

# TechTalk



Issue 60, June 2017

## Galaxy Recognized for Driving Digital Transformation

Receives 'The Futurist 100' Award by IDG ChannelWorld



This award was instituted by IDG – a global leader in technology media, data and service, in recognition of the transformational work undertaken by enterprise channel partners in FY 2016-17. **The Futurist 100** Award highlights the role of leading IT channel partners in making paradigm changes to their own as well as their customers' businesses, to adapt to evolving technology and business landscape.

Galaxy offers a futuristic digital roadmap to drive IT transformation with best-in-class mobility and security solutions to customers, in response to changing user behavior patterns. With our vast experience spanning several years, Galaxy has advanced skillsets that could be leveraged during project implementations - whether for

creating a Private Cloud, or executing deployment for Hyper-Converge, or for completing a Data center migration. Our strategic coalitions with many OEMs help us overhaul customers' infrastructure footprint to justify the C-C-C [Cost-Complexity-Compliance] matrix for the core business of IT infrastructure.

Galaxy is the proud owner of some mobility assets with Intellectual Property Rights such as **EventGym** – a platform for creating mobile apps for managing events and tradeshows, seminars and more. Mr. Anoop Pai Dhungat, Chairman & Managing Director of Galaxy says, "*EventGym and more such internally developed IPR assets will reap the company rich benefits in the coming years.*" Thus, we at Galaxy continue to induce positive disruptions across organizations and play a role towards transforming the way the world is working!

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## MD Speaks



"Dear Readers,

*The past couple of months have been quite eventful for Indian IT companies and their workforce. A lot of news items about mass retrenchments by major players have been floating around. Some are of genuine concern and others simply rumors. The truth is that these companies just did not want to see what was coming. They had the advantage of seeing giants in other industries struggle with their traditional businesses - Kodak, Barnes & Noble, Nokia, Blackberry to name a few. Despite this, they continued the exact same business model of outsourcing software development work and providing skilled resources to their clients for almost 30 years. During this time, others were building tools that helped some software developers do their work much quicker and even replace others. Suddenly, they found that the demand for their traditional resources has dropped and they needed differently skilled resources to create software programs using the available tools. And that too in much lesser numbers to achieve the same tasks. This problem has been exasperated by the tougher visa norms in the USA which was by far their single largest market. There will be winners that emerge stronger from this. One can only hope their numbers are more than the losers!*

*Today, we are at a stage where no business can be complacent. The digital world is ruthless and unforgiving. It is extremely easy to be left behind. At Galaxy, we will be happy to guide you through the process of digital transformation and ideate with you to plan this journey. Please reach out to our team for any assistance.*

Happy Reading."

*Anoop Dhungat*

# The Future is Now

## Machines Track Your Data to Learn How You Think

Let your machines learn from your data, and start solving problems for you'. Google is at the forefront of solving millions of problems globally, with the help of 'Machine Learning' (ML).



The process refers to programming computers/machines that are coded to think like human beings – human decision-making processes are encoded into algorithms that are then used by these computers. The machines can then be connected to the internet, allowing them access to vast tracts of data from across the world.

ML devices use 'neural networks' to carry out their functions – these are computer systems, designed to function in much the same way a human brain does with a network of neurons. With the help of these 'neural networks', machines can make decisions, detecting patterns, and predicting events, based on the data they are fed. You show the machine 10,000 pictures of a cat, and by the time you show it the 10,001st picture, it will say it's a cat. This way, the machine learns to decide and then classify it. The more the data, the better the output.

Here's a hypothetical situation that could play out. It's one of those numerous Whatsapp forwards, but does show how ML can (one day, perhaps...) take over our lives. When quizzed about the problem-solving that Google uses ML to enhance, Google's large pool of user data allows them to provide answers to text, voice, speech and translation-related issues posed by users. But that's not all. ML applications currently in the works can also read text and detect the tone of what is being written. For instance, they can figure out if a user is congratulating someone or complaining about something, and act accordingly. Recently, Google has given us a real-world example of ML put to work, with products like Suggested Sharing, and Photo Books that utilize it to select the best of your photos and make a photo album for you. Using our Machine Learning technology, Google Photos will not only remind you to share, it will automatically select the right photos, and even suggest who you should send them to base on who was in the photos.

