

TechTalk



Cisco & Galaxy Join Hands to Host “Galaxy Cisco Tech Day”

Security, digitization, mobility and connectivity are important areas that will enable today's organizations to deliver efficiently. Some studies claim that most important challenges facing CIOs, CISOs & CTOs today are an inadequate or improper deployment of technology, compliance to a fast-changing regulatory landscape, and coping with internal security breaches. Cisco is the leader in networking & security space, has always dominated this segment with its strong folios and offerings. Galaxy Office Automation co-hosted along with Cisco Systems, the “Galaxy-Cisco Tech Day” to help organizations enhance their data and network security landscape.

Highlights of this event included topics like enabling network administrators gain complete control over their users, content, and network applications, detect intruders and enable identity-based and device-aware security. They can even “view their network under single glass pane” using Cisco Meraki's layer 7 “next generation” firewall.

Similarly, Cisco's Identity Services Engine [ISE] caters to employees' demand to access work resources from personal devices and non-enterprise networks, while protecting them from security threats and data breaches

Cisco's Web Security Appliance [WSA], powered by Cisco Talos, protects users by automatically blocking risky sites and testing unknown sites before allowing users to link to them. This helps prevent nasty advanced threats that can lurk around legitimate websites or enticing pop-up ads. Cisco's Email Security solutions protects against business email compromise, spoofing, and phishing using advanced threat intelligence and a multilayered approach to protect inbound messages and sensitive outbound data.

Our recently concluded “Galaxy Cisco Tech Day” focused on these and other Cisco solutions like Cisco Ransomware Defense, hyper converged infrastructure and more, to help companies stay ahead of the curve in areas like data integrity, security and usability.

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MD Speaks



"Dear Readers,

The regime change in USA has raised a lot of questions over the outsourcing of IT/ITES jobs and is already considering raising the minimum salary that a foreign worker should get to work in the USA. It is a well-known fact, that the Indian Industry is overweight on the USA and this will severely impact them and their employees. Since these employees form a large part of the Indian workforce with higher disposable incomes, this will have some degree of cascading impact on all sections of our economy.

The budget was too soon after this event to address this course correction, but I feel some measure can be taken at a policy level to address this issue. The Government is already focused on 'Digital' and by allocating more funds to this area in government and public sectors, they can utilize this hitherto unavailable talent to fast forward this initiative.

I personally, think that the 'outsourcing' play has run its course and the actual threat is not from policy (though that will certainly speed it up) but from automation. Already, there are robots that can answer calls and perform basic accounting and business process tasks. It is just a matter of time before these robots will replace the people who replaced the original worker. Harsh as it may sound, the Indian IT industry will do well to concentrate on developing the technologies to enable this rather than just trade in warm bodies.

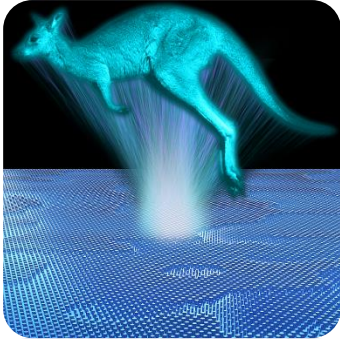
Happy Reading."

AP Prangat

The Future is Now

Sci-fi Holograms a Step Closer

Scientists at the Australian National University have invented a tiny device that creates the highest quality holographic images ever achieved, opening the door to 3D imaging technologies like those seen in Star Wars.



Lead researcher, Lei Wang, said the team created complex holographic images in infrared with the invention that could be developed with industry.

"As a child, I learned about the concept of holographic imaging from the Star Wars movies. It's really cool to be working on an invention that uses the principles of holography depicted in those movies," said Mr. Wang, a PhD student at the ANU Research School of Physics and Engineering.

Holograms perform the most complex manipulations of light. They enable the storing and reproduction of all information carried by light in 3D. In contrast, standard photographs and computer monitors capture and display only a portion of 2D information.

"While research in holography plays an important role in the development of futuristic displays and augmented reality devices, today we are working on many other applications such as ultra-thin and light-weight optical devices for cameras and satellites," said Wang.

Mr. Wang explained that the device could replace bulky components to miniaturize cameras and save costs in astronomical missions by reducing the size and weight of optical systems on the spacecraft. Co-lead researcher,

Dr Sergey Kruk, said the device consisted of millions of tiny silicon "pillars", each up to 500 times thinner than a human hair.

