Integrating Technology, Driving Growth

TechTalk

GALAXY Integrating Technology | Driving Growth

SPEED UP

GALAXY OFFICE AUTOMATION PVT. LTD.

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Galaxy is honored with

THE BEST EMPLOYER BRAND

award by WORLD HRD Congress

We had been recognised as a "Dream Companies To Work For" twice consecutively in the past and now stepping up to a "Best Employer Brand" underscores Galaxy's dedication to creating an exceptional work environment and fostering a positive and supportive workplace culture.

All of us at Galaxy are proud of this remarkable accomplishment and also congratulate Ms. Renu Puntambekar for the HR Tech Leaders award and Mr. Sanjay Patodia for the **CEO with HR Orientation** award.

MD SPEAKS

Anoop Pai Dhungat
Chairman & Managing Director

Dear Readers,

One of my top picks for technologies that will see widespread adaption during this year was Multi Cloud Strategies. As cloud adoption reaches a mature stage, organisations are now looking at strategies to mitigate risk and improve efficiencies in the cloud.

Hybrid and Multi Cloud strategies involve utilizing a combination of public cloud, private cloud, and on-premises infrastructure to meet the specific needs of an organization. Risks like vendor lock-in and geographical dependancies can be taken care of and at the same time the benefits of cost and performance optimisation and vendor innovation and expertise can be availed by implementing these strategies. From the AI perspective, organisations can benefit from distributed training, enhanced resilience and global scalability in addition to those mentioned above.

At Galaxy, we are at the forefront of bringing these solutions to you. Do reach out to our experts and evangelists to have a conversation around these technologies and how they could help your business.

Happy reading.

Sora AI: A Glimpse into the Future of Innovation

Sora is the latest leap in artificial intelligence software, allowing users to create staggeringly realistic videos from a simple worded prompt.

OpenAI, the creators of Dall-E and ChatGPT, are beyond the new service, which is soon set to launch to the general public.

This development has seemingly come out of nowhere. If you've seen any previous attempts at AI-created video you'll know that they were well, bad feels almost like a compliment. Let's just say they weren't exactly deceiving.

Sora is an AI tool that is capable of generating full videos up to 1 minute long. Simply give it a prompt, for example, "a field of cats worshipping one giant dog" and, in theory, you will receive a video matching that description.

If you're not glued to social media or niche computing forums, it will have been quite easy to miss the incredibly sudden rise of Sora. It didn't have a huge announcement or lots of advertising, it was just suddenly there.

OpenAI has unveiled a host of example videos, most of which show Sora producing incredibly life-like videos. They can display reflections in mirrors, accurate fluid movements in liquids and even falling snow particles.

How does Sora work?

In essence, Sora works exactly like any AI image generator that has come before, just with a lot more steps. AI image generators utilize a method known as diffusion models.

This starts to get somewhat complicated but essentially it works by taking a video turned entirely into static. It is then taught to reverse the static, resulting in a crisp image (or video in this case).

To train something like this, Sora is fed examples of videos with accompanying alt text explaining what is happening in the video. This helps the model to learn the association between the image and what is happening.

Eventually, this can then be used to connect your worded prompts with the end result video. This, compared to the AI images that we've seen for the past year is a massive challenge.

The model needs to understand 3D models, movement, reflections, shadows and a long list of very complicated features to replicate.

OpenAI, as part of its commitment to transparency, has a full breakdown of how the model works on its website. There is however no information as to where the videos used in training came from.

How to use Sora AI

For now, Sora is unavailable to the majority of people. Just like in the past, OpenAI is being cautious with offering out its tools. The first step involves a small number of people known as 'red teamers' who test the tool for critical areas of harm or risk.

It will then become available to a small number of visual artists, designers and filmmakers to understand how the tool works with creative professionals.

It is likely that Sora will then become available to the public. However, as such a powerful tool, we would expect it to be found under the pay-to-use model of GPT. From the videos that have been released so far, Sora appears to be miles ahead of anything we have seen before.

https://tinyurl.com/bdd7b7cx

What is Software-Defined storage?

Software-defined storage is a storage system that does not rely on the underlying hardware. Instead, the software is used to manage data. While most data storage products do require both software and hardware to function—with the software serving as the management component to control and monitor the hardware and storage tasks—software-defined storage differs.

Software-defined storage describes products that run on commodity server hardware without any specially built hardware components. In this way, software-defined storage solutions are better suited to cut costs than a traditional hardware-dependent storage product.

By abstracting resources from the hardware, businesses enjoy improved flexibility, performance efficiency, and easier scalability. Storage resources lend themselves better to programming in this way, and they become key components of a software-driven datacenter. As a result, these resources are much easier to automate compared to those living in siloed infrastructure.

Types of software-defined storage

Software-defined storage is a rather general term, and because of that, identifying types of SDS products can be unclear. However, there are several generally recognized categories under the software-defined storage umbrella.

- **Block, file, and object storage:** This category uses a distributed server cluster to support the three main varieties of storage solutions-block, file, and object. Along with a unified management system, this storage method allows businesses to use whichever method they prefer.

