

## UPCOMING EVENT

Do join us for the exclusive macOS  
End User Workshop on  
**23<sup>rd</sup> February 2022.**

## GIVE YOUR EMPLOYEES THE POWER OF MAC

Experience the power of Mac.



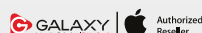
Apple MacBook Pro

### macOS Enduser Workshop

**Date - 23rd February, 2022**

Time	Agenda
10.00AM - 12.30PM	<b>Mac Basics</b> <b>Everything you need to get started.</b>  What's new in macOS Monterey Explore the MacOS Interface Organising and Customising your Mac Deep Dive into System preferences Screen Sharing Exploring macOS Help keyBoard Shortcuts
2.00PM - 4.30PM	<b>Mac Basics</b> <b>Everything you need for productivity.</b>  What's new in macOS Monterey Work, create, connect Mastering Preview Application Security & Privacy - Safari & Mail Discover quick and effective screen capture tools Productivity tools keyBoard Shortcuts

Audience : Any user who is using Mac in the organization



Event Registration : <https://bit.ly/3nYqzYd>



**Anoop Pai Dhungat**  
Chairman & Managing Director

**MD SPEAKS**

Dear Readers,

Last month, we had predicted that blockchain technology would see multifold adaption during this year. One of the budget announcements was the introduction of a digital rupee during the next fiscal year. This would catapult India to being one of the first countries in the world to introduce a digital currency backed by the central bank. I am sure, many others will take the cue and further the growth of blockchain technology based solutions.

Another technology that will see good growth over the next couple of years would be Data Fabric. With most enterprises moving to the cloud in some way or there other, their data is now distributed across environments, processes and geographies. With a data fabric, access to this data can be optimised and securely delivered much faster than traditional methods. This will enable enterprises to drastically simplify data management and governance in complex hybrid and multicloud environments at much lower costs and risk. To understand more about data fabrics please reach out to our technical experts who can take you through this journey.

Stay safe and happy reading.



# Future Is Now

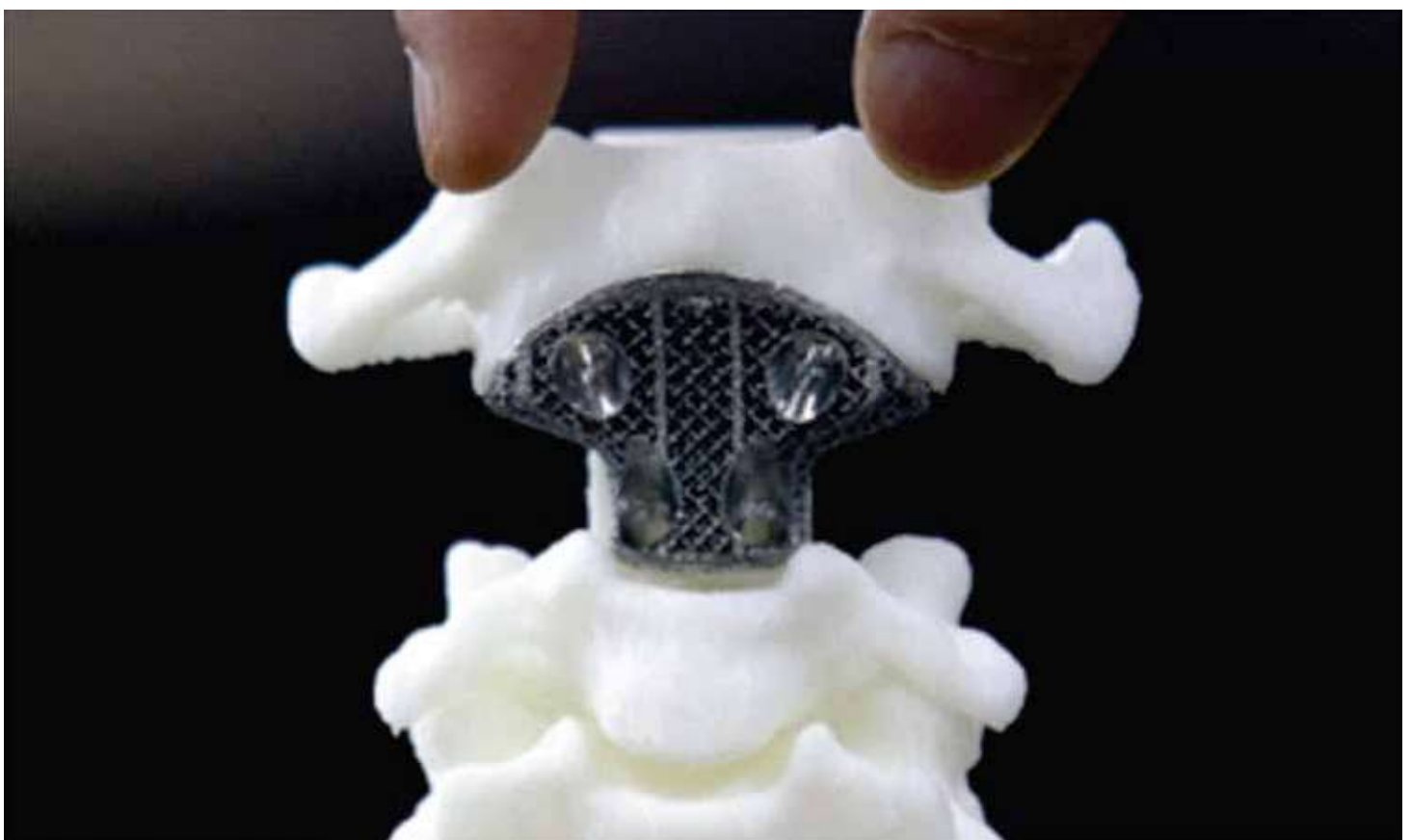
## Bone tissue engineering using 3D printing

