

Galaxy & NVIDIA organize Webinar on GPU Virtualization

In the lockdown situations, customers have found it difficult ensuring continuity for the heavy graphic users. Knowledge workers have changed the way they work and require modern, graphics-intensive applications and operating systems to be productive. Many customers have shipped the workstations to homes of users, compromising security and data availability. Users have not enjoyed the seamless experience with VPNs and having secured and reliable access to the data in a centralized repository. All this has led to productivity loss and cost.

The webinar on 29th May, demonstrated NVIDIA GRID® Virtual PC (GRID vPC) and Virtual Apps (GRID vApps) which are virtualization solutions that deliver a user experience that's nearly indistinguishable from a native PC. With server-side graphics and comprehensive management and monitoring capabilities, GRID future-proofs the organization's VDI environment. The IT team, can deliver the power of GPU-acceleration on demand to every VM (virtual machine), creating an unparalleled user experience that leaves the IT team with the time they need to work on business goals and strategy.

Galaxy can deliver the NVIDIA virtual platform ecosystem end-to-end with support for all major hypervisors. It improves the performance of common productivity tools, integrates with management and monitoring tools you use today, and works with over 30+ server vendors whose products are certified to eliminate risk.

This webinar was an interactive session discussing benefits, use cases and gave a glimpse of how it works in real-world with a live demo.

Is Your Cloud Environment Secured? Get your free Cloud Security Assessment Now!

From private cloud datacenters to public clouds and SaaS applications, CloudGuard provides comprehensive cloud security solutions to keep enterprise data, assets and apps free from even the most sophisticated attacks. According to the 2019 Cloud Security report 54% of organizations believe their cloud instances were not hacked but 25% of the organizations surveyed didn't know they were hacked.

Galaxy along with Checkpoint is providing free cloud security posture management assessment and receive a detailed report that shows your security posture, including:

- Full security report auditing over 100 compliance checks and configurations
- Percentage of non-compliant assets
- Prioritization of failed tests by severity

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Anoop Pai Dhungat
Chairman & MD



Dear Readers,

As India begins to unlock, even as the count of new cases is rising every day, it is extremely important for us citizens to be extremely careful about controlling the spread of COVID-19. It was very disheartening to see a lot of the educated and supposedly well-informed section of society throwing caution to the wind and thronging promenades without masks or social distancing. It was even more frightening to see newspaper vendors, flower sellers and a lot of other such tradespeople not using masks while handing their merchandise while preparing their deliveries and then putting on masks only at the time of customer interaction. One infected vendor can infect 100s of households through such newspapers or flowers that they handled without taking any precautions. We should be mindful of the complete supply chain and the risks involved of the products we use and sanitise them accordingly.

At the risk of repeating myself, one good thing that has come from these lockdowns is that a lot of businesses are now seriously beginning to consider "Work from Home" as a viable alternative to working from office. At Galaxy, we have gone a step further and have assembled together a bouquet of solutions that can enable our customers to "Work from Anywhere" with equal, if not more, productivity than physically attending office. We will be happy to provide you with the benefits, ROI calculations, demonstration and even limited time trials of our 'Work from Anywhere' solutions. Do give us a call and talk to our experts.

In the meantime, I urge all of you to take social distancing, wearing of face masks and hand hygiene very seriously as we enter the unlock phases.

Stay Safe.



Future Is Now

Is AI Able to Read Minds? Research Says Yes!

The dawn of AI has settled rather successfully across the globe with a 2019 Gartner report showing that 37% of organisations have implemented AI in some form. For India, there has been a special mention and allocation for AI and Machine Learning capabilities in the budget of 2020.

Along with big corporations working on AI, there have been a string of AI startups too that have been stealing the limelight. With the ongoing pandemic, there has been a serious realisation of AI's capabilities with more firms wanting to invest in it now. The growing popularity of AI has been seen across diverse sectors and very recently, mind-reading!

AI is able to read minds?

In an interesting study, scientists have revealed that AI is able to read thoughts based on brain activity. With a limited vocabulary of 250 words, artificial intelligence has been able to translate thoughts in our minds into sentences. Deep learning algorithms were used to for AI deduce what is happening in the brain and understanding the signals.

This could prove particularly beneficial for individuals that have speech trouble due to paralysis or any other reason. By putting their thoughts into sentences with AI, they will be able to communicate better.

At the University of California, Joseph Makin and his colleagues studied the brain signals of four women using deep learning algorithms. These women have epilepsy, a neurological disorder that leads to frequent seizures. They attached electrodes to their brains to monitor the cause and trigger of the seizures. They asked the women to read out a set of sentences with 250 unique words as the maximum in a set. By doing this, they monitored the brain activity and changes.

