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The Server and StorageIO Update news letter - December 2012

Happy holidays and seasons greetings

Welcome to the December 2012 special year edition of the StorageIO Update ([news letter](#)). You can find previous editions of the StorageIO news letter on [our web site \(click here\)](#). 2012 is winding down and it has been another busy year with various projects, research, advisory consulting assignments, attending as well as presenting at different [events in addition](#) to covering and [commenting on industry activity](#), creating [videos](#), [webinars](#), [pod casts](#), [tips](#), [articles](#) and [blog posts](#).

This issue of the StorageIO update news letter also has a new format and layout featuring additional content and articles. One of the changes in this issue is the inclusion of more articles and content to compliment the various links. Another change is that for those who received this via email (e.g. subscribers), you are reading a shortened streamlined version of the [full news letter which can be found here](#) (both [PDF](#) and [HTML versions](#)).

Enjoy this special edition of the StorageIO Update news letter that starts out with some industry trends and perspectives from 2012 and looking forward to 2013 followed by additional material.

I would also like to extend a special thanks to all of the clients and partners of StorageIO on a global basis as well as to everyone who participated in the nearly four dozen live and in person events this past year along site visitors and viewers.

Too all of you and everyone else I say thank you, have a safe and happy holiday season, and a prosperous new year in 2013.

Ok, nuff said (for now)

Cheers gs



Industry trends perspectives and commentary What is being seen, heard and talked about while out and about Thoughts and perspectives from 2012 and for 2013

[There is no such thing as an information recession](#) with more data to move, process, store and manage for longer periods of time. Likewise [people and data are living longer and getting larger](#). However there are [economic realities](#) and the need to be [more effective](#) and innovative including finding, then removing complexity and cost vs. simply cutting cost. Thus return on innovation is the new ROI complimenting traditional financial based return on investment models.

There are many different aspects to big data not to mention plenty of confusion, hype and FUD, needless to say with the industry popularity, watch for plenty of more big data buzz in 2013. Those with a pragmatic view of or towards big data will prosper in 2013 while those with narrow or singular perspectives will envy the pragmatists. Read more about big data buzz [here](#) and [here](#).

In addition to confusion, there are also many common concerns or comments that I routinely hear pertaining to clouds (public, private, hybrid) products, providers, protocols, processes and paradigms including:

- Cloud cheerleader hype
- Cloud critics and cynics FUD
- Confidence in cloud products or services
- Certainty in cloud data protection or security
- Cloud certifications and standards
- Compatibility and interoperability

- Classes and continuing education
- Confidentially, privacy and security
- Costs of cloud services or products
- Country where cloud data is stored

Cloud and object storage were also popular topics and themes in 2012 both for traditional storage vendor products (Amplidata Amplistor, Cleversafe, DataDirect Networks (DDN) WOS, Dell DX (Caringo), EMC ATMOS & Centera, HDS HCP, HP StoreAll, NetApp, Redhat, Quantum and Scality others), not to mention the service providers (Amazon, AT&T, Google, HP, Microsoft Azure, and Rackspace among many others), along with open source based solutions OpenStack, Cloudstack, Basho Riak CS, and [Ceph](#). Watch for more cloud and object storage along with scale out file systems activity in 2013, meanwhile read more about cloud concerns, related themes and what can be done about them [here](#).

Solid state devices (SSD) primarily **nand flash based** were again a popular 2012 topic, a trend that will continue into 2013 and beyond. **SSD solutions** continue to gain in adoption and deployment with various options for different needs or environments. Keep in mind that **the best IO is the one that you do not have to do**, the second best is the **one with the least impact or cost**.

Data protection modernization including backup/restore, HA, BC, DR, archiving and related technologies for cloud, virtual and traditional environments was a popular theme, and one I spent a large amount of time on. Modernizing data protection is more than simply swapping out media such as tape for disk, cloud for disk and involves taking a step back, rethinking when, where, why and how tools or technologies are used in new innovative ways to do more with what you have.

There is **a new (free) book** that I'm a co-author of along Bruce Grieshaber and Larry Jacob (both of LSI) along with foreword by Harry Mason of LSI titled **SAS SANs for Dummies compliments of LSI**. This new book (ebook and print hard copy) looks at Serial Attached SCSI (SAS) and how it can be used beyond traditional direct attached storage (DAS) configurations for support various types of storage mediums including SSD, HDD and tape. These configuration options include as entry-level SAN with SAS switches for small clusters or server virtualization, or as shared DAS as well as being a scale out back-end solution for NAS, object, cloud and big data storage solutions among others. [Click here](#) to ask your **free copy of SAS SANs for Dummies compliments of LSI**, tell them Greg of StorageIO sent you and enjoy the book.



