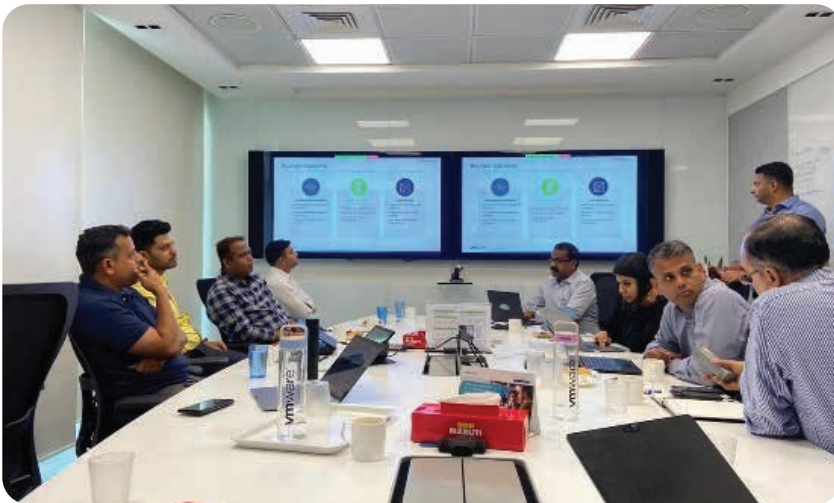


Galaxy & VMware Organizes VMware Cloud Foundation Knowledge Seminar

Galaxy, in collaboration with VMware hosted a knowledge seminar about 'VMware Cloud Foundation' for senior IT professionals, on 27th February 2020 in Mumbai.

The objective of the session was to help the audience understand how the VMware Cloud Foundation(VCF) provides integrated cloud and cloud management services to run enterprise applications in both private and public environments and also making it easy to deploy and run a hybrid cloud.

An Interactive session about VMware's complete set of software-defined services for computer, storage, networking, security and cloud management proved to be fruitful and insightful for the audience.



Anoop Pai Dhungat
Chairman & MD

Dear Readers,

Since my note last month when the COVID-19 was still known as nCoV, the spread of the infections and number of deaths has increased dramatically. From being localised China and a few surrounding areas, it has now reached all continents, except perhaps Antarctica. Travel advisories have been issued by almost all countries and enterprises and a lot of meetings and events have been cancelled or postponed. This has caused a large impact on industries like airlines, hotels and tourism. A huge portion of the supply chain of a large number of industries has also been affected by the necessary precautions of shutting factories and urging employees to work from home. This has resulted in a ripple effect causing even countries not so much affected by the virus to suffer the economic consequences. Moreover, all this has just provided a trigger for the global markets to start correcting and causing a lot of other panic measures to kick in. Technology, certainly has helped in rapidly spreading messages about measure to be taken to cut down the risks of catching or spreading the virus. On the other hand, it has also help spread a lot of unnecessary panic and rumours that in fact are counter productive. A classic example of this is the shortage of N95 masks which are really not required by most of the population but are extremely essential for caregivers who work in close proximity of infected patients. Though studies have not proven it yet, it is believed that as the weather gets warmer, the survival rate of the virus on surfaces will reduce drastically and I hope that in the meantime, a vaccine and cure will be available.

As we end the current fiscal year, I am pleased to inform all our stakeholders that we will be posting a healthy growth rate despite the adverse economic conditions. A big thank you to all of you who made this happen.

Happy reading.



Future Is Now

MIT Tech Lets Self-Driving Cars “See” Under Surface of Road

In poor visibility, your car could look for landmarks — under the surface of the road. MIT is working on self-driving technology that allows cars to “see” through the ground up to a depth of ten feet below the surface of the road. The idea is to allow self-driving cars to figure out exactly where they are — especially when snow, heavy fog, or other bad weather obscures road markings.

Current-generation self-driving cars typically rely on cameras and light detection sensors (LIDAR) to position themselves on roadways. But once the snow starts falling and covers up lane markers, it can get tricky for the car to tell where it is — and that could spell disaster, especially at highway speeds.