Google Assistant is one of the byproducts of Machine Learning, that helps you with answers to even the most basic day-to-day problems. Soon, it'll also play music to match your mood, or simply take commands from a person's tone. This has become evident with devices like Google Home, which now understands multiple languages and answers appropriate, though that is only available in the West for now. Closer to home, you could use Google Assistant to sort through the photos on your smartphone and create customized albums.

## Mind-Controlled Glove Teaches Stroke Patients to Move Again

A wearable robotic glove makes use of brain signals to help stroke patients restore the use of their hands.



If the brain has been damaged, it can take months or years for stroke survivors to relearn the skills lost. Now, a new device can help stroke survivors regain the use of their hands. It's called the Ipsihand, developed by scientists at the Washington University School of Medicine in St. Louis. The results of the trial have been published in the journal *Stroke*, explaining how the Ipsihand helps reroute control of the hand to an undamaged part of the brain. The process involves a glove or brace that fits over the hand, a non-invasive electroencephalography cap (or cap fitted with electrodes that detect the electrical signals of brain activity) and a computer that amplifies those signals

"We have shown that a brain-computer interface using the uninjured hemisphere can achieve meaningful recovery in chronic stroke patients," said co-senior author Eric Leuthardt in a statement.

Ipsihand work in this way, your hands are controlled by the opposite side of the brain. So, when you move your right hand, it's the left hemisphere of the brain that comes alive with activity. If the left hemisphere is damaged, you'll have trouble controlling your right hand. In a healthy person, a split second before the left hemisphere of the brain becomes active to move the right arm, the right hemisphere shoots off electrical signals, indicating the intent to move. It's these intention signals that scientists harness with the Ipsihand system.

"The idea is that if you can couple those motor signals that are associated with moving the same-sided limb with the actual movements of the hand, new connections will be made in your brain that allow the uninjured areas of your brain to take over control of the paralyzed hand," Leuthardt said. To make these new connections, Ipsihand's cap detects the intention signals to open or close the hand, then the computer amplifies them. The brace then opens or closes in a pincer-like grip with the hand inside, bending the fingers and thumb to meet.

Ten patients of 13 recruited finished the program, using the Ipsihand for 10 minutes to two hours a day, five days a week for 12 weeks. After 12 weeks, the patients had improved an average of 6.2 points on a 57-point scale evaluating motor skills. Leuthardt said this increase represents a "meaningful improvement" in quality of life.

# Technology Focus

## WannaCry Ransomware: 5 Tips to Stay Guarded



After a major outburst of WannaCry ransomware attack, the organizations worldwide are evaluating their security architecture for loopholes. While there are several reasons why organizations fell victim to the WannaCry ransomware attack, the most critical reasons were underestimation of cybercrime syndicates and lack of awareness about regular patching of IT systems for latest vulnerability.

This incident highlighted the need to have cybersecurity solutions that can protect organizations from vulnerabilities that they didn't know existed. Therefore, it is a high time to identify network and the security gaps that exist and are putting the organization at risk. Hacktivists are targeting organizations around the world representing myriad industry segments and businesses of virtually every size.

Therefore, conventional security approaches are not sufficient to mitigate the risk of ransomware attacks.

Advanced models using next-generation firewalls, layered security, and proactive threat intelligence are a requisite today. Similarly, CISOs and cybersecurity teams need to deepen their engagement to review their strategies and operational posture. Here is a list of five critical security postures that every organization should have in place to thwart sophisticated cyber threats.

**1. Set up Incident Response Team (IRT):** Internal confusion within the teams often delays the response to the cyberattack causing potential loss to the organization. Therefore, it is essential to establish an incident response team, with clearly defined roles and responsibilities assigned to team members. This team should also clearly understand lines of communication along with a chain of command. Most importantly, this team needs to be intimately familiar with business and communications processes and priorities. Organizations can also run drills to identify gaps in processes to ensure that IRTs are efficient and well equip to respond to the cyberattacks in real time.

