

# TechTalk



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## Galaxy participates in Dell - EMC Forum 2017



The Dell - EMC Forum is a premier technology event where IT practitioners from across India come together on a single platform to exchange ideas on latest business and technology trends, industry best practices, emerging roadmaps and more.

This year's Dell - EMC Forum was conducted on September 12, 2017 at the Grand Hyatt in Mumbai. As you all know, Galaxy is a leading channel partner for Dell - EMC across a range of products, solutions and services such as hyper converged data center systems, storage systems, data domain, backup

and recovery systems. The fact that this was a "participation-by-invitation-only" event made the occasion all the more special for Galaxy, since we were invited to participate as an exhibitor with a booth setup in their exhibit zone.

We held a lucky draw for all our booth visitors, where Ajay Patodia [Director - Data Center Solutions] and Arun Roongta [Director - Networking] from Galaxy presented the awards to the winners. This seemingly small gesture put the spotlight on Galaxy, and gave us a good mindshare of target audiences who now see us as a formidable player in the technology space.

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## MD Speaks

"Dear Readers,



Over the past few months, a multitude of incidents have given rise to very real concerns about the level of IT security at enterprises and Governments, that were supposed to be at the forefront of this area. It started with allegations of hacking the US elections, then large scale data leakages from a well-known financial service provider and finally war plans being stolen. In India too, we have had our share of allegations of EVM rigging and leakages of Aadhar data. It is absolutely imperative that the focus and budgets of both enterprise and Government should be on security to protect their existing digital assets rather than advancements in other technology areas that would make them even more vulnerable. With major advancements in IoT, robotics, driverless cars & trucks, I shudder to think of the damage that could be caused by a rogue who can hack and control these devices.

Also, an increased number of natural disasters every year just emphasizes the need to treat our planet with the respect it deserves. Nonpolluting methods of transport, manufacturing, temperature control etc. need to be incentivized and polluting methods penalized for this to happen. Some countries including India have taken some steps and that is encouraging. However much more needs to be done. Each of us needs to promise our children that we will leave them in a better world than where we lived. On that note, I wish all of you a very happy Diwali and prosperous new year.

Happy Reading."

*Arun Roongta*

# The Future is Now

## Face-detecting Systems in China Now Authorize Payments, Provide Access to Facilities, and Track Down Criminals



Shortly after walking through the door at Face++, a Chinese start-up valued at roughly a billion dollars, I see my face, unshaven and looking a bit jet-lagged, flash up on a large screen near the entrance.

Having been added to a database, my face now provides automatic access to the building. It can also be used to monitor my movements through each room inside. As I tour the offices of Face++ (pronounced “face plus plus”), located in a suburb of Beijing, I see it appear on several more screens, automatically captured from countless angles by the company’s software. On one screen, a video shows the software tracking 83 different points on my face simultaneously. It’s a little creepy, but undeniably impressive. Over the past few years, computers have become incredibly good at recognizing faces, and the technology is expanding quickly in China in the interest of both surveillance and convenience. Face recognition might transform everything from policing to the way people interact every day with banks, stores, and transportation services.

Technology from Face++ is already being used in several popular apps. It is possible to transfer money through Alipay, a mobile payment app used by more than 120 million people in China, using only your face as credentials. Meanwhile, Didi, China’s dominant ride-hailing company, uses the Face++ software to let passengers confirm that the person behind the wheel is a legitimate driver. (A “liveness” test, designed to prevent anyone from duping the system with a photo, requires people being

scanned to move their head or speak while the app scans them.)

The technology figures to take off in China first because of the country’s attitudes toward surveillance and privacy. Unlike, say, the United States, China has a large centralized database of ID card photos. During my time at Face++, I saw how local governments are using its software to identify suspected criminals in video from surveillance cameras, which are omnipresent in the country. This is especially impressive—albeit somewhat dystopian—because the footage analyzed is far from perfect, and because mug shots or other images on file may be several years old. Facial recognition has existed for decades, but only now is it accurate enough to be used in secure financial transactions. The new versions use deep learning, an artificial-intelligence technique that is especially effective for image recognition because it makes a computer zero in on the facial features that will most reliably identify a person.

