

# TechTalk

## Issue 41

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## The biggest tech deal ever: Dell buys EMC for \$67 billion

*In the biggest tech deal of all time, Dell announced that it has agreed to buy corporate software, storage and security giant EMC for \$67 billion.*

The deal completes Dell's transformation from a consumer PC business to an IT solutions provider for companies. That process began when Dell bought Perot Systems for \$4 billion in 2009 and went full throttle in 2013 when company founder Michael Dell took the business private.

EMC is a behemoth of a corporate IT business. It is among the largest providers of storage hardware in the world. It also makes servers and owns security company RSA, which is known for its hard-to-crack SecurID tokens. And its most prized possession is its 81% stake in VMware -- the company that rules the world of virtualization software that allows businesses to run various operating systems on their devices.

"The combination of Dell and EMC creates an enterprise solutions powerhouse," said Dell in a prepared statement. "Our new company will be exceptionally well-positioned for growth in the most strategic areas of next generation IT."

EMC made its name selling companies storage systems for their data centers. Now, cloud companies like Amazon can store all of a company's stuff for cheaper. It's no longer in vogue for businesses to operate their own data centers. Meanwhile, Dell, the world's second-largest server maker, is facing the same conundrum. As businesses offload their file storage to Amazon, Google and Microsoft, many are letting those companies handle their email and Web serving too.

Dell in particular has struggled lately -- it was the only top five server maker with falling shipments in the second quarter, according to tech consultancy Gartner. Both companies have invested heavily in the cloud, but each has encountered a rocky transition. EMC's stock sunk earlier this year, and it faced an activist shareholder revolt that failed to break up the company. Dell was forced to go private in a (very) leveraged buyout including large amounts of borrowing.

Dell said the company will remain private -- for now. The complicated EMC deal will be financed with a significant amount of debt, while VMware will remain publicly-traded.

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## Samsung Gear VR to Test Virtual Reality's Mass Appeal

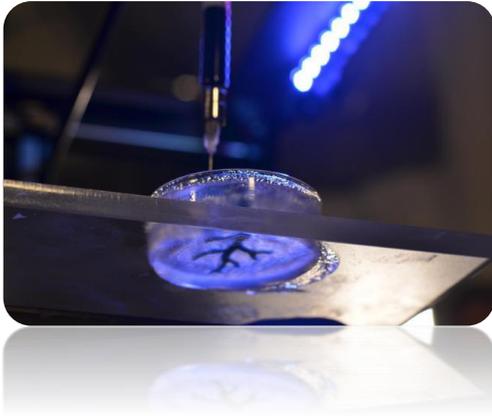
In the last week of October, Samsung unveiled a consumer version of a virtual reality headset adapter that converts Samsung smartphones into head-mounted displays. The move represents a first strike -- ready or not -- as top tech industry players begin to push virtual reality hardware into consumer markets. Taking what they learned from the developer version of the headset, launched last fall, Samsung and partner Oculus VR have imparted several improvements to the consumer version of Gear VR. Compared to the previous Gear VR Innovator Edition, the consumer version of the headset weighs about 22 percent less. Samsung has improved the Gear VR's touchpad to afford wearers greater control, and the company also added foam to the headset to make for a more comfortable, contour-conforming fit. Rounding out the list of improvements to the Gear VR is its price. The consumer version of the headset will sell for US\$99 -- half the price of the Innovator Edition.



# The Future is Now

## Scientists are Using 3-D Printing to Recreate Human Hearts

*A group at Carnegie Mellon University is hoping the technology can one day make a dent in organ transplant lists.*



3D Printing just got even cooler.

A group at Carnegie Mellon University is experimenting with ways the technology could one day eliminate the need for transplants to repair damaged organs.

"3-D printing of various materials has been a common trend in tissue engineering in the last decade, but until now, no one had developed a method for assembling common tissue engineering gels like collagen or fibrin," TJ Hinton, a graduate student in biomedical engineering at the university and lead author of the study, said in a news release.

