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Industry Trends Perspective Update Newsletter
Information Technology and Data infrastructure
Cloud Virtual Physical Software Defined

Server and Storage IO Update newsletter - April and May 2014

Welcome to the April and May 2014 edition of the StorageIO Update (newsletter) containing trends perspectives on cloud, virtualization and data infrastructure topics.

The good news is that while spring is running late (as is this newsletter;) here in the Stillwater MN area as well as other parts of the world, both are finally here. To say that a lot has been going on and things busy would be an understatement, however that is probably also the situation with you as well. So what has been going on during April and May 2014?

Industry and Technology Updates

Sony and Fujifilm (with their partner IBM) are trading marketing and proof of concept (POC) lab material in the efforts to show tape is still alive for data storage. Sony announced a month or so ago that it was moving the bar to 185TB per tape (without dedupe). Not to be out done, Fujifilm announced in late May that they in conjunction with IBM have a POC for a 154 TB LTO in the works.



Greg Schulz on break

On the Hard Disk Drive (HDD) front, Seagate released a new 6TB device that they claim to be fast. I asked Seagate to send me one of the drives to see how fast it really is vs. their claims. While I have not completed all tests yet, what I can tell you is that the 6TB 3.5" 12Gbps SAS 7.2K RPM drive is like an american football linebacker or fullback. Its big, bulky, high-capacity, resilient with 10 to the 15 bit error rate (higher than normal high-capacity HDD's) and fast.

Sure the 6TB HDD is not in the speed race of a quick SSD or SSHD or 15K, however I was surprised at just how fast it is for its space capacity. Watch for a follow-up review in the not so distant future and if a WD 6TB drive were to show up on my door step can give some perspectives on that as well.

As for SSD, they are following the trend paths of tape and HDD's of increasing in space capacity, coming down in price and improving on resiliency. While I see HDD and even tape surviving for some time, granted in different roles, I'm also a firm believer that flash SSD in some form are in your future. The question is how much, when, where, with what and from whom. Needless to say there is plenty of SSD related hardware and software activity occurring in the StorageIO labs;).

Vendors and revenue earnings, is there storage slowdown?

In other industry news and activity, vendor quarterly earnings are out and there is mixed information (see this recent post of if there is an information recession). IBM is one of those who have announced lowered storage related revenues as NetApp had mixed results

(as did other vendors). In addition IBM is <u>officially saying</u> they are finally dropping the NetApp (FAS/ONTAP) based N series (was originally reported a week or so ago via <u>Bloomberg</u>). Note that IBM will continue to OEM NetApp E series (e.g. <u>Engenio based</u>). Some of you might remember (or do a Google search) that IBM indicated a few years back that it was De emphasizing the N series or moving away from it. Perhaps this time they really mean it while NetApp could move to embrace those VAR's and IBM business partners to sell NetApp vs. IBM branded versions of the product. Here are some more perspectives appearing in <u>SearchStorage</u>. Watch for more about NetApp in a future follow-up post.

In some other industry news, you might remember back in the <u>February StorageIO update</u> newsletter there was mention of Avago buying LSI. Now <u>Avago is selling the flash business</u> of <u>LSI to Seagate</u> for about \$450M USD in the ongoing <u>flash dance for cache and cash</u>.

Staying busy is a good thing

What have I been doing during April and May 2014 to stay busy besides getting ready for spring and summer fun including in and around the water?

- Attended NAB 2014 in Las Vegas where it is not just about archiving pertaining to data storage
- Presented <u>several sessions</u> including a keynote at the SNIA DSI conference
- Was back in Las Vegas to attend EMCworld, I have some updates in the works from that event
- Presented several BrightTalk Webinars (see events below) with more coming up in June
- Release of new ITP white paper and StorageIO lab proof points with more in the works
- More videos and pod casts, technology reviews including servers among other things
- Participated including keynote at a vendor neutral archiving event in Europe
- Providing industry commentary in different venues (see below) along with some writing
- Not to mention various client consulting projects
- Remember, work hard play hard, play hard and work hard!

Whats in the works?

Several projects and things are in the works that will show themselves in the coming weeks or months if not sooner. Some of which are more proof points coming out of the StorageIO labs involving software defined, converged, cloud, virtual, SSD, data protection and more.

Speaking of Software Defined, join me for a free BrightTalk Webinar on June 12 on the many faces and facets of virtualization and software defined storage. Learn more about that <u>event here</u> as well as in the activities section down below.

Watch for more StorageIO posts, commentary, perspectives, presentations, webinars, tips and events on information and data infrastructure topics, themes and trends. Data Infrastructure topics include among others cloud, virtual, legacy server, storage I/O networking, data protection, hardware and software.

Enjoy this edition of the StorageIO Update newsletter and look forward to catching up with you live or online while out and about this spring.