Clinically, the treatment of bone defects remains a significant challenge, as it requires autogenous bone grafts or bone graft substitutes. However, the existing biomaterials often fail to meet the clinical requirements in terms of structural support, bone induction, and controllable biodegradability. In the treatment of bone defects, 3D porous scaffolds have attracted much attention in the orthopedic field. In terms of appearance and microstructure, complex bone scaffolds created by 3D printing technology are similar to human bone.

On this basis, the combination of active substances, including cells and growth factors, is more conducive to bone tissue reconstruction, which is of great significance for the personalized treatment of bone defects. With the continuous development

of 3D printing technology, it has been widely used in bone defect repair as well as diagnosis and rehabilitation, creating an emerging industry with excellent market potential. Meanwhile, the diverse combination of 3D printing technology with multi-disciplinary fields, such as tissue engineering, digital medicine, and materials science, has made 3D printing products with good biocompatibility, excellent osteoinductive capacity, and stable mechanical properties. In the clinical application of the repair of bone defects, various biological materials and 3D printing methods have emerged to make patient-specific bioactive scaffolds.

The microstructure of 3D printed scaffolds can meet the complex needs of bone defect repair and support the personalized treatment of patients. Some of the new materials and technologies that emerged from the 3D printing industry's advent in the past decade successfully translated into clinical practice.





## Technology Focus

### MLOps: a new era of DevOps, powered by machine learning

While discussing AI, we typically examine data pre-processing, perceptions, and model structure however altogether less routinely, the innovation is referenced as far as execution and arrangement.

With the interesting mix of terms “AI-ML” and “Development Operations,” MLOps is an assortment of methods, that is utilized for AI and its life cycle computerization and its calculations in execution for enormous scope. It clears a smooth way for a coordinated effort between an information researcher and IT proficient, and consequently goes about as a scaffold between the abilities, methods, and apparatuses utilized in information designing, AI, and DevOps. There are various benefits of MLOps which incorporate extended time for growing new models: Using MLOps, developer activity experts are answerable for the creation climate, while, meanwhile, data scientists can zero in on the primary information and data tasks; Fast promoting of ML Models: MLOps additionally works with model learning by giving computerization and holding. It builds CI/CD for carrying out, sending, and refreshing AI

pipelines. More precise gauges and forecasts: MLOps thinks about information and model approval, assessment measurements underway, and preparing the model again against new and new datasets. This load of result in the decrease in dangers of incredible experiences and guarantee that you can believe results delivered by your calculation when settling on significant choices.

MLOps is considered DevOps often. MLOps obtains a ton of provisions from DevOps, however, here are a few contrasts between the two-besides code forming, you need a spot to save information and model forms: a ton of testing is engaged with ML and AI, which makes information researchers train models on different informational indexes and get various yields. Thus, notwithstanding code adaptation control utilized in DevOps, MLOps needs a bunch of explicit instruments for saving information and reuse of model variants; Monitoring models after some time for corruption: “Everyday routine changes thus encounter information our model takes in”- and it brings about model debasement by diminishing the exactness of the model. Endless preparing: Once the debasement is seen in a model, it must be retrained by utilizing new and late information. The constant preparation and in MLOps replaces the testing acted in DevOps.





## VMware Cloud Foundation for EC2 Overview

Today's enterprise IT is embracing an increasingly heterogeneous set of data center resources. The dominant form of compute comes from on-premise vSphere based private clouds, but there is increasing interest in edge computing, and computing as-a-service models. The recent announcement of VMware and Amazon's partnership is the latest step forward in the march of the hybrid cloud. Recently VMware announced a bundle of services that extend this consistent data center management to the public cloud – called VMware Cloud Foundation for Amazon EC2, or VCF for EC2. VCF for EC2 consists of two major components – a mechanism to insert and manage these services on Amazon EC2, as well as the networking, security, data and management services themselves.

**Secure by Design: The VCF Framework :** VCF is intended to provide one consistent set of data center management services across vSphere and non-vSphere environments. VMware has extended this concept to EC2 based workloads. VMTools for EC2 creates a bundle of host-resident probes, drivers and agents, and provides a framework to transparently insert, manage and protect these host components as they run on EC2 environments, either in Amazon's EC2 public cloud or on-premise on Amazon's Outposts hybrid cloud solution. VMware has developed a virtual appliance that manages the lifecycle of the VM Tools. This appliance is called the Cloud Controller. The Cloud Controller runs in a VPC on AWS and is tethered back to the NSX Controller running on the customer premise. The NSX Controller provides heartbeat and connectivity services to the Cloud Controller.