Human tissue is pretty soft. And, as one might guess, soft, human-flesh-like materials — Hinton used Jell-O as an example — are pretty difficult to use in 3-D printing.

It's mushy. It's gushy. It collapses on itself.

"We developed a method of printing these soft materials inside a support bath material," he said. "Essentially, we print one gel inside of another gel, which allows us to accurately position the soft material as it's being printed, layer-by-layer."

When heated to body temperature, the support gel melts away, leaving the 3-D printed soft material, which mimics human heart tissue, intact. The team has already used the technology to duplicate coronary arteries and embryonic hearts with "unprecedented resolution and quality," according to the news release.

## Poof! Futuristic Flying Vehicles Could Vanish After Deliveries



A tiny, floating device delivers a package into your arms, and then, before you can say "thanks," it disappears into thin air. Such a magical device may sound like something out of a Harry Potter movie, but its real technology that could benefit people in remote areas.

The development of this far-out delivery system is being led by the Defense Advanced Research Projects Agency (DARPA), the branch of the U.S. Department of Defense charged with developing new technologies for the U.S. military. Several years ago, DARPA launched its Vanishing Programmable Resources (VAPR) program, which is devoted to building small electronic systems that do their jobs and then self-destruct.

Although it might sound counterintuitive to build something that's going to disappear, self-destructing systems are useful for a range of situations, according to DARPA. For example, sophisticated technologies (such as environmental sensors or communications tools) are often used on battlefields and then are left behind, where they can be scooped up by people who

aren't authorized to use them, making them risky. Discarded electronics also pose a threat to the environment as they rust and decompose. But electronics that just disappear aren't saddled with these problems, DARPA officials said. VAPR researchers have already developed a few materials that can disappear into thin air, including a small polymer panel that literally goes "poof," changing from a solid into a gas. Researchers also developed a glass material embedded with electronics that shatters into tiny particles after use.

"With the progress made in VAPR, it became plausible to imagine building larger, more robust structures using these materials for an even wider array of applications," Troy Olsson, DARPA's VAPR program manager, said in a statement.

Creating vanishing delivery vehicles is the next order of business for DARPA, which recently announced a new program called ICARUS — short for Inbound, Controlled, Air-Releasable, Unrecoverable Systems — to develop the technology.

The program is named for the Icarus of Greek mythology, whose waxy wings melted when he flew too close to the sun. The mythological character fell into the sea and drowned. But a happier ending is expected for DARPA's ICARUS, which calls for the "design and prototyping of vanishing air delivery vehicles capable of precise, gentle drops of small payloads." The flying vehicles could be used to deliver materials such as food, water and vaccines to people living in remote parts of the world, or to transport supplies to people who have been stranded by natural disasters. Normally, the organizations that distribute such materials either return to collect the vehicles they used to drop the supplies or leave the vehicles on the ground to decompose. The option to just drop something out of a plane and then totally forget about it hasn't existed, according to DARPA.

Just don't expect these vanishing vehicles to replace your local mail delivery person or even high-tech delivery drones. DARPA said the seemingly magical devices would be used only in "extenuating circumstances" in which no other delivery options are feasible.

# Technology Focus

## How the Cloud Can Improve Your Security Solutions?



The advantage of being in this industry for a while is that you get to see firsthand how things change. Mostly for the better, and usually quite quickly, too. Some of these changes have a knock-on effect on other parts of the industry.

One recent example of this is security. In days gone by security was very much focused within a company's network; all the necessary data and applications sat behind the firewall so that's where defenses were concentrated. These days, that's simply not the case. Thanks to a raft of industry developments, primarily mobile devices and cloud computing, network perimeters are no longer contained within a company's (metaphorical) four walls. That's made security a slightly more difficult task - how can you be expected to use on-premises security solutions to protect apps, data, and devices, when they themselves are far beyond the traditional network perimeter?

That's why security solutions delivered via the cloud could help protect today's businesses. It means workers - and all that important, sensitive data - are protected, no matter where they are, what device they're using or what service/application they're connecting to. It simply isn't feasible for a company to protect each endpoint, inside and outside the perimeter.

