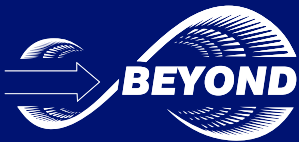# GALAXY
Integrating Technology | Driving Growth

TECH TALK

Issue 149 | November 2024

Pioneering Tech Leadership with a Legacy of Excellence.

BEYOND

Galaxy Office Automation Pvt. Ltd.

GenAI
Frictionless AI
ROI-focused
Industrywide
COE
Tech Leader
37 Years

Foreword

Dear Readers,

In an earlier note, I touched upon the principles of setting Clear Goals, Aligning AI with Business Processes, and ensuring Data Quality—forming the CAD framework for maximizing AI's return on investment. This month, I'll take it further to explore the importance of fostering a collaborative environment for AI and measuring its ongoing impact.

AI is often viewed as a technical solution, but its success lies as much in human collaboration and iterative improvements as in the technology itself. This month, we introduce another acronym: EIM—Empower People, Iterate Solutions, and Measure Performance.

Empower People

AI is most effective when everyone involved understands its purpose and impact. Employees must feel empowered to work with AI solutions, not see them as a threat to their roles. Training and upskilling employees to use AI tools, along with explaining how AI solutions will enhance their work, can create a culture of acceptance and enthusiasm.

Iterate Solutions

The best AI implementations are those that are continuously refined. AI models, especially those driven by machine learning, evolve with new data and insights. To stay relevant and accurate, businesses must be prepared to iterate on their AI solutions regularly, adjusting them based on new challenges, changes in data patterns, and evolving business needs.

Measure Performance

Ongoing measurement is essential to demonstrate AI's value. Set benchmarks early and consistently track performance metrics to ensure the AI solution meets its goals.

At Galaxy Office Automation Pvt. Ltd., our commitment goes beyond implementing AI solutions — we prioritize empowering your teams, ensuring your AI solutions evolve, and measuring success to deliver continuous ROI.

For those ready to take AI adoption to the next level, our team is here to support you with ongoing performance assessments, training, and optimisation.
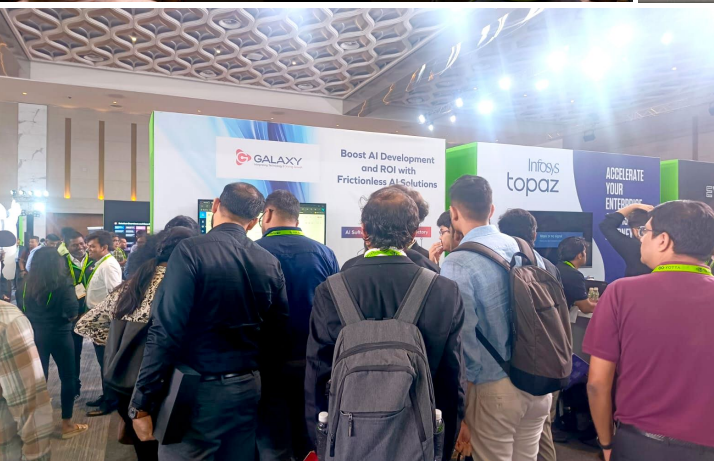
Happy reading.

Anoop Pai Dhungat
Chairman & Managing Director

NVIDIA AI Summit Report

Galaxy recently made a significant impact at the NVIDIA AI Summit, where we hosted an engaging AI solution booth. Held at the Jio World Convention Centre in Mumbai from 23-25 October 2024, this event provided a remarkable platform to showcase our cutting-edge AI solutions and diverse use cases across various industry segments.

At the summit, we highlighted AI applications tailored for key sectors such as banking, where we demonstrated our credit risk scoring capabilities, and healthcare, where we addressed patient readmission challenges with AI. In the telecom sector, we showcased customer churn prediction models, while in retail, we focused on enhancing customer experience through AI innovations. Additionally, we explored AI use cases in IT automation, search AI, and enhancing employee experience.

Our AI Quiz engaged numerous attendees at the summit, who participated for exciting goodies. This interactive element fostered a lively atmosphere, encouraging deeper engagement with our AI offerings. In a strategic move to accelerate AI adoption, we introduced exclusive offers on proof-of-concept (PoC) projects for the first 50 customers.