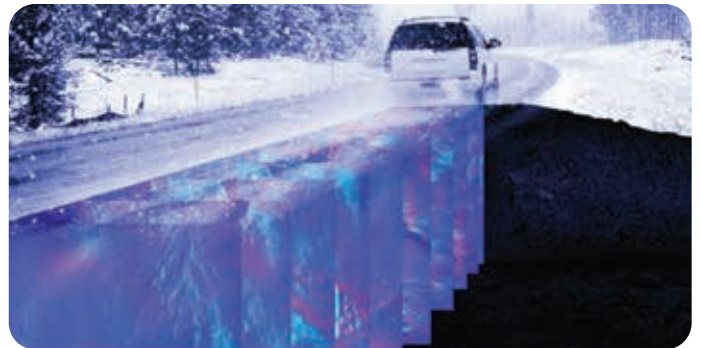
A team at MIT’s Computer Science and Artificial Intelligence Lab have come up with a new system they call “Localizing Ground Penetrating Radar” (LGPR) that can create a real-time map of the ground below the road’s surface.

“If you or I grabbed a shovel and dug it into the ground, all we’re going to see is a bunch of dirt,” says CSAIL PhD

student Teddy Ort told Engadget. “But LGPR can quantify the specific elements there and compare that to the map it’s already created, so that it knows exactly where it is, without needing cameras or lasers.”

The tech even works inside a parking garage, thanks to the arrangement of concrete and metal reinforcements below that create a unique imprint, as ExtremeTech reports.

The team is now working on miniaturizing their invented system as it is six feet wide right now — way larger than a current generation suite of cameras and LIDAR sensors.



<https://bit.ly/2vh6Hr9>

Wearable Tech is Here to Stay with a Robust Presence in the Future Healthcare Industry

The wearable technology industry has faced much skepticism. While it hasn’t been a success story so far, the experts expect a boom in the future wearable market. The growth will be in the high tech medical products such as smart patches, smart pills, and other forms of treatments for people with chronic diseases.

In the healthcare field, wearable technology is being used to manufacture activity tracking devices, pacemakers, and hearing aids. Also, tools which ensure effective investigation of important facts such as heart rate, calories burned, blood pressure, and sugar content are being developed by wearable app makers. In the near future, we should see advancements which completely eliminate the need for bulky files for each

patient. All the important information would be made available on the wearable application platform easily.

Growth of wearables in the healthcare field, and the necessity for more data about the current and future health of persons and patients are the key elements spurring the market. Future wearables focus on embedding of wearables in clothing, skin patches, and electronic skins.

Wearable technology is moving beyond user-grade health and fitness devices like the heart rate trackers and daily step counters. The next generation of Apple Watches will reportedly feature glucose monitoring for people with diabetes. MC10 has created wearable patches for ECG recording and cardiac monitoring. It has collaborated with L’Oreal to design the first-ever skin sensor that detects UVA and UVB exposure.

Wearable technology gives us an alluring field to study. Measuring has never been so small that it could be worn comfortably on the body and around the clock, providing opportunities for medical breakthroughs. We’re moving closer to making potential products that are useful and desirable for people. Current statistics and market research present us with a bright picture for the wearable industry. As wearables and their applications continue to multiply, we can boldly say wearables are here to stay.

<https://bit.ly/39iPbBF>





Technology Focus

Top four technology trends that will shape the future of data centers

While the year 2019 was exciting, the years ahead promise to be even more exciting for the data center space. Looking at the rapid technological developments, we believe the following technology trends will shape the future of data centers:

#1 Hyperscale Data Centers

Hyperscale refers to the capability of an IT system or architecture to scale exponentially and rapidly to respond to demand that is increasingly heavily. A report by Markets & Markets estimates the hyper scale data center market to grow from USD 25.08 billion in 2017 to USD 80.65 billion by 2022, at a CAGR of 26.32%. Cisco estimates that by 2021, traffic within hyperscale data centers will quadruple, and hyperscale data centers will account for 55% of all data center traffic by 2021.

In the case of a hyperscale data center, enterprises can replace individual physical components compared to the traditional approach of replacing the entire server, which not only increases costs, but also increases the downtime. This approach also gives extreme flexibility in scaling at the physical level, as components can be added modularly. For example, in case a server fails, an application can be moved from one server to another server, without downtime. Hyperscale data centers are expected to change every aspect to the data center—from the way hardware components are sourced to the way they are designed.

#2 Artificial Intelligence

Ever since Google published research that it used AI in the data center to improve the power efficiency of its data center, many firms have followed suit to explore the transformational potential of AI. For example, in a span of just 18 months, Google used its AI powered Google DeepMind system to bring about a 40% reduction in the amount of energy required for cooling, which is equivalent to a 15% reduction in overall PUE overheads.