For those wondering what my **next book(s)** will be, good question. I'm considering several different projects and topics at this time, so stay tuned to see what 2013 will bring.

Software Defined Networks (SDN) elevated to a new buzzword bingo status level in 2012 spawning many variations including Software Defined Data Center (SDDC), Software Defined Storage (SDS), Software Defined Marketing (SDM), **Software Defined BS (SDBS)** among others. Needless to say, watch for more software defined buzz in 2013 with mix of real technologies and plenty of software defined marketing.

A couple of years ago **I mentioned a trend** that I was seeing where IT organizations were **using more than one server hypervisor** for virtual machines (VMs). This trend is **tiered hypervisors** being used for different purposes, similar to tiered servers or storage. For example using VMware vSphere for premium functionality on some servers, Microsoft Hyper-V, Citrix/Xen or KVM for other functionality to balance cost and avoid treating everything the same. This is a continuing trend that I'm seeing along with vendors providing management including data protection (backup/restore, BC, DR, replication) tools for mixed environments. The trend of server virtualization life beyond consolidation where focus expands to agility and flexibility vs. simply how many VMs per PM continues to gain traction. Speaking of hypervisors, storage hypervisors (the new name for storage virtualization and virtual storage) was popular in the industry during 2012 and will continue into 2013, hopefully with some clarity, less FUD and confusion.

2012 also saw several mergers and acquisitions (M & A), along with plenty of new startups and some existing startups shutting down or going off into hiding to reappear someday on the where are they now list. Not to worry, there are plenty of new startups that have recently appeared, and several more in stealth mode just waiting to make their appearance. Even with continued global economic challenges, watch for more M&A activity in 2013 as described to me by a financial analyst, the rate of return on some startups for an established vendor can be much better than what their cash is earning in other securities.

Finally (for now) the [industry links page](#) on the [StorageIO web site](#) has been updated and now includes well over a [1,000 vendors, vars and service provider organizations](#) and more will be added soon. [View the list and links page here](#).

Watch for more industry trends and perspectives commentary, articles and posts moving into 2013 along with those that you will find in this special end of the year [StorageIO Update news letter](#).

Industry trends and perspectives: Hardware, Software, what about Valueware?

I am surprised nobody has figured out how to use the term [valueware](#) to describe their hardware, software or services solutions, particular around [cloud](#), [big data](#), [little data](#), [converged solution](#) stacks or bundles, virtualization and related themes.

Note that I'm referring to IT hardware and not what you would usually find at a [TrueValue hardware store](#) (disclosure, I like to shop there for things to innovate with and address the non IT to do project list).

Instead of value add software or what might otherwise be called an operating system (OS), or middleware, glue, hypervisor, shims or agents, I wonder who will be first to use valueware? Or who will be the first to say they were the first to articulate the value of their industry unique and revolutionary solution using valueware?

For those not familiar, converged solution stack bundles combine server, storage and networking hardware along with management software and other tools in a prepackaged solution from the same or multiple vendors. Examples include [Dell VIS](#) (not to be confused with their reference architectures or [fish in Dutch](#)), [VCE](#) or [EMC vBlocks](#), [IBM Puresystems](#), [NetApp \(FlexPod\)](#) and [Oracle Exaboxes](#) among others.

Why is it that the IT or ICT (for my European friends) industries are not using [valueware](#)?

Is Valueware not being used because it has not been brought to their attention yet or part of anybody's [buzzword bingo](#) list or read about in an industry trade rag (publication) or blog (other [than here](#)) or on [twitter](#)?

Is it because the term value in some marketers opinion or view their research focus groups associate with being cheap or low-cost? If that is the case, I wonder how many of those marketing focus groups actually include active IT or ICT professionals. If those research marketing focus groups contact practicing IT or ICT pros, then there would be a [lower degree of separation to the information](#), vs. professional focus group or survey participants who may have a [larger degree of separation](#) from practioneers.

Depending on who uses valueware first and how used, if it becomes popular or trendy, rest assured there would be bandwagon racing to the train station to jump on board the marketing innovation train.