Furthermore, the summit provided an excellent opportunity to unveil the findings from our comprehensive AI survey conducted with Indian customers in the whitepaper, Exploring AI Readiness in the Indian Enterprise. These insights positioned Galaxy as a thought leader, showcasing our deep understanding of market trends and client expectations.

Our participation at the NVIDIA AI Summit reinforced Galaxy's stature as a frontrunner in delivering innovative AI solutions. We remain committed to fostering strategic collaborations and driving transformative change across industries. We eagerly anticipate future engagements that continue to pave the way for AI-driven growth and success.

Future
is now!
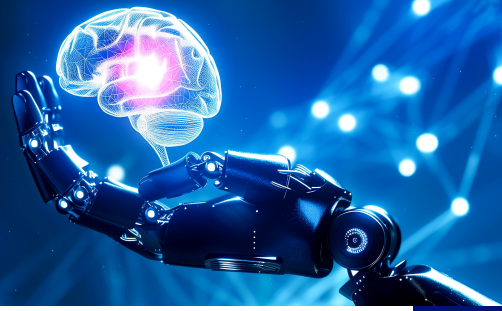
Humanoid Robots Can Help
Explore the Moon and Mars 🔺 -NASA

NASA has teamed up with a small robotics firm in Texas to continue the space agency's decades of work developing humanoid robots. Soon, such robots may be sent to orbit, or even other planets, to help astronauts with their work.

Texas-based Apptronik, Inc. has long collaborated with NASA under the Small Business Innovation Research (SBIR) contracts program to hone the capabilities of Apollo, a humanoid robot that the company is developing to handle terrestrial tasks like logistics, manufacturing, and home healthcare assistance. NASA, meanwhile, has taken a keen interest in adapting Apollo (and robots like it) to become assistants for astronauts living and working in orbit, as well as on the moon and even Mars.

They might even one day function as remote-controlled "avatars" on other worlds for Earth-based human operators to pilot.

Apptronik has put special emphasis on the modularity of Apollo's design, specifically its adaptability for logistics tasks. Standing at 5'8" tall and weighing 160 pounds (73

kilograms), Apptronik says on its website that Apollo will have a run time of about four hours per battery pack and a payload capacity of 55 pounds (25 kg). As such, even though its main market right now is more Earth-bound customers, namely retail operations, warehousing, and manufacturing, NASA's interest shouldn't be a surprise.

Apollo's promised flexibility would mean that it should have some degree of reprogrammability and physical customization. It already features varying dexterity levels, autonomous functions, and different tools it can be equipped with, but more functionality will likely evolve as development progresses.

To that end, NASA has been lending its own decades of expertise in robotics to help the development of Apollo in areas like robotic mobility and software design principles for safe human-robot interactions.

"By applying NASA's expertise in human-safe mobile robots to commercial

projects, together we are able to spur innovation in this important field," Shaun Azimi, head of the dexterous robotics team at NASA's Johnson Space Center, said in a NASA statement. "We are proud to see our efforts result in robotics technology that will benefit the American economy and assist humans in working safely and productively here on Earth and potentially in space exploration as well."

It's not hard to see how unloading a lunar lander with a robot rather than a human would be a much safer and efficient operation for any crewed landings on the moon or Mars. And, given the unforgiving environment on both worlds, robots will almost certainly have to be an integral part of either mission if it is going to succeed long term.

Robots in the form of special-purpose landers, rovers, and even an aerial drone are already operating on other worlds, but general-purpose robots are a whole other matter entirely. Such robots would be able to tackle tedious or perilous tasks on the lunar or Martian surface far more easily and safely than a human could,

and in principle should be able to be reprogrammed as needed to carry out a new task whenever it is required — even those its designers hadn't conceived of when they built it.

Having such robots at human explorers' disposal would allow astronauts and Earth-based operations to emphasize scientific pursuits and other more important assignments than things like constructing a shelter or digging up rock samples.

Additionally, these robots could assist in operating and maintaining mining and manufacturing facilities on other worlds that could process native resources in situ, an arrangement that would dramatically reduce the cost of maintaining these missions for NASA. After all, it'd be far cheaper and practical to build a human habitat out of concrete made from lunar regolith than it would be to ship one all the way from Earth.