Using cloud-based security solutions can help with a variety of different threats. Take DDoS attacks, for example. DDoS attacks are getting bigger in scale, and when you're talking about attacks around 300 Gbps in size (and up), the only way to stop these is with cloud-based technologies, as local network appliances won't be able to cope with the bandwidth required.

Delivering DDoS protection from the cloud also means (depending on the service provided) companies can call on a globally-distributed DDoS mitigation network operated by experts. On-premises DDoS protection is unlikely to be able to say the same.

When you think about it, if you need to protect cloud-based devices, applications, data and so on, it makes sense to do that in the cloud, right? Cloud-based security can stop many attacks before they reach a corporate network and can use intelligence from its entire network to spot anomalies and new threats as they emerge. That real-time defense is something that on-premises software can struggle with, as databases have to be updated and new versions rolled out before the corporate network is secure.

It's worth noting that many of the benefits of cloud computing - cost reduction, better scaling, and automation and so on - apply when it comes to using cloud-based security services. As we trust more and more of our critical applications, services and systems to the cloud there is no reason why security should not be on that list.

## Using Metadata Wisely to Mitigate Risk and Uncover Opportunities

The role of metadata has become increasingly prominent in how everyone from data scientists and business leaders to compliance officers and financial auditors look at data as a strategic asset. Metadata—literally, "information about information"—is an invaluable element in organizations' strategies to gain critical visibility into the status, location and ownership of corporate data.

But few organizations have a sufficient understanding of how best to utilize metadata within the overall context of an information governance strategy, particularly as it relates to visibility. For instance, anyone creating, sharing, extracting or reporting data needs to understand the role of metadata in risk mitigation scenarios such as e-discovery, governance and compliance.

How can metadata—particularly as part of a comprehensive information governance strategy—help organizations gain visibility into their data so they can make smarter, faster and more impactful decisions?

- **Risk profiling.** By identifying areas of high risk, organizations can improve their ability to spot and remediate problems such as potential data breaches, compliance violations or missing data for e-discovery. Data Insight from Veritas identifies overly permissive data sharing, and integrates seamlessly with Veritas' data loss protection solutions to scan for data loss and help secure information.
- **Storage reclamation.** All organizations need to identify stale, orphaned or non-approved information, and must have efficient ways to move that data to the most cost-efficient storage. Using Veritas' Enterprise Vault product in concert with Data Insight gives organizations the necessary visibility to assess the business value—now and in the future—of data, and reallocate that data in a way that frees up primary storage resources.
- **Migration compliance.** Utilizing metadata and metadata management is essential in helping organizations determine which data should remain on-premises and which data can and should be moved to the cloud.

The huge growth in unstructured data has created a major strategic challenge for most organizations. It is becoming increasingly difficult for IT departments or business stakeholders to have the necessary visibility into essential data for a variety of applications, workloads and use cases.

Using metadata as part of an enterprise-wide information governance platform increases visibility and helps to reduce risk, identify new business opportunities and better understand the economic value of data.

# Tech News

## Netmagic to Invest Rs. 2,000 Crore in Data Centers



Netmagic, a data centre operator and subsidiary of Japanese firm NTT Communications, is planning to invest close to Rs. 2,000 crore in setting up three more data centers across India in next three years. The company unveiled its 9th data center in Mumbai.

One of the largest data center in India – this massive 300,000 sq. feet (27,000 sq. mt.) high density data center with 2,700 racks has been built to the exacting global design standards of NTT Communications, using the experience and expertise from building and successfully running over 140 data centers worldwide. Following these, Net magic would have a total of 12 data centers in the country with a total floor space of 12-lakh sq. ft.

The new data center will deliver Netmagic's entire suite of services including Managed Co-location, Dedicated Hosting, Cloud Computing, IT Infrastructure Monitoring & Management, Managed Security, Disaster Recovery and Managed App Hosting. The Data Center is already operational with some marquee anchored customers on-board already, said the company.