**2. Limit Bad Consequences:** Security planning needs to start with an analysis of the architecture with an eye toward engineering-out the bad Consequences. More generally, consequence-based engineering involves understanding your key assets, determining what sorts of threats your organization is most vulnerable to – such as remote access denial, corrupted applications or data, or rendering key IT or operational assets unavailable– and engineering as much of that risk out by design, to eliminate or minimize the potential of such consequences if a threat is realized.

**3. Maintain Good Security Hygiene:** Good security hygiene can thwart cyberattacks of any intensity. Organizations should establish and maintain a formal patching and updating protocol. In addition, a process needs to be implemented to identify and either replace or take offline those systems that can't be patched. Cybercriminal often distribute fake email messages mimicking email notifications from an online store or a bank, luring a user to click on a malicious link and distribute malware. With that in mind, companies need to fine-tune their antispam settings and never open attachments sent by an unknown sender.

Systems belonging to government offices and BFSI companies are particularly important to secure, as they often handle very sensitive information, perform critical tasks, and are part of large networks. Therefore, Government entities should always be aware of the types of data they need to protect, what degree of technology-based protection they need, and they need to conduct periodic reviews to make sure they are up to date with the latest best practices and techniques. Making sure an appropriate mix of well-trained people, best practices-driven process, and proven security technology is in place is critical across the domain.

**4. Signature-based & Behavior-based Detection Tools:** Protect the network by creating and using signatures. While new attacks are a real risk, most breaches are caused by attacks that have been around for weeks, months, or sometimes even years. Signature-based detection tools allow the company to quickly block an attempted infiltration's execution. Similarly, Behavior-based security tools can look for covert command & control systems, identify inappropriate or unexpected traffic or device behavior, disable things like zero-day variants via detonation chambers/sandboxing, and correlate data to identify and respond to advanced threats.

**5. No More Outdated Legacy Systems:** The cyber security preparedness varies from organization to organization. While large organizations give high priority to modern technology and strict security compliance small organizations are often seen using pirated software and do not update the legacy systems. Organizations irrespective of their scale of operations should establish a regular routine for patching operating systems, software, and firmware on all devices. For larger organizations with lots of deployed devices, consider adopting a centralized patch management system. Enterprise should also consider deploying IPS, AV, and Web Filtering technologies, and keep them updated. Most importantly, backup data regularly and verify the integrity of those backups, encrypt them, and test the restoration process to ensure it is working properly.

Despite of taking all these majors if organizations get infected by ransomware, they should try to find out the name of the malware. They should report the incident and collaborate with the police and cybersecurity experts to detain the adversaries and provide file restoration tools online.

# Tech News

## Amul To Use ISRO's Satellite Tech for Fodder Management



Amul, Anand and ISRO, Ahmedabad together took a forward step for the benefit of dairy farmers by signing a Memorandum of Understanding for "Fodder acreage assessment using satellite observation and space technology". The main objective of this MOU is identification and discrimination between food crops and fodder crops at village level and identifying suitable areas of current fallows as well as cultivable wastelands at village level for green fodder cultivation. This is for first time in the India and probably in the world where Space Research Organization and dairy cooperatives are together using satellite technology for fodder acreage estimation. Amul is procuring around 150 lakh liters of milk daily from around 35 lakhs milk producer members from more than 18500 villages under Amul Model. The milk producer farmers of Gujarat will get benefit of fodder cultivation by using this technology.