On the other hand, using valueware could be an innovative way to help articulate [soft product](#) value (read more about [hard and soft product here](#)). For those not familiar, [hard product](#) does not simply mean hardware, it includes many technologies (including hardware, software, networks, services) that combined with best practices and other things to create a [soft product](#) (solution experience).

>>> [Continue reading about Hardware, Software and Valueware here](#)

Little data, big data and very big data (VBD) or big BS?

If you are in any way associated with information technology (IT), business, scientific, media and entertainment computing or related areas, you may have heard big data mentioned. Big data has been a popular [buzzword bingo](#) topic and term for a couple of years now. Big data is being used to describe new and emerging along with existing types of applications and information processing tools and techniques.

I routinely hear from different people or groups trying to define what is or is not big data and all too often those are based on a particular product, technology, service or application focus. Thus it should be no surprise that those trying to police what is or is not big data will often do so based on what their interest, sphere of influence, knowledge or experience and jobs depend on.

Not long ago [while out traveling](#) I ran into a person who told me that big data is new data that did not exist just a few

years ago. Turns out this person was involved in geology so I was surprised that somebody in that field was not aware of or working with geophysical, mapping, seismic and other legacy or traditional big data. Turns out this person was basing his statements on what he knew, heard, was told about or [on sphere of influence](#) around a particular technology, tool or approach.

Fwiw, if you have not figured out already, like [cloud, virtualization and other technology enabling tools and techniques](#), I tend to take a pragmatic approach vs. becoming latched on to a particular bandwagon (for or against) per say.

Not surprisingly there is confusion and debate about what is or is not big data including if it only applies to new vs. existing and old data. As with any new technology, technique or [buzzword bingo](#) topic theme, various parties will try to place what is or is not under the definition to align with their needs, goals and preferences. This is the case with big data where you can routinely find proponents of Hadoop and Map reduce position big data as aligning with the capabilities and usage scenarios of those related technologies for business and other forms of analytics.

IMHO big data is real.

There are different variations, use cases and types of products, technologies and services that fall under the big data umbrella. That does not mean everything can or should fall under the big data umbrella as there is also little data.

What this all means is that there are different types of applications for various industries that have big and little data, virtual and very big data from videos, photos, images, audio, documents and more.

Big data is a big buzzword bingo term these days with vendor marketing big dollars being applied so no surprise the buzz, hype, fud and more.

>>> [Continue reading about little data, big data and very big data \(VBD\) here](#)

Speaking of big data, [click here](#) to read about: [Garbage data in, garbage information out, big data or big garbage?](#)

Perspectives: Predictions, did Mayans have it right, or did we read it wrong?

It is late in the day December 12, 2012 and best I can tell, we are still here, and for some, by time you read this it will be a few days or weeks later which means that either the Mayan calendar had it wrong, or we misinterpret it. Some would say that December 12, 2012 is not the important date, that it is really [December 21, 2012](#) that the world will end, ok, lets wait and see what happens in a few more days.

However taking a step back from the Mayan calendar it dawned on me that some predictions such today's Mayan calendar forecast is similar to others that happen around this time of the year. That is the annual information technology or IT related predictions made by pundits or anybody else with an opinion, most of which in theory their concepts are not even close. Granted many predictions make good press and media things to read or listen to for entertainment. In some cases, these predictions are variations of what we're predicted last year in 2011 and the year before in 2010 and they year before that and so forth.

I'm still working on my predictions for 2013 and forward-looking into 2014, however I keep getting interrupted fending off vendors and their PR surrogates calling or emailing asking me if they can make contributions, or write my list for me (how thoughtful of them ;). For now one of my predictions is that I hope to get my predictions for 2013 done before 2013, however if you need something to hold you over, [check this out from last year](#), or [this from a few months ago](#).

I will also say that for 2013, those who see or view [cloud, virtualization, big data](#) (and [little data](#)) in pragmatic terms will be very prosperous. On the other hand, those who have narrow or constrained views will be envious of the others. Likewise plenty of new additions to the [buzzword bingo](#) line up with software defined having strong representation.

Like the Mayan calendar predictions, with annual technology predictions, are we reading them wrong, or are they simply wrong and who if anybody cares, or are they just [garbage in and garbage out](#), or big data garbage in, big data garbage out results?

In the meantime, I need to check my local and [cloud backups](#) are working, try a restore test, have plenty of cash on hand, gas tanks full, cerveza in the fridge, propane for the generator and other things ready if the Mayans had it right, just off by a few days ;).