"This occasion is of great pride for us, as this new Mumbai data center will facilitate Indian and multi-national enterprises in experiencing the state-of-the-art data centers that NTT Communications operates across the world," said Tetsuya Shoji, President & CEO of NTT Communications. "The added advantage of Netmagic's operational excellence in Managed Services gives this data center the capability of becoming the new benchmark for data centers in India."

"This facility is part of our Nexcenter brand of Global data center services providing seamless ICT solutions including networks, cloud computing, data centers security and applications, thereby capitalizing on the trend of enterprises' migrating their on premise systems to the cloud."

"Businesses today require a robust, reliable and resilient IT Infrastructure backbone, that is above all easily scalable and responsive. With our new data center, the city has a promising state of the art destination for its IT Infrastructure requirements, and one that can abundantly address concerns of scalability, high availability and resilience in performance of hosted assets with an unprecedented ease. Given Mumbai's business importance, Netmagic's Data Center 5 is poised to soon become the very heart of India's IT Infrastructure needs, offering the right platform for enterprises and start-ups alike, to grow, scale and innovate in order to take business to the next level."

## Why India is a Key Market for Oracle



The business-friendly initiatives of the Indian government has reassured IT major Oracle to expand its base in the country through its diverse portfolio of integrated cloud platforms.

On the sidelines of the Oracle's OpenWorld 2015 conference, Oracle CEO Mark Hurd said that Oracle is committed to expand its reach in the burgeoning cloud and software market in India. "We are seriously working on the expansion plans in India. It is really a good time for this," he told IANS, adding that Loic Le Guisquet, Oracle's president for the Europe, Middle East and Africa region and Asia Pacific, has already initiated the expansion plan.

In a recent interview Guisquet told in an interview to CNBC-TV18 that Oracle has initiated a huge recruitment drive for cloud in India to expand its base as the demand for information technology is growing faster in India than other regions. India has always been at the forefront for Oracle and its bouquet of innovations. With new initiatives like "Digital India" now in place, the thrust is likely to get bigger.

Oracle has 12 development centers in India, including facilities in many emerging cities like Vijayawada, Thiruvananthapuram, Noida and Ahmedabad. India is home to Oracle's second largest workforce of developers and engineers and accounts for its largest research and development investment outside the US.

India is home to more than 700,000 members of Oracle's online and developer community. India's software revenue totaled \$4 billion in 2014, an 8.3 percent increase from 2013 revenue of \$3.7 billion, according to a latest Gartner report.

Among the leading trends that are common across the India software market include Software as a service (SaaS) adoption, followed by Oracle Human Capital Management Cloud (Oracle HCM Cloud) and Open-source software (OSS) adoption and its broader market implications, the report added. Among the BRICS (Brazil, Russia, India, China and South Africa) nations, the India software market experienced the highest growth rate in 2014.

Over the last few years, Oracle has gained several cloud customers in India, notable among them are Airtel, Flikart, Jabong, MakeMyTrip, L&T, Birlasoft Limited, iGate, Indiabulls, Kotak Life Insurance, PolicyBazaar.com, PVR Cinemas, Reliance Commercial Finance and Thomas Cook, to name a few.

The company is also reportedly working with the India government in areas of cloud and social engagement, and is contributing to the country's Digital India projects. Mr. Kumar M.D of Oracle India believes with a comprehensive portfolio and specialized go-to-market strategy, the company can become a top cloud vendor both in India as well as globally in next one year, offering unprecedented customer experience.

# Tech News

## Google Pushes Transparency for SSL Certificates



The padlock on a browser's address bar is supposed to give Net travelers some security in insecure virtual space, but that is not always the case. Some dangerous flaws lurk behind the padlock.

They can weaken the effectiveness of encrypted Internet connections and compromise TLS/SSL processes, including domain validation, end-to-end encryption, and the chains of trust certificate authorities have put in place, Google points out at its SSL certificate transparency website.