Ok, nuff said (for now)

April and May 2014 Industry trend and perspectives

Tips, commentary, articles and blog posts



The following is a synopsis of some StoragelOblog posts, articles and comments in different venues on various industry trends, perspectives and related themes about clouds, virtualization, data and storage infrastructure topics among related themes.

Storage IO comments and perspectives in the news



SearchStorage: Comments on IBM dropping N series, NetApp is still OEM to IBM InfoStor: Comments on Software Defined Storage: 10 Things You Need to Know SearchDataBackup: Comments about buying guides for enterprise Hard Disk Drives (HDD) SearchDataBackup: Conversation about data protection modernization InfoStor: Comments on cloud storage, 10 things you need to know InfoStor: Comments on Data Archiving: Life Beyond Compliance NetworkComputing: Comments on Sorting Through Storage Industry Hype StateTech: Comments on Secure Erasing HDDs and SSDs including planning in advance SNIA: Comments on CDMI Cloud Management Conformance Testing EnterpriseStorageForum: Comments on Hybrid Cloud Storage Tips NetworkComputing: Comments on Sorting Through Storage Industry Hype

Storage IO tips and articles appearing in various venues



Via InformationSecurityBuzz: <u>Dark Territories MH370 Do You Know Where Your Information Is?</u> We still dont know 100% where the missing Malaysian airlines flight 370 is which amplifies the fact that there are still dar territories or gaps in coverage in this large world. Likewise there are gaps in coverage in many IT environments yet tools and technologies are available to gain better situational awareness and insight.

Via The Virtualization Practice: This piece looks at the <u>EMC ViPR V1.1 and SRM V3.0</u> (Software Defined Storage Management) announcements from earlier this year, along with links to earlier announcement and technology analysis. Note that EMC announced May 5, 2014 ViPR 2.0 along with their new Elastic Cloud Storage Appliance (ECS) among other enhancements at EMC World. Additional perspectives on ViPR 2.0, Elastic Cloud Storage Appliance and EMCworld announcement summary analysis can be found <u>here</u> in <u>this video</u> (with text) that I did (produced via TechTarget) while at EMCworld 2014. Watch for more coverage of ViPR 2.0 and other related new as well as updated items from EMCworld 2014 in upcoming posts, articles and commentary.

Via InfoStor: <u>Data Archiving</u>: <u>Life Beyond Compliance</u>. Today many people think or assume based on what they hear that Archiving is only for regulatory archiving. Meanwhile some of you may remember a time before the regulatory compliance era of the early 2000s when Archiving was used as a general purpose tool, technology and solution to many IT data management storage challenges. This piece I did over at InfoStor looks at <u>Data Archiving</u>: <u>Life Beyond Compliance</u> and how Archiving is also a key technology that are part of <u>Data Footprint Reduction</u> (<u>DFR</u>) that also includes compression, dedupe, thin provisioning amount other techniques and tools. <u>Here is</u> a related Email Archiving piece (beyond compliance) from over at <u>StateTech</u> along with Practical tips in a piece over at <u>VMware Communities</u>.

Storage IO video and audio pod casts



Video conversation with Rob Emsley of EMC and me discussing data protection modernization moving beyond the product pitch! (Via TechTarget SearchDataBackup). In this conversation Rob and me talk about various aspects of data protection modernization including finding and fixing problems at the source, accidental architectures, using new (and old) things in new ways, rethinking data protection. However the conversation is a discussion about the topics, issues, trends, what can be done as opposed to a product pitch infomercial. Check out this video blog (vblog) of Rob and me via TechTarget SearchDataBackup, then weigh in with your comments.



Audio Podcast: Data Storage Innovation Conversation with SNIA Wayne Adams and David Dale

In this episode, SNIA Chairman Emeritus Wayne Adams and current Chairman David Dale

join me in a conversation from the Data Storage Innovation (DSI) 2014 conference event. DSI is a new event produced by SNIA targeted for IT professionals involved with data storage related topics, themes, technologies and tools spanning hardware, software, cloud, virtual and physical. In this conversation, we talk about the new DSI event, the diversity of new attendees who are attending their first SNIA event, along with other updates. Some of these updates include what is new with the SNIA Cloud Data Management Initiative (CDMI), Non Volatile Memory (think flash and SSD), SMIS, education and more. Listen in to our conversation in this podcast here as we cover cloud, convergence, software defined and more about data storage.





Audio Podcast: Catching up with Cash Coleman talking ClearDB, cloud database and Johnny Cash

In this episode from the SNIA DSI 2014 event I am joined by Cashton Coleman (@Cash_Coleman). Cashton (Cash) is a Software architect, product mason, family bonder, life builder, idea founder along with Founder & CEO of SuccessBricks, Inc., makers of ClearDB. ClearDB is a provider of MySQL database software tools for cloud and physical environments. We talk about ClearDB, what they do and whom they do it with including deployments in cloud's as well as onsite. For example if you are using some of the Microsoft Azure cloud services using MySQL, you may already be using this technology. However, there is more to the story and discussion including how Cash got his name, how to speed up databases for little and big data among other topics. Check out ClearDB and listen in to the conversation with Cash podcast here.



