LISTENING TO BUSINESS, APPLYING TECHNOLOGY

Great dreams of great dreamers are always transcended.

GALAXY

TechTalk
Issue 38
August 2015

Dr. APJ Abdul Kalam: A Tribute To The 'People's President'

Dr. A. P. J. Abdul Kalam, the 11th President of India, from 2002 to 2007, passed away on July 27 in Shillong as he collapsed during a lecture at the Indian Institute of Management-Shillong (IIM-S) around 6:30 pm.

"The nation has lost a great hero who was People's President during his lifetime and shall remain so even after his death," mourned President Pranab Mukherjee as he condoled the death of Kalam.

Dr APJ Abdul Kalam, popularly known as the Missile Man of India was conferred Bharat Ratna in 1997.

Before holding the position of President, Kalam was an aeronautical engineer with DRDO and ISRO. Due to his great contributions in the field of missile and aerospace technologies, he was popularly known as the Missile Man of India. He played major role in India's Pokhran-II nuclear tests in 1998.
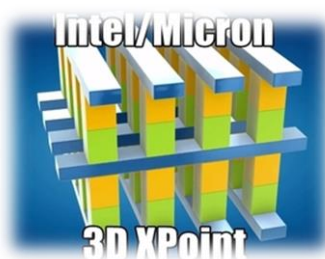
Born in a small town in Tamil Nadu in 1931 to a boatman father, Kalam always encouraged young people to follow their dreams and genuinely believed India could be the next superpower. He was also the author of the some of the best-sellers like Wings of Fire, Ignited Minds: Unleashing the Power Within India and India 2020. He had always talked about his vision of transforming India into a developed nation by 2020. He had also supported India's nuclear weapons and missiles program.

Few Indian leaders in the 21st century enjoyed the kind of popular support experienced by Kalam, evidenced by the near-unanimous backing of his election as India's 11th President in 2002 among all the parties across India's fractious political spectrum, as well as the overwhelming outpouring of grief at his death.

Intel and Micron announce 3D Xpoint, a new memory technology that's 1,000 times faster than NAND

Intel and Micron held a joint press conference to announce a breakthrough memory technology called 3D Xpoint (pronounced 3D cross point) that's up to 1,000 times faster (read speeds) than today's NAND, features 1,000 times better endurance and is 10 times denser than conventional memory.

3D Xpoint is described as whole new class of memory – not just a new type of NAND or DRAM – that operates fundamentally different than what's available today. As the name suggests, it's built on a three-dimensional architecture that uses a new type of switch instead of traditional transistors.3D Xpoint is also non-volatile meaning it can be used for storage purposes as well as function as traditional memory although the two companies repeatedly implied that it will could also lead to new types of computing experiences not yet conceived. The duo also pointed out that this is real technology, not just a PowerPoint presentation!

The Future is Now

The World's first Robotic Hotel

What if you could check into a hotel, have your luggage carried to your room and order a coffee — all without any interaction with any other human!

A new hotel at a theme park in Nagasaki, Japan, hopes to make that dream a reality. The Henn-na Hotel (whose name means "strange hotel") will be partially staffed by androids that work as reception attendants, robot waiters, cleaning staff and a cloakroom attendant. Developed by Japan's Osaka University and manufactured by the Japanese robotics company Kokoro, many of the "Actroid" robots resemble a young Japanese woman. The bots will be able to speak Japanese, Chinese, Korean and English, make hand gestures, and pull off the somewhat creepy feat of mimicking eye movements.
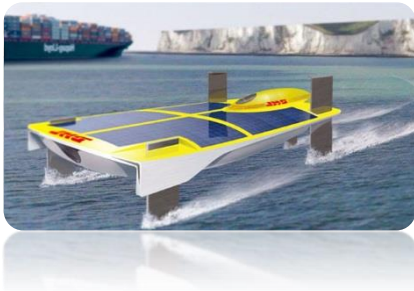
The android-staffed hotel will be part of a theme park called Huis Ten Bosch, which is modeled after a typical Dutch town. Hotel guests will be able to access their rooms using facial recognition software instead of keys, if they so choose.

"We'd like to draw visitors to this setting surrounded by nature by establishing a smart hotel, which could be something we could spread through Japan and the world, a spokeswoman for Huis Ten Bosch told The Telegraph.