"This new material is transparent, which means it loses minimal energy from the light, and it also does complex manipulations with light," said Dr. Kruk of the ANU Research School of Physics and Engineering. "Our ability to structure materials at the nanoscale allows the device to achieve new optical properties that go beyond the properties of natural materials. The holograms we made demonstrate the strong potential of this technology to be used in a range of applications."

Engineers Develop Soft Robotic Sleeve to Help the Heart Beat



A team of researchers from Harvard University and Boston Children's Hospital has developed a customizable soft robot that fits around the heart and helps it beat, potentially opening new treatment options for people suffering from heart failure.

The soft robotic sleeve twists and compresses in sync with a beating heart, augmenting cardiovascular functions weakened by heart failure. Unlike currently available devices that assist heart function, Harvard's soft robotic sleeve does not directly contact blood. This reduces the risk of clotting and eliminates the need for a patient to take potentially dangerous blood thinner medications. The device may one day be able to bridge a patient to transplant or help in cardiac rehabilitation and recovery.

"This research demonstrates that the growing field of soft robotics can be applied to clinical needs and potentially reduce the burden of heart disease and improve the quality of life for patients," said Ellen T. Roche, the paper's first author and a former Ph.D. student at the Harvard John A. Paulson School of

Engineering and Applied Sciences (SEAS) and Wyss Institute of Biologically Inspired Engineering. Roche is currently a postdoctoral fellow at the National University of Ireland.

"This work represents an exciting proof-of-concept result of this soft robot, demonstrating that it can safely interact with soft tissue and lead to improvements in cardiac function. We envision many other future applications where such devices can delivery mechanotherapy both inside and outside of the body," said Conor Walsh, senior author of the paper, John L. Loeb Associate Professor of Engineering and Applied Sciences at SEAS, and core faculty member of the Wyss Institute.

Heart failure affects 41 million people worldwide. Today, some of the treatment options are mechanical pumps called ventricular assist devices (VADs), which pump blood from the ventricles into the aorta, and heart transplants. While VADs are continuously improving, patients are still at high risk for blood clots and stroke. To create an entirely new device that doesn't come into contact with blood, Harvard researchers took inspiration from the heart itself. The thin silicone sleeve uses soft pneumatic actuators placed around the heart to mimic the outer muscle layers of the mammalian heart. The actuators twist and compress the sleeve in a motion similar to the beating heart. The device is tethered to an external pump, which uses air to power the soft actuators. The sleeve can be customized for each patient, said Roche. If a patient has more weakness on the left side of the heart, for example, the actuators can be tuned to give more assistance there. The pressure of the actuators can also increase or decrease over time, as the patient's condition evolves. The sleeve is attached to the heart using a combination of a suction device, sutures, and a gel interface to help with friction between the device and the heart.

The SEAS and Wyss engineers worked with surgeons at Boston Children's Hospital to develop the device and determine the best ways to implant and test it on animal models. More research needs to be done before the sleeve can be implanted in humans, but the research is an important first step toward an implantable soft robot that can augment organ function.

Technology Focus

Co.'s Spending More On IT Security; But Not Spending Right



Despite rise in breaches, companies still prioritize network and endpoint solutions over encryption, reveals the new 2017 Thales Data Threat Report, issued in conjunction with analyst firm 451 Research. According to the report sixty-eight percent of respondents have experienced a breach with 26 percent experiencing a breach in the last year – both numbers that rose from last year. Paradoxically, overall security spending is also up; in 2017, 73 percent of organizations increased IT security spending – a marked jump from 2016 (58 percent).

The report polled 1,100 senior IT security executives at large enterprises around the world and indicates an ongoing disconnect between the security solutions organizations spend money on and the ability of those solutions to protect sensitive data. While 30 percent of respondents classify their organizations as 'very vulnerable' or 'extremely vulnerable'

to data attacks (and the number of breaches continues to rise) the two top spending priorities are network (62 percent) and endpoint (56 percent) protection solutions. Counterintuitively, spending on data-at-rest solutions (46 percent) comes last.

