Integrating Technology, Driving Growth

TechTalk

GALAXY Integrating Technology | Driving Growth

GALAXY OFFICE AUTOMATION PVT. LTD. Issue No. 129, March 2023

CIO MEET

Dell Technologies and Galaxy hosted an exclusive event where CIO's across various industries explored how we support customers in transforming to modern environments and better ways to switch to multicloud.

MD SPEAKS

Anoop Pai Dhungat
Chairman & Managing Director

Dear Readers,

Last month, the world saw one of the worst disasters in recent times. The earthquake in Turkey and Syria caused a lot of destruction of life and property and resulted in great human misery. It was heartening to see a lot of countries offer aid and sending rescue teams. I was very happy to see India send a search rescue team to Turkey almost immediately after the earthquake, even though the leadership in Turkey and India do not see eye to eye on a number of issues. By placing humanity above politics, India has shown that it is possible to disassociate ordinary people from the opinion of the collective/leadership.

Elsewhere, the news of the Chinese 'spy' balloons sailing over sensitive areas in the US and being shot down using missiles was making news and also creating new tensions between the remaining superpowers. In these times, it is extremely important that nothing of this sort blows out of proportion as it is fairly well established that we now live in a global village and any disruptions to peace or even trade, can escalate rapidly.

As organisations increase their digital footprint and dependencies, they are susceptible to cyberattacks that could be very disruptive to their business. At Galaxy, we have a number of cybersecurity and business continuity solutions that protect users and data from such attacks. Please reach out to our experts to learn more about these solutions.

Happy Reading

Beyond ChatGPT: The Future of Generative AI for Enterprises

ChatGPT, while cool, is just the beginning; enterprise uses for generative AI are far more sophisticated.

Generative AI can explore many possible designs of an object to find the right or most suitable match. It not only augments and accelerates design in many fields, it also has the potential to "invent" novel designs or objects that humans may have missed otherwise.

Marketing and media are already feeling the impacts of generative AI. Gartner expects:

By 2025, 30% of outbound marketing messages from large organizations will be synthetically generated, up from less than 2% in 2022.

By 2030, a major blockbuster film will be released with 90% of the film generated by AI (from text to video), from 0% of such in 2022.

Still, AI innovations are generally accelerating, creating numerous use cases for generative AI in various industries.

Embedding the right technologies to unleash generative AI

Most AI systems today are classifiers, meaning they can be trained to distinguish between images of dogs and cats. Generative AI systems can be trained to generate an image of a dog or a cat that doesn't exist in the real world. The ability for technology to be creative is a game changer. Generative AI enables systems to create high-value artifacts, such as video, narrative, training data and even designs and schematics.

Generative Pre-trained Transformer (GPT), for example, is the large-scale natural language technology that uses deep learning to produce human-like text. The third generation (GPT-3), which predicts the most likely next word in a sentence based on its absorbed accumulated training, can write stories, songs and poetry, and even computer code — and enables ChatGPT to do your teenager's homework in seconds.

Beyond text, digital-image generators, such as DALL•E 2, Stable Diffusion and Midjourney, can generate images from text. There are a number of AI techniques employed for generative AI, but most recently, foundation models have taken the spotlight.

Foundation models are pretrained on general data sources in a self-supervised manner, which can then be adapted to solve new problems. Foundation models are based mainly on transformer architectures, which embody a type of deep neural network architecture that computes a numerical representation of training data.

Transformer architectures learn context and, thus, meaning, by tracking relationships in sequential data. Transformer models apply an evolving set of mathematical techniques, called attention or self-attention, to detect subtle ways even distant data elements in a series influence and depend on each other.

Don't forget the risks of generative AI

Before you forge full-speed ahead, remember that generative AI doesn't just present opportunities for business; the threats are real, too — including the potential for deepfakes, copyright issues and other malicious uses of generative AI technology to target your organization.

Work with security and risk management leaders to proactively mitigate the reputational, counterfeit, fraud and political risks that malicious uses of generative AI present to individuals, organizations and governments.

Also consider implementing guidance on the responsible use of generative AI through a curated list of approved vendors and services, prioritizing those that strive to provide transparency on training datasets and appropriate model usage, and/or offer their models in open source.

https://gtnr.it/3SvhcNQ

Technology Focus

What Is Low-Code Development?

Gartner predicts that low-code will account for 65% of all app development by 2024, while a Forrester report reveals that the industry is expected to grow to $21.2 billion by 2022. In today's rapidly changing IT world, low-code is offering one of the fastest and most agile environments for companies looking to build and innovate new and existing applications.

But what exactly is low-code, and how did it become the pinnacle of development we see today?

Low-code emerged out of necessity due to the progression of increasingly complex systems unsustainable with the supply and demand of limited developers. In the past, coding required specialized programmers who understood coding languages and their limitations. But in eighty years, we have come a long way from Ada Lovelace's notes on Charles Babbage's analytical engine, and modern systems require much more specialization than they did back then.

