

Decoded how to "Enable Seamless Workspaces Without Limitations" at the VMware and Galaxy executive meet.

Hosted by VMware and Galaxy Office Automation Pvt. Ltd., the event was the perfect platform to exchange ideas, thoughts on innovations and commitment to creating workspaces and a workforce that's high on productivity, performance and without limitations.



MD SPEAKS

Anoop Pai Dhungat
Chairman & Managing Director

Dear Readers,

I am very happy to share that Galaxy is the first partner in India to achieve the Master Service Competency for VMWare Cloud Foundation (VCF). This is in keeping with our philosophy of building skills in cutting edge technologies and be in a position to deploy solutions based on these technologies to give our customers a competitive advantage in their marketplaces. VCF is a platform for Multi-Cloud and Modern Apps. It supports both traditional enterprise and modern apps and provides a complete set of highly secure software-defined services for compute, storage, network, security, Kubernetes and cloud management. It increases enterprise agility and flexibility with consistent infrastructure and operations across private and public clouds. Our certified experts can guide you on the benefits and road map to implementing this in your organisation.

With Europe and USA staring at a recession, this is a time where all enterprises need to optimise all their spendings. At Galaxy, we specialise in helping our customers save a lot of money by implementing the correct IT solutions. Do reach out to us to understand how we can help you get the most out of your IT spends.

I wish all of you a joyous time for the upcoming festivities.

Stay safe and happy reading.

AP Dhungat



Future Is Now

New technology could turn your skin into a touch screen

Wearable technology is everywhere. If you look around your office or classroom, family gathering or workout class, someone is probably wearing a smartwatch, a fitness tracker, or some other electronic device that can detect, monitor, and analyze signals from their body.

Activity trackers are particularly popular, and “wearables” also can be important tools for monitoring someone’s health, tracking metrics such as heart rate and blood oxygen level. But they face a limitation. Most wearables are made of sensors embedded into hard plastic.

“It’s rigid, it’s uncomfortable. Nobody wants to walk around with rigid things attached to their body, right?” says Canek Fuentes-Hernandez, an associate professor of electrical and computer engineering at Northeastern. “It’s not very wearable.” That stiffness has been a limitation on how wearables could be deployed, Fuentes-Hernandez says.

But he may have created a solution: A soft material that can stretch and flex like (and with) a user’s skin. “Materials like the one that we developed could potentially lead to sensors that could just be attached to the skin, and the wearer of these sensors wouldn’t even notice their presence, because they just behave like the skin,” Fuentes-Hernandez says.

Not only could this second-skin-like material offer more comfort to a user, it also could help solve another problem with wearables: power. Devices that are constantly monitoring bodily functions can drain power quickly, Fuentes-Hernandez says. And, if their purpose is to continually monitor something, a device that needs to be taken off and charged frequently is less useful.

One way that wearables measure signals from the body is by using light. Such devices are called photodetectors. The stretchable material Fuentes-Hernandez and his colleagues developed enabled a highly sensitive photodetector that could reduce the power consumption of this process.

The trick, Fuentes-Hernandez says, is “patterning the photodetector as a ring with a light source in the middle. As we and others have demonstrated, this shape allows you to capture the signal with less light, and consequently using less electrical power, than what is currently used in commercial devices.”

“If we can reduce the power consumed by an order of magnitude, now rather than being able to wear this for a few hours, that means I can wear this for several days,” he says. “And that has tremendous consequences on our ability to monitor continuously some biometric signals that are of importance.”



<https://bit.ly/3dQZ1SO>



Technology Focus

IaaS vs. PaaS vs. SaaS

Defining IaaS, PaaS, and SaaS

Infrastructure as a Service (IaaS)

A vendor provides clients pay-as-you-go access to storage, networking, servers, and other computing resources in the cloud.

Platform as a Service (PaaS)

A service provider offers access to a cloud-based environment in which users can build and deliver applications. The provider supplies underlying infrastructure.

Software as a Service (SaaS)

A service provider delivers software and applications through the internet. Users subscribe to the software and access it via the web or vendor APIs.

IaaS

Infrastructure as a Service (IaaS) is a cloud computing offering in which a vendor provides users access to computing resources such as storage, networking, and servers. Organizations use their own platforms and applications within a service provider's infrastructure.

Key features:

- ▶ Instead of purchasing hardware outright, users pay for IaaS on demand.
- ▶ Infrastructure is scalable depending on processing and storage needs.
- ▶ Saves enterprises the costs of buying and maintaining their own hardware.
- ▶ Because data is on the cloud, there can be no single point of failure.
- ▶ Enables the virtualization of administrative tasks, freeing up time for other work.

