Brocade Buys Rhapsody —
Storage Intelligence *Is* Moving Into the Network

Analyst: Michael Fisch

The storage networking vendor Brocade recently decided to buy the startup Rhapsody Networks. Interesting, but what does it mean? For Brocade? For the market in general? **In fact, there is something greater afoot.**

First, the facts: Brocade announced its intention to purchase Rhapsody, an early leader in multi-protocol, fabric application switches. **Its products will augment and ultimately integrate with Brocade's line of Fibre Channel switches, providing a fabric platform for running storage and data management software.** Rhapsody has already engaged several ISVs to port their storage software to run on its switch, including StoreAge, FalconStor, Alacritus, Topio, and Veritas. More are likely in the works. Brocade says general availability of fabric applications on the new platform is slated for the second half of 2003.

Brocade rose to prominence by selling Fibre Channel switches that are used to build storage area networks (SANs). After years of fast growth, the market for networked storage is well underway to surpass its predecessor, direct-attached storage.[1] Now, there are indications of a second, follow-on trend that builds on this initial success, that is, **moving storage intelligence – the software that enables certain advanced features – into the network**.[2]

Intelligent storage networking is capable of delivering even greater value to enterprises. Here's why:

- **The network provides a common ground through which all data passes** – The application of intelligence requires examining, routing, and manipulating data. Intelligence and data must cross paths, and the network is the most logical point for many (but not all) features.

- **The scope encompasses all servers and storage devices** – Rather than limit software features to particular servers and storage devices, why not make it available to everything, regardless of vendor and operating system? Software value is maximized, and enterprises are free to use any new or existing equipment they want. No more proprietary lock-in.

- **Storage management is simplified** – With one or few instances of the same network-resident software, management is centralized and simplified.[3] This is easier than

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[1] See *Fibre Channel — The Defending Champion Has Staying Power* in **The Clipper Group Explorer** dated December 14, 2001, at http://www.clipper.com/publications.

[2] See *Intelligent Storage Networks — Creating A More Cost-Effective Storage Infrastructure* in **The Clipper Group Explorer** dated February 22, 2002, at http://www.clipper.com/publications.

[3] See *Storage Resource Management - Conducting a Symphony of Storage* in **The Clipper Group Explorer** dated June 30, 2002, at http://www.clipper.com/publications.

managing instances on a multitude of servers, or managing different, vendor-specific software on storage arrays. This will also help with meeting business continuity goals.[4]

- **It's more economical** – The bottom line is the bottom line.[5] All of the above characteristics work to lower TCO, especially as the infrastructure scales. Acquisition costs are likely to be lower (especially if using tiered storage classes[6]), and operating/management costs are certainly lower.

In a word, it is a more efficient approach. However, this is not to say all storage smarts will migrate to the network. Some features are best located on servers or storage devices. Some enterprises will stick with previous paradigms for a variety of practical and philosophical reasons. Nevertheless, features like volume management, data replication, and others make a lot of sense, when residing in the network.

In an open, competitive market (like storage), architectures gradually evolve toward higher efficiency. Customers demand it, and vendors that provide it gain a competitive advantage. So it happens, but not overnight. The market is like a supertanker – it takes a while to make a turn. Trend-watchers must take the long view and look for signs along the way. **To the careful observer, the industry is showing signs of reaching critical mass for moving intelligence into the network.**

It began a few years ago when startups like FalconStor, Datacore, and StoreAge started to develop next-generation, virtualization products in this category. Today, these companies are finding increasing success in selling to early adopters. Meanwhile, the established storage vendors have come onboard now – in word, if not in deed. For instance, HP already sells its *SANlink* virtualization appliance, and its *VersaStor* product (from Compaq) is coming down the pike. Sun bought Pirus for its multi-protocol, intelligent storage switch. IBM will release its internally-developed *Storage Virtualization Engine* in 2003. Veritas is porting its *Volume Manager* to run on third-party networking platforms, and EMC has hinted that it will follow a similar software-only approach.

The point is that intelligent storage networking not only looks good on paper; it is available now and gaining increasing momentum in the market and industry. **In fact, the day is coming when it will be mainstream technology.**

In light of this, the Rhapsody acquisition is more than opportunism or competitive maneuvering. **It allows Brocade to place a firm stake in the future of the industry.** Moreover, the company has deftly positioned itself as a "supplier of enabling platforms", but *not* the storage and data management software itself. This avoids competing with the OEM channel on which it relies for sales. Instead, OEM and ISV partners can differentiate themselves by installing their own software on the Rhapsody switch. It is a natural and complementary approach.

Meanwhile, astute enterprises should at least start thinking about intelligent storage networking. All signs say this next-generation technology will blossom. Your enterprise may want to seek an advantage by adopting early, or it may prefer to play it safe by moving with the pack. Either way, it's coming!

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[4] See *Business Continuity Goes Better With SANs — The 3 Rs of Resilience* in **The Clipper Group Explorer** dated January 25, 2002, at http://www.clipper.com/publications.

[5] See *The Accounting Pendulum Swings at Storage (or, Why The Taxman Cometh?)* in **The Clipper Group Explorer** dated October 31, 2002, at http://www.clipper.com/publications.

[6] See *Tiered Storage Classes Save Money - Getting The Most Out Of Your Storage Infrastructure* in **The Clipper Group Explorer** dated August 29, 2002, at http://www.clipper.com/publications.htm.

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