Without the vast number of programmers required to maintain such systems, they quickly become legacy, encumbering organizations from achieving their IT goals.

Low-code circumvents the problem of limited developers by lowering the learning curve and engaging citizen developers who may have little experience in coding. First coined in 2014 by Forrester analysts Clay Richardson, John Rymer, et al., low-code describes the usage of a variety of visual, agile and rule-based development tools and pre-configured elements to accelerate app delivery and prototyping.

Multiple aspects of system development can be powered by low-code to eliminate redundancy and cost. Through low-code, developers are no longer required to individually code every UI, workflow or procedure of a new application. Systems can be built with less risk of coding, and the most experienced and resourceful developers can focus on more difficult tasks.

Low-code can help organizations achieve development and modernization reliably and efficiently, while addressing the needs of scalability, security and changing environments. It helps bring consistency in building applications and maintaining the lifecycle of the system, which is critical to the digital transformation process.

As workflow requirements change, so can low-code systems. Teams of developers, business analysts and process owners can work together more effectively, generate a more consistent look and feel across applications, and eliminate siloed processes altogether. And if key developers leave the organization, the threat of bottlenecking development is greatly reduced.

But whether an organization is able to realize the benefits of low-code depends on how they approach this concept and invest in it. With an expanded market comes choice, and different providers have approached low-code development in different ways to varying degrees of success.

Platforms that rely on scripting languages, for instance, will still require specialized programmers, and those programmers will have to remain with the company in order to maintain the platform. By contrast, integration with a rule-based engine circumvents the need for complex scripting, as citizen developers are able to modify rules without specialized knowledge.

Additionally, many low-code tools are designed to solve very different problems. Some platforms power digital process automation, focusing on the various operations of the business. Others, such as those designed for mobile apps, might focus on providing end users with an attractive and intuitive experience.

Low-code designed to supplement legacy systems fails more often than not, because again the requirement of scripting languages to match these systems encumbers development. Consider low-code that has APIs and integrations that allow process owners to maximize their experience where the core capabilities fall short.

An organization's success with low-code also depends on the leadership's vision and commitment to digital transformation using low-code tools. At many institutions, key developers are delegated to maintaining legacy applications while newer resources are brought in to implement low-code technology.

What these organization leaders often fail to understand is that once they have achieved some success with a low-code platform, wider and faster adoption across the organization will help accelerate transformation. One quick way to achieve success is to acquire commercial-off-the-shelf applications from the vendor that can then spur faster adoption, but ultimately the adoption must be from the user and developers.

Technology Focus

In a customer-centric world, people and business processes drive digital transformation. The Covid-19 pandemic has forced businesses to modernize their processes and look toward more hybrid approaches to technology. Low-code platforms offer organizations the ability to completely build and deploy applications within the cloud.

Low-code allows for easy transition from paper processes and legacy systems, building "solid support for process automation within the organization." Despite some pitfalls in new technologies, low-code provides a solid opportunity to adapt in an ever-evolving workplace.

When choosing a low-code provider, CIOs should consider past performance, customer base and governance. Analysts have warned of platforms that may not have adequate governance, so CIOs should look for platforms that prioritize security and compliance, such as platforms deployed through FedRAMP-certified data centers or other secure environments, or apps built specifically to satisfy certain processes.

Technology providers must equip organizations and developers with the tools to make their solutions work for them today and into the future. Leveraging low-code tools makes app development accessible and flexible, allowing application development and delivery teams to continue to meet business needs without custom coding. Low-code sets the stage for configuration as business needs change, expanding the life of the technology and return on investment for the organization deploying it.

A modern organization requires rapid development to meet the customer's dynamic requirements and expectations. Galaxy enables customers to quickly build modern, enterprise-grade web and mobile apps and thereby innovate at a faster pace so as to keep up with the evolving business needs.

https://bit.ly/3m2g73K

Special Focus

Digital Transformation Enables Innovation

Organizations that achieve a greater level of digital transformation (DX) maturity are in a better position to innovate and survive an economic downturn. This can help them take advantage of improving conditions during an economic recovery, organizations that focused on innovation even during the global financial crisis of 2009, emerged stronger and significantly outperformed the market over the subsequent years.

So even in the rising tide of uncertainty, enterprises focused on innovation are increasingly investing in new technologies to improve their DX maturity. According to the IDC Worldwide Digital Business Spending Guide, spending on DX is forecast to reach US $2.8 trillion in 2025, more than double the amount allocated in 2020.

The many benefits of transformation

Thanks to the growth of digital, enterprises are also having to navigate significant shifts in customer expectations. Employees now expect a hybrid workplace. Migrating systems to the cloud is helping meet these major shifts in expectations. Cloud offers significant advantages, like greater operational efficiency, faster app deployment, and increased flexibility and agility.

The benefits of cloud make the investment case even as the global economy shows signs of slowing. According to Gartner, public cloud spending is slated to reach a total of US $591.80 billion in 2023, a 20.7% increase from US $490.30 billion in 2022. 64 % of CIOs believe that multi-cloud can accelerate innovation in their companies.