- **Scale-out object:** This system creates and allocates a unique identifier to the object. Some object storage solutions can support file access as well, including NFS and SMB.

- **Scale-out block:** Using x86 server nodes, block storage products cluster these nodes into a single system. The result is businesses can enjoy coherent communication between nodes.

- **Scale-out file:** The earliest software-defined storage category, this creates highly available scale-out file shares to use with file-driven application storage.

- **Storage virtualization:** This system takes hardware-based storage solutions across various locations and creates a single storage device that can be used and monitored through a single management platform.

- **Hyperconverged infrastructure:** By merging separate servers, storage networks and storage arrays into a distributed cluster of compute and storage resources running on commodity servers, hyperconverged infrastructure delivers businesses a single, streamlined way to manage and scale storage needs.

What are the benefits of software-defined storage?

There are multiple benefits of adopting software-defined storage that are pushing more businesses to choose a hardware-neutral approach to storage. Because of its flexibility to deliver and digest various data storage options, businesses can leverage their data—not just store it—and realize better insights.

In addition, thanks to its automation capabilities, organizations can experience:

- **More dynamic storage provisioning:** Software-defined storage enables workloads and storage to work cohesively, helping storage to scale as workload capacities change.

- **Intelligent storage usage:** Software-defined storage is a flexible solution that supports new and legacy IT consumption models. Regardless of the type of infrastructure, software-defined storage allows agility on-premises, in the cloud, virtual desktops, and mobile devices.

- **Better control:** Business requirements change day-to-day, and software-defined storage gives businesses the control they need to meet them. It can optimize infrastructure capabilities to meet storage standards.

- **Rapid scaling:** As storage demands grow, businesses can leverage the tiered capacity of software-defined storage to provision storage on demand.

https://tinyurl.com/dbyxwedn

"Guarding Your Inbox: Best Practices for Email Security in a Digital Age"

Email security is the practice of protecting email accounts and communications from unauthorized access, loss, or compromise. Organizations can enhance their email security posture by establishing policies and using tools to protect against malicious threats such as malware, spam, and phishing attacks. Cybercriminals target email because it is an easy entry point to other accounts and devices—and it relies in large part on human error. All it takes is one misguided click to cause a security crisis for an entire organization.

Why is Email security important?

Email has been a primary communication tool in the workplace for more than two decades. More than 333 billion emails are sent and received daily worldwide—and employees get an average of 120 emails a day. This spells an opportunity for cybercriminals who use business email compromise attacks, malware, phishing campaigns, and a host of other methods to steal valuable information from businesses. Most cyberattacks—94 percent—begin with a malicious email.

Types of email threats

Organizations face a number of complex email threats from account takeover and business email compromise to spear phishing and vishing. Generally, email threats fall into these group types:

- **Data exfiltration:** Data exfiltration is the unauthorized transfer of data from an organization either manually or through malicious programming. Email gateways help make sure businesses avoid sending sensitive data without authorization, which could lead to a costly data breach.
- **Malware:** Malware is short for malicious software, and its primary aim is to damage or disrupt computers and computer systems. Common types of malware include viruses, worms, ransomware, and spyware.
- **Spam:** Spam is an unsolicited message sent in bulk and without the recipient's consent. Businesses use spam email for commercial purposes. Scammers use spam to spread malware, trick recipients into divulging sensitive information, or extort money.
- **Impersonation:** Impersonation occurs when cybercriminals pretend to be a trusted person or organization to secure money or data via email. Business email compromise is one example in which a scammer impersonates an employee to steal from the company or its customers and partners.
- **Phishing:** Phishing is the practice of pretending to be a trusted person or organization to trick victims into disclosing valuable information such login credentials and other types of sensitive data. Different types of phishing include spear phishing, vishing, and whaling.

Key objectives of email security

- **Prevent Phishing Attacks:** Phishing is a common method used by cybercriminals to trick individuals into divulging sensitive information. Email security aims to detect and prevent phishing attempts to protect users from falling victim to scams.
- **Block Malware and Viruses:** Email security solutions work to identify and block malicious attachments or links in emails to prevent the spread of malware and viruses. This helps in securing the organization's network and systems.
- **Filter Spam:** Email security systems filter out spam and unwanted emails, reducing the likelihood of users being distracted by irrelevant or potentially harmful messages. This enhances overall productivity and efficiency.
- **Ensure Confidentiality:** Implement encryption measures to protect the confidentiality of sensitive information transmitted via email. This is crucial for maintaining the privacy of sensitive data and complying with privacy regulations.
- **Authenticate Emails:** Use authentication protocols like DMARC (Domain-based Message Authentication, Reporting, and Conformance), DKIM (DomainKeys Identified Mail), and SPF (Sender Policy Framework) to verify the authenticity of emails, preventing email spoofing and impersonation.