Garrett Bekker, senior analyst, information security at 451 Research and author of the report says, "One possible explanation for this troubling state is that organizations keep spending on the same solutions that worked for them in the past but aren't necessarily the most effective at stopping modern breaches. Data protection tactics need to evolve to match today's threats. It stands to reason that if security strategies aren't equally as dynamic in this fast-changing threat environment, the rate of breaches will continue to increase."

The reasons behind security spending decisions are varied, but the key driver remains constant: compliance. Almost half (44 percent) of respondents list meeting compliance requirements as their top spending priority, followed by best practices (38 percent) and protecting reputation/brand (36 percent). Fifty-nine percent also believe compliance is 'very' or 'extremely' effective at preventing data breaches. While compliance regulations provide a data security blueprint, they are by no means the only consideration when building a security strategy robust enough to withstand today's sophisticated attackers. As in years past, the 2017 Data Threat Report explored threat perceptions. All vertical industries polled identified cyber criminals as the top threat (44 percent), followed by hacktivists (17 percent), cyberterrorists (15 percent) and nation-states (12 percent). With respect to internal threats, 58 percent of respondents believe privileged users are the most dangerous insiders (a slight decrease from last year's 63 percent). At 44 percent, executive management is seen as the second riskiest insider, followed by ordinary employees (36 percent) and contractors (33 percent). In this age of the cloud and SaaS enterprise deployments, more and more enterprise data is being created, transported, processed and stored outside corporate network boundaries, making traditional perimeter-based security controls and legacy network and endpoint protection solutions increasingly less relevant. Other new, popular technologies also bring added security challenges. For example, nearly 40 percent of respondents are using Docker containers for production applications. At the same time, 47 percent cite security as the 'top barrier' to broader Docker container adoption. Peter Galvin, vice president of strategy, Thales e-Security says, "Enterprises today must inevitably confront an increasingly complicated threat landscape. Our world, which now includes the cloud, big data, the IoT and Docker, calls for robust IT security strategies that protect data in all its forms, at rest, in motion and in use. Businesses need to invest in a privacy – by – design defense mechanisms – such as encryption – to protect valuable data and intellectual property and view security as a business enabler that facilitates digital initiatives and builds trust between partners and customers."

To offset the data breach trend and take advantage of new technologies and innovations, at minimum organizations should adhere to the following practices:

- # Leverage encryption and access controls as a primary defense for data and consider an 'encrypt everything' strategy.
- # Select data security platform offerings that address a variety of use cases and emphasize ease-of-use.
- # Implement security analytics and multi-factor authentication solutions to help identify threatening patterns of data use.

Tech News

Nokia Launches Mika, First Digital Assistant for Telcos

Nokia has created a customized 'digital assistant' that will improve telecom operators' efficiency by providing engineers faster access to critical information. 'MIKA' - powered by the Nokia AVA cognitive services platform and underpinned by Nokia's services expertise - will provide voice-dictated automated assistance to reduce time spent searching information resources, enabling operators to focus on key business tasks without being distracted by the complexities of multi-technology network environments.

MIKA - or Multi-Purpose Intuitive Knowledge Assistant - is the first digital assistant 'trained' specifically for the telecom industry, designed to provide automated assistance that saves time and frees highly skilled workers to focus on critical tasks. Nokia analysis of working methods within a Network Operations Center has revealed that application of MIKA could 'give back' more than one hour of productive time every day to engineers by providing them with access to information and recommendations through the interactive user interface. MIKA combines augmented intelligence with automated learning to provide access to an extensive range of tools, documents and data sources. These include the Nokia AVA knowledge library, a repository of best practice gathered from Nokia projects around the world. Using the knowledge library MIKA can provide recommendations based on similar issues seen in other networks. MIKA is available via a web interface and mobile agent so that engineers can tap into its knowledge base, wherever they are.

Igor Leprince, head of Global Services at Nokia, said: "Finding the right information is a daily challenge for telco engineers tasked with boosting network quality. MIKA taps into the power of the Nokia AVA platform to provide quick and accurate answers, avoiding time wasted on fruitless searches. MIKA is customized to support the specific needs of telcos, and can deliver recommendations based on experience from networks around the world."

Tech News

H1B Visa - US Bill Fraught with Challenges, Says Nasscom

The H1B visa reform bill that will restrict Indian IT firms from deploying their techies in the US is fraught with challenges, says industry think tank Nasscom. The bill - named High-Skilled Integrity and Fairness Act of 2017 and introduced by California Congressman Zoe Lofgren - proposes several changes in the H1B visa process, including doubling the minimum salary of H1B visa holders to \$130,000 from \$60,000 per annum and prevent their spouses from getting work permits.