Room rates at the Henn-na Hotel will start at about $60 U.S. (7,000 yen), but will likely remain well below the rates for the park's other hotels, which start at around $170 to $255 (20,000 to 30,000 yen). The use of robots and renewable energy will help the hotel keep its operating costs down.

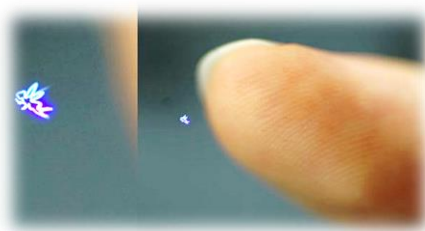## Solar Boat for Express Delivery

DHL has supported a project developed by the students of the Royal College of Art and Imperial College London. The project is code named Water Strider, and is the first autonomous boat, designed specifically for express delivery.

The volume of cargo carried by sea is constantly growing. According to DHL, in 2014, the 16 biggest cargo ships transported by sea and channels the same amount of goods, as did all the cars in the world. Moreover, almost all of the existing logistics chain, including marine, is based on vehicles with internal combustion engines. This is generally detrimental to the environment, and the high fuel costs play an important role in the formation of prices for services of carriers. The industry requires new solutions and new technologies – for example, solar energy, which is already available, but not yet involved in an industrial scale.

The developers believe, that DHL Water Strider will become the flagship of the next delivery generation service. Most cities in the world have access to waterways – 85% of European capitals are located on the canals and rivers – and it is here that the fast, quiet and environmentally friendly boats, for that does not require anything other than the sun will be most needed.

Scientists Create Holograms that You Can Touch

A scientist flicks on a switch. Like magic, a small, delicate image of a fairy appears, suspended in the air. The scientist then reaches out to touch the floating figure: it feels rough, like sandpaper. This might sound like it's been taken straight out of science fiction, but think again, because this is the reality for Yoichi Ochiai and his fellow researchers at Digital Nature Group.

The team has been using a host of lasers, lenses and mirrors to create holograms suspended in the air that humans can touch. This technology means that holograms can now move away from two-dimensional surfaces and enter the limitless three-dimensional world. And since the holograms are touchable, they become interactive: when you touch a holo-heart it breaks in two, or when you touch a checkbox a tick appears in it.

These holograms are created using a laser that fires ultra-short bursts of light, the length of femtoseconds, or a quadrillionth of a second (it's very short). The laser is concentrated on a region of air molecules and gives them enough energy that they ionize (release an electron) and emit light. This concentrated mixture of positive and negative particles is called plasma. When human skin comes into contact with the plasma, it senses the hologram from the vibrations of the energetic air molecules. Ochiai, the principal investigator, says that the hologram feels a bit like sandpaper, but the other participants likened it more to a static shock.

The hologram can be programed to change when you touch it. Touches are registered using a camera positioned underneath the hologram, and the information is subsequently relayed back to a computer which changes the holographic image.

Technology Focus
Tech Giants Boost Open Source Container Collaboration

CNCF's role is to foster developer and operator collaboration on common technologies for deploying cloud native applications and services, said Jim Zemlin, executive director at The Linux Foundation -- that is, applications or services that are container-packaged, dynamically scheduled and micro services-oriented. To ease the process, CNCF aims to drive alignment among technologies and platforms.

The Linux Foundation recently announced the formation of the Cloud Native Computing Foundation, a consortium dedicated to developing a new set of common container technologies and driving their adoption.

CNCF aims to make it easier for businesses to build and deploy containerized cloud applications oriented to microservices. The goal is to develop cloud-native applications that allow Internet companies to make scaling their businesses more practical.

The group's founders -- more than two dozen major technology companies -- include AT&T, Box, Cisco, Docker, eBay, Goldman Sachs, Google, Huawei, IBM, Intel, Red Hat, Twitter and VMware. Additional members will join the group in the coming weeks.

Open source container-packaged applications are easier to create, manage and deploy, said Rob Enderle, principal analyst at the Enderle Group. "Faster time until value is achieved is a clear competitive advantage. There may be security advantages as well," he told Linux Insider, which is "a major advantage in open source deployments, in particular, at the moment.

