

Demartek Lab Notes – July 2011



Real-world, Hands-on
Research & Analysis

Lab Notes

July 2011

Welcome



Welcome to the **Demartek Lab Notes**, our monthly newsletter. This newsletter contains a few links to our recent lab evaluations, articles and upcoming speaking engagements. As you can see below, we are expanding in breadth and depth, increasing our capabilities, and continue to stay busy with very interesting projects.

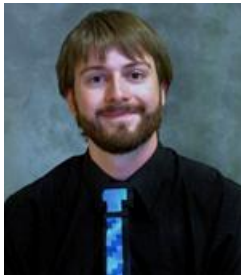
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Demartek News



[Demartek Is Expanding](#)

Meet Demartek's newest member, Jeremy McCoy. Jeremy is a Systems Analyst who joined Demartek in 2011. Jeremy has worked in system administration and video production as a freelancer for several years. He has experience serving in development labs, end users, and many small-to-medium businesses. As a PC, Linux, and Apple Certified Macintosh Technician, Jeremy brings a unique and highly adaptable skill set to Demartek. We're excited to add Jeremy to the Demartek team!



[Demartek iSCSI Deployment Guide 2011 - Update](#)

We published the Demartek iSCSI Deployment Guide 2011 on May 31, 2011. In the first 30 days, we had **more than 1000 downloads** for this report from real human beings in 51 countries (excluding web crawlers, web bots, etc.). We have posted the [Demartek iSCSI Deployment Guide 2011 Download Statistics](#) on our website.

[Demartek Storage Networking Interface Comparison - Update](#)

Demartek has updated its Storage Interface Comparison reference document with information about OM3 and OM4 fiber-optic cabling. The cabling section includes information about various cable types used for storage interfaces and provides information about multi-mode and single-mode fiber optic cables and the distances supported for various transmission speeds, including 8Gb FC and 10GbE.

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This reference document includes information about several interfaces used for storage technologies such as Fibre Channel, FCoE, Infiniband, iSCSI, SAS, SATA, and USB. It includes transfer rates, history, roadmaps for these interfaces, and information about cabling and connectors.

[Demartek Evaluation of Broadcom BCM957712-S 10Gb Ethernet/FCoE/iSCSI Offload Adapter](#)

With an increasing number of operating systems and/or applications installed in today's servers, the need for network and storage adapters that can support multiple protocols becomes more important. Broadcom has introduced its BCM957712-S dual-port Converged NIC that supports 10Gb Ethernet, Fibre Channel over Ethernet (FCoE) with full hardware offload and iSCSI with full hardware offload. This adapter fits the description of a Converged Network Adapter (CNA). We found that the Broadcom BCM957712-S adapter outperformed the competitive adapters. We were able to achieve approximately **1.7 million IOPS** for FCoE random reads and more than **1 million IOPS** for iSCSI random reads using the Broadcom BCM957712-S adapter.

Upcoming Speaking Engagements

Flash Memory Summit 2011 - August 9-11, 2011

Dennis Martin, President of Demartek, will be participating in two panels at the Flash Memory Summit. These panels are:



- Tuesday, August 9, 10:10 a.m. - 11:25 a.m.:
Implementing SSDs in Oracle Database Environments
- Tuesday, August 9, 2:10 p.m. - 4:45 p.m.: ***Solid State Drive (SSD) Technology***

Storage Decisions New York- September 19-20, 2011

Dennis Martin, President of Demartek, will present two sessions at the Storage Decisions Conference in New York. These sessions are:

- **Making the Case for Solid-State Storage** - Everybody knows that solid-state storage runs fast and cool, and uses far less power than hard disk alternatives. And everybody knows that solid state is darned expensive, too. In this session, we'll see where SSD can have the most impact in a storage environment, including looking at the various implementation alternatives. We will discuss the device choices and data placement choices you need to make when considering SSD deployments. We'll also crunch the numbers with a financial breakdown of SSD implementation and help you determine if solid state is cost effective for your company, taking into account newer technologies like automated tiering that make solid state a more viable alternative in some cases.
- **Efficient Storage: Automated Storage Tiering** - First there was HSM, then came ILM, but this time around, automated tiering--without a catching acronym to hang on it--is getting much more serious consideration. Shrinking storage budgets and escalating capacity requirements have made it clear that storage must be managed better. One of the basics of good management is ensuring that data is kept on the most appropriate storage according to its usefulness and importance to the organization. Automated storage tiering represents a bold step in that direction, and most major storage vendors have jumped on the tiering bandwagon--but there are key differences in how they tier, and some software alternatives to consider as well.

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Top Ten Most Popular Demartek Pages and Reports

We have a feature on our website that lists the top ten most popular pages and reports for the last four weeks, updating every Monday morning. Here's how it looked on July 11:



1. [Demartek iSCSI Deployment Guide 2011](#)
2. [Demartek Storage Networking Interface Comparison](#)
3. [Demartek Presents Robocopy at March 2011 RMWTUG Meeting](#)
4. [Demartek Publishes Exchange Server 2003 vs 2007 vs 2010 I/O Comparison Summary](#)
5. [Demartek Publishes Evaluation of LSI WarpDrive Performance](#)
6. [Demartek SSD Zone](#)
7. [Demartek Adds Large-Memory Server to its Test Lab](#)
8. [Demartek Publishes Evaluation of LSI MegaRAID CacheCade Performance](#)
9. [Demartek Lab Validation](#)
10. [Demartek About Us](#)

Be sure to check back every Monday to see which reports have been the most popular!

Have A Test Idea?

We look forward to speaking with you all and seeing you at upcoming events later this year. We remain excited about the technologies we get to deploy and people we work with. If there is something you would like to test, please contact us!

Dennis Martin
Demartek