PaaS

Platform as a Service (PaaS) is a cloud computing offering that provides users with a cloud environment in which

they can develop, manage, and deliver applications. In addition to storage and other computing resources, users are able to use a suite of prebuilt tools to develop, customize, and test their own applications

Key features:

- ▶ PaaS provides a platform with tools to test, develop, and host applications in the same environment.
- ▶ Enables organizations to focus on development without having to worry about underlying infrastructure.
- ▶ Providers manage security, operating systems, server software and backups.
- ▶ Facilitates collaborative work even if teams work remotely.

SaaS

Software as a Service (SaaS) is a cloud computing offering that provides users with access to a vendor's cloud-based software. Users do not install applications on their local devices. Instead, the applications reside on a remote cloud network accessed through the web or an API. Through the application, users can store and analyze data and collaborate on projects.

Key features:

- ▶ SaaS vendors provide users with software and applications via a subscription model.
- ▶ Users do not have to manage, install or upgrade software; SaaS providers manage this.
- ▶ Data is secure in the cloud; equipment failure does not result in loss of data.
- ▶ Use of resources can be scaled depending on service needs.
- ▶ Applications are accessible from almost any internet-connected device, from virtually anywhere in the world.



Technology Focus

IaaS vs. PaaS vs. SaaS

In the traditional method of consuming services or resources, the owner of the infrastructure is responsible for managing every piece of hardware and software he or she uses. Normally, it takes some time for a user to access a new resource, but it can be configured exactly as needed.

Traditional infrastructure is often related to legacy core applications (tied to older technologies perhaps) that cannot be easily migrated to cloud paradigms. Elasticity, standardization and other clear cloud advantages are not sufficient reasons to migrate. In other cases, rigid security and country regulations sometimes force users to have data located nearby and/or under total management control.

Infrastructure as a Service (IaaS)

The management responsibility for the company starts with the operating system layer and the provider ensures the availability and reliability of the infrastructure provided.

Several use cases can benefit from this pattern. Companies that lack an owned data center look to IaaS as a quick, cheap infrastructure for their business initiatives that can be expanded or terminated as needed. Traditional companies that need compute power to run variable workloads with less capital expenditure are perfect examples of IaaS adoption. In both cases, companies will only pay for the services they use.

Platform as a Service (PaaS)

Development companies and/or factories that want to implement agile methodologies are the most suited for PaaS. PaaS providers publish many services that can be consumed inside applications. Those services will be always available and up-to-date. PaaS provides a very simple way to test and prototype new applications. It can save money when developing new services and applications. Applications can be released more quickly than usual to get user feedback.

The API economy is the new paradigm in development, and the cloud provides the perfect platform for its implementation.

Software as a Service (SaaS)

Today, SaaS patterns are generally accepted by many companies that want to benefit from application usage without the need to maintain and update infrastructure and components. Mail, ERP, collaboration, and office apps are the most accepted SaaS solutions. The flexibility and elasticity of the SaaS model are great benefits.

There is no “one-size-fits-all” solution for cloud adoption. Companies should consider their own cost and benefit equation and then decide on the best model. Each application and process needed is a workload, and a deep workload assessment is normally performed by companies that have decided to move to the cloud.





Special Focus

Authentication Technology evolution from Passwords to MFA

The most promising solution to the most difficult problem in digital world of giving access to everything from your email, social networking websites, different online application, right up to your bank accounts was the traditional approach of authenticating the individual by username & password combination.

Password is something you know & used to prove your identity to access the system. These passwords are most critical as they empower you, but at the same time if they fall into wrong hands, it's a disaster. Security dependency of any critical system on only a password-based authentication is vulnerable to data leaks if the password used is easy to crack or steal.

There have been various approaches taken to ensure the complexity of passwords are enhanced to make it difficult for threat actors to exploit the weak passwords. The importance of password security is being continuously propagated to individuals. No reuse of passwords across different accounts ensure that one unfortunate compromised account is not being used to hack into another account.

Despite all the measures taken by organisations there exists risk of losing your password into wrong hands. Malware-related breaches like password dumper malware, used to steals login credentials from the individual's computer. Keylogger programs enable hackers to spy on you, as the malware captures everything you type, brute force attacks, phishing and social engineering, hackers gaining access to the stolen credentials in large data breaches from popular online services. Need of the time was to enhance this traditional security to next level.

The industry over the period of time has moved to another level. The rapid adoption of Two Factor Authentication as well as now the latest approach on Multi Factor Authentication (MFA) is the most desirable way to mitigate the traditional risk involved into only password-based authentication systems. The new approach effectively reduces the dependency from easy to crack making it hard to crack, requires multiple identity proofs like something you know plus something you are or have and over all easy to understand and use.

This MFA authentication system methodology is based on one of three types of additional information like things you know, such as a secret password or PIN. Things you have in your possession, such as a badge, token, or smartphone. Things you are such as your biometric like fingerprints, retina, or voice recognition.

Although MFA has a bigger role to play as part of secure authentication systems, at the moment it cannot provide a complete replacement for password-based authentication and is evolving to tackle risk from next generation threat actors.