Overlapping Spaces: The announcement of the new technology foundation comes on the heals of another major Linux Foundation-sponsored group. CoreOS and Docker last month announced the formation of the Open Container Project, a nonprofit coalition of 21 industry leaders aiming to establish minimal common standards for cloud storage software containers. Many of the companies banding together in OCP also signed on to found CNCF. The goals of CNCF, however, appear broader than those of OCP. For example, OCP focuses on creating a single standard to guide continued innovation with cloud storage containers. CNCF, on the other hand, is pushing to create a common standard not only for containers, but also for the stack of technologies around them.

Wider Reach : The new group's role is to foster collaboration among developers and operators on common technologies for deploying cloud native applications and services, said Jim Zemlin, executive director at The Linux Foundation -- that is, applications or services that are container-packaged, dynamically scheduled and micro services-oriented. To ease the process for businesses and developers, CNCF aims to drive alignment among technologies and platforms, enhancing the benefits of Internet-scale computing by improving the overall developer experience, paving the way for faster code reuse, improving machine efficiency, reducing costs, and increasing the overall agility and maintainability of applications.

Collaborative Concept: The Cloud Native Computing Foundation will work under the organizational umbrella of the Linux Foundation, with a structure similar to the Open Container Project. No one wants to be left out of an initiative designed to drive alignment between the different container efforts, observed Enderle. If it looks like it is going to gain critical mass, no major company wants to be the one that didn't participate.

Conductor's Role: CNCF initially will assess open source at the orchestration level. Then it will look at the integration of hosts and services by defining APIs and standards through a code-first approach to advance the state of the art of container-packaged application infrastructure. The organization also will work with the recently announced Open Container Initiative on its container image specification. CNCF aims to assemble components to address a comprehensive set of container application infrastructure needs, according to the Linux Foundation.

Ultimately, the Cloud Native Computing Foundation is responsible for stewardship of the projects. Its objectives include developing new open source tools, APIs, and standards for containers and cloud infrastructure. The goal is to foster growth and evolution of the ecosystem, promote the technologies, and serve the community by making the technology accessible and encouraging wide adoption. CNCF's role also includes serving as a technical oversight committee and an end user advisory board to ensure alignment of needs between the technical and end-user communities.

All about Containers: One of the driving reasons for CoreOS to join CNCF is that company leaders believe Kubernetes is the right way to manage containers, said Polvi. "We also want to ensure that the technology continues to live on as distributed systems plumbing," he added. Open source container-packaged applications are a vital technology. The biggest users of containers today are large hyper scale companies, including Google, Facebook and Twitter.

Containers to Go: There has been rapid growth in both interest in and usage of container-based solutions over the past two years, according to David Messina, vice president of marketing at Docker.

"Almost all major IT vendors and cloud providers have announced container-based solutions, and there has been a proliferation of startups founded in this area as well," he noted. "The interest in containers has been driven by the fact that organizations can fully commit to container technologies today without worrying that their current choice of any particular infrastructure, cloud provider, devops tool, etc., will lock them into any technology vendor for the long run," Messina told Linux Insider.

Instead, they can choose the best tools to build the best applications they can. Of equal importance, they will benefit by having the industry focus on innovating and competing at the levels that truly make a difference, he explained.

Open source container-packaged applications are important, Messina emphasized. They give organizations moving from building monolithic applications to a distributed application a way to separate applications from the constraints of the infrastructure.

Tech News

Cisco Report Warns Against Flash Attacks

There have been many reports on how IoT is prone to cyber-attacks or smartwatches are vulnerable to hackers. No technology or device is immune to sophisticated cyber-attacks unleashed by cyber criminals.

The only way enterprises can deal with them is with early detection. The Cisco 2015 Midyear Security Report released recently, which analyzes threat intelligence and cybersecurity trends, reveals the critical need for organizations to reduce time to detection (TTD) in order to remediate against sophisticated attacks by highly motivated threat actors.

Security strategy is a business need. "It needs a two-pronged scheme to address this issue. One is to adopt a good cybersecurity framework, and the second is to have good, qualified and competent personnel to implement it across the organization." says Avinash Kadam, Advisor, ISACA India Growth Task Force.

The Cisco report shows that new risks associated with Flash, the evolution of ransomware, and the Dridex mutating malware campaign, reinforce the need for reduced time to detection.