"The Lofgren Bill contains provisions that may prove challenging for the Indian IT sector and leave loopholes that will nullify the objective of saving US jobs," asserted Nasscom in a statement.

Though the bill has to go through a legislative process at the US Congress and the Senate for becoming law, it does not treat all IT service firms with H1B visa holders equally and the provisions are biased against H1B dependent firms," said Nasscom President R. Chandrasekhar.

Assuring the industry of engaging with the US administration and its lawmakers through the Indian government, the former IT secretary said the apex body would highlight their valuable contribution as a 'net creator' of jobs in the US. "The Indian IT sector has helped American businesses by providing high-skilled IT solutions in order to innovate, open new markets, expand their operations and creating thousands of new jobs for Americans," claimed Chandrasekhar.

The H1B visa bill does not address the acute shortage of STEM-skilled workers in the US, which led all companies to have a calibrated hiring of locals and bridging the skills gap with skilled workers on non-immigrant visas, including H1Bs.

The H1B visa reform bill also does nothing to consider regional variations in the salary structure, which could help some states and hurt others.

"The higher wage level will have ripple effects for other industries including nursing, engineering, life sciences, and others," he pointed.

STEM is an acronym for Science, Technology, Engineering and Mathematics.

If the rationale for the (Trump) Administration and its legislative wing is to project jobs for Americans, the industry body said the US government should calibrate the conditions keeping in view the skill shortage in its country.

"Raising wage levels for dependent companies alone will defeat the basic objective as non-dependent firms can continue to bring in skilled workers at lower wage levels, thereby nullifying the objective of protecting jobs for American nationals," added Chandrasekhar.

To Counter RJio, Vodafone-Idea Cellular in Merger Talks



Earlier in January, there were speculations that Vodafone India was considering a possible merger with one of the existing players in the telecom industry. Now the company has confirmed, it is in talks to merge its Indian operations with rival Idea Cellular in an all-share deal that "would create a new market leader better able to cope with the brutal price war convulsing the industry."

India's three leading mobile operators, Bharti Airtel, Vodafone and Idea, have all been hammered by the arrival of Jio Infocomm, a new operator owned by the billionaire Mukesh Ambani which has shaken up the market by offering free voice and data to customers.

Needless to say, the latest move by Vodafone in India is the result of the 'Reliance Jio effect' – after the telco took the Indian telecom market by storm post its launch last year, followed by its aggressively priced data plans, app subscriptions and unlimited free voice calls. RJio has already crossed 50 million subscribers, and is believed to be hitting 100 million by March-end. Following Jio's commercial launch, rival telecom operators are under immense pressure to match the competition.

While Bharti and other local rivals, including Vodafone's India unit, have slashed prepaid tariffs and unveiled cheaper data plans to compete against Jio, but they still don't really come close to the offers provided by RJio. And this was one obvious reason for Vodafone merger to Idea Cellular.

Analysts warn that the strategy will extract a cost, with Vodafone forced into a \$5 billion write down of its India business last year because of competition in the country.

Amresh Nandan, Research Director, Gartner on Vodafone confirming merger talks with Idea Cellular said, "Consolidation seen during 2015-2016 was expected to continue in 2017, so if this happens it would not be surprising. Both Vodafone India and Idea have to figure out their long term business strategy and merger could well be the path, given the current industry competitiveness and dynamics.

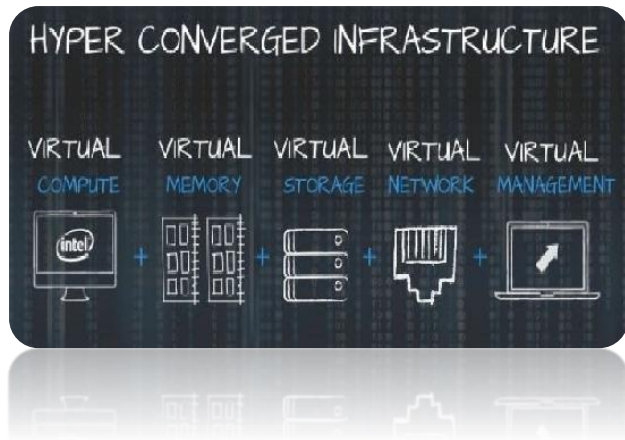
If they decide to do so, one can hope for a long term strategy behind it and not just gaining market share and subscriber share. It would be very important for the merging entities to realize the transformation required in their operations. At this point in time in communication industry, transforming themselves while they consolidate will be a necessary step, even though not an easy one."

