Fujitsu Siemens Builds Open-Systems Presence with CentricStor

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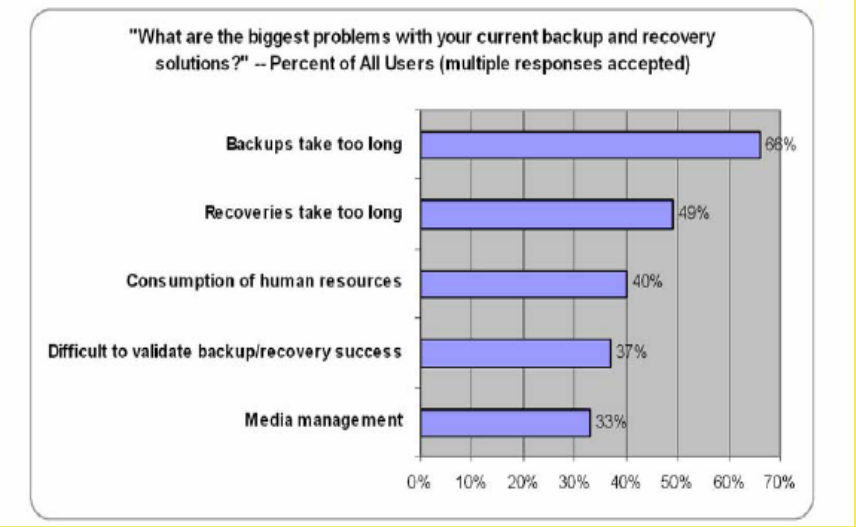
Abstract: By adding two lower-priced CentricStor VTAs to its product family – the VTA 500 and VTA 1500 – Fujitsu Siemens opens new doors for itself in SME markets. Like its flagship products, the VTA 500 and VTA 1500 are differentiated in the market by their seamless integration with tape, platform independence (open-systems and mainframe) and disaster recovery features.

Role of VTL in Today's Data Protection Environment

Virtual Tape Libraries (VTL) are playing an increasing role in data protection environments today, largely because of their non-disruptive nature (they are designed to slip easily into existing tape-based backup environments), their ability to significantly improve both backup and recovery performance – two key factors in today's data- and SLA-intensive environments -- and their ability to reduce media management issues associated with tape (see Figure One).

In fact, recent ESG Research[1] shows continued strong interest in – and, importantly, adoption of -- VTL technology among organizations of all types and sizes. Of survey respondents who currently back up to disk, 32% say they are already using VTL and another 32% expect to within the next 12 to 24 months.

Figure One: Problems with Current Backup and Recovery



Interestingly, while many VTL vendors are pitching VTL use as a replacement for tape – in particular, companies without tape products -- Fujitsu Siemens' position is "embrace tape," not "replace tape."

The company's stance is likely due to the fact that its CentricStor VTA platform automatically moves data from disk (i.e., cache) to tape according to user-defined policies. Most other VTL vendors use an often-clunky and often more media-intensive process of writing data to VTL disk first and, at some future point in time, in a second write process, moving the data off disk onto tape. This process is generally done by the backup application. However, a couple of vendors (e.g., FalconStor) do it from the appliance itself.

The advantage of having the VTL appliance – in this case, the CentricStor VTA -- move the data and create the actual physical tape images has the obvious advantage of freeing up media servers, allowing them to handle

[1] ESG Research: *VTL Adoption and Market Trends*, 2006.

more backup and restore requests and potentially significantly reducing the number of media servers needed. This can have a major cost benefit for users, especially those with multiple media servers.

On the downside, because of this direct integration with tape, CentricStor has no data de-duplication support for the present implementation of its tape volume cache. But Fujitsu Siemens has plans to address challenges like high data volume transfer by locating de-duplicating at the data source. This fact eliminates FS today from some of the buzz factor generated around the topic and will force the company to work even harder to demonstrate the value of what appears to be a highly integrated, very functional high-end solution.

CentricStor's Approach

- **Seamless integration with tape:** CentricStor writes data to its disk cache and then seamlessly moves this data to tape as needed. CentricStor, not the backup application, determines when and how data is moved from its disk cache to attached physical tape. This compares to most other VTL approaches today, which do this "moving" in a two-step process controlled by the backup application: Data is first written to the VTL system and then, based on policies established by the user, moved, or written, to tape in a second separate process. In this sense, CentricStor is ILM- (Information Lifecycle Management) or DPLM- (Data protection Lifecycle Management) friendly, seamlessly moving data from disk to tape as appropriate.

