GALAXY

TechTalk
Issue 31
January 2015

LISTENING TO BUSINESS, APPLYING TECHNOLOGY

IN THIS ISSUE

IBM, Google Using OpenPOWER to Advance Intel Alternatives

Intel builds the guts of most cloud and enterprise servers and remains without materially significant challengers, but that doesn't keep the competitors from trying. Intel's performance and market lead, while real, can't be taken for granted. With a 64-bit, VM-ready architecture, the ARM ecosystem now has a serious and viable alternative. Products like the Applied Micro X-Gene system mentioned are still early in their lifecycles and far from optimized, meaning performance will only get much better, indeed initial systems are designed for software porting not performance benchmarking. But ARM isn't the only contender for cloud server sockets and it's easy to forget that two other server platforms hope to infiltrate the next generation of hyper scale cloud data centres and that one, IBM's POWER platform, is already widely used for mission critical enterprise applications.

OpenPOWER has ambitious goals for the coming year, with 6 work groups developing technical specifications across the technology stack from chip design to cloud software and "dozens of products introduced and under development" by member organizations. However, the big news is that cloud pioneer Rackspace has signed on, bringing total membership to 80 and providing a hoped for bridge to two other significant cloud technology working groups: the Open Compute Project and OpenStack Foundation.

Unlike Open Compute, where server designs are still the domain of Intel, AMD and their ODM licensees, Aaron Sullivan, a key Rackspace contributor to both IBM and Google, asserts that OpenPOWER allows Rackspace to design a new rack-scale server and associated firmware, I/O interfaces and drivers using published low-level specifications. For example, he says that when building the On Metal bare metal cloud servers, Rackspace required source code access to the BIOS and firmware, details that the Open Compute specs didn't provide. OpenPOWER puts the code on GitHub, meaning Rackspace can move faster and contribute back to the project.

Lenovo ThinkStation P300 Provides Power in a New Package

The Lenovo Think Station P300 tower boasts an entirely new design that delivers a great deal of flexibility. Measuring 6.9 x 16.9 x 14.8 in. (W x D x H) and weighing just 20.5 pounds, the P300 is smaller than the entry-level S30 that we assume it will eventually replace. One reason for the reduction in both size and weight is the replacement of the removable front handle. Instead, the new P Series chassis features an extended lip in the front and back for easy carrying, with the front lip incorporating a red touch point, something that will become more prominent in other P Series workstations Lenovo will release in the months to come.

Lenovo offers a choice of 16 different CPUs, ranging from the Core i3-4350 at the entry-level to the 3.7GHz Xeon E3-1281 v3. The Intel Xeon E3-1276 v3 CPU has an 8MB cache, a maximum turbo speed of 4.0GHz, support for PCIe 3.0, and a thermal design power (TDP) rating of 84 watts. It also includes Intel HD Graphic P4600. CPU cooling is provided by a large heat sink and a dedicated cooling fan. Four memory sockets adjacent to the CPU support up to 32GB of memory. Although the base configuration comes with just 4GB of 1600MHz RAM.

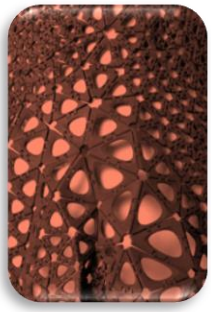
.

The Future is Now

Revolutionary 4D printed dress could be the shape of things to come

The 4D dress 'feels like mechanical lace, somewhere between plastic and fabric', say its designers.

According to Jessica Rosenkrantz, "this is just the beginning". As one half of perhaps the most innovative design duo in the world, Rosenkrantz is still basking in the acclaim for the 4D designer dress that has just been added to the permanent collection of the Museum of Modern Art in New York. "This dress may never be worn," she told the Observer. "But the project is in part about a web application – Kinematics – that anyone can use to design a product that can be made very efficiently, requires no assembly and perfectly fits the body."



The people behind the dress are Rosenkrantz and Jesse Louis-Rosenberg, Massachusetts Institute of Technology (MIT) graduates in biology and architecture, and mathematics respectively. Their design studio, Nervous System, is at the forefront of a movement that uses software to mimic processes and patterns found in nature.