With the digitization of business and the IoE, malware and threats become even more pervasive, which shines a light on the security industry's estimates of 100 to 200 days for TTD. In contrast, the average TTD for Cisco Advanced Malware Protection (AMP), with its retrospective analysis of attacks that make it past existing defenses, is 46 hours.

The findings also underscore the need for businesses to deploy integrated solutions vs. point products, work with trustworthy vendors, and enlist security services providers for guidance and assessment. Further, geopolitical experts have declared that a global cyber governance framework is needed to sustain economic growth.

Windows 10 Rollout To Have Massive Load On CDNs Worldwide

Microsoft has already started rolling out Windows 10 to Windows 7 and Windows 8.1 worldwide. As expected, the rollout process will have a massive load on CDNs worldwide. According to a new report from Dan Rayburn, an analyst with Frost & Sullivan, Windows 10 launch day will easily be the largest day/week of traffic ever on the Internet. "Unless Windows 10 is a complete flop and people don't upgrade as quickly as Microsoft expects, Windows 10 is going to create some serious havoc with regards to the user experience. Expect to see some download times in the days, not hours, especially if any other content owners happen to have larger-than-expected traffic at the same time", Dan added.

According to the report, Microsoft has reserved up to 40Tbps (terabits per second) capacity from multiple content delivery networks aka CDNs for the Windows 10 distribution process. The report states:

"Based on numbers we are hearing from multiple sources, Microsoft has reserved up to 40Tb/s per second of capacity from all of the third-party CDNs combined. To put that number in perspective, some of Apple's recent largest live events on the web have peaked at 8Tb/s. Windows 10 is expected to be five times that and will easily be the largest day/week of traffic ever on the Internet. QoS problems are to be expected, especially since all of the CDNs will be rate limiting their delivery of the 3GB download and many ISPs will max out interconnection capacity in certain cities."

Ecommerce Companies, Tech Startups Like Flipkart, Amazon Are India's Biggest Office Space Takers in H1

Riding on the back of humongous investments and rising valuations, ecommerce companies and technology startups outpaced IT/ITeS firms for the first time as the biggest office space taker in the country in the first half of the year.

Companies in this segment leased more than 6 million square feet of office space, or over 35% of the total, according to property research firm Knight Frank. Flipkart leased 3 million sq. ft. in Bengaluru with Embassy Office Parks, Amazon took 1.3 million sq. ft. in Bengaluru, Snapdeal 5 lakh sq. ft. in Gurgaon, Housing.com 1.5 lakh sq. ft. in Mumbai and Zomato recently leased 1.2 lakh sq. ft. in Gurgaon.

"The difference between startups of 1999-2000 dotcom boom and now is that this time these startups have raised large sums and business is actually happening. This is propping up the commercial office space market in India at the moment," said Viral Desai, national director - office agency at Knight Frank India.

The ecommerce industry has attracted large amounts of funding over the past few years. Funding in the sector increased to $4.3 billion in 2014 from $800 million in 2013. In the January-June 2015 period, investors have already put in $1.8 billion in ecommerce companies. Flipkart has so far raised $3.4 billion in the eight years since it was formed, with the latest $700 million infusion valuing it at $15 billion. Amazon is readying a $5 billion war chest for its Indian operations.

Tech News
3 Million 'Green' Devices Sold In India: Study

Nearly 3 million (2,962,734) electronic products sold in India in last one year are greener as per the EPEAT, the definitive global rating system for greener electronics, in India. Brands like Acer, Dell, HP, Ricoh and Bangalore-based VXL Instruments are few of the products registered under the EPEAT.

Since July 2014, the number of EPEAT-compliant devices has risen from 145 % and display models to 266% and display models and 35 copiers, printers and multi-function devices, bringing the total number of India registrations to 301 – a 108% increase since the program's inception.

These products' environmentally sensitive design, energy efficient functioning and responsible management support at end-of-life will result in significant environmental benefits and energy savings over their lifetime.

Electronics producers in India have welcomed the opportunity to certify their products' environmental attributes. Bulk consumers in Indian government and enterprise sectors are increasingly looking to EPEAT specifications to identify high-performance, environmentally preferable computers, monitors, copiers and printers, integrating EPEAT specifications in a growing number of public and private tenders in India for electronic products.

