



## McDATA Buys Sanera and Nishan — But What's In It For You?

Analyst: Michael Fisch

### McDATA Makes a Move

McDATA recently made a big move in the ongoing drama of the storage networking industry. It announced plans to acquire Sanera and Nishan for \$102 million and \$83 million, respectively (pending regulatory approval), and to enter a technology agreement with Aarohi. All of the companies are startups with promising, next-generation technologies, with which McDATA intends to arm itself. Not surprisingly, industry pundits have been busy analyzing what this means for McDATA and its future. This is well and good, but what about enterprise customers today? **What will it mean for the consumers of storage networking equipment?**

When an established player absorbs new technologies, it tends to legitimize them and lessen the risk of adoption – sort of like an official seal of approval. Startups are wonderful hotbeds of innovation, but the hard fact is that most are flashes in the pan – here today and gone tomorrow. It's risky business, and IT departments are naturally reluctant to invest in a product that may not have a firm future. But McDATA will be around. Its *Intrepid* line of multi-protocol directors leads the market, and its *Sphereon* fabric switches have been gaining momentum. **In the hands of an established player like McDATA, the technologies in question suddenly become more realistic, interesting, and viable for enterprise customers.** That's just the nature of the game.

### On the Menu Now

So, there is now a menu of suddenly-more-viable technologies. They fall into two categories – those available now and those that will become part of future McDATA products. The Nishan products fall into the first category.

Nishan was an early leader in IP storage networking and actually has a revenue stream and over 100 customers, including Carlson, Wells Fargo, and JPMorgan. **Its line of multi-protocol, wire-speed IP storage switches are useful for a wide variety of storage networking applications.** The switches are qualified with a long list of third-party hardware and support a “protocol soup” of connectivity options that includes Fibre Channel (FC), iSCSI, FCIP, iFCP, and Gigabit Ethernet.

For example, you may want to achieve greater economies of scale in your SAN (storage area network). Economies means saving money (of course!), whether in equipment or operating costs. Scale implies a bigger and more interconnected network, which is what a capability called *SAN routing* from Nishan can accomplish. To date, enterprises have tended to deploy “SAN islands” around particular applications and/or operating systems. This is a simpler and more bite-sized way to implement them upfront, but it leads to poor resource utilization and more management overhead in the long run. A Nishan multi-protocol switch can connect existing SAN islands, even over long distances with IP, and enable sharing of specified resources while

maintaining separate fabrics for security, performance, and fault isolation. For instance, multiple SAN islands could share a tape library for consolidated backup. **SAN routing is a way to leverage a greater return from IT infrastructure – something that all enterprises want.**

Another application is disaster recovery, which improves an enterprise's ability to continue operations in the event of a local system failure, disaster, or power outage. Calamities *do* happen, and one can't say enough about being ready for it. **Nishan switches have the ability to translate between FC (the de facto standard SAN interconnect) and IP (the ubiquitous standard for data networks), so a local SAN can leverage IP networks for remote mirroring in a metro area or even cross-country.** It can be a key part of a disaster recovery solution.

**Furthermore, Nishan can provide SAN connectivity at a lower cost than FC.** It supports the recently-ratified iSCSI protocol, which allows servers to connect to storage over IP. Per-port costs are lower, and it lets IT departments leverage existing IP expertise rather than hire or develop special expertise in FC. The catch? (You know there had to be one!) **The performance of IP for moving storage traffic is not as high as FC** – for a number of complex reasons that involve protocol efficiency, switch latencies, link-level robustness, and so forth.<sup>1</sup> FC is specifically designed for storage traffic, whereas IP evolved with other purposes in mind. Regardless, inexpensive IP connectivity is a great option for tying in departmental servers (e.g., smaller one- or two-way servers, probably running Windows or Linux) into the FC data center SAN, furthering storage consolidation efforts. It can also be used to create IP-only SANs for environments with less-stringent performance requirements and/or where the financial and technical resources to commit

to FC are lacking, such as in a remote office or smaller business.

## Coming Attractions

Meanwhile, a vendor's future products and options are generally of less interest to enterprises than what is offered today, unless one is waiting for the vendor to develop something in particular. But choosing a vendor for a mission-critical SAN infrastructure should be viewed as more than a one-time transaction – it is also a sort of partnership with the expectation of ongoing support, upgrades, and additional equipment purchases to meet ever-increasing data storage requirements. That's what businesses contend with in the Information Age. As a result, it is a good idea to understand a vendor's strategic direction to see if there is a fit, or at least not a divergence, with that of your enterprise. **McDATA's Sanera and AaroHi deals say a lot about where it is going.**

Sanera has built a multi-protocol director (currently in beta) with supposedly the best performance and highest scalability in the industry, plus advanced fabric services that let it operate exceptionally well as the core building block of a large-scale SAN. While Nishan's SAN routing can tie together existing SAN islands in an ad hoc manner, the Sanera *DS10000* offers a way to build a consolidated SAN properly from the start. It combines massive internal bandwidth, 256 non-blocking ports per director, and sophisticated trunking with hard partitioning capability that divides a SAN into completely separate fabrics for optimizing security, performance, management ease, and fault isolation. **Once the Sanera DS10000 is fully developed and integrated into McDATA's product line, it will be the line director for satisfying the needs of the largest, consolidated SANs.**

The startup AaroHi is developing ASICs (application-specific integrated circuits) for running storage applications in the network. McDATA will include AaroHi's enabling technology in its intelligent networking products so they can deliver advanced features like virtualization, replication, and

<sup>1</sup> For an in-depth look, see *Fibre Channel – The Defending Champion Has Staying Power* in **The Clipper Group Explorer** dated December 14, 2001, at <http://www.clipper.com/research/TCG2001012.pdf>.

mirroring. Intelligent storage networking is an up-and-coming trend that takes advantage of the SAN's position as the common ground through which all data passes. Storage applications running there<sup>2</sup> can maximize their scope across heterogeneous servers and storage arrays while easing management and implementation efforts. It may also save on software licensing costs. **The net benefit to enterprises is a more capable and cost-effective storage infrastructure, which is why intelligent storage networking has generated so much buzz in the industry – and why McDATA is heading in that direction.**

### Conclusion

McDATA has just strengthened its hand for the future and broadened its current offering to enterprise customers. That is the reason for its deals with Sanera, Nishan, and Aarohi. As a specialist and leader in storage networking, it is pushing its own envelope of connectivity options along the dimensions of performance, scale, distance, price, and capability/intelligence.

**So, if you find IP storage intriguing, the solutions from Nishan are suddenly more attractive and safe in McDATA's hands. Perhaps it is time to take a closer look. And if the idea of large-scale SANs or intelligent storage networking appeal to you, McDATA's rating as a SAN vendor just went up. That's what this means for you.**



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<sup>2</sup> Versus on servers or storage arrays

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