Special Focus

- **Detect and Mitigate Insider Threats:** Email security solutions aim to identify and mitigate insider threats, where employees may unintentionally or maliciously compromise the security of the organization through email communication.
- **Enforce Data Loss Prevention (DLP):** Implement DLP measures to prevent the unauthorized transmission of sensitive or confidential information outside the organization. This helps in maintaining compliance with data protection regulations.
- **Provide Incident Response Capabilities:** Enable organizations to respond swiftly to email security incidents by providing tools for investigation, reporting, and remediation. This helps in minimizing the impact of security breaches.
- **Educate Users:** Promote user awareness and education on email security best practices, recognizing phishing attempts, and reporting suspicious emails. Educated users are more likely to contribute to the overall security of the organization.
- **Integrate with Security Ecosystem:** Collaborate and integrate with other security solutions within the organization's cybersecurity ecosystem to create a comprehensive defence against evolving threats.
- **Regularly Update and Patch:** Ensure that email security solutions are regularly updated and patched to address vulnerabilities and stay resilient against new and emerging threats.

Over 90% of attacks against organizations start from a malicious email and 75% of ransomware attacks are email-borne. Since email attacks usually involve the human factor, your Microsoft 365 and Google Workspace environments are your organization's weakest link. Successful phishing and ransomware attacks can cause significant financial damage. Closing this security gap requires protection from various threat vectors: phishing, malware, data theft and account-takeover.

Email is the first link in a chain of attacks, and with the rise of remote work, the use of cloud mailboxes and collaboration apps increased exponentially. Email security provides organizations with complete, full-suite protection that is constantly adapting and evolving to the ever-changing threat landscape, while providing security admins with an easy-to-deploy and manage platform, making your security offerings easy and efficient.

Galaxy provides organizations with complete, full-suite email protection. To talk to our experts, email us at **marketing@goapl.com**

Tech News

Hanooman: RIL-backed AI model set to launch in March

A consortium backed by Mukesh Ambani's Reliance Industries and the country's top engineering schools aim to launch its first ChatGPT-style service next month, a big step in the country's ambitions to become a player in the field of artificial intelligence.

The BharatGPT group - encompassing an arm of India's most valuable company and eight affiliated universities - offered a sneak peek of the large language model during a technology conference in Mumbai. In a video played before delegates, a motorcycle mechanic in southern India queried an AI bot in Tamil, a banker conversed with the tool in Hindi, and a developer in Hyderabad used it to write computer code.

If successful, the model - dubbed Hanooman - will represent an advance for India in the accelerating race to develop potentially transformative AI technology. BharatGPT envisions the model working via 11 local languages in four main fields: health care, governance, financial services and education. It developed the model in collaboration with the IITs including in Bombay, backed by wireless carrier Reliance Jio Infocomm and govt.

A swath of startups such as Sarvam and Krutrim, backed by prominent VC investors such as Lightspeed Venture Partners and billionaire Vinod Khosla's fund, are also building open-sourced AI models customised for India. While Silicon Valley companies like OpenAI are building ever- larger LLMs, those efforts involve workarounds because of computational constraints and simpler models affordable to smaller businesses and govt departments.

"It's a different genre of LLMs," said Ganesh Ramakrishnan, chair of IIT Bombay's department of computer science and engineering. Hanooman will also offer speech-to-text capabilities, making it vastly more userfriendly, he said in an interview on the sidelines of the Nasscom IT industry conference.

https://tinyurl.com/btmfzxah

Apple iPhones to continue using Qualcomm 5G modems till 2026

Qualcomm has announced an extension of its partnership with Apple to supply 5G chips until at least 2026. This strategic move comes at a time when Apple is navigating increased challenges in the Chinese market. This deal will help the American tech giant to fortify its supply chain operations globally.

The extended agreement was unveiled by Qualcomm. The three-year-long partnership highlights the fact that Apple is still willing to source some of the silicon from other chip suppliers. The move surpasses initial expectations by securing Qualcomm as a chip supplier to Apple for an additional three years. This is a big indication that Apple is not hastening the release of its own modem, despite transitioning its computers to in-house-designed Apple Silicon.

Qualcomm shares surged by 4% after the announcement was made. Meanwhile, Apple's shares experienced a modest 0.5% increase. The tech giant experienced a substantial dip in market value after reports of a ban on iPhones for govt officials. Qualcomm, headquartered in San Diego, California, had previously entered a chip supply agreement with Apple back in 2019, following the resolution of a prolonged legal dispute between the two tech giants. This existing supply agreement is set to conclude this year, making the upcoming iPhone launch the model to use Qualcomm modems under that arrangement. According to the arrangement, Qualcomm is slated to provide Apple with chips for their annual phone releases until 2026. While specific financial details of the deal were not disclosed, Qualcomm stated that the terms are "similar" to their previous agreement.

Apple has yet to issue an official response to this development. However, according to a report by Reuters, UBS analysts estimated in a research note dated August 3rd that Qualcomm's chip sales to Apple in 2022 amounted to an impressive $7.26 billion.

https://tinyurl.com/463vwn4p

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