Hiring people with the right skill sets is a massive challenge in the digital era. Gartner, for instance, predicts that by 2020, 75% of organizations will experience visible business disruptions due to I&O skills gaps (an increase from less than 20% in 2016). AI can play a big role in automating many of the tasks that human agents do today. Similarly, AI can be used with great impact in a SOC in a data center. AI can complement current Security Incidents and Event Management (SIEM) systems, by analyzing incidents and inputs from multiple systems, and devising an

appropriate incident response system. AI-based systems can improve the security operations centre monitoring and basic L1 jobs can be reduced. For example, when more than 10,000 events per second are logged, it becomes difficult for human beings to monitor these events. AI-based systems can help in identifying the malicious traffic from the false positives and help data center administrators handle cyber security threats more efficiently.

Researchers from MIT found that AI can help data center owners save millions by automating scheduling of data-processing operations across thousands of servers. The AI system developed by the researchers' system completes jobs about 20-30% faster, and twice as fast during high traffic.

#3 Edge Computing

We live in a connected world, and every connected device produces data. As more devices get connected, it will increasingly become economically unviable to transfer data consistently to a centralized location. A Gartner study for example, forecasts that 14.2 billion connected things will be in use in 2019, and that this total will reach 25 billion by 2021, producing immense volume of data. A McKinsey study claims that 127 new IoT devices connect to the internet every second. The rise in the number of connected devices calls for building localized data centers or edge data centers to process local traffic.

Gartner defines Edge Computing as an approach that enables and optimizes extreme decentralization, placing nodes as close as possible to the sources of data and content. Unlike the traditional approach which adopts a centralized approach and sends every bit of data to the cloud, edge data centers keep the heaviest traffic and data close to end-user applications. In the future, expect more adoption of edge data centers as IoT devices grow exponentially.

Gartner, for instance, predicts that while currently



around 10% of enterprise-generated data is created and processed outside a traditional centralized data center or cloud, by 2025, this figure will reach 75%. An IDC FutureScape report states that by 2022, 40% of enterprises will have doubled their IT asset spending in edge locations. IDC also believes that 45% of all data created by IoT devices will be stored, processed, analyzed, and acted upon close to or at the edge of a network by 2020.

4 Security at the chip level

With attacks growing in scale and complexity against data centers, global firms such as Google are trying to embed security at the chip level. Called OpenTitan, the project is a collaborative open-source chip design project that is designed to build trustworthy chip designs for use in data centers and other components.

Google believes that security at the chip level will help in ensuring that the hardware infrastructure and the software that runs on it remain in their intended, trustworthy state by verifying that the critical system components boot securely using authorized and verifiable code. This can ensure that a server or a device boots with the correct firmware and has not been infected by a low-level malware.

While there have been similar attempts in the past (Intel – Software Guard Extensions, Arm – TrustZone, AMD – Secure Encrypted Virtualization), Google’s initiative is the only one today that is not proprietary. By deciding to go the open source route, Google is hoping to build a foundation for building secure chips.

<https://bit.ly/2THGxWX>



Special Focus

Check Point’s CloudGuard Dome9

Cloud adoption, both public and private, has grown exponentially year-over-year with forecasts predicting even further increased demand. While the appeal of the public cloud is undeniable, many organizations are finding the task of securing cloud infrastructure to be one of their largest barriers to adoption. Traditional security products simply do not address the dynamic nature and elasticity of public cloud resources.

Check Point’s CloudGuard Dome9 is purpose-built to address the agile nature of public cloud consumption without having to compromise on security. Rather than compete with the conventions and controls associated with AWS, MS Azure and GCP, CloudGuard Dome9 embraces and extends these capabilities with increased visibility and control.

CloudGuard Dome9 integrates with AWS, MS Azure and GCP at the Application Program Interface (API) level, and in doing so has the perspective to secure not only workloads, but also the vast array of capabilities provided “as a service” such as databases, DNS, load balancers, and much more.

CloudGuard Dome9 Capabilities Include :

Network Security policy management and automation which reduces human error and increases trust in your security situational awareness.

Multi-cloud API-based, agentless support (AWS, MS Azure, GCP) with no software to install.

Compliance Engine reports and automation to not only understand where your configuration deviates from the desired baseline but also (optionally) to take corrective action on your behalf.