The theory of 4D printing describes making something in one shape that unfolds to become another – in essence, 3D printing with an extra layer of computational power. The biggest surprise, Rosenkrantz says, is that it actually works. However, she adds, the garment industry has always been at the forefront of new technology, from the weavers' loom to the present day.

"We're interested in creating complex objects that are one of a kind and customizable," says Louis-Rosenberg, "and we want to use 3D printing to make products that have never been made before."

The dress (seen in close-up) features intricate design taken from the veins of leaves and crystal formations.

The Connected Cars - Wireless at Work

In a modern-day version of the Transformers movies, where vehicles turn into powerful robots to save the Earth, top automakers have been hard at work transforming their cars, SUVs and trucks into mobile devices on wheels by adding advanced wireless technology for sports fans and beyond.

The results are already rolling off assembly lines with trucks equipped with 4G connections and the ability to serve as Wi-Fi hotspots. This enables passengers to access streaming video content whether the vehicle is parked in a NFL game tailgate, or on the road for a short- or long-haul drive.

The connected car concept has been around for many, many years but the reality is newer, thanks largely to automakers that have increasingly turned to technology to differentiate their vehicles from those of competitors. Chevrolet, Ford and Audi are among those driving change through wireless connectivity.

The result could make the Consumer Electronics Show more of a car show, than a TV tech show. Chevrolet has already taken to the primetime airwaves in a large way to inform TV viewers that all its 2015 cars, trucks and crossovers are available with 4G LTE and built-in Wi-Fi. In GM's case, up to seven devices within a car can be connected and then given access through OnStar's wireless service (from AT&T) to the Internet.

Top wireless service providers – AT&T, Sprint and Verizon Wireless - identified the opportunity more than a few years ago and have been working with automakers to user in an era that lets passengers connect to sports web sites, fire up smartphone apps to enable live game streaming, and check league sites for live scores, updates, highlights and breaking news. Ford has worked with AT&T on its efforts to date. Verizon provides wireless connectivity to Toyota and Hyundai and telematics services to other brands.

If you aren't driving (or buying) a new model ride with 4G LTE connectivity and a built–in Wi-Fi device, you aren't on the sidelines by any stretch. Car equipment stores sell add-on devices that do the trick, and suppliers to car dealers offer add-on options that work with older vehicles.

Technology Focus

Real-time analytics will become a critical directive for companies, says Cisco: 2015 Tech Predictions

In 2015, there will be a redefinition of what it means to be a technology company, mobility will become a critical driver of any company's business success, and real-time analytics will help optimize natural resources exploitation, from agriculture to oil fields. This is all according to Joseph Bradley, Vice President of the Global Internet of Everything (IoE) Practice at Cisco Consulting Services (a part of Cisco Systems, Inc.).

Tectonic shifts in enterprise technology have accelerated the ambitions of nearly all companies to transform into digital companies. There is a need for companies and governments to become digital organizations through the "3 I's": creating Innovative capabilities, becoming culturally Inclusive, and deploying Internet of Things solutions. As this transformation moves to standard practice, here are top five technology predictions about trends that will shape and hone the IT landscape in 2015.

Prediction No. 1: There will be a redefinition of what it means to be a technology company

The boundaries of the technology industry will continue to be challenged and expanded as IT companies partner with, invest in and acquire more non-IT companies. Last year, we witnessed the beginnings of this trend with Google, Inc.'s acquisition of Nest Labs, Inc. 2015 will bring an upswing as nearly any company could be considered a technology company. Innovation in the industrial sectors such as medical, automotive and transportation will lead technology companies to look for non-traditional business partners and inspire us to rethink what it means to be a technology company.

Prediction No. 2: Millennials will disrupt traditional notions about workforce culture

In 2015, Millennials will disrupt traditional notions about workforce culture, spurring more collaborative and social methods of communication. By 2020, nearly 20 percent of the U.S. workforce will be comprised of Millennials according to the U.S. Bureau of Labor Statistics. As Millennials enter the workforce in 2015, they will bring new ways to communicate including social media and always-on Web access. This will spur companies to heavily invest in new collaboration tools from videoconferencing, blogs, wikis, activity streams and more. Companies who can successfully embrace Millennials' work habits will benefit from a more diverse workforce that is able to easily integrate across groups, skills and geographic boundaries.

