

HDS and BlueArc - *A Partnership That is "High" High Performance and High Scalability*

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Abstract: HDS and BlueArc have a great deal in common. Both provide high performance and high scalability and they both focus on storage virtualization in various iterations.

How many storage systems vendors generate more than \$1 billion in annual revenue? The answer is seven: Dell, EMC, HDS, HP, IBM, NetApp and Sun. That's pretty impressive. Now, name the number of vendors that generate more than \$1 billion in NAS revenue annually. There are only two NAS vendors that can make this claim (I'll let you figure it out).

The NAS market has pretty much been uncontested, certainly at the Enterprise level, for well over a decade. Arguably it is a duopoly with EMC and NetApp battling it out and all of the other guys staking out a minor claim in the fray. There is certainly room for another leader but none has emerged and there appears to be no obvious contender. IBM has an OEM relationship with NetApp and they are steadily building success. While this is good for IBM it ultimately further secures NetApp's dominance.

HDS appears as if they are getting into the NAS arena with a serious agenda. HDS is partnering with BlueArc, an emerging vendor with best-in-class next generation NAS solutions targeted for the billion dollar plus high performance computing (HPC) market and large data centers. HDS is already very successful in large data centers. End-user companies and organizations use NAS solutions for storing tons of unstructured data, allowing thousands of users to store and access files. HDS will certainly have an advantage within their own customer base and can provide a very competitive solution to new customers.

The HPC market is new to HDS. But the reality is that neither of the major NAS guys - EMC or NetApp - have a strong presence in the HPC market. Right now, the big players are emerging vendors like BlueArc. On some level HDS will have an advantage because they bring the cache of a large storage vendor with the innovation of an emerging vendor.

ESG estimates that the total HPC storage market, including oil and gas, media and entertainment, advanced engineering, scientific research and online services, is approximately \$1.1 billion in 2006, and will grow to \$1.4 billion in 2007, \$1.6 billion in 2008, \$1.9 billion in 2009 and \$2.4 billion in 2010. The data center Enterprise NAS market is currently well over a billion.

HDS + BlueArc

BlueArc designed special-purpose hardware to provide accelerated performance for its NAS solution. The BlueArc NAS solution can support multiple, diverse applications including high performance computing, database applications, e-mail, file sharing/storage, digital archiving and disk-to-disk backup in one solution. The elements that enable BlueArc to support all of these environments include the following features and functions:

- High performance architecture that is optimized for data movement of various and diverse data types.
- Large, scalable file system supporting up to 512 TB.
- Global Name Space.
- NFS, CIFS and iSCSI support.

- Snapshot - BlueArc has best-in-class snapshot technology that creates logical read-only copies of primary data instantly, efficiently and with minimal overhead.
- Remote mirroring - file level and volume level.
- Intelligent tiered storage - BlueArc supports policy-driven transparent data migrations between different tiers of storage.

