EXECUTIVE SUMMARY

Heavy Reading’s Fall 2003 Storage Networking Market Perception Study offers a comprehensive view of one of the computing and communications industry’s most dynamic markets: storage networking. The cornerstone of the study is an invitation-only survey gauging the attitudes and opinions of value-added resellers, systems integrators, service providers, enterprises, and other purchasers and users of storage networking hardware and software in ten product categories.

Three hundred and eighty prequalified respondents participated in the project, yielding critical market perception data for 135 different telecom equipment vendors (61 public, 74 private). Respondents included employees from more than 300 different companies and organizations worldwide, including the following:

- ABN AMRO
- Airborne Express
- Allstate Insurance Co.
- American Airlines Inc.
- AOL Time Warner
- AT&T Corp.
- BellSouth Corp.
- BMW Financial Services
- Cable and Wireless Inc.
- Canadian Broadcasting Corp.
- Cigna Corp.
- Deloitte Consulting
- Deutsche Telekom AG
- EDS Corp.
- ExxonMobil
- FNA Corp.
- Franklin Templeton
- Halliburton
- Level 3 Communications Inc.
- Mitre Corp.
- Northrop Grumman Corp.
- Perot Systems Corp.
- SBC Communications Inc.
- Singapore Telecom
- Sprint Corp.
- Telstra Corp.
- 3M Corp.
- U.S. Department of the Air Force
- U.S. Department of the Army
- Verizon Communications Inc.
- Wachovia

Key findings on market perception of storage networking suppliers include the following:

- **Among storage networking software providers, Veritas Software dominates mind-share with prospective customers.** Although Veritas’s primary strength is as a supplier of backup and recovery software, its reputation for quality in that sector has translated into a strong leadership perception in two emerging product categories: SAN management software and storage resource management software. In both of those nascent sectors, Veritas was perceived as the clear market leader by survey respondents, ahead of vendors with much broader product portfolios.
Despite its late entry into the SAN space, Cisco Systems is already established as a sector leader in the eyes of prospective customers. Overall, Cisco’s scores in the storage networking surveys were not as strong as its scores from the Heavy Reading’s Fall 2003 Telecom Equipment Market Perception Study, but Cisco already has higher brand recognition than such well-established storage suppliers as EMC and McData. As in the telecom equipment survey, Cisco’s main perceived strength is in the quality of its service and support.

Overall results suggest that many potential buyers of SAN products are coming from outside long-established storage channels. Brand recognition ratings for SAN startups were generally higher than startup recognition ratings from previous Heavy Reading market perception surveys of telecom equipment and operations support system (OSS) buyers. This suggests that prospective buyers in the SAN space are more inclined to consider products from smaller, private specialists. Smaller players that scored particularly well in brand recognition include BlueArc, CommVault Systems, CreekPath Systems, LightSand Communications, Sanera Systems, Snap Appliance, and XiOtech.

Among the well-established storage vendors, McData and EMC are doing the best job of building mindshare in the SAN segment. Overall, EMC’s brand recognition among SAN buyers is strong, and its reputation for service and support is solid, but buyers don’t perceive EMC as a supplier of low-price goods. McData’s reputation is more equally balanced between the price and performance leadership categories covered in the survey. Both EMC and McData are perceived as stronger hardware providers than software providers in the SAN market.

Many big vendors trying to cross over into the storage networking market are not yet perceived as strong suppliers. Ciena, Computer Associates, Hewlett-Packard, and Lucent Technologies are all struggling to establish reputations as leading suppliers in SAN product sectors. Surprisingly, name recognition is a big weakness for some of these otherwise well-known brands. For instance, fewer than 60% of respondents in the SAN software categories identified Computer Associates as a vendor, and less than half of all respondents familiar with SAN extension equipment named Lucent as a supplier.