“The face recognition market is huge,” says Shiliang Zhang, an assistant professor at Peking University who specializes in machine learning and image processing. Zhang heads a lab not far from the offices of Face++. “In China security is very important, and lots of companies are working on it.

One such company is Baidu, which operates China’s most popular search engine, along with other services. Baidu researchers have published papers showing that their software rivals most humans in its ability to recognize a face. In January, the company proved this by taking part in a TV show featuring people who are remarkably good at identifying adults from their baby photos. Baidu’s system outshined them. Now Baidu is developing a system that lets people pick up rail tickets by showing their face. The company is already working with the government of Wuzhen, a historic tourist destination, to provide access to many of its attractions without a ticket. This involves scanning tens of thousands of faces in a database to find a match, which Baidu says it can do with 99 percent accuracy.

## Drones and Robots Are Taking Over Industrial Inspection

Advances in AI have made it possible for machines to autonomously inspect pipelines, power lines, and transportation systems.



Avitas Systems, a GE subsidiary based in Boston, is now using drones and robots to automate the inspection of infrastructure such as pipelines, power lines, and transportation systems. The company is using off-the-shelf machine-learning technology from Nvidia to guide the check-ups, and to automatically identify anomalies in the data collected.

The effort shows how low-cost drones and robotic systems—combined with rapid advances in machine learning—are making it possible to automate whole sectors of low-skill work. While there is plenty of worry about the automation of jobs in manufacturing and offices, routine security and safety inspections may be one of the first big areas to be undermined by advances in AI.

Drones have been used on some industrial sites for a while and various companies, such as Kespry, Flyability, and CyPhy, offer aerial systems for monitoring mines, inspecting wind turbines, and assessing building insurance claims. But the technology required to automate more of the process is now becoming accessible. Similar technology is also enabling robots to cruise autonomously through offices and malls looking for anomalous behaviour.

Avitas uses drones, wheeled robots, and autonomous underwater vehicles to collect images required for inspection from oil refineries, gas pipelines, coolant towers, and other equipment. The company is using Nvidia’s DGX-1 system, a computer designed for a cutting-edge kind of machine learning, to guide these vehicles to the same spot, and to analyze the image data for possible defects.

Nvidia’s system employs deep learning, an approach that involves training a very large simulated neural network to recognize patterns in data, and which has proven especially good for image processing. It is possible, for example, to train a deep neural network to automatically identify faults in a power line by feeding in thousands of previous examples. In some cases, deep learning can perform image recognition more reliably than a person could.

# Technology Focus

## Mobile Security Technology, Advances often a Double-Edged Sword

**Innovative mobile security technology has been developed to offset vulnerabilities, but using cutting-edge solutions such as automation could come back to haunt IT execs.**



The rapid advancement of mobility in the enterprise has often outpaced the development of mobile data security best practices, and this obstacle is made more complicated by the fact that mobile devices now include emerging technology such as the internet of things. The trend has left companies -- and their IT leaders -- scrambling to develop mitigating mobile security technology and processes necessary to protect data.

For Bob Turner, CISO at the University of Wisconsin-Madison, a big challenge is that every student owns multiple mobile devices that could potentially connect to the UW network. Mobile security technology controls and user education need to be implemented to ensure the network is defended, but also in a way that enables the mobility that the students covet, Turner said during a panel discussion at the 2017 Fusion CEO-CIO Symposium

produced by WTN Media.

"What we need are mobile device management systems; we need the ability to have users check in their three to five mobile devices, and then we can monitor them," Turner said. "We know what they are, we know what they look like, we know what they are doing."

When it comes to corporate mobile security, Turner said it's all about instituting the right controls: Deploying antivirus software best suited for the network, for example, or implementing identity access management tools to ensure the person using a mobile device is who they say they are.

"It's not the mobile device that connects to your network; it's the user that connects to your network," Turner said.

**'Redefining' network access'**: Kurt Roemer, chief security strategist at Citrix, said some companies are "redefining access" to networks to offset these types of data security risks. For example, instead of just a straight login to gain entry to everything in a company's network, identity management can be automated to take into account whether the employee has the right to access the specific information based on security clearance, role in the company, responsibilities, etc. "By doing that, you have a much higher assurance that you are meeting the level of trust, you're mitigating the risk and you are making sure that people are doing the right things," Roemer said during a panel session at the 2017 Fusion CEO-CIO Symposium. "It's automated for them."