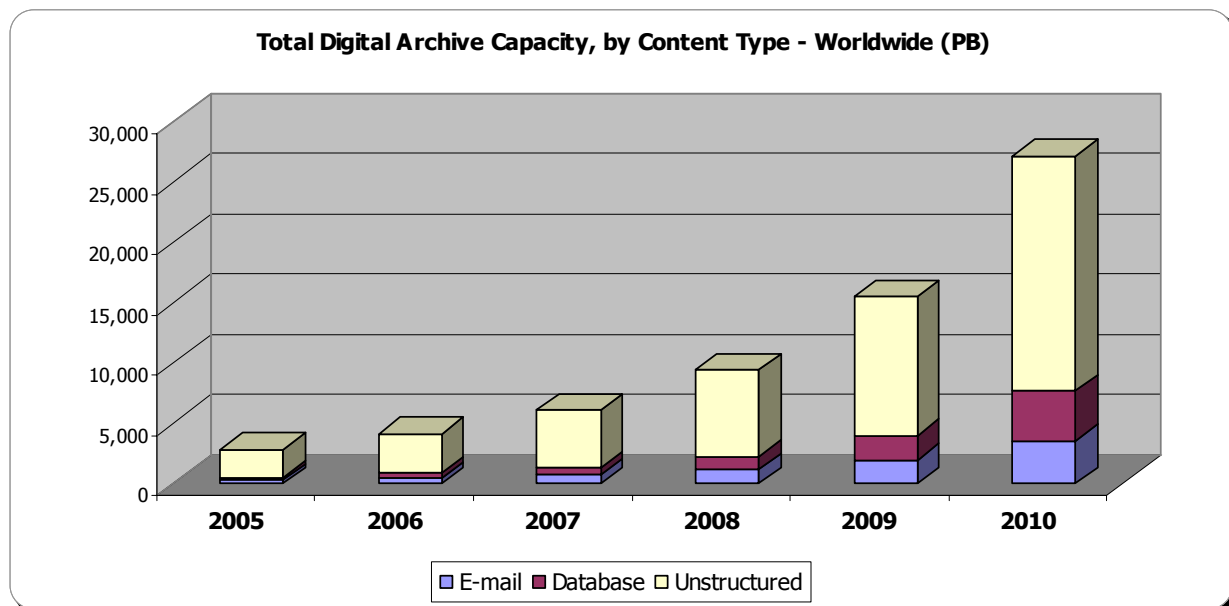
BlueArc has a very competitive NAS solution with advanced functionality and features, a massive file system (512 TB), global namespace for ease-of-management and high scalability and performance.

HDS brings to the table a large number of end-user customers, a world-class support organization and a great reputation. Additionally, HDS provides a number of other valuable solutions, including its Enterprise-class Universal Storage Platform (USP). HDS can provide a wide range of solutions and services to their customers in addition to NAS. Having a major vendor provide multiple products is attractive from an end-user's point of view. They can consolidate not only their storage but their vendor relationships as well. Additionally, they don't have to sell upper management on the viability of HDS.

Market Dynamics

ESG Research has found that unstructured data (a.k.a. file data) is growing by leaps and bounds within digital archiving. ESG estimates that there were 2,786 PB of file data in 2005 and that number will be growing to 27,200 PB by 2010 (see Figure One). This dwarfs e-mail and database archived storage. Companies are creating more files, the size of which are continually increasing and retaining them for longer periods.

Figure One: Total Digital Archive Capacity



ESG's View

Certain questions may arise for the HDS and BlueArc partnership:

Is HDS too late to be a leader in the NAS market? I don't think it's too late. The NAS market is still growing and customers are going to be evaluating new systems continuously. And, at the very least, HDS customers will stand up and pay attention.

HDS has tried selling NAS in the past but that didn't make them a market leader -- why will this time be different? Only time will tell. However, I do see the signs of commitment by HDS to make this a winner.

Isn't it a disadvantage for HDS to partner instead of owning the technology? That is certainly not the case. We see successful OEM storage relationships that generate a ton of revenue and market share.

Make no mistake, HDS does have a big hill to climb to become a NAS leader. However, out of the gate, HDS can drive some great business, bringing in millions of dollars where they made relatively little before. The success of this relationship shouldn't be measured by the billions but by creating incremental revenue and account protection from the NAS vendors trying to get their foot in the door at HDS accounts.

The HPC storage market has no major dominant leader, so in a sense, that title is still up for grabs. It is a lucrative market and growing rapidly. The data center NAS market is hotly contested and HDS brings a lot to the table with this customer base. Being armed with a next generation NAS solution should help them to win against the incumbents.

ESG is pleased with the HDS/BlueArc relationship. For years we have been pushing HDS to expand its portfolio beyond just SAN hardware solutions. And they have made great progress building their storage software business entering the digital archiving market, adding disk-to-disk backup, and backup software and now they have expanded their NAS offerings.