What did they deduce?

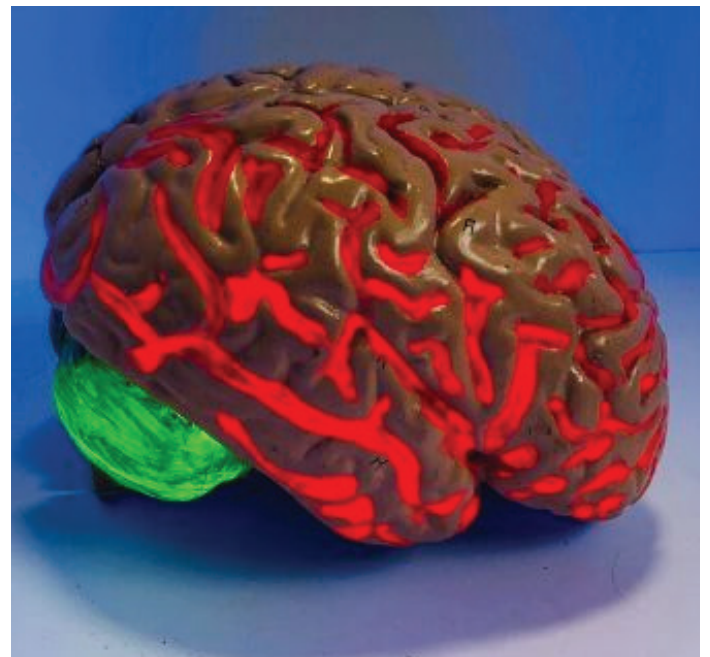
After identifying the brain activity, they fed this information into an algorithm to train it to understand the meaning. The algorithm was being conditioned to understand the meaning by making it recognize patterns that could be equated with speech, like consonants.

After this identification, the words were fed into another algorithm that constructed the sentences. They had the women repeat the sentences so the researchers could test the systems. Instead of making the algorithm memorize brain activity, the researchers instead worked on getting the neural network algorithm to generalise results by identifying similarities.

Makin further added that AI's best performance was an average translation error rate of 3 percent.

Concluding...

Makin said that using small sentences really helped the AI understand which words follow others. Scaling up more 250 words might cause more errors by an AI but soon, we should see improvements on the error rate. The future of AI in the business sector with chatbots and automation will see a catapult rise. It will also mean that AI would be trusted in more sectors and psychology can be a promising one after this research!



<https://bit.ly/3eJQ2hd>

'Sky-high' technology takes to new heights

Hmmm... If drones are good, would a nanosatellite be even better?

With every piece of equipment and every line of computer software that the precision ag sector creates, farmers are playing catch-up. Yes, it's exciting to learn about new technology and the endless possibilities around the corner, but in the real world, that corner is still out of sight. The requirements for huge amounts of data and the ability to respond to that data are still in dreamland.

Maybe, though, we're seeing the shape of a solution.

The latest piece of precision ag equipment to launch — literally — is nanosatellite technology. An incredible leap forward in the design and deployment of orbital platforms, nanosatellites are considerably smaller, lighter and quicker to develop than the satellites we've always

read about. They're less expensive to build and launch, too, and they have lower trajectories and can orbit the globe 14 to 16 times per day.

Conventional satellites with sizes that range from small cars to cub vans can take five to 15 years to design and build, and costs can run as high as \$500 million. That's according to the website of Alén Space, a company based in Spain that has been developing nanosatellites since 2007, adhering to CubeSat standards.

Nanosatellites weigh between 2.5 and 25 pounds, have a volume of one to 10 litres, and cost as little as \$500,000 to develop and deploy, based on an eight-month construction process.

The United Nations Office for Outer Space Affairs (UNOOSA), states that more than 8,000 objects have been launched from Earth since 1957. Partly due to nanosatellites, it now expects the number of such objects to, well, take off.



<https://bit.ly/3cfWryM>



Technology Focus

Kubernetes jumps in popularity

The Cloud Native Computing Foundation finds in its latest survey that Kubernetes and other cloud-native programs exploding in popularity.

A few years ago, if you'd heard of Docker or containers, you'd thought of shipping containers. My how things have changed! In the latest Cloud Native Computing Foundation (CNCF) survey, it found 84% of companies are using containers in production this year -- up from 23% in the first survey in 2016. And what are they using to manage them? The vast majority (78%) are using Kubernetes.