  While other VTL solutions on the market are non-disruptive technologies (i.e., they can be added to or phased into existing tape-based data protection environments without causing users to rip out and replace their existing tape-based infrastructures), they still are intended to displace, or replace, tape. This compares to CentricStor, which truly embraces tape. The objective is not to replace existing tape resources but to augment them (in other words, meet today's recovery objectives) by adding disk cache. Data resides within its disk cache for some scheduled amount of time determined by the user and is then moved, again by the CentricStor appliance, directly to tape.

- **3DR:** 3DR is an ESG-defined framework or construct used to describe three levels of data protection: data recovery (1DR), disaster recovery (2DR) and doomsday recovery (3DR). The first two tiers are disk-based and the third is tape-based. 3DR assumes all recoveries are made from disk, So, does CentricStor's approach fit into ESG's 3DR framework? We believe it does *if* - and this is the key point - tape is being truly used for the doomsday scenario (3DR) or for long-term vaulting and CentricStor's disk cache, not attached tape, is being used for data and disaster recovery (1DR and 2DR) operations. How fast a recovery from the CentricStor is depends on where the data is located: in the disk cache or on tape. Recovery from tape is done through the CentricStor appliance, not by the backup application.

- **The Market And Products**: Since 2000, CentricStor has done well in mainframe and very high-end open-systems markets, but not as well in mainstream low-end and midrange open-systems VTL markets, where vendors like Data Domain, Hewlett-Packard, FalconStor, Hitachi Data System, IBM, Network Appliance and Sepaton play. To address this market, Fujitsu Siemens recently introduced the CentricStor VTA 500, which is essentially a scaled-down version of its higher-end enterprise VTA platforms. The idea is to bring the price down of the VTA to a point where it is more attractive to this class of user but keep as many features of the higher-end platform. The VTA 500 supports a single library and a single location (versus multiple libraries and multiple locations). But like the higher-end product, it can be used in mainframe or open-systems environments and has similar disaster-resilient data replication features for backend tape storage (e.g., Dual Save, Tape Refresh, Tape Reorganization).

  At the same time as it unveiled the VTA 500, Fujitsu Siemens also introduced the CentricStor VTA 1500, which is designed to bridge the gap (in terms of price and virtual drive capacity) between its existing VTA 1000 and VTA 2000 appliances. The VTA 1500 supports a single library while the VTA 2000 platform and above support multiple libraries which can be located at different locations. If

additional libraries or cache mirror are needed, users can upgrade from the 1500 to 2000. Like the 2000, the 1500 disk cache can be scaled up to 173TB and features dual-save and automatic failover. Other high-end Fujitsu Siemens' CentricStor appliances include the VTA 3000, 4000, and 5000. These are all intended for enterprise environments.

- **Disaster Recovery:** CentricStor VTA's Dual Save is a key feature of the CentricStor platform – from low-end to high-end. It allows users to create two physical tapes at the same time and at two different locations for disaster protective purposes. Additionally, CentricStor VTA appliances are configured with redundant internal components for added DR protection and the disk cache can be mirrored if further redundancy is needed.

- **Platform-independent:** One of the key differentiators of the CentricStor VTA appliance is its support for both mainframe and open-systems host connections. However, traditional open-systems VTL vendors, such as Sepaton, are seeing the need for mainframe support and are intending on adding mainframe connectivity to their VTL products. Dual-platform support has been key to Fujitsu Siemens' growth in bread-and-butter IBM and StorageTek accounts as well as in large enterprise shops. Diligent is the only other VTL player that supports both mainframe and open environments.

The Bottom Line

With some 200 enterprise-caliber customers and some 400 CentricStor appliances installed worldwide, Fujitsu Siemens has a good base already. Its long-standing relationships with StorageTek and IBM are also potential significant points of leverage. Recent ESG research found that at the highest end of the market, brand loyalty by incumbent VTL provider or by Tape provider are the lowest rated aspects by users. That means FS has an opportunity to gain share from the high-end due to larger disk cache sizes and better overall physical tape integration options.

In addition, the two VTA appliances should open up significant new doors for the company in the SME market both here in the States and overseas. The challenge will be gaining traction in a market that is already well-populated with VTL products and vendors. To compete effectively in this crowd, the company will need to run like a well-oiled machine. Its SME messaging has to be well-articulated, its technology sound and its products user-friendly. It should shout from the rooftops the advantages of its integration with tape and its multi-platform support, both of which are differentiators in the VTL market today. The challenge Fujitsu Siemens faces is that most of its success has been in Europe, and it registers no effective brand awareness in North America. Creating both a brand and a channel to deliver the message is not an easy thing to do. With the right effort, there is no reason Fujitsu Seimens can't make a big dent in a fast growing market.