But despite the allure, considering mobile security automation a "set it and forget it" solution is a mistake, said David Ulevitch with the Cisco Security Business Group during his keynote at RSA Conference 2017 in San Francisco. Ulevitch said companies have to be wary of what he calls the "automated stupidity" problem: Robots could make bad decisions based on bad context, creating false positives and other factors that could hinder people from doing their job. "There are reasons why we haven't automated security," Ulevitch said.

Another problem with security automation is complacency, according to Gib Sorebo, chief cybersecurity strategist at Leidos, a defense company that provides scientific, engineering, systems integration and technical services. During an RSA Conference 2017 panel discussion titled "The Future of Ransomware on the Internet of Things," he said people are getting used to relying on tech running automatically, making it more vulnerable to hackers. That attitude simply will not fly for when it comes to protecting IoT and other mobile technology, he added. "The message is really that people need to appreciate that automation doesn't always work right," Sorebo said. "It's really a matter of making sure we thought through what we [did] if they don't work, for whatever reason."

But according to Aaron Turner, CEO and Founder of IntegriCell, the biggest obstacle to mobile and IoT security is not technology, but outdated U.S. policy. Turner pointed to the Communications Act of 1934 designed to regulate interstate and foreign commerce in communication conducted via wire and radio. In the United States of America, the laws that govern the spectrum were written in 1933," Turner said during a discussion at RSA Conference 2017. Among the many technologies not invented at the start of the Great Depression was Bluetooth, Turner noted. That omission has serious consequences for retailers with Wi-Fi networks that handle payment data. To protect customer and company data, businesses need the ability to monitor aspects such as what service set identifiers are out there, what Mac addresses are considered access points and who is connecting to them.

What is your liability if you've got somebody scraping every single credit card number out of your airspace?" Turner asked. These outdated policies will only become more magnified as mobile technology -- and how it is defined by the enterprise -- continues to evolve. For example, Forrester's 2017 report on the "The State of Enterprise Mobile Security" found that 39% of online adults in the U.S. reported they are interested in using biometric verification to access financial accounts. Forrester recommends that security professionals capitalize on this trend, and implement advanced bio-authentication measures into the identity management efforts of mobile security initiatives. But as biometrics becomes the norm, it creates further complications for corporate mobile security. Because biometric data is very unique to individuals, it makes it that much more enticing for criminals looking to use mobile devices to tap into it for hacking purposes.

"It's not just about security; we have to extend our notions so it's security, compliance, privacy and safety -- and the safety aspects are huge as we get into machine learning, AI and IoT," Roemer said.

# Tech News

## Russia-Linked Facebook ads Seen by 10 Million Users

The social network details data on ads with ties to Russia that were placed on the service during the 2016 US election campaign.



About 10 million Facebook users saw Russian-linked ads placed on its service during the 2016 US election campaign, the social media giant said recently. About 44 percent of the ads were seen before election, while 56 percent were seen afterward, Elliot Schrage, the company's vice president of policy and communications, wrote in a blog post. The figures were among the data Facebook shared with Congress over concerns the ads may have influenced the 2016 presidential election.

"Most of the ads appear to focus on divisive social and political messages across the ideological spectrum, touching on topics from LGBT matters to race issues to immigration to gun rights," Schrage wrote. "A number of them appear to encourage people to follow Pages on these issues."

The revelation comes nearly a month after Facebook said it identified about 500 "inauthentic accounts" that bought \$100,000 worth of ads that targeted highly politicized social issues such as immigration, guns and LGBT rights. Facebook has sent records of the ads to government investigators looking into Russia's alleged meddling in the 2016 US presidential election. Facebook's disclosure marked a new turn in the high-profile Russia investigation, which has raised issues concerning President Donald Trump's election last year, the involvement of his children and the actions of his staff. At issue is how much the Russian government may have attempted to influence the electorate, and whether Trump or anyone working for him was knowingly involved. Trump has repeatedly denied involvement.

Schrage revealed that some of the ads were paid for in Russian currency, but said that alone wasn't an effective way of identifying suspicious behavior.