REPORT STRUCTURE

The Heavy Reading market perception survey includes a searchable database for analysis by a wide range of criteria and from a range of perspectives, including the following:

- Geographic region
- Company/organization type (service providers, VARs/integrators, financial, etc.)
- Respondent job category (management, engineering, etc.)
- Startups vs. incumbent vendors

The database allows for further analysis of all survey results for specific purposes, including:

- **Storage networking vendors:** What are the strengths and weaknesses perceived by different demographic segments for specific product categories – and how effective are companies’ various marketing strategies in supporting their brand?

- **Financial analysts and investors:** Which storage networking suppliers have mindshare with customers, which are getting ignored, and which ones have customers not even heard of?
• **Prospective buyers of storage networking products:** Which suppliers are recognized as leading the field on price, performance, quality and reliability, and, perhaps most important of all, service and support?

In addition to presenting a comprehensive picture of how prospective customers perceive storage networking vendors overall, the survey drills down to show what buyers think about vendors’ products within ten distinct storage networking categories:

- SAN Storage Systems (Fibre Channel and IP)
- NAS Systems
- Tape Libraries
- Fibre Channel Switches (Fabric and Director-Class)
- Host Bus Adapters (Fibre Channel and IP)
- SAN Extension Equipment (DWDM/CWDM, Sonet/SDH, and IP)
- Hard Disk Drives
- Backup and Recovery Software
- SAN Management Software
- Storage Resource Management Software

**SURVEY RESPONDENTS**

More than 500 responses were received for the study. All responses coming from those who worked directly for vendors involved in the study or who did not identify a company affiliation were eliminated from the survey database.

The final base of 380 survey participants includes employees from more than 300 different companies and organizations worldwide. Specific demographic breakouts of the survey base are as follows:

**Survey Participants by Region**

![Survey Participants by Region Pie Chart]

North America 70.5%
Europe 14.1%
Asia/Pacific 10.1%
Other (including Central/South America, Middle East, and Africa) 5.3%
Survey participants rated vendors in each product category according to five criteria:

- Name recognition
- Price leadership
- Performance leadership
- Market leadership in product quality and reliability
- Market leadership in service and support

The Heavy Reading study analyzes overall results for each category and breaks out results for each survey category:
Top Vendors by Product Performance (from Section X: Backup and Recovery Software)

- Veritas
- IBM Tivoli
- CA
- Legato
- BakBone
- CommVault

RESPONDENT COMMENTS
The survey contains more than 300 write-in comments from survey respondents, with the primary focus on problems perceived by the carrier market in each of the covered product categories.

Respondent Comments (from Section III: SAN Storage Systems)
Seventy-seven of the 199 respondents to the SAN storage survey offered comments on the problems they perceive with this market segment. Following are highlights:

“COST! My gosh. The margins in the FC space are so high and there is so little competition that there is almost no way an SME business can use FC SANs without dropping a lot of cash. We need a low-cost, high-feature vendor for storage. Simple!”

“Biggest problem to date has been necessity of a separate FC or IP network. Converged transport makes a tremendous amount of sense – I don’t want a separate storage network any more than I want separate networks for HTTP and FTP or voice and data.”

“Fibre Channel is not pervasive and familiar. IP networks may be insecure.”

“IP SAN is touted for long-distance data replication. However, the performance and reliability in this area have never been widely proven.”

“Most of these companies focus on all areas of technology, not only SAN/storage. They don’t focus on it, so their performance is marred by their inadequacies when it comes to integration.”

“Too much focus on price, rather than the total costs, and insufficient focus [on] other factors.”

DEEP ANALYSIS OF PRODUCT CATEGORIES
In addition to survey results and analysis, the report includes concise definitions of storage networking product categories, along with technology and market overviews for each of the ten product sectors.

Heavy Reading’s Fall 2003 Storage Networking Market Perception Study will be essential reading matter for any company selling or buying storage networking hardware or software, investing in the companies that make those products – or looking to sort the leaders from the followers in this fragmented and fast-changing market.