It's a cloud, container, and Kubernetes world, and we're just working on it.

What really underlines how dominant Kubernetes has become is that, by CNCF's Cloud Native Landscape count, there are over 109 tools to manage containers. And 89% are using various Kubernetes versions.

Kubernetes is being used across the cloud platform cloudscape. Sixty-two percent are using public cloud in 2019, which is down from 77% in 2018. Forty-two percent of companies are still using private cloud. Hybrid cloud, which CNCF hadn't surveyed before, was used by 38% of respondents. CNCF thinks that, as time goes on, more users will turn to the hybrid cloud "as enterprises seek more control and aim to avoid vendor lock-in."

On Kubernetes, the most frequently used packaging tool by a wide margin are: Helm for ingress, which exposes external web traffic to services within a Kubernetes cluster; Nginx, which stayed on top at 62%; and HAProxy (22%). The relatively new Envoy, which is designed for

cloud-native work, is gaining traction quickly. It is now up to 19%. More telling, 59% of respondents are already using Envoy in a small way in production.

Many cloud-native technologies have become commonplace. The CNCF found many of its other projects are now in common use. This includes Prometheus, a popular systems and service monitoring framework (72%); CoreDNS, Domain Name System (DNS) server and service discovery (69%); Fluentd, open-source data collector for logging (64%); and containerd, a next-generation container runtime for Linux and Windows (53%).

Companies are being slower about adopting service mesh networking within their clusters. Only 18% are using service mesh in production, and 47% are evaluating service mesh. Unlike container orchestration, there's also no market leader yet. Consul has a slight lead over Istio, with Linkerd not too far behind.

Serverless computing, however, has caught fire. Forty-one percent of respondents reported they were using serverless technologies. Of those, 80% use a hosted platform versus the rest who use installable software. When it comes to installable software, Knative is the tool of choice (34%), followed by OpenFaaS (15%) and Kubeless (11%).

Of those using a hosted platform, the top tool is AWS Lambda (53%). That comes as no surprise. AWS Lambda is serverless computing's poster child. Google Cloud Functions (18%) and Azure Functions (14%) are a distant second and third.

And what are people doing with all these tools? Many of them are shifting from slow manual software release

cycles to faster, automated software release cycles with continuous integration and continuous delivery (CI/CD) tools. The most CI/CD tool is Jenkins (58%). It's followed by GitLab (34%) and CircleCI (13%).

What does all this mean? According to Kim McMahon, editor of KubeWeekly, "Overall, the results of the survey show that the use of many cloud-native technologies has become ubiquitous. Cloud-native software is simplifying the building of complex applications, while at the same time enabling organizations to build and deploy these applications faster."

Indeed, it is. It will be fascinating to see how Kubernetes and the rest of the cloud-native technology family changes our computing and programming world.



<https://zd.net/3gDhP4D>



Special Focus

Accops- Access Operations Intelligent Management Suite

Accops enables secure and instant access to business applications from any device and network, ensuring compliant enterprise mobility for business users while keeping governance with the organization. Accops' workspace virtualization, access gateway and identity management solution suite help organizations to consolidate the distributed end user application infrastructure and bring endpoint management to the datacentre, improving the overall network security and reducing IT operational costs.

Accops is a single stop shop to build an integrated workspace for business users, providing seamless access to modern web applications, SaaS applications, client-server applications, legacy applications, virtual applications and virtual desktops. Accops was established in October 2012 and is headquartered in Pune, India.

Accops offers compliant and secure work from home solution that enables the workforce to stay productive from their homes. Accops solution suite includes VDI solution along with secure remote access and strong authentication features.

Benefits:

- 1) **Security** - Application & Desktop Virtualization enables centralization of business applications, faster application delivery without leaving any data traces on end machine.
- 2) **Mobility** - Access corporate infrastructure & business applications, Anywhere, Anytime, Any device.

- 3) **Cost Reduction** - Optimize IT management cost by consolidating and delivering corporate workspace from the centralized infrastructure, ensuring lower TCO.

The urgent need for a robust Business Continuity Plan (BCP) cannot be ignored anymore, with Covid-19 still spreading wider across India and other parts of the world. Those who are failing to adopt a remote working solution as part of their BCP immediately are not only undermining their businesses but also putting their workforce at greater risks.



For a free consultation, please email us at marketing@goapl.com



Yotta's First Datacenter NM1 Bags Tier IV Certification by Uptime Institute (USA)

Uptime Institute's Tier IV Certification of Design Documents makes Yotta NM1 one of the largest Tier IV certified designed Datacenters in the world.