This investment in cloud is delivering plenty of success stories in Asia-Pacific. By migrating its ERP system to the cloud, Thai retailer Siam Global House accelerated its business decision-making in the face of increasing e-commerce competition. The move helped reduce business costs by up to 50 per cent. Siam Global House has also gone from being only a consumer of cloud services to an active cloud services partner to other Thai businesses, opening a new revenue stream in the process.

Meanwhile in Australia, Domino's Pizza was able to transform its ordering process by rolling out SD-WAN to more than 720 stores. Siam Global House and Domino's reflect the DX maturity in the retail sector – with more than half of APAC retailers saying they have an integrated and transformative approach to DX.

Building a roadmap for the future

To accelerate digital adoption, organisations must understand their DX maturity. To help build this roadmap for the future, an organisation needs to undertake some solid evaluation and invest in the right technologies. While planning its investments in the current economic climate, it is essential for an organisation to focus on technologies that can help it optimise operations. Doing this can help improve efficiency, cut costs, and enable it to do more with less.

Key focus areas should include:

- Multi-cloud: Deploying workloads to multi-cloud can deliver operational agility, scalability, and resilience. Avoiding lock-in with a single cloud services vendor enables flexibility and can deliver cost savings. Deploying the right workload on the right cloud, enterprises can get on top of complexity and become 'cloud smart'.

- Edge: Edge computing offers enhanced data management and compute power closer to the operating environment and end user. Managing and processing data at the edge can support better decision making and improve application performance for today's increasingly distributed enterprises.

- Security and disaster recovery: Good security and disaster recovery solutions reduce business risk and disruptions to improve business continuity and performance. Using sovereign clouds can de-silo critical data while ensuring regulatory requirements are met.

- Industry 4.0: Technologies like Internet of Things (IoT) sensors and smart devices can deliver real-time data and remote operations capabilities, along with predictive maintenance of assets. This can improve performance and reduce costs.

By having a clear DX roadmap that defines high priority use cases and outlines key technological implementations, an enterprise can improve its digital maturity. This can enable it to keep innovating and survive the uncertainty during a downturn. Such an enterprise will be well-positioned to strongly perform in an economic recovery.

Don't let IT solutions complexity delay your journey! Galaxy can help your organization extend a consistent solution to various IT requirements. Talk to our experts, email us at marketing@goapl.com

Tech News

Dell acquires Cloud services startup Cloudify for '$100 million'

Dell Technologies has acquired Israeli startup Cloudify that is known for cloud orchestration and infrastructure automation.

According to reports, Dell spent close to $100 million in buying the startup to boost its cloud services business, specifically its offerings in DevOps.

A company spokesperson told TechCrunch that Dell Technologies "has completed the acquisition of Cloudify. "This transaction allows Dell to continue to innovate our edge offerings," said the spokesperson.

In a US SEC filing, Dell referred to issuing of Class C common stock "in respect of certain outstanding and unvested options to acquire the ordinary shares of Cloudify Platform Ltd., an Israeli private liability company."

Cloudify is an open source, multi-cloud orchestration platform featuring unique technology that packages infrastructure, networking, and existing automation tools into certified blueprints.

Originally the startup was spun out from GigaSpaces in 2017. The startup raised less than $8 million, according to PitchBook data.

Cloudify's environment-as-a-service packages infrastructure, networking, and automation tools into certified blueprints that it says its customers can use to manage heterogeneous cloud environments at scale, and to help bridge the gap between DevOps and IT service management (ITSM).

Cloudify includes in its technology ecosystem such partners as Amazon Web Services, Google Cloud Platform, Microsoft Azure, F5, Wind River Software, and ServiceNow.

https://bit.ly/3kst7PX

Microsoft bans crypto mining to protect its cloud service customers

Microsoft has banned cryptocurrency mining from its online services to protect all of its cloud customers, media reports said.

Microsoft's summary of changes to the license states: "Updated Acceptable Use Policy to clarify that mining cryptocurrency is prohibited without prior Microsoft approval."

Within the license itself, there was hardly any more info, reports The Register. Moreover, a section headed "Acceptable Use Policy" states: "Neither customer nor those that access an online service through customer, may use an online service to mine cryptocurrency without Microsoft's prior written approval."

"Cryptocurrency mining can disrupt or even impair online services and its users, and is often associated with unauthorised access to and use of customer accounts," Microsoft told The Register.

"We made this change to further protect our customers and mitigate the risk of disrupting or impairing services in the Microsoft Cloud," Microsoft was quoted as saying.

"Permission to mine crypto may be considered for testing and research for security detections," it added.

Last year, Microsoft warned customers about a new crypto mining malware that can steal credentials, remove security controls, spread via emails and ultimately drop more tools for human-operated activity. Called 'LemonDuck', the crypto mining malware targeted Windows and Linux systems, spreading via phishing emails, exploits, USB devices and brute force attacks in various countries, including India.

https://bit.ly/3mgQtsl