Prediction No. 3: Mobility will become a critical driver of any company's business success

In 2014, more companies realized that mobility is no longer an option or an add-on to their business strategies. The advances in business intelligence (BI) gained from mobile devices and usage upended the way businesses drive success. In 2015, there will be an incredible acceleration of hyper-aware, context-aware and agile enterprise mobile apps. This will result in deeper engagement with customers, streamlined business processes and more. In 2015, the app economy will become more vibrant and continue to expand beyond what we imagine today.

Prediction No. 4: Big Data must equal real-time business value

Most companies are talking about the digital transformation but very few understand the underlying purpose of embracing technology. Ultimately, technology drives change around the way we work, live, play and learn. With that, there is an increased need for Big Data to become real-time and, in the next year, real-time analytics will level up from the early adopters and small startups. Big Data is nothing without Big Judgment. This means that for analytics to be useful in an IoE world, it must be delivered to the people who need it in real time. This requires a network that is contextually aware, predictive and secure.

Prediction No. 5: Real-time analytics will become a critical directive for any company

Combined with fog computing, real-time analytics will help optimize natural resources exploitation, from agriculture to oil fields. Gains in productivity from real-time analytics will help companies face tightening natural resource constraints and population growth. Once companies are able to leverage Big Data in an agile manner, there will be continued shifts and breakthroughs in 2015.

Tech News

Google Reveals Unpatched Security Vulnerability in Windows 8.1

A Google Researcher has revealed an unpatched security vulnerability in Windows 8.1. Google researcher has posted this bug on Google Security Research page and it is subject to a 90 day disclosure deadline. If 90 days elapse without a broadly available patch, then the bug report will automatically become visible to the public. There is no information on whether Microsoft acknowledged the bug or whether they are working on it. But I feel it is an irresponsible move from Google to publish a vulnerability on products such as Windows 8 which is being used by millions of people every day.

Tech News

Mobile payment startups and banks use technology to tap rural India

Gopal Das, 33, a carpenter from Bengaluru has stopped queuing up at the post office to send money back home; these days, he transfers it straight to his wife's account with the help of a nearby startup. Back home in Chargo village in Jharkhand, his wife Beena doesn't have to travel 23 kilometers any more to withdraw money. A trip to the kirana store 400 meters down is enough for her.
As mobile payment startups and banks take frugal technology to rural India, thousands of lives are experiencing the change for the first time. "In places like Sandigaon, you have to take a boat to cross the river to deliver the device," said Chandrashekhar. Rabiul Islam, 27, a resident of Panchanandapur, which is 40 km from Malda in West Bengal, has opened 1,000 bank accounts on his 2G smartphone in the past three months. Islam has recently started using his mobile phone and a biometric reader to open accounts. "We don't use paper forms anymore," said Islam. The pressure on the nearest branch, which serves a population of 13,000, has also come down.
For banks, the cost of expansion has come down as hiring of banking correspondents is no longer a priority for them to penetrate into rural regions.

Abhijit Bose, CEO of Bengaluru-based payment service provider Ezetap, said: "It is the new players that are going to make a difference in this space, and they are the game changers." To encourage cashless transactions, the State Bank of India and Ezetap tied up in June this year. The bank has deployed mobile point of sale (m-POS) devices, which can be used to swipe and pay or as a chota-ATM to withdraw cash. Nearly 4,000 of such chota-ATM devices have been installed in semi-urban and rural areas since October 2014. An average of 1.2 transactions are recorded by the bank on these machines every day.

Novopay, a Bengaluru-based company whose banking solution is linked to the online biometric authentication of the Aadhaar programme at its backend, pushes the financial inclusion or the Jan Dhan Yojna agenda further. "In the coming years, 30,000 points of service will be available all over India," said Sridhar Rao, CEO of Novopay. After teaming up with Bank of India, Novopay, incubated by Khosla Labs, is concentrating on semi-urban and rural market by transforming kirana stores into bank branches which can open bank accounts and log transfers of money with their device. Novopay has been opening nearly 6, 0007,000 accounts for migrant workers and those who have no access to banking facilities to send money back home every month. Mumbai-based prepaid payment solution provider ItzCash has issued more than 80 million prepaid accounts of which nearly 40 per cent is in the semi-urban and rural areas. Amongst the 292 unbanked regions classified by the Reserve Bank of India, ItzCash is present in 255.