"The Indian electronics hardware sector is not only growing rapidly but also maturing in terms of its involvement with sustainability," said Anwar Shirpurwala, Executive Director of MAIT.

"EPEAT provides our members with a very useful framework for quantifying and communicating environmental value to their customers. We expect use of the EPEAT system will continue to expand rapidly in India for that reason."

Special Focus
Qlik And AFAS Software Partner To Deliver Visual Analytics Platform to 560,000 Users

Cloud-based ERP powered by Qlik Sense allows users to see the whole story in their data

Qlik® (NASDAQ: QLIK), a leader in visual analytics, recently announced that AFAS Software, a fast-growing ERP software provider, will integrate Qlik® Sense into its online product to provide world-class visual analytics to their more than 7,000 AFAS Software clients. By integrating Qlik, more than 560,000 AFAS users will be able to leverage the benefits of enterprise-ready business intelligence (BI) within their ERP suite. This multi-million dollar investment underpins AFAS' strategy of creating a single and integrated software solution for its customers.

The upcoming release of AFAS' online product, powered by Qlik Sense, will include an intuitive drag-and-drop interface supported by rich visual analytics, reporting, and dashboarding capabilities as a fully integrated part of the AFAS solution. With just a few clicks, users will be able to see the whole story in their data, including historical patterns and correlations through engaging visualizations.

Bas van der Veldt, CEO of AFAS Software, commented: "As we set high standards for our offering, building an in-house BI solution was not an option. It would take years and we wanted to give our customers the best experience the market offers. Qlik proved to be the disruptive platform we were looking for. Where other ERP providers offer a BI module as a paid plug-in, we offer it for free to our customers."

"We are very pleased with the strategic choice AFAS Software has made in Qlik," said Lars Björk, Qlik CEO. "This partnership responds to the growing demand from companies to empower their business with a powerful and flexible visual analytics platform that tells the whole story in their data. Qlik and AFAS are leading what many organizations see as a culture change; a desire not just to modernize certain working practices, such as administration, but to actually leapfrog other professional services by adopting the most innovative and intuitive solutions."

About AFAS Software

AFAS Software is a Dutch ERP software developer and supplier for the corporate market. AFAS Software automates over 10,000 companies and organizations from all industries with complete and modern (online) business software. AFAS is primary sponsor of Dutch major league soccer team AZ, the AFAS Tennis Classics and AFAS Circus Theater in the Hague. In addition, AFAS also has branches in Curaçao and in Belgium.

About Qlik

Qlik (NASDAQ: QLIK) is a leader in visual analytics. Its portfolio of products meets customers' growing needs from reporting and self-service visual analysis to guided, embedded and custom analytics. Approximately 36,000 customers rely on Qlik solutions to gain meaning out of information from varied sources, exploring the hidden relationships within data that lead to insights that ignite good ideas. Headquartered in Radnor, Pennsylvania, Qlik has offices around the world with more than 1700 partners covering more than 100 countries.

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	Galaxy Technology Services
System integrators of best of breed technologies to deliver solutions to the problems and challenges that confront enterprises	Skilled pool of resources consistently maintains and delivers enterprise class service levels
Galaxy Network Solutions	Galaxy BI Consulting Services
One of India's most trusted active and passive networking specialists	Helps organizations to deliver and leverage business intelligence to create substantial business impact

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

"Last month saw the passing away of the most loved and respected President that India has seen. Apart from his knowledge and achievements, one quality that really made him stand out was his humility. The 'missile man', 'rocket scientist', 'acclaimed author' and finally 'Mr. President' titles did not change the person in him. He remained honest to himself and his work - a true karma yogi. He will remain an inspiration and role model for all of us. As a tribute to the great man, I reproduce a poem written by him called 'Indomitable Spirit'."

I was swimming in the sea, Waves came one after the other
I was swimming and swimming to reach my destination.
But one wave, a powerful wave, overpowered me;
it took me along in its own direction
I was pulled long and along.
When I was about to lose amidst the sea wave power,
One thought flashed to me, yes, that is courage
Courage to reach my goal, courage to defeat the powerful force and succeed
With courage in my mind, indomitable spirit engulfed me,
With indomitable spirit in mind and action,
I regained lost confidence
I can win, win and win
Strength came back to me, overpowered the sea wave
I reached the destination, my mission..