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## The Server and StorageIO Update newsletter - November 2013

Welcome to the November 2013 edition of the StorageIO Update ([newsletter](#)) containing trends perspectives on cloud, virtualization and data infrastructure topics. Fall (here in North America) has been busy with in-person, on-line live and virtual [events](#) along with various client projects, research, time in the StorageIO cloud, virtual and physical lab test driving, validating and doing proof of concept research among other tasks. Check out the industry trends perspectives articles, comments and blog posts below that covers some activity over the past month.

Last week I had the chance to attend the second annual [AWS re:Invent event](#) in Las Vegas, see my comments, perspectives along with a summary of announcements from that conference below.

Watch for future posts, commentary, perspectives and other information down the road (and in the not so distant future) pertaining to information and data infrastructure topics, themes and trends across cloud, virtual, legacy server, storage, networking, hardware and software. Also check out our [downloads page](#) (Under the [resources](#) section on [StorageIO.com](#)) for various presentation, book chapter downloads and other content.

Enjoy this edition of the StorageIO Update newsletter.

Ok, nuff said (for now)

Cheers gs



### Industry trends: Amazon Web Services (AWS) re:Invent

Last week I attended the [AWS re:Invent event](#) in Las Vegas. This was the second annual AWS re:Invent conference which while having an AWS and cloud theme, it is also what I would describe as a data infrastructure event.

As a data infrastructure event AWS re:Invent spans traditional legacy IT and applications to newly invented, re-written, re-hosted or re-platformed ones from existing and new organizations. By this I mean a mix of traditional IT or enterprise people as well as cloud and virtual geek types (said with affection and all due respect of course) across server (operating system, software and tools), storage (primary, secondary, archive and tools), networking, security, development tools, applications and

architecture.

That also means management from application and data protection spanning High Availability (HA), Business Continuity (BC), Disaster Recovery (DR), backup/restore, archiving, security, performance and capacity planning, service management among other related themes across public, private, hybrid and community cloud environments or paradigms. Hmm, I think I know of a book that covers the above and other related topic themes, trends, technologies and best practices called [Cloud and Virtual Data Storage Networking](#) (CRC Press) available via [Amazon.com](#) in print and [Kindle](#) (among other) versions.

During the event AWS announced enhanced and new services including:

- [WorkSpaces](#) (Virtual Desktop Infrastructure - VDI) announced as a new service for cloud based desktops across various client devices including laptops, Kindle Fire, iPad and Android tablets using PCoIP.
- [Kinesis](#) which is a managed service for real-time processing of streaming (e.g. Big) data at scale including ability to collect and process hundreds of GBytes of data per second across hundreds of thousands of data sources. On top of Kinesis you can build your big data applications or conduct analysis to give real-time key performance indicator dashboards, exception and alarm or event notification and other informed decision-making activity.
- EC2 [C3 instances](#) provide Intel Xeon E5 processors and [Solid State Device \(SSD\)](#) based [direct attached storage \(DAS\)](#) like functionality vs. [EBS provisioned IOPs](#) for cost-effective storage I/O performance and compute capabilities.
- Another EC2 enhancement are G2 instance that leverage high performance NVIDIA GRID GPU with 1,536 parallel processing cores. This new instance is well suited for 3D graphics, rendering, streaming video and other related applications that need large-scale parallel or high performance compute (HPC) also known as high productivity compute.
- [Redshift](#) (cloud data warehouse) now supports cross region snapshots for HA, BC and DR purposes.
- [CloudTrail](#) records AWS API calls made via the management console for analytics and logging of API activity.
- Beta of [Trusted Advisor](#) dashboard with cost optimization saving estimates including [EBS and provisioned IOPs](#)
- Relational Database Service (RDS) support for PostgreSQL including [multi-AZ](#) deployment.
- Ability to discover and launch various software from [AWS Marketplace](#) via the EC2 Console. The [AWS Marketplace](#) for those not familiar with it is a catalog of various software or application titles (over 800 products across 24 categories) including free and commercial licensed solutions that include SAP, Citrix, Lotus Notes/Domino among many others.
- [AppStream](#) is a low latency service for streaming resource (e.g. compute, storage or memory) intensive applications and games from AWS cloud to various clients, desktops or mobile devices. This means that the resource intensive functionality can be shifted to the cloud, while providing a low latency (e.g. fast) user experience off-loading the client from having to support increased compute, memory or storage capabilities. Key to AppStream is the ability to stream

