Resellers
Cross Platform Messaging Market Shares	EMC Alliances With Integrators
SAN Middleware Mission Critical Functionality	EMC Notes Of Interest Third Quarter Of 1999.
Limitations Of SANs	Legato Systems OEM Partners
Advantages Of Cross Platform SANS	Legato Systems Positioning.
Benefits Of Enterprise Storage Networks	Mcdata Professional Services Organization
Enterprise Storage Network Architecture	Mcdata Data Center Positioning
ESN Business Continuity Functions	Partnership Programs
MCDATA ED-5000 Specifications	Legato Positioning For Network Storage
Mcdata Fabricgate Features	EMC Web Site Brand Program

REPORT METHODOLOGY

This is the thirty eighth in a series of market forecasts of communications, telecommunications, Internet, and computer and telephone equipment. Storage area networks are poised to reduce the cost of computing. Independent opinion leaders discussed the market variables with the study authors, giving direction about the advantages of separating the storage systems from processing systems. A look at SAN and ESN functionality relates to product directions with respect to cross platform and cross application functions. The project leaders have significant experience preparing industry studies, having written over 300. Forecasts are based on primary research and proprietary data bases. In-depth interviews are conducted with key vendor, users, and opinion leaders. Market directions provide focus.

ABOUT THE COMPANY

WinterGreen Research, founded in 1985, provides strategic market assessments in telecommunications, communications equipment, health care and advanced computer technology. Industry reports focus on opportunities that will expand existing markets or develop major new markets. The reports assess new product and service positioning strategies, new and evolving technologies, and technological impact on products, services, and markets. Market shares are provided. Leading market participants are profiled, and their marketing strategies, acquisitions, and strategic alliances are discussed. The principals of WinterGreen Research have been involved in analysis and forecasting of international business opportunities in telecommunications and advanced computer technology markets for over 30 years.

ABOUT THE PRINCIPAL AUTHORS

Ellen T. Curtiss, Technical Director, co-founder of WinterGreen Research, conducts strategic and market assessments in technology-based industries. Previously she was a member of the staff of Arthur D. Little, Inc., for 23 years, most recently as Vice President of Arthur D. Little Decision Resources, specializing in strategic planning and market development services. She is a graduate of Boston University and the Program for Management Development at Harvard Graduate School of Business Administration. She is the author of recent studies on worldwide telecommunications markets and the Top Ten Telecommunications market analysis and forecasts.

Susan Eustis, President, co-founder of WinterGreen Research, has done research in communications and computer markets and applications. She holds several patents in microcomputing and parallel processing. She is the author of recent studies of the Regional Bell Operating Companies' marketing strategies, Internet equipment, and of a study of Internet and Intranet markets. Ms. Eustis is a graduate of Barnard College.

ORDER FORM

Return to: WinterGreen Research, Inc. Tel (781) 863-5078
6 Raymond Street Fax (781) 863-1235
Lexington, MA 02173 USA

Available in Print or PDF

Please enter my order for:

Storage Area Network And Data Center Markets: Strategic Positions

Market Strategies -- Market Forecasts 2000 to 2005

____ Enclosed is my check for \$2800

____ Please bill my company using P.O. Number _____

____ Please charge my MasterCard / Visa Card / American Express Card Number _____ Exp. Date _____

WINTERGREEN RESEARCH, INC.

_____ Additional copies, @ \$375 (Extra copy price in effect only with initial order)

Signature **X** _____ Date

Name _____ Title

Company _____ Division

Address _____ City _____ State _____ Zip

Telephone _____ Fax

Please Note: Residents of Massachusetts and Connecticut must include appropriate sales tax.
Subscribers outside the United States must provide prepayment in U.S. Funds