So, incorporating robots into future missions of NASA's Artemis program might prove critical to creating a sustainable human presence on the moon and, one day, Mars. Naturally, then, it's no surprise that NASA has so many robotic irons in the fire.

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The Role of Enterprise Managed Services
in Digital Transformation

What Are Managed Services?

Think of managed services as your own outsourced IT department. Managed service providers, or MSPs, take care of your IT needs from A to Z. They manage, monitor, and maintain your systems so you can focus less on tech headaches and more on what you do best: running your business.

Whether fending off cyber threats or managing your cloud setup, MSPs tailor their services to fit your needs. They bring expertise and cutting-edge tech that can improve your business efficiency and safety locally and as part of global managed services, ensuring your operations are secure and efficient no matter where you operate.

The Surge in Enterprise IT Spending

There's a significant increase in how much businesses invest in IT, particularly next-gen technologies like AI and cloud services. Investing in enterprise-managed services isn't just about enhancing existing capabilities — it's about embracing technologies that can fundamentally transform how you conduct business.

For instance, AI has become accessible to tech giants and businesses of all sizes. It's being integrated into everyday business processes, helping with tasks ranging from automating customer service to implementing predictive maintenance that keeps factory lines operating smoothly.

The Rise of AI and Cloud Computing in Managed Services

AI and cloud tech aren't just buzzwords; they're revolutionizing the IT service industry. They're reshaping how services are delivered, so that businesses can scale and adapt to new challenges.

AI's Transformative Role in Managed Services

AI today is about building systems that can think and learn, not just follow commands. In the context of enterprise-managed IT services, this means smarter systems that can make proactive decisions. Think of AI as your business' crystal ball within managed services, predicting issues before they happen, from security breaches to operational hiccups.

This level of intelligence means you can offer better services, understand your customers on a deeper level, and respond to issues faster.

Why Cloud Technology Remains a Pillar for IT Growth

Cloud technology is a cornerstone of modern IT strategy for its flexibility, scalability, and

cost-efficiency. It's perfect for businesses that need to stay nimble and grow without being bogged down by heavy hardware investments.

Cloud-based services ensure that your team can collaborate effortlessly, no matter where they are. In our connected era, this adaptability is a game-changer, making it easier to manage projects and share insights across borders, significantly enhancing the effectiveness of enterprise-managed services.

Strategic Benefits of Partnering with a Managed Services Provider (MSP)

According to PWC, top-performing companies are 4.2 times more likely to use managed services partnerships for strategic advantage. When these services extend into global management services, the benefits can amplify, positioning your business as a formidable player on the international stage. Let's explore how the right MSP can turn IT from a headache into a strategic asset.

Enhanced Efficiency and Cost Management

Imagine your business running like a well-oiled machine, every process optimized, every system streamlined. That's what MSPs bring to the table. They help you run more efficiently by managing IT services and preventing problems before they start. This means fewer disruptions and more cost savings, making your budget smile.

MSPs come equipped with tools and technologies to automate mundane tasks, analyse performance, and ensure that every part of your business' tech setup is as effective as possible. It's about spending less time putting out fires and more time planning for the future.

Business Continuity and Risk Management

Here's a comforting thought: your business keeps running smoothly no matter what happens. MSPs create robust business continuity plans, ensuring your data is safe and your operations can continue, even during a disaster.

From cybersecurity measures to backup solutions, MSPs handle the risks so you can focus on your business. It's peace of mind, knowing that experts in enterprise-managed services have your back, ready to tackle any challenge that comes your way.

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Broadcom Revamps
VMware Cloud Foundation
with VCF 9 and a Special Focus on AI

This update promises to simplify and unify private cloud deployments, improve AI capabilities, and enhance security and resilience.

At VMware Explore 2024, Broadcom unveiled the next generation of its private cloud platform: VMware Cloud Foundation 9 (VCF 9). This update promises to simplify and unify private cloud deployments, improve AI capabilities, and enhance security and resilience.

Broadcom highlights VCF 9's ability to help organisations break down infrastructure silos, manage public cloud proliferation, and unlock the potential of AI. "To break the infrastructure silos, reclaim control of public cloud sprawl, and capture the opportunity for AI in the enterprise, our customers are shifting from best-of-breed siloed architectures to a modern private cloud platform," said Krish Prasad, senior vice president and general manager of the VCF Division at Broadcom.