Organisations are moving beyond traditional boundary of network perimeter by moving majority of their resources, workloads, and operations to cloud. This is allowing the work & commerce to happen from anywhere with an internet connectivity. Organizations apart from giving access to its employees have a growing need to provide third parties access. Contractors, partners, and customers all need access, for a reasons with different preferences and requirements.

Now the challenge of securing access to all these multiple resources used for day-to-day business have increased multi-fold. The one approach taken in recent developments is to having MFA authentication method for all such resource access. But again, they have proven to be more complicating the management of such an approach as it is only meant for individual point solution. Imaging the task of maintaining & securing access to all such point solutions which have incorporated MFA as authentication method.

The industry leading technology OEMs with complete capabilities for modern authentication like RSA SecurID had come up with new approach of having single MFA solution for all your point systems access security. This will consolidate & easy the management of the MFA authentication system centrally for organisations having multiple point solutions to be managed with secure access methods. These new methods are easy to adopt to different user needs as well as how your organization changes & grows achieving balance between security & flexibility.

The authentication technology now comes with many options available as per the user choice like Hardware & soft tokens, authentication options that work directly on user's mobile phones including push to approve, biometrics, SMS etc. and for added security and improved usability, authentication beyond simply two or three factors by analysing contextual attributes in consideration. The latest authentication technology revolves around simplifying authentication requirements for implementation while ensuring support for large number of applications with variety of ways to verify the user's identity.

Galaxy helps your organisation to stay in touch with the latest multi-factor authentication trends .

Talk to our experts and know more, email us at

marketing@goapl.com



Share of offsite exports of Indian software services increased to 88.8%

The share of offsite mode of exports of software services by Indian IT service companies increased to 88.8% in fiscal 2021-22 as compared with 82.8% five years ago, according to data from the Reserve Bank of India released on Thursday.

This implies an increase in the share of services offered and work done for global IT services clients from India. India's exports of software services (excluding exports through commercial presence) are estimated to have increased by 17.2% to US\$ 156.7 billion during the fiscal.

The RBI survey collects data on various aspects of computer services exports as well as exports of information technology enabled services (ITES) and business process outsourcing (BPO). For 2021-22 round of the survey, 6,218 software export companies were contacted, of which 2,074 companies, including most of the large companies, responded.

The responding companies accounted for 89.4%. Computer services accounted for over two-thirds of total software services exports. BPO services accounted for nearly 84% of exports of information technology (IT) enabled services. Private limited companies accounted for 60% of the total exports of software services whereas exports by public limited companies declined during the year.

Total exports of software services, including services delivered by foreign affiliates of Indian companies, increased by 15.9% during 2021-22 and stood at US\$ 171.9 billion; local software business by foreign affiliates stood at US\$ 15.2 billion, with the United States being the major destination. The share of the US in software business from foreign affiliates accounted for 42.5% of the total business followed by the UK at 23.5%.

The United States and Canada were the top destination for software exports with 55.5% share, followed by Europe, of which nearly half was attributed to the United Kingdom, found the report. In terms of modes of supplying services, the share of Mode-1 (cross-border supply or offshoring) in India's exports of software services increased further to 80.9% in 2021-22; the share of other three modes of delivery (consumption abroad, commercial presence and presence of natural persons) declined.

<https://bit.ly/3fsv1x3>

iPhone in India: Apple makes new handset in India in shift from China

China's 'zero-Covid' policies, that have triggered widespread lockdowns, have also caused major disruptions for businesses during the pandemic. The technology giant unveiled its latest iPhone earlier this month. "The new iPhone 14 line-up introduces groundbreaking new technologies and important safety capabilities. We're excited to be manufacturing iPhone 14 in India," Apple said in a statement.

Taiwan-based Foxconn, which manufactures the majority of Apple's phones, has had an operation in the southern Indian state of Tamil Nadu since 2017, where it makes older versions of the handsets. But now, Apple is betting big to make in India its newest product - the iPhone 14. By betting on India, Apple is also looking to increase its footprint in the country. As of last year, its market share was about 4% there.

The US giant has been struggling to compete with the much cheaper South Korean and Chinese smartphones that continue to dominate the Indian smartphone market. But manufacturing in India does not mean the phones will be cheaper in the country because of high import duties on components and other taxes. Earlier this month, analysts at investment bank JP Morgan said that they expect Apple to move around 5% of iPhone production to India this year. The report also predicted that a quarter of all iPhone production will be in the South Asian nation by 2025.

Last year, Apple supplier Foxconn invested \$1.5bn (£1.4bn) in Vietnam, according to the South East Asian country's government. Vietnamese state media reported last month that the company had signed a \$300m agreement to expand its facility in the north of the country to increase production. Earlier this month, analysts at investment bank JP Morgan said that they expect Apple to move around 5% of iPhone production to India this year.



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