Yotta Infrastructure, a Hiranandani Group company, has announced that the design for their first data center - Yotta NM1 – located in their Panvel Datacenter Park - has been awarded the highest certification for data center design – the Uptime Institute Tier IV Certification of Design Documents Certification (TCDD) (USA). At 8.2 Lakh sq.ft, 7200 racks and 50 MW power, Yotta NM1 has achieved the rare distinction of being among the largest data centers designs in the world and the largest in Asia, with this certification.

Dr. Niranjana Hiranandani, Managing Director – Hiranandani Group, said, "Yotta's vision is to deliver the best quality data center services to its customer and at the most reasonable costs. We made this possible via our group capabilities of real-estate ownership, execution acumen, power generation and distribution capabilities. The Uptime Institute Tier IV Certification of Design Documents award attests to our commitment to deliver state-of-the-art IT infrastructure to the nation."

With this certification, Yotta NM1 datacenter's design fulfils the Tier IV "Fault-Tolerant" criteria, thereby assuring customers of the possibility of superior uptime and continued performance in the occurrence of a fault and its consequential impact. A fault tolerant datacenter facility and all the customer applications and workloads hosted there are capable of continuing to operate at full capacity despite a structural failure. Any single point of failure in power and cooling systems and various supporting systems including structural, civil, automation and others cannot bring down a customer's rack or other infrastructure at any point in time. Equally stringent are the criteria that even if there is an incident of fire at any place in the datacenter, full power and cooling should continue to the rack for at least one hour, even while fire may still be on.

Sunil Gupta, Managing Partner & CEO, Yotta Infrastructure, said, "Uptime Institute's Tier IV Certification of Design Documents is the equivalent to the Oscar Awards for the datacenter industry, and we are thrilled with this achievement! Since inception, we have committed to provide the highest quality of datacenter

and associated tech services to our customers, and we are happy to deliver what we promised our customers at the onset. It was a gruelling process that took over ten months to achieve. It demonstrates our relentless pursuit for innovation and is a testimony of our unparalleled commitment to our customers who look for nothing but the best. Having secured this initial design certification, we're now also moving forward immediately with the Uptime Institute Tier Certification of Constructed Facility (TCCF) which is expected to be completed and earned over the next few weeks."

"For the design for Yotta NM1 to achieve the Uptime Institute Tier IV Certification of Design Documents, while still keeping the space usage and overall costs at an optimized level, required an out of the box design approach. Yotta achieved this milestone by implementing a truly unique and innovative design and engineering. This is most impressive," said Martin McCarthy, Chairman and CEO, Uptime Institute. "We congratulate Yotta Infrastructure on this rare achievement, for not only the largest datacenter designs in India, but one of the largest Uptime Institute Tier IV Certification of Design Documents to be awarded worldwide—ever.

Uptime Institute's proprietary but freely available Tier Standard is the globally recognised standard for datacenter reliability and overall performance, with over 1,600 Certifications issued in over 98 countries around the globe. Tier IV site infrastructure builds on the capabilities of Tier III, adding the concept of Fault Tolerance. Tier IV Certification designates the highest level of availability, performance and resilience that a datacenter can achieve. It is designed to support mission-critical operations, where failure is not an option.



<https://bit.ly/36Plzvd>

How the world's largest and fastest supercomputers are being used to understand the coronavirus

The UK will be the first country outside the US to join the COVID-19 High Performance Computing consortium and will allow scientists to rapidly accelerate coronavirus research using high-performance computing platforms.

UK scientists working to tackle the coronavirus pandemic will be granted access to some of the largest and fastest supercomputers in the world to help speed up their understanding of COVID-19.

Through the COVID-19 High-Performance Computing (HPC) consortium, researchers will work with other G7 nations battling the outbreak by sharing research and knowledge of coronavirus and identifying potential solutions.

The US-led consortium brings together 40 members across government, industry and academia and counts Google, NASA, the US Department of Energy and IBM among its members.

The UK is the first country outside of the US to join the HPC and will enable researchers to perform complex calculations using supercomputers that will help them understand how the disease behaves.