"Most advertisers who pay in Russian currency, like the overwhelming majority of people who access Facebook from Russia, aren't doing anything wrong," Schrage wrote. "We did use this as a signal to help identify these ads, but it wasn't the only signal."

For its part, Silicon Valley is coming to grips with how much its services may have been used to sway the election. Facebook CEO Mark Zuckerberg, who at first downplayed the impact the social network may have had on the spread of false news, has now embraced those concerns and is working to address them. Those efforts include working with news organizations to identify false news, and shutting down advertising access to accounts that repeatedly spread it.

## Google Acquires Parts of HTC for \$1.1 Billion, Bets Big on Pixel Phones



Google is buying part of HTC, or more specifically the HTC team that collaborated with Google on creating the Pixel phones. Last year HTC helped Google make the Pixel and Pixel XL phones while this year the company has reportedly helped the company create the Pixel 2. Google said that its deal with HTC was more of talent acquisition, although this one is a pretty expensive people hiring considering Google is paying \$1.1 billion to HTC for it. The deal comes hours after HTC announced that it is set to halt trading of its shares on Wednesday.

Apart from acquiring a set of engineers and resources that HTC anyways devoted to Pixel phones, Google will also acquire non-exclusive rights to some HTC intellectual property. This seemingly refers to the technologies that are already inside the HTC phones and will probably end up in Google Pixel phones. One example will be the "squeezeable frame" that HTC has inside the U11 and that Google is also reportedly putting in the Pixel 2 and the Pixel 2 XL. Then

there are technologies like BoomSound speakers and the Ultrapixel cameras, which are common in the HTC phones but in future may make their way to the Google Pixel phones.

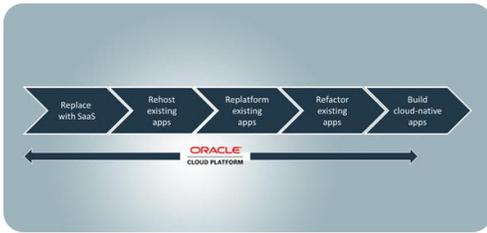
Interestingly, the deal doesn't mean HTC will stop making phones. Even as the company informed the world of its deal with Google, HTC also noted that it would continue to make smartphones. In fact, it said that a new flagship phone -- possibly based on updated hardware for the U11 smartphone -- was in the works and would be launched before the end of the year. Apart from phones, HTC is also heavily invested in making virtual reality headsets. It makes the Vive VR headset and the company will also continue to work on that.

As part of the deal, Google has signed an agreement with HTC, especially to make more exciting products in the coming 20 years or so. "This agreement is a testament to the decade-long history of teamwork between HTC and Google," notes Rick Osterloh, Senior Vice President, Hardware, Google in a blog post. Commenting on the acquisition Rick Osterloh notes, "We're excited about the 2017 lineup, but even more inspired by what's in store over the next five, 10, even 20 years. That's why we've signed an agreement with HTC, a leader in consumer electronics that will fuel even more product innovation in the years ahead."

With this agreement, Google will get certain HTC employees, many of whom are already working with Google to develop future Pixel smartphones. To recall, last year's Google Pixel phones -- Pixel and Pixel XL was manufacturers by HTC -- and there's no doubt that the phones were perfect from almost all aspects, especially in the imaging department. "In many ways, this agreement is a testament to the decade-long history of teamwork between HTC and Google. This agreement is a brilliant next step in our longstanding partnership, enabling Google to supercharge their hardware business while ensuring continued innovation within our HTC smartphone and VIVE virtual reality businesses. We believe HTC is well positioned to maintain our rich legacy of innovation and realize the potential of a new generation of connected products and services," says Cher Wang, Chairwoman, and CEO of HTC.

# Tech News

## Oracle Announces New Cloud Programs for The Enterprise



In Oracle Open World 2017 which was held at San Francisco, Executive Chairman of the Board and CTO Larry Ellison announced new programs that lower costs by delivering increased automation and flexibility, and enable customers to get more value from their existing Oracle software investments. The new Oracle Cloud programs include Bring Your Own License to PaaS and Universal Credits.

“We are completely transforming the way all companies buy and use cloud by providing flexibility and choice,” said Ellison. “Today, we combined the lowest prices with the highest performance and more automation to deliver a lower total cost of ownership for our customers.”