**Networking Services :** The first set of services enabled in VMware Cloud Foundation for EC2 is NSX Networking and Security. A key feature of the NSX offering for EC2 is service insertion and packet capture. With this capability, the rich partner ecosystem of NSX that exists on VMware private clouds can now be extended into native EC2 environments. Partners can utilize the same NSX APIs for service insertion and packet capture on-premise in vSphere environments and in EC2 environments. This is extremely useful for using NSX

and the VMware Cloud Foundation as the platform to deliver consistent services across the hybrid cloud. Another very popular feature of NSX for EC2 is layer two network stretching. This allows workloads running in any EC2 environment, whether on AWS Outposts on-premises or in the public cloud to share a common L2 IP space even across multiple VPCs.

**Security Services :** NSX is known for its built-in security services. One of the most powerful is the firewall built for Internal (East-West) traffic flows. This firewall understands the application topology and can visualize and map flows between the web tier, app tiers, and persistence tiers. This use case has been widely deployed and there are now thousands of enterprise customers using NSX to internally segment server-to-server traffic in the data center. With VMware Cloud Foundation for EC2, this same capability can be extended to EC2 based workloads, either on the public cloud or running on AWS Outposts in the customer data center. From a single policy console, IT can now ensure that foundational security policies are consistently enforced for workloads running on-premise or in the public cloud, on vSphere or on EC2 environments.

**Management :** In addition to the data plane services of NSX, VMware has a collection of control plane services that support both vSphere and native EC2 workloads. vRealize Network Insights provides a single pane of glass that allows customers to visualize their flows for workloads running in a vSphere environment and/or in EC2. This is extremely helpful for troubleshooting hybrid cloud workloads, and also for formulating security policies.

**The Foundation for all workloads :** VMware Cloud Foundation for EC2 creates a common set of data center services that spans the hybrid cloud. These services support all types of workloads from traditional VM based enterprise applications to modern container-based workloads utilizing platforms like PKS or Red Hat OpenShift.

Don't let Cloud complexity delay your journey! Galaxy can help your organization extend a consistent solution set across Cloud optimization. Our strong OEM partnerships help you create a lasting Cloud strategy that unites environments and reduces risk.



## 5G roll out in India expected by year-end

In 2021, we saw most of the companies selling their phones in the name of 5G. But, the real question is, where is 5G, and when will India get it? How long will it take? Around 60 countries in the world are already running commercial 5G networks, but India is still behind. DoT recently confirmed that 13 cities in India would get 5G services this year. These include Delhi, Mumbai, Kolkata, Chennai, Gurugram, Chandigarh, Bangalore, Ahmadabad, Jamnagar, Hyderabad, Pune, Lucknow and Gandhinagar however, this will only be limited to a small consumer segment. The analyst told India Today that initially, people would see 5G launch in selected urban areas metros and big cities. But, "network expansion to other parts of the country will take another couple of years. There are still a lot

of challenges that India will face in 2022 before the rollout of 5G. For example, Paliwal says, "making spectrum affordable, rationalizing regulatory levies like USOF and SUC to ease cash flow concerns, low fibre footprint (which can impact service delivery) and under-developed domestic hardware manufacturing (important in view of the ban on Chinese vendors)" are some of the biggest challenges for a smooth 5G launch in India. 5G prices could be similar to 4G. The analyst asserts that the prices of 5G might not be lower than 4G, considering the recent tariff hikes and operators aiming for an ARPU of Rs 300 per month. "They are expected to be similar to 4G prices to attract more subscribers and encourage upgrades. However, operators will eventually add a premium once the network has wide coverage and established data speeds," Paliwal said. So it will be interesting to see how these telecom operators will encourage people to shift to 5G and establish it more broadly.





## Microsoft to acquire Activision Blizzard

Microsoft to acquire Activision Blizzard to bring the joy and community of gaming to everyone, across every device

With three billion people actively playing games today and fueled by a new generation steeped in the joys of interactive entertainment, gaming is now the largest and fastest-growing form of entertainment. Today, Microsoft Corp. announced plans to acquire Activision Blizzard Inc., a leader in game development and interactive entertainment content publisher. This acquisition will accelerate the growth in Microsoft's gaming business across mobile, PC, console and cloud and will provide building blocks for the metaverse.

When the transaction closes, Microsoft will become the world's third-largest gaming company by revenue, behind Tencent and Sony. The planned acquisition includes iconic franchises from the Activision, Blizzard and King studios like "Warcraft," "Diablo," "Overwatch," "Call of Duty" and "Candy Crush," in addition to global eSports activities through Major League Gaming. The company has studios around the world with nearly 10,000 employees.

"Gaming is the most dynamic and exciting category in entertainment across all platforms today and will play a key role in the development of metaverse platforms," said Satya Nadella, chairman and CEO, Microsoft. "We're investing deeply in world-class content, community and the cloud to usher in a new era of gaming that puts players and creators first and makes gaming safe, inclusive and accessible to all."



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