Many off-the-shelf compliances and best practice-based

‘bundles’ of rules that customers can begin to use immediately or customize for their particular goals.

An expressive yet simple language to express those custom governance rules that are important to a customer. For those less familiar with the language itself, CloudGuard Dome9 offers a custom rule builder that guides the process of authoring such rules.

A complete set of security controls including firewall management, visualization, and configuration monitoring.

Dynamic Access Leases to manage the complete lifecycle of firewall exceptions. No more surprises during a customer’s regular security audits.

Tamper/Full Protection to ensure that unauthorized changes never again happen to a customer’s security group configuration.

Audit trail information that can be used within CloudGuard Dome9 or automatically exported to Splunk and ServiceNow.

The solution offers technologies to assess security posture, detect misconfigurations, model gold standard policies, protect against attacks and identity theft, and conform to security best practices in the cloud.

Dome9 offers technologies to assess security posture, detect misconfigurations, model gold standard policies, protect against attacks and identity theft, and conform to security best practices in the cloud. Organizations use Dome9 Arc for faster and more effective cloud security operations, pain-free compliance and governance, and rugged DevOps practices.

Below are the Check Point Dome9 differentiators

One Pane of glass compliance and security operations for cloud environments

Security Operations

- Visualize cloud assets and prevent misconfigurations, assess security posture, fix misconfigurations and threats, manage the cloud security groups (firewall) and enforce security from a single source of network authority

Privileged Identity Protection

- Protect against compromised credentials and identity theft using a cloud's native IAM capabilities to safeguard access to actions that can have a big impact

Compliance and Governance

- Manage the compliance lifecycle for standards such as PCI DSS, NIST 800-53, GDPR from real-time

assessment to automatic remediation and reporting

- Reduce Alert Fatigue with exceptions management and organizational units. Fine tune your alerts based on your organizational structure and processes

Cloud Security Intelligence

- CloudGuard Log.ic is a cloud-native threat protection and security intelligence technology that delivers cloud intrusion detection, network traffic visualization and user activity analytics

For a free consultation, please contact us on 022-46108777 or email us at marketing@goapl.com



Tech News

Dell rolls out new subscription model for hybrid cloud deployments

Available with the Dell EMC VxRail, customers can deploy a subscription-based configuration in just two weeks.

Dell Technologies on Tuesday rolled out a new subscription-based model for hybrid cloud deployments, available with the Dell EMC VxRail. The new offering includes the hardware and software, as well as the services necessary for relatively quick deployments, such as support, deployment and asset recovery services.

Customers can sign up for a one-year or three-year agreement, priced on a per node, per month basis for as low as \$70/node per day. Deployments can take as little as two weeks, Dell said.



Dell claims the new offering is the "fastest hybrid cloud deployment" in the industry.

"In this hybrid and multi-cloud era, organizations see cloud computing as an operating model and not a destination," Deepak Patil, SVP and GM of Dell's Cloud Platforms and Solutions, said in a statement. "They are seeking simplified IT experiences with common operations and cost transparency wherever their workloads are located."

Dell's hybrid cloud strategy aims to knit its data center and hybrid cloud technologies with public cloud providers. VMware is the linchpin to the Dell's cloud effort, offering the software glue to a cloud platform that can span internal and public resources. VxRail enables deep integration across the VMware ecosystem.

<https://zd.net/397DWvW>

Japanese firm announces potential 80TB hard drives

Using some very fancy physics for stacking electrons, Showa Denko K.K. plans to quadruple the top end of proposed capacity.

Hard drive makers are staving off obsolescence to solid-state drives (SSDs) by offering capacities that are simply not feasible in an SSD. Seagate and Western Digital are both pushing to release 20TB hard disks in the next few years. A 20TB SSD might be doable but also cost more than a new car.

But Showa Denko K.K. of Japan has gone one further

with the announcement of its next-generation of heat-assisted magnetic recording (HAMR) media for hard drives. The platters use all-new magnetic thin films to maximize their data density, with the goal of eventually enabling 70TB to 80TB hard drives in a 3.5-inch form factor.

Showa Denko is the world's largest independent maker of platters for hard drives, selling them to basically anyone left making hard drives not named Seagate and Western Digital.

While similar in concept, Seagate and Western Digital have chosen different solutions to the same problem. HAMR, championed by Seagate and Showa, works by

temporarily heating the disk material during the write process so data can be written to a much smaller space, thus increasing capacity.