The flaws leave the doors open for a wide range of security attacks, including website spoofing, server impersonation and man-in-the-middle attacks, the company said.

In the past, there hasn't been a way to determine what SSL certificates a certificate authority has issued. That creates a problem because all certificates are trusted by a Web browser no matter who issues it -- even

though some CAs may have better security and fraud controls than others.

There are over 300 certificate-issuing authorities, and they are not all created equal. Google became concerned over the SSL certificate issuance problem because it saw certificates issued in its name that were being used by criminals and nation-states for fraud and mischief. It's spearheading a movement to improve transparency when issuing certificates. When a CA issues an SSL certificate, Google wants notice of that issuance to be posted to a public place.

That public place has become a number of log servers where certificates can be posted before they're approved. It allows anyone interested in what certificates are being issued to see them before they go live.

# Special Focus

## Making your Enterprise Mobility Program a Success

***A survey from Accenture finds that despite enthusiasm for mobile applications among enterprises, senior decision makers are not properly prepared to implement and support them***

Enterprise decision makers are failing to adequately prepare to successfully deploy and maintain mobile applications in the business, according to a report conducted by consultancy Accenture.

Accenture's researchers quizzed 2,000 IT decision makers to produce its report, growing the Digital Business: Spotlight on Mobile Apps.

Its data revealed that while 82% saw mobile applications as integral to their organization, a mere 52% were employing a testing program to include user feedback during the design and build stage of app development, and only 48% were conducting usage reporting or using any kind of analytics to understand pain points in live apps.

Abhijit Kabra, mobile application practice lead at Accenture Digital-Mobility, said it was a concern that businesses were not keeping a closer eye on their apps.

"To get the best results from apps, businesses must do rigorous testing before launch and robust app management once deployed. Not only does this help to provide the best possible user experience, but it will also help make sure security challenges are addressed as an ongoing priority," said Kabra.

Proper management throughout the lifecycle of a mobile app will avoid impaired performance that can frustrate users and customers, or result in a security breach, said Accenture.

"We found too many companies are neglecting to continually improve their existing apps, meaning they risk wasting their investment," said Kabra.

Security was identified as a particular point of concern by many, with 49% citing it as the greatest challenge faced when managing and developing apps. The other major challenges cited were performance issues (37%), such as crashing and bugs, although over half had implemented some kind of bug fixing or tracking system.

Accenture also found some disparity between the majority of decision makers who believed apps were integral to their organization (82%), those who believed apps were the dominant user interface of the future (85%), those who believed apps were a portal to the digital business (87%) and how many were actually deploying them.

It found under half of respondents were using apps to improve business efficiency, with 46% using productivity apps, 44% using apps as a channel for sales, customer services or information and 35% using mobile learning and collaboration apps.

"Apps are becoming critical to access business data for real-time decision making, whether it's to manage industrial processes, employee collaboration, training programs or the customer experience," said Kabra.

"User experience and app performance is more important than ever. Our research shows business leaders clearly need to raise their game in app management to make sure they make the most of their investment."

# 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

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## 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 it was our Prime Minister's visit to Silicon Valley that was the talking point of the IT industry. This month, we see Mark Zuckerberg and Satya Nadella make reciprocal visits to India. I'm sure that this trend will continue over the next few months as the Digital India Project is too big for anyone to ignore."*

*Mark Zuckerberg held a town hall session at IIT Delhi and wooed the audience and media by answering a range of questions including sensitive ones about internet.org and net neutrality. He also met with prominent business and political leaders and has promised a lot in terms of technical and infrastructural support towards providing affordable internet access to remote parts of the country. In fact, if things go as per plan, India may be the first country where drones will be used to provide internet to remote areas. I'm sure that Satya Nadella will also have something on similar lines to offer. Now, it is up to the political masters to make the best of these promises and ensure that these projects get implemented with minimum red tape and interference and maximum facilitation. Only when the internet is available to all, will the 'Digital India' project be truly successful."*

*I wish all of you my best wishes for the upcoming festival season.*

*Happy reading.*