In recent weeks, Vodafone had launched several tariffs to beat competition from Airtel and Jio. In September Vodafone also invested Rs 47,700 crore in India, the largest ever in the country. Sunil Sood, MD and CEO, Vodafone India told IANS that the amount will enable them to continue its investments in spectrum and expansion of networks across various technology layers delivering the best of experience to our hundreds of million customers.

Special Focus

Hyper-Converged Platform Configuration Key to Success in SMBs

Big companies that must support hundreds of VMs and scale quickly are prime HCI customers, but small companies can buy a smaller configuration and reap hyper-convergence benefits.



Hyper-converged infrastructure generally suits larger companies better than small ones, but small businesses can purchase a hyper-converged platform in a configuration that works for them.

Businesses deploy hyper-converged infrastructure (HCI) so they can think less about their data centers. For some large organizations, HCI is the only way to scale to hundreds -- or even thousands -- of hypervisor hosts.

Bigger businesses care a lot about scale. They want to know their infrastructure can accommodate a surge in virtual machine (VM) population if they acquire a new company or launch a new product. Big businesses also care about whether they can run ten thousand VMs and manage them all from a single console, which HCI allows them to do.

Policy-based management -- which is baked into HCI products -- is the only way to handle the huge number of VMs at these businesses. Larger companies might also like the ability to add to their hyper-converged platform over time as their workloads

grow. In such cases, buying extra HCI nodes at regular intervals makes financial sense.

For small businesses without dedicated IT specialists for storage, virtualization and networking, HCI can be attractive. But finding the right configuration at the right price is a bigger challenge for smaller companies. Using HCI can actually make it difficult to control the cost of running only one or two dozen VMs.

Small businesses can still use hyper-converged platforms

Most HCI platforms require a minimum of three physical server nodes and an N+1 configuration for redundancy. HCI also requires some server resources to run the storage cluster. The result is that small businesses may only get to use half of the compute and storage resources they buy. Small businesses do not usually care that they could expand their HCI deployment. It is far more important that the product they choose to deploy is available in a small configuration.

Small businesses may only want a single CPU socket per node, and 64 GB of RAM may well be enough for each host. These nodes may only need a few terabytes of storage, and, provided some of it is flash, there will be ample performance, too. With a reduced VM count and lower performance targets, these nodes may not need 10 gigabit Ethernet. Scaling all of the resources down to match the intended VM workload reduces hardware costs.

That said, it is hard for some vendors to scale their overhead down for these clients. The design decisions that suit a 30-node cluster with half a petabyte of storage may not be appropriate for a three-node cluster with 5 TB. Some HCI platforms come in configurations for remote and branch offices, scaling below the usual three-node minimum.

One architecture is to have two physical nodes at each site and the third node in a VM at a remote site. This way, there are still three nodes, and each site has resilience against node failure. But each site only needs two nodes, which takes a third off the cost of the hyper-converged platform.

These configurations suit branch office deployments where the virtual third node is run at the head office. Multiple branches can each have two physical nodes with multiple virtual third nodes all running at the head office. This suits branches with a dozen or more VMs and approximately 100 staff members.

For some shops, two hypervisor nodes are still a lot of hardware. The only way to reduce the per-branch cost of HCI in this case is to forego resilience inside the branch. A couple of HCI vendors offer configurations for a single physical node in a branch. If the one host fails, then the branch has no local servers. To protect data inside the branch, all of the VMs are replicated, either to another branch, the head office or to both locations. If the branch node fails, the VMs can be recovered at the head office and accessed over the network. Some companies might accept the reduced application performance after a node failure in favor of cutting the cost of hardware per branch in half.

Most HCI platforms were designed with medium or large organizations in mind, but many HCI vendors have started to target smaller offices and businesses. The challenge is that scaling a large HCI configuration down might involve significant architectural changes to meet the required price, which is often the most important thing for a small business.

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