Audio Podcast: Matt Vogt talks VMware vCOP in his first ever podcast In this episode from the Computex Rethink your Datacenter for 2017 planning and strategy event I am joined by Matt Vogt (@MattVogt). Matt is a Principal Architect with Computex Technology Solutions as well as certified VMware specialist and fellow vExpert. We talk about the role of automation for performance and capacity optimization along with how VMware vCop plays an important role. Listen in to learn more about how to gain insight and situational awareness to make informed decisions for your data infrastructure environment with Matt. Check out Matt's blog here at blog.mattvogt.net and listen in to the podcast here.

StorageIO audio podcasts are also available via iTunes and at StorageIO.tv

Storage I Oblog posts and perspectives



- Is there an information or data recession, are you using less storage (with polls)
- Lenovo TS140 Server and Storage IO Review Part I here and Part II here
- Nand flash SSD server storage I/O conversations: <u>See more SSD stories here</u>
- Data Protection Diaries: March 31 World Backup Day is Restore Data Test, <u>read more</u> here
- March 2014 Storage IO Update Newsletter: Click here to read more

Storage IO White Papers, Solution Briefs and Storage IO Lab reports



New White Paper: Solid State Hybrid Drives (SSHD)

Enterprise SSHD and Flash SSD — Better Together - Part of an Enterprise Tiered Storage Strategy The question to ask yourself is not if flash Solid State Device (SSD) technologies are in your future. Instead the questions are when, where, using what, how to configure and related themes. SSD including traditional DRAM and NAND flash-based technologies are like real estate where location matters; however, there are different types of properties to meet various needs.

This means leveraging different types of NAND flash SSD technologies in different locations in a complementary and cooperative aka hybrid way. In this StorageIO Industry Trends Perspective thought leadership white paper we look at how enterprise class Solid State Hybrid Drives (SSHD) and how they address current and next generation tiered storage for virtual, cloud, traditional Little and Big Data infrastructure environments. This includes providing proof points running various workloads including Database TPC-B, TPC-E and Microsoft Exchange in the StorageIO Labs comparing SSHD, SSD and different HDDs. Read more in this StorageIO Industry Trends and Perspective (ITP) white-paper compliments of Seagate Enterprise Turbo SSHD. Read the companion blog post here that includes more proof points for large file transfer performance.

Remember to check out our <u>objectstoragecenter.com</u> page where you will find a growing collection of information and links on cloud and object storage themes, technologies and trends from various sources.

If you are interested in data protection including Backup/Restore, BC, DR, BR and Archiving along with associated technologies, tools, techniques and trends visit our <u>dataprotectiondiaries.com</u> page. For those who follow SSD and related technologies, we have organized a series of items at <u>storageio.com/ssd</u>.

Storage IO events and activities



The Storage IO calendar continues to evolve, here are some recent and upcoming activities including live in-person seminars, conferences, keynote and speaking activities as well as on-line webinars, twitter chats, Google+ hangouts among others.

June 12, 2014	BrightTALK™	The Many Facets of Virtual Storage and Software Defined Storage Virtualization	Webinar 9AM PT
June 11, 2014	BrightTALK™	The Changing Face and Landscape of Enterprise Storage	Webinar 9AM PT
May 14, 2014	Brouwer Storage Consultancy	Keynote - Healthcare Vendor Neutral Archiving Symposium	Nijkerk Netherlands
May 5- 7, 2014	REPERINE	EMC World	Las Vegas
April 23, 2014	SNIA DSI Event	Keynote: Enabling Data Infrastructure Return On Innovation – The Other ROI	Santa Clara CA
April 22, 2014	SNIA DSI Event	The Cloud Hybrid "Homerun" – Life Beyond The Hype	Santa Clara CA
April 16, 2014	BrightTALK™	Open Source and Cloud Storage - Enabling business, or a technology enabler?	Webinar 9AM PT
April 9, 2014	BrightTALK™	Storage Decision Making for Fast, Big and Very Big Data Environments	Webinar 9AM PT

Click here to view other upcoming along with earlier event activities. Watch for more 2014 events to be added soon to the StorageIO events calendar page. Topics include data protection modernization (backup/restore, HA, BC, DR, archive), data footprint reduction (archive, compression, dedupe), storage optimization, SSD, object storage, server and storage virtualization, big data, little data, cloud and object storage, performance and management trends among others.

Vendors, VAR's and event organizers, give us a call or send an email to discuss having us involved in your upcoming pod cast, web cast, virtual seminar, conference or other events.

Storage IO Update Newsletter Archives

<u>Click here</u> to view previous StorageIO Update newsletters (HTML and PDF versions) at <u>www.storageio.com/newsletter</u>. Subscribe to this newsletter (and pass it along) by <u>clicking</u>

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