Western Digital supports a different technology called microwave-assisted magnetic recording (MAMR). It operates under a similar concept as HAMR but uses microwaves instead of heat to alter the drive platter. Seagate hopes to get to 48TB by 2023, while Western Digital is planning on releasing 18TB and 20TB drives this year.

The question is when they will be for sale, and who will use them. Fellow Japanese electronics giant Toshiba is expected to ship drives with Showa platters later this year. Seagate will be the first American company to adopt HAMR, with 20TB drives scheduled to ship in late 2020.

Know what's scary? That still may not be enough. IDC predicts that our global datasphere – the total of all of the digital data we create, consume, or capture – will grow from a total of approximately 40 zettabytes of data in 2019 to 175 zettabytes total by 2025.



<https://bit.ly/394e1oN>

Coronavirus takes out physical Google Cloud Next and Adobe Summit conferences

It's 2020, the year of the digital conference.

Another pair of conferences have taken the decision to move to being only online events, with Google Cloud Next and Adobe Summit becoming the latest to join the conference cancellation list.

Due to be held in Las Vegas on March 29 to April 2, Adobe said on Tuesday it was switching Summit to online.

"While we are disappointed that we will not be together in-person with our community this year, we are excited to host Adobe Summit as an online experience," the company said.

For its part, Google claimed it was "transforming" its conference into an online event.

"Due to the growing concern around the coronavirus (COVID-19), and in alignment with the best practices laid out by the CDC, WHO and other relevant entities, Google Cloud has decided to reimagine Google Cloud Next '20, which will still take place from April 6-8," the search giant said.

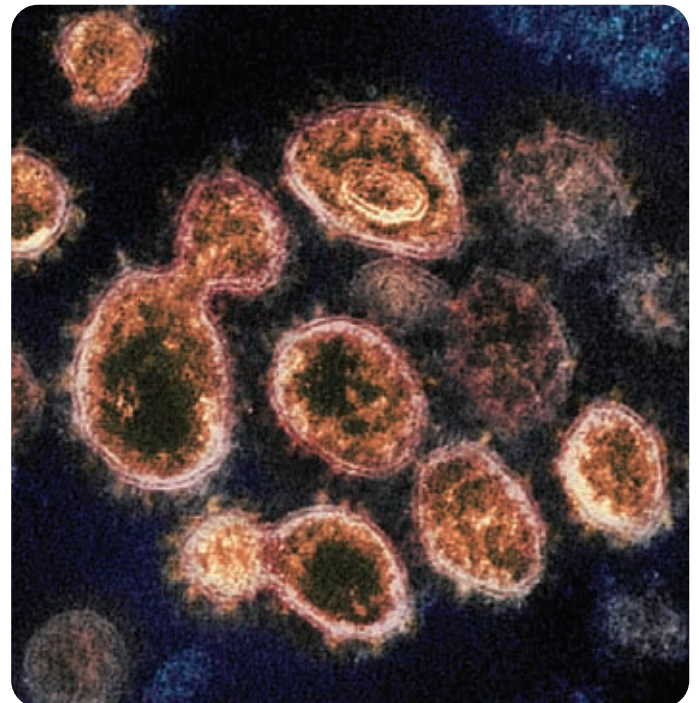
"We are transforming the event into Google Cloud Next '20: Digital Connect, a free, global, digital-first, multi-day event connecting our attendees to Next '20 content and each other through streamed keynotes, breakout sessions, interactive learning and digital "ask an expert" sessions with Google teams."

Earlier in the day, Microsoft cancelled its annual Most Valuable Professional Summit, with it too turning into an online event. The MVP Summit was due to be held from March 15 to 20 in Bellevue and Redmond, Washington. The state has seen six fatalities due to the virus.

Nvidia also took the decision to turn its GTC conference into an online event. In this case, the conference was meant to be held in San Jose from March 22 to 26.

Speaking to the ABC on Tuesday morning, Australian attorney-general Christian Porter said the country could use its biosecurity control order to keep people with coronavirus in quarantine.

"You can have a situation where there can be orders that would ban or restrict certain behaviour or practices or require certain behaviour or practices, orders that could require records to be kept. There could be the declaration of what are called Human Health Response Zones and that could mean that there are specific requirements for screening measures for people going in and out of such a zone," Porter said.



<https://zd.net/2Im9ZfN>