Pod casts, videos, webinars and downloads

Various videos and pod casts can be viewed and heard at [StorageIO.tv](#) or [clicking here](#). In addition, StorageIO produced pod casts are also now available on Apple **iTunes**. Check out these pod casts on various topics and themes.

Pod cast: [vBrownbags, vForums and VMware vTraining with Alastair Cooke](#)

Pod cast: [SSD past, present and future with Jim Handy](#)

Pod cast: [Have SSDs been unsuccessful with storage arrays \(with poll\)?](#)

Pod cast: [Mr. Backup \(Curtis Preston\) goes back to Ceph School](#)

Pod cast: [Ceph Day in Amsterdam and Sage Weil on Object Storage](#)

Pod cast: [Ben Woo on Big Data Buzzword Bingo and Business Benefits](#)

Pod cast: [SNW 2012 Rapping with Dave Raffo of SearchStorage](#)

Pod cast: [Networking with Bruce Ravid and Bruce Rave](#)

Pod cast: [SiT #31 – Snarfed by Microsoft \(Guest on Speaking in Tech\)](#)

Pod cast: [Learning with Leo Leger of SNIA](#)

Pod cast: [Industry trends and perspectives: Catching up with Quantum CTE David Chapa](#)

Pod cast: [Industry trends and perspectives: Meeting up with Marty Foltyn of SNIA](#)

Pod cast: [Industry trends and perspectives: Chatting with Karl Chen at SNW 2012](#)

Pod cast: [Industry trends and perspectives: SNW 2012 Waynes World](#)

Down load items page

If you have not done so, check out the [down load items page](#) (found under the resources tab on menu bar) where you will find items including presentations, book chapter excerpts and other material.

[StorageExpo Holland - SSD is in your future: When, where & with what](#)

[StorageExpo Holland - Cloud, Virtualization, Big Data & Storage Trends](#)

>>> [Read, view and hear more here](#)

StorageIO commentary and perspectives in the news



StorageIO regularly provides commentary and industry trends perspectives to press, media, journalist, writers and bloggers.

[SearchSMBstorage](#): Comments on Carbonite buying Zmanda

[ITKE](#): Comments on IBM DS8700 storage system enhancements

[CRN](#): Comments on box.net and cloud adoption

[ITKE](#): Comments on data protection challenges

[ITKE](#): Comments on big data and data protection

[ITKE](#): Comments affording data protection

[ITKE](#): Comments on data protection challenges

[ITKE](#): Comments on data protection costs and budgets

[ITKE](#): Comments on modernizing data protection with clouds and virtualization

[Internet Evolution](#): Comments on modernizing data protection and cloud storage

[Internet Evolution](#): Comments on IBM buying flash SSD vendor TMS

[ITKE](#): Comments on IBM buying flash SSD vendor TMS

[Computerworld](#): Comments on EMC and Lenovo partnership

[Infoworld](#): Most endangered IT species

[Smallbusinesscomputing](#): Is server virtualization right for you?
[ITKE](#): Oracle buying Xsigo and SDN claims
[Searchdatacenter](#): Oracle buying Xsigo and customer concerns
[Searchsolidstatestorage](#): SSD, Green IT and economic benefits
[ZdnetAsia](#): Integrated systems best bet for Oracle in server race
[NetworkComputing](#): Application performance management in the cloud

Journalist, editors, media, writers, bloggers, PR and vendors need support for your story, column, video, webinars, pod cast or other project? Contact us at info@storageio.com or via telephone at +1 651-275-1563 and indicate your timeline or deadline so that we can best facilitate your needs.

>>> [Read more commentary here](#)



StorageIO activities (out and about) Seminars, symposiums, conferences, webinars Live in person and recorded recent and upcoming events

The 2012 [activities calendar](#) is winding down after another busy year with some of the events shown below, watch for 2013 events to be posted soon. 2012 saw events in Washington DC, New York City, San Francisco, Boston, Dallas, Santa Clara, Las Vegas, Nijkerk ([Brouwer Storage Consultancy arranged events](#) and [here](#)) and Almere Netherlands, Atlanta, Chicago, Palo Alto, Houston, St. Louis, Cleveland, Seattle, Raleigh, Moheagan Sun, Los Angeles, San Diego, Portland, Philadelphia, Utrecht Netherlands, Frankfurt Germany and Toronto Ontario among others.

Topics include data protection modernization (backup/restore, HA, BC, DR, archive), data footprint reduction (archive, compression, dedupe), storage optimization, SSD, server and storage virtualization, big data, little data, cloud and object storage, performance and management trends among others.