Cisco unveils analytics strategy for Internet of Everything

Cisco Systems Inc's chairman and CEO John Chambers took advantage of the company's 30th anniversary celebration to unveil its strategy and product portfolio in yet another area: analytics. With the 15 billion devices connected to the Internet today expected to balloon to 500 billion, the need to make sense of the data flowing from them is growing. Cisco Consulting Services estimates that $7.3 trillion of the $19 trillion Internet of Everything (IoE) opportunity is tied to analytics over the next decade, and in research with customers, it found that 40% of them said that accessing and interpreting the masses of data from the IoE was their biggest obstacle to deriving actionable insights from that data.

That led to the development of a series of offerings under the umbrella brand Cisco Connected Analytics. They are designed to give access to near real-time information, predictions, and trends derived from the IoE.

- ***Connected Analytics for Events***- Uses Wi-Fi and device usage reporting at event venues to provide immediate visibility into things like sports fan behaviour, to allow organizations to make split-second decisions that will enhance the fan experience by indicating, for example, where concession stands need additional staffing or where extra event security may be needed

- ***Connected Analytics for Retail***- Correlates in-store video camera feeds and Wi-Fi data with existing operational data such as inventory to track in-store patterns and uses existing video technology to determine, for example, where shoppers are spending more time in the store and which shelves need restocking, to improve shoppers' experience and drive better store performance.

- ***Connected Analytics for Service Providers***- Provides intelligence based on patterns in networks, operations and customer data to help service providers improve network planning and understand infrastructure investments based on service usage/adoption, and customer and competitive dynamics.

- ***Connected Analytics for IT***- Provides business intelligence and insights to help align IT capabilities such as data management and data governance with business objectives, all in real time.

- ***Connected Analytics for Network Deployment***- Analyzes the network for operational efficiencies, resolution of incidents and visibility into network deployment, to allow organizations to detect issues before they happen for proactive problem resolution and to make future strategic decisions on how to drive maximum network stability and performance at the lowest possible cost.

All of these offerings build on Cisco's IOx platform, which allows customers and solution providers across all industries to develop, manage and run software applications directly on Cisco industrial networked devices, including hardened routers, switches, and other devices. This eliminates the need to transfer large data volumes across the network to central locations for processing, and reflects the industry trend towards handling IoE data at the edge of the network. In fact, by 2018, IDC expects 40% of IoE-created data to be stored, processed, analyzed, and acted upon close to, or at the edge, of the network.Cisco's Connected Analytics portfolio is globally available today, to both customers and partners.

Tech News

IBM Watson Analytics Beta Now Open For Business; Helps Transform the Way People Work By

IBM announced that Watson Analytics, a breakthrough natural language-based cognitive service that can provide instant access to powerful predictive and visual analytic tools for businesses, is available in beta. For a sneak peek now. IBM Watson Analytics automates the once time-consuming tasks such as data preparation, predictive analysis, and visual storytelling for business professionals. Offered as a cloud-based freemium service, all business users can now access Watson Analytics from any desktop or mobile device. Since being announced on September 16 2014, more than 22,000 people have already registered for the beta. The Watson Analytics Community, a user group for sharing news, best practices, technical support and training, is also accessible starting today. This news follows IBM's recently announced global partnership with Twitter, which includes plans to offer Twitter data as part of IBM Watson Analytics.

Special Focus

Survival of the Most Innovative – Why EMC Stays on Top

EMC has been recognized as a "Leader" in the 2014 Gartner Magic Quadrant for General Purpose Disk Array Storage. They believe this means that they are effectively executing against their vision today, and well prepared for tomorrow.

The state of today's disk array market is highly competitive, but EMC maintains its leadership due to heavy investment in their vision and close iteration with their customers. With the pace of innovation accelerating across a wide variety of industries it is crucial for storage infrastructure to enable growth within these industries by supporting existing workloads as well as new and emerging workloads.

As IT evolves, storage infrastructure becomes even more critical providing transparency, ease of management and agility on top of the enterprise requirements around performance, availability and scalability. Vendors and technology suppliers will continually need to innovate to meet IT needs, and develop techniques to support data as it grows and changes to accommodate new workloads.