AMUL believes that the development and growth of dairy animals are highly associated with the scope of availability of fodder from cultivable land, forest, pastures and grazing lands which are crucial input for enhancing milk production and for survival of the bovine population. Amul has distinguished the importance of the fodder crop estimation and Space Application Centre (SAC, ISRO), Ahmedabad has developed space based remote sensing for fodder crop assessment using satellite observation and space technology. Amul and SAC, ISRO have jointly carried out pilot and found that it is feasible to assess green fodder availability for dairy livestock at district and village level through remote sensing. Fodder acreage estimation would act as a decision-making tool for monitoring and planning of fodder development activities by all the stakeholders in the dairy sector. This can be widely used for drought management in fodder deficit areas as well as it would also allow measuring the wetness in cultivable land to discover probability of fodder cultivation. The use of this technology will also help provide season wise remote sensing based estimates on area under fodder crop and cultivable wastelands for dissemination of information among member unions and other stakeholders in the dairy sector.

## BSNL Offers Satellite Phone Service in Remote Areas



The State-run Bharat Sanchar Nigam Limited and International Mobile Satellite Organization (INMARSAT) officially opened a new Indian GPS Gateway, which will enable Indian government and private sector customers to access highly reliable satellite phone (satphone) services via Inmarsat's fourth generation constellation. The launch of the new gateway also marks a further step towards Indian Prime Minister Narendra Modi's Digital India initiative. It will enable the Indian Government to provide secure communications to defense services, commercial enterprises, the maritime industry and India's remotest communities.

The service will be rolled out in areas where no networks are present and will be provided by Inmarsat which has 14 satellites. Anupam Shrivastava, Chairman and Managing Director of BSNL said, "This is an exciting day for BSNL as it brings reliable, secure voice communications, powered by Inmarsat's fourth generation satellite network, within the reach of groups and communities in areas with little or no connectivity."

Telecom Minister Manoj Sinha said that agencies handling disaster, Border Security Force, state police, railways and others will be given the phones in the first phase. "Later people while travelling in flight and on ships will be able to use it," he added.

## Google is Coming for Your Credit Card Data Next



Loving free products like Google, Gmail, Google Maps, or Android means you must give away a part of yourself to Google. Your data is what pays for these free products, and there's no way around it. If you're worried about your online privacy, you won't like the type of personal data Google plans to track next. Google wants to track billions of credit and debit card sales to compare online ad clicks with money spent offline, BBC reports.

If this sounds like the kind of fake Google product the company invents for April Fool's, you should know it's a real thing. Google already announced the new initiative on its AdWords blog. Google explains that it's already able to capture some 70% of credit and debit card transactions in the USA alone, which is quite impressive. This happens through third-party partnerships, but Google doesn't say what companies provide the financial data. But, in the future, advertisers will be able to use the data to measure the effectiveness of their online ads. Google, of course, tracks plenty of other data that will come in handy when it comes to helping companies understand whether the ads you see on your devices will convince you to buy a product. Such data includes store visits, and Google says that in less than three years, advertisers measured more than five billion store visits using Google's AdWords. Stores looking to get in on the credit card tracking action should know that there will be two ways of using it. One involves using email information collected at the point of sale for loyalty programs, and the other one relies on data from those unmentioned third parties.

"Both solutions match transactions back to Google ads in a secure and privacy-safe way, and only report on aggregated and anonymized store sales to protect your customer data," Google says, adding that advertisers won't have to share any customer data with Google.

Furthermore, Google won't know what you buy, only the value of all purchases over a period.

"While we developed the concept for this product years ago, it required years of effort to develop a solution that could meet our stringent user privacy requirements," a spokesman told BBC. "To accomplish this, we developed a new, custom encryption technology that ensures users' data remains private, secure, and anonymous."

# Tech News

## Uber Organizes 'Tech Day'; Showcases India-Centric Technology

Ride-hailing company Uber, organized its first ever "Tech Day" in New Delhi, to bring to the forefront the technology that powers the Uber app. The event provided a platform to highlight India-centric technology and the role it plays to make the experiences as seamless as possible, for both riders and drivers. The company also announced the appointment of Shirish Andhare as Head of Product and Growth, Uber India. In his role, he will lead the way to build innovative products keeping in mind the diversity and vastness of India as a market. He will also consider technological innovations across a variety of domains - from voice, web, and mobile applications to security, and payments.