While organizations are eager to move to the cloud, many have not due to obstacles that have forced them to choose between flexibility and lower costs. They have been challenged by the

complexity of the cloud and the inability to rebalance spend across different services. Organizations have also been constrained by limited visibility and control over cloud spend. Until now, they have been unable to fully leverage their on-premises software investments in the cloud, having been limited to IaaS services or sacrificing key database features at the PaaS layer. Oracle’s new cloud programs address customers’ cloud adoption challenges by improving and simplifying the way they purchase and consume cloud services. Currently, customers can bring their on-premises licenses to Oracle IaaS. Today, Oracle is expanding the offering by enabling customers to reuse their existing software licenses for Oracle PaaS, including Oracle Database, Oracle Middleware, Oracle Analytics, and others.

Oracle is introducing Universal Credits, the industry’s most flexible buying and consumption model for cloud services. With Universal Credits, customers have one simple contract that provides unlimited access to all current and future Oracle PaaS and IaaS services, spanning Oracle Cloud and Oracle Cloud at Customer. Customers gain on-demand access to all services plus the benefit of the lower cost of pre-paid services. Additionally, they have the flexibility to upgrade, expand or move services across datacenters based on their requirements. With Universal Credits, customers gain the ability to switch the PaaS or IaaS services they are using without having to notify Oracle. Customers also benefit from using new services with their existing set of cloud credits when made available.

## Special Focus

### Dell EMC debuts SC Series entry arrays

**Dell EMC extends a full range of enterprise-grade capabilities to its entry-level SC Series models, providing access to advanced storage technology for businesses of all sizes and budgets.**

The affordable new Dell EMC SCv3000 arrays complete an end-to-end refresh of the overall SC portfolio offering greater automation, integration and more shared capabilities with the larger SC Series products. SCv3000 Series includes many of the key SC operating system features that have made SC9000, SC7020 and SC5020 popular with a diverse range of midrange storage customers.

New capabilities now offered at the entry level include:

- \* Data Progression that enables true auto-tiering hybrid flash solutions with “0-100% flash” configuration flexibility;
- \* Intelligent Compression to provide up to 93% reduction in required capacity;
- \* Full replication/federation with other SC Series arrays for investment protection with built-in roadmap to meet changing needs;
- \* Live Migration, for seamless data mobility and load balancing at no extra cost;
- \* Live Volume i.e. volume-level auto-failover/auto-repair eliminates workload interruption during unexpected outages or disasters;
- \* PS Series (EqualLogic) integration i.e. cross-platform replication and unified management allows PS/EqualLogic customers to easily add SC to existing environments;
- \* Enterprise Chargeback, thin clones, remote replication and more.

The SCv3000 hardware platform is also significantly upgraded compared to the previous-generation SCv2000. New 6-core Intel processors, 2X the memory and 3X greater bandwidth result in a 50% performance boost, with tested maximums up to 270,000 IOPS. “With all these advanced capabilities starting at a street price of under \$10,000, the SCv3000 is simply a great value for our most cost-conscious customers,” says Jeff Boudreau, president of the Dell EMC Storage Division. The SCv3000 arrays are customer-installable, lowering start-up costs, but are also supported by a full range of ProSupport and ProDeploy services, including “Plus” versions — as well as the new Optimize advanced services option. Customers can choose from one of two new base array models (SCv3000 and SCv3020), and three new optional expansion enclosures (SCv300, SCv320 and SCv360). They can mix and match these building blocks to deploy up to 1PB raw capacity per array, using any combination of SSDs and traditional hard drives in 3.5-inch and 2.5-inch formats. Multiple arrays can then be grouped in federated clusters with proactive load-balancing guidance and fast, wizard-based migration tools. Like other SC products, SCv3000 Series offers an expanding range of Dell EMC hardware and software integrations including VMware vSphere plugin support, along with support for VMware Virtual Volumes. Support for Dell EMC data protection, storage management and availability products including Data Domain, PowerPath, RecoverPoint, VPLEX, ViPR and more assure customers their SCv3000 arrays will continue to drive mixed-workload success in a variety of changing ecosystems, both now and as their businesses evolve.



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## 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

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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."*