EMC Isilon, VNX, and VMAX have been able to stay on top in a rapidly evolving market. Their broad portfolio of recognized best-of-breed products in this market is a key advantage, as is their strategy of acquiring disruptive technologies. Think DSSD, Twin Strata and iWave, all of which have been or will be directly integrated into EMC's portfolio to offer customers leading-edge functionality.

And since EMC is never satisfied with the status quo, they have brought to market major updates to their storage portfolio such as building out Data Lake capabilities with EMC Isilon, introducing controller based data-at-rest encryption for the EMC VNX2 and EMC Isilon arrays designed for high end, edge-to-core video surveillance systems. And last but not least, EMC launched its most advanced high-end array to date, the VMAX3 to serve as the world's first Enterprise Data Service Platform for hybrid cloud, hyper-consolidation and a bridge to supporting next-generation applications.

Products, however, aren't only advantage. What continues to make EMC a Magic Quadrant Leader in multiple markets is their business vision. On top of a robust and well-executed M&A strategy, EMC excels at building ecosystems and partnerships that increase EMC storage system attractiveness by improving ease of deployment and ongoing management.

(Galaxy, a Gold Partner for EMC, offers complete stack of EMC Storage and Data Protection Solutions to Enterprises)

About Galaxy

- One of the most respected Information Technology integrator of the best of breed products and solutions for Enterprise Computing, Storage, Networking, Security, Automation, Application Delivery, ERP and Business Intelligence.
- An ISO 9001:2008 organization , founded in 1987
- Committed team of over 200 skilled professionals
- PAN India presence
- Trusted IT services provider to more than a 1000 companies
- Experienced consultants certified on a wide spectrum of technologies
- The Galaxy Technology Innovation Centre, a state-of-the-art integrated hardware and software laboratory, allows customers a hands-on look at the latest storage, backup, security, application delivery and virtualization technologies.
- Customer list includes many of India's leading corporations, banks and government agencies
- Four business units collaborate to provide a full spectrum of services and ensure smooth projects. Together, they provide our customers with truly end to end professional IT Services.

Galaxy Business Solutions
System integrators of best of breed technologies to deliver solutions to the problems and challenges that confront enterprises

Galaxy Technology Services
Skilled pool of resources consistently maintains and delivers enterprise class service levels

Galaxy Network Solutions
One of India's most trusted active and passive networking specialists

Galaxy BI Consulting Services
Helps organizations to deliver and leverage business intelligence to create substantial business impact

NEWSLETTER COMPILED BY

Galaxy Office Automation Pvt. Ltd.
A-23/24, Ambika Towers , Ground Floor, Off Jijamata Road, Nr. Pump House, Andheri (E),Mumbai – 400093, India

Phone: 91-22-42187777
Fax: 91-22-421877760
E-mail: galaxyinfo@goapl.com
www.goapl.com

VISION

"To become the most preferred technology solution partner by listening to our customers, anticipating their needs and providing reliability, flexibility, responsiveness and innovative products and services. Achieving market leadership and operating excellence in every segment of our company."

MISSION

"Total customer satisfaction; through innovative insights, quality service and excellence in technology deployment."

VALUE PROPOSITION

"We understand the need of a common vendor for all your IT needs. Hence, we are committed to long-term partnerships by delivering on our commitments."

MD Speaks

I wish all of you a very happy & safe 2015. Safe, not only in terms of life and property, but as the recent hacking case as proven, also in terms of your data - both corporate and personal.

Last month, I had highlighted security as one of the drivers for 2015. This month, I would like to highlight some points about data & network security and hacking attacks and learn some lessons from this unfortunate episode.

This was a highly focused attack on a single target by a set of highly skilled, funded and motivated hackers. However good the security at the perimeter, sooner or later, such an attack would succeed. Good security can only make their job more difficult, more expensive and riskier. The lesson is 'everyone is at risk at the perimeter, make it more difficult for hackers by increasing the layers or rings'.

Security consists of 3 different actions - Protection, Detection & Response. Many of us mistake security for just protection and believe that having a good (read expensive) security solution in place is enough. As seen earlier, this is just not true. You need to detect as soon as the protection has been beached and respond immediately to limit the extent of damage and restore protection.

The most important lesson for all individuals is that password strength should not be underestimated or ignored. This is true not only for your enterprise passwords but also your data on the internet. No one wants their intimate personal details to be exposed on the internet for all to see - Unless they do it themselves on their Facebook walls!