At the same time, the UK will contribute its own high performing computing facilities to the initiative, including those operated by the Met Office and UK Atomic Energy Authority. It is hoped though advanced

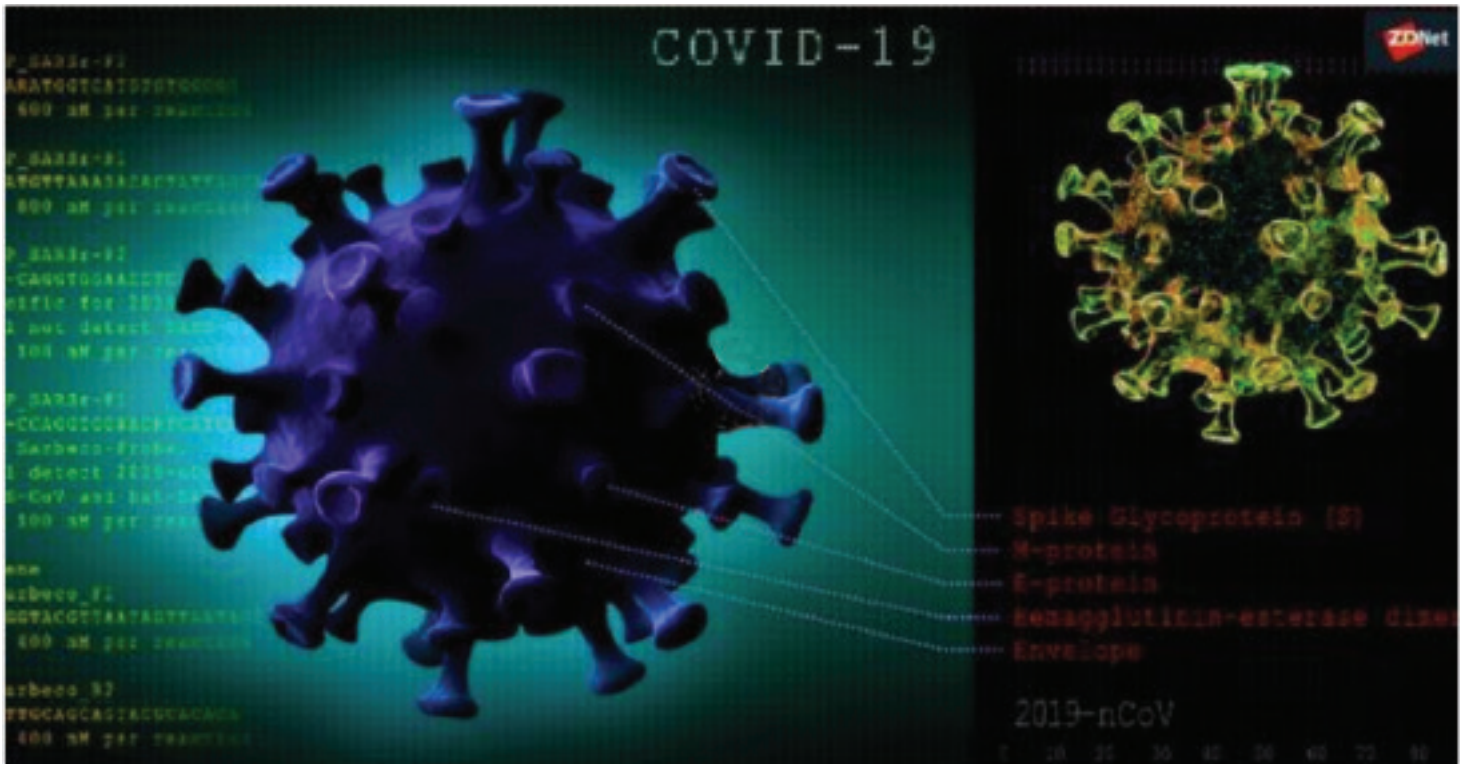
modelling of the virus, scientists will be able to speed up the development of treatments and knowledge of COVID-19 that can be shared to help tackle the pandemic.

UK Science Minister, Amanda Solloway, said tackling coronavirus required "a joint and strong international effort" that involved "the very best minds in science and technology" sharing research and knowledge. "By joining this consortium, our leading researchers will be able to access some of the most advanced computers in the world to speed up their research, gain access to new developments, and share the UK's world-class computing technologies to find a solution to this virus," said Solloway.

The HPC consortium has already supported 59 research projects that use high performance computing platforms to gain insights from the disease and those similar to it, such as SARs. This includes London-based AI startup Kuano, which is using the facilities to help design a new drug to defeat the virus.

The UK's access to the High-Performance Computing consortium will be led by UK Research and Innovation (UKRI). UK Data Minister, John Whittingdale, said: "The UK has a longstanding reputation for innovation, so it is fantastic to see our researchers and scientists working with the world's fastest supercomputers to accelerate the treatment, research and understanding of the coronavirus.

"We are determined to use the power of data and emerging technologies to improve people's lives and the UK will make a vital contribution to the consortium."



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