Present at the event were Apurva Dalal, Head of Engineering, Uber India; Vinay Ramani, Head of Global Growth, Uber; and Shirish Andhare, who presented a perspective on the technology that powers the app and what happens when riders push a button to get a ride. Ramani said, "As a brand we have always focused on constantly innovating to change lives for the better. India as a country poses some unique challenges like connectivity, navigation and smartphone penetration. Currently, our product experts and engineering teams in India and around the world are working on innovative solutions that will help improve the overall rider and driver experience. In several cases, these solutions are India-first initiatives, for example, we launched Cash as a payment option and we then extended this to global markets, like the UK, and several South East Asian markets."

"We are incredibly passionate about India and are still identifying the opportunities wherein we can provide innovative solutions for both riders and drivers. Engineering, we believe, is core to Uber, which is why we established Asia's first Engineering Centre in Bangalore.

# Special Focus

## Cisco, IBM Team Up for Integrated Cybersecurity Products, Threat Intelligence and Managed Services Offerings

**Cisco and IBM have announced a new agreement under which the two technology giants will work together to integrate some of their security products, services, and threat intelligence.**



The two companies announced on Wednesday new IBM QRadar integrations with Cisco security offerings, including an agreement that Cisco will build two new applications for the IBM Security App Exchange for Cisco Firepower and Cisco Threat Grid. Cisco and IBM also announced the integration of the IBM Resilient Incident Response Platform with Cisco Threat Grid, an integration to be augmented with other offerings including IBM Watson for Cybersecurity and Threat Grid threat intelligence. IBM Security Vice President of Strategy and Offering Management Jason Corbin said the products integrations will "elevate our partners" to provide joint IBM and Cisco solutions that are integrated out of the box. He said the two companies meet "naturally" in the market with their products, as many customers buy both Cisco and IBM and the security portfolios are largely complementary.

"This is just the beginning of these integrations and of the relationship at this level," Corbin said. "I think we will be working closer together to figure out what the potential offerings are and the best routes to market for us."

Cisco and IBM also announced integrations between the companies' threat intelligence and research arms, IBM X-Force and Cisco Talos. The two companies have already started collaborating around this area, with collaboration between the research teams on emerging threats, such as the recent WannaCry ransomware attacks, and threat intelligence sharing. Finally, IBM and Cisco also extended their partnership to IBM's Managed Security Services team, including enabling the team to manage and support Cisco security solutions. The goal behind the product, services, and threat intelligence integrations, Dov Yoran, Senior Director of Strategy & Business Development, Cisco Security Business Group, said, is to drive both companies forward in four areas: automation, openness, simplicity and effectiveness.

Corbin said the partnerships are part of a recognition by Cisco and IBM that security companies need to work together to fight today's threats. He said that is especially true from companies like Cisco and IBM, which he said have largely complementary portfolios in the enterprise.

"I think what we're doing between IBM and Cisco is unprecedented in terms of two pretty large security companies coming together to deliver what we believe is some pretty unique integrations and capabilities in the market," Corbin said. "Ultimately, we are coming together to make the integration of our products and Cisco's products simpler to integrate, to consume ... and ultimately delivering more value and making our products stickier in the market."

Partners said that having Cisco and IBM work together will help them gain a competitive advantage over some of the up-and-coming, disruptive technologies. One Cisco partner executive, who did not want to be named, said the companies can then leverage that scale to innovate in new areas. He said partnering will be key to both companies gaining the credibility in the security industry that they are looking for, especially when competing with industry disrupters. The partner said the combination of IBM and Cisco around threat intelligence was particularly compelling to boost both company's security offerings. Both Cisco and IBM said they plan to continue building their partnership, with Cisco's Yoran adding that the two companies are "beginning on a longer-term outlook collaboration." Corbin said partners can expect to see more announcements between the two companies in the second half of the year.

"There's a lot for everybody here to play with. With the size and each of our two organizations, this will take some time, but we think this will have a real impact on the industry," Yoran said.



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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

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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."*