data in a low-latency manner including over networks normally not suited for high quality or bandwidth intensive applications. IMHO AppStream while focused initially on mobile app's and gaming, being a bit streaming technology has the potential to be used for other similar functions that can leverage download speed improvements.

When I asked an AWS person if or what role AppStream might have or related to WorkSpaces their only response was a large smile and no comment. Does this mean WorkSpaces leverages AppStream? Candidly I don't know, however if you look deeper into AppStream and expand your horizons, see what you can think up in terms of innovation.

- Check out AWS Sr. VP Andy Jassy [keynote presentation here](#). Note AppStream is STX based, WorkSpaces is PCoIP.

Overall I found the AWS re:Invent event to be a good conference spanning many aspects and areas of focus which means I will be putting it on my must attend list for 2014.



## Industry trends tips, commentary, articles and blog posts

### What is being seen, heard and talked about while out and about

The following is a synopsis of some StorageIOblog 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.



Recent industry trends, perspectives and commentary by StorageIO Greg Schulz in various venues:

[NetworkComputing](#): Comments on Software-Defined Storage Startups Win Funding  
[Digistor](#): Comments on SSD and flash storage  
[InfoStor](#): Comments on data backup and virtualization software  
[ITbusinessEdge](#): Comments on flash SSD and hybrid storage environments  
[NetworkComputing](#): Comments on Hybrid Storage Startup Nimble Storage Files For IPO  
[InfoStor](#): Comments on EMC's Light to Speed: Flash, VNX, and Software-Defined  
[InfoStor](#): Data Backup Virtualization Software: Four Solutions  
[ODSI](#): Q&A With Greg Schulz - A Quick Roundup of Data Storage Industry

Recent StorageIO [Tips and Articles](#) in various venues:

FedTechMagazine: [3 Tips for Maximizing Tiered Hypervisors](#)

## InfoStor: RAID Remains Relevant, Really!



Recent StorageIO blog post:

[EMC announces XtremIO General Availability \(Part I\)](#) - Announcement analysis of the all flash SSD storage system  
[Part II: EMC announces XtremIO General Availability, speeds and feeds](#) - Part two of two-part series with analysis  
[What does gaining industry traction or adoption mean too you?](#) - There is a difference between buzz and deployment  
[Fall 2013 \(September and October\) StorageIO Update Newsletter](#) - In case you missed the fall edition, here it is








Check out our [objectstoragecenter.com](http://objectstoragecenter.com) page where you will find a growing collection of information and links on cloud and object storage themes, technologies and trends.



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

While 2013 is winding down, the StorageIO [calendar](#) continues to evolve, here are some recent and upcoming activities.

December 11, 2013		Data Protection for Cloud 201	<a href="#">Backup.U</a> <a href="#">Google+ hangout</a>
December 3, 2013		Data Protection for Cloud 101	<a href="#">Backup.U</a> <a href="#">Online Webinar</a>

November 19, 2013		Data Protection for Virtualization 201	<a href="#">Backup.U</a> <a href="#">Google+ hangout</a>
November 12-13, 2013	<a href="#">AWS re:Invent</a>	AWS re:Invent event	Las Vegas, NV
November 5, 2013		Data Protection for Virtualization 101	<a href="#">Backup.U</a> <a href="#">Online Webinar</a>
October 22, 2013		Data Protection for Applications 201	<a href="#">Backup.U</a> <a href="#">Google+ hangout</a>

[Click here](#) to view other upcoming along with earlier event activities. Watch for more 2013 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.

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