Vendors 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 in person event.

>>> [See recent and upcoming events here](#)

Industry trends and perspectives blog posts articles



[vLaunchPad top 50 blogger](#)

The StorageIOblog continues to grow in popularity measured in terms of reach (monthly visits and views), dozens of syndications (sites that pickup our free feed serving it to their viewers) and accolades including being named to both the [BizTech](#) and [FedTech 50 must read IT blogs](#), as well as being named on the [vLaunchPad top 50 blog](#) lists. StorageIO industry trends and perspectives blog post articles are in addition to material that appear in popular trade press venues.

Material covered includes various technologies and themes pertaining to data infrastructures from server to storage, IO networking hardware and software management tools. For example database, cloud, virtualization, big data, SSD, storage and server performance, metrics, management tools, data protection (backup/restore, BC, HA, DR, archiving), SAN, NAS and object storage, among other related topics. In addition to commentary on various industry activity including mergers and acquisitions, various technology product announcements with analysis are also included.

[Storage comments from the field and customers in the trenches](#)
[HPs big December 3rd storage announcement](#)
[Ceph Day Amsterdam 2012 \(Object and cloud storage\)](#)
[Seven databases in seven weeks, a book review of NoSQL databases](#)
[Garbage data in, garbage information out, big data or big garbage?](#)
[SSD, flash and DRAM, DejaVu or something new?](#)
[Is SSD only for performance?](#)

[Data Center Infrastructure Management \(DCIM\) and IRM](#)
[IBM vs. Oracle, NAD intervenes, again](#)
[How many degrees separate you and your information?](#)
[RAID and IOPS and IO observations](#)
[Trick or treat and vendor fun games](#)
[Does Dell have a cloudy cloud strategy story?](#)
[StorageIO going Dutch and Deutsch fall 2012](#)
[Everything Is Not Equal in the Datacenter](#)
[Cloud, virtualization, storage and networking in an election year](#)
[Cloud conversations: confidence, certainty and confidentiality](#)
[More modernizing data protection, virtualization and clouds with certainty](#)
[Do software vendors eliminate or move location of vendor lock-in?](#)
[Who will be winner with Oracle \\$10 Million dollar challenge?](#)
[Cloud conversations: AWS Government Cloud \(GovCloud\)](#)
[Amazon cloud storage options enhanced with Glacier](#)
[Technology buying, do you decide on G2 or GQ?](#)
[IBM buys flash solid state device \(SSD\) industry veteran TMS](#)
[Open Data Center Alliance \(ODCA\) publishes two new cloud usage models](#)
[Over 1,000 entries now on the StorageIO industry links page](#)
[IBM buys flash solid state device \(SSD\) industry veteran TMS](#)
[Data Protection Modernizing: More Than Buzzword Bingo](#)
[What does new EMC and Lenovo partnership mean?](#)
[What are some endangered IT species?](#)
[Oracle, Xsigo, VMware, Nicira, SDN and IOV: IO IO its off to work they go](#)
[Do you take your server and storage IO pathing software for granted?](#)
[Modernizing data protection with certainty](#)
[Data protection modernization, more than swapping out media](#)
[NAD recommends Oracle discontinue certain Exadata performance claims](#)
[SSD and Green IT moving beyond green washing](#)
[Give HP storage some love and short strokin](#)
[Kudos to Lenovo: Customer service redefined, or re-established?](#)
[Announcing SAS SANs for Dummies book, LSI edition](#)
[Is HP Short Stroking for Performance and Capacity Gains?](#)
[Amazon Web Services \(AWS\) and the NetFlix Fix?](#)
[How can direct attached storage \(DAS\) make a comeback if it never left?](#)
[Dell is buying Quest software, not the phone company Qwest](#)
[Dell Storage Customer Advisory Panel \(CAP\)](#)
[EPA Energy Star for data center storage draft 3 specification](#)
[Enabling Bitlocker on Microsoft Windows 7 Professional 64 bit](#)
[EMCworld 2012: Tust and marketing, can they coexist?](#)
[NetApp on rough ground, or a diamond in the rough?](#)
[Green IT deferral blamed on economic recession might be result of green gap](#)
[Why FC and FCoE vendors get beat up over bandwidth?](#)
[Only you can prevent cloud data loss](#)
[How much SSD do you need vs. want?](#)
[SSD Is in Your Future: Where, When & With What Are the Questions](#)

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