Key Features and Benefits of VCF 9

- Unified Operations and Automation: VCF 9 simplifies management by consolidating multiple consoles into a single interface for both operations and automation. This streamlines tasks and provides enhanced insights for proactive management.

- Expanded VCF Import: Migrating existing infrastructure to VCF becomes easier with expanded import capabilities. Users can now import VMware NSX, vDefend, Avi Load Balancer, and complex storage topologies, even integrating older versions.

- Advanced Memory Tiering with NVMe: VCF 9 leverages NVMe memory tiering to significantly boost performance for data-intensive workloads like AI, databases, and real-time analytics. This improves data retrieval and processing speeds, crucial for AI training and inference.

- Integrated VCF Multi-tenancy: Multi-tenancy capabilities are now integrated into the VCF platform, allowing IT teams to support various organisations and development groups on a shared infrastructure while maintaining segmentation and control.
- Native VPC Deployment: VCF 9 introduces native VPC deployment, simplifying networking and enabling self-service isolated connectivity without the complexities of VLANs. This streamlines workload provisioning and enhances developer productivity.
- Accelerated Adoption of VMware Private AI Foundation with NVIDIA: VCF 9 enhances support for AI workloads with new VMware Private AI Foundation with NVIDIA capabilities. This comprehensive solution simplifies GenAI deployments with features like vGPU profile visibility, GPU reservations, data indexing, and an AI agent builder service.
- Enhanced Security and Resilience: VCF 9 strengthens security with unified security management, providing centralised control and visibility across VCF deployments. Native vSAN-to-vSAN data protection with deep snapshots bolsters data resilience and ransomware recovery. Advanced cyber threat prevention capabilities are also expanded.

Real-world Impact

Broadcom highlights the positive impact of VCF through customer testimonials. "At GCI, deploying VMware Cloud Foundation has fundamentally transformed how we deliver services across Alaska's diverse landscape," said Jeremy Mayfield, Senior Solutions Architect at GCI Communication. "By standardising our infrastructure on a unified private cloud platform, we've modernised our operations, significantly reducing deployment times from months to days. This shift enables us to respond faster to the unique needs of our remote communities while maintaining the highest levels of security and resilience."

Broadcom also introduced VMware Cloud Foundation (VCF) Advanced Services, a catalogue of ready-to-deploy solutions designed to accelerate innovation in private cloud environments. These solutions offer enterprises tools and technologies comparable to those available in the public cloud, enabling them to address diverse use cases and business opportunities quickly.

Broadcom is investing in resources to guide customers through their private cloud adoption journey. This includes a Private Cloud Maturity Model to assess capabilities and a Jumpstart Program to help organisations align their architecture with their goals. Additionally, a new VMware Cloud Foundation Certification and free digital learning resources are available to upskill IT professionals.

IBM Introduces Granite 3.0:

High-performing AI Models Built for Business
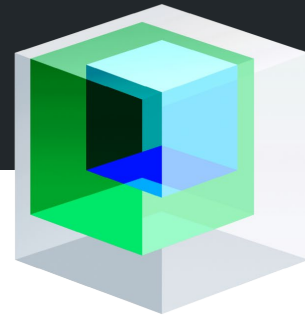
At its annual TechXchange event, IBM (NYSE: IBM) announced the release of its most advanced family of AI models to date, Granite 3.0. IBM's third-generation Granite flagship language models can outperform or match similarly sized models from leading model providers on many academic and industry benchmarks, showcasing strong performance, transparency, and safety. Consistent with the company's commitment to open-source AI, the Granite models are released under the permissive Apache 2.0 license, making them unique in the combination of performance, flexibility, and autonomy they provide to enterprise clients and the community at large.

IBM's Granite 3.0 family includes: General Purpose/Language: Granite 3.0 8B Instruct, Granite 3.0 2B Instruct, Granite 3.0 8B Base, Granite 3.0 2B Base Guardrails & Safety: Granite Guardian 3.0 8B, Granite Guardian 3.0 2B Mixture-of-Experts: Granite 3.0 3B-A800M Instruct, Granite 3.0 1B-A400M Instruct, Granite 3.0 3B-A800M Base, Granite 3.0 1B-A400M Base

The new Granite 3.0 8B and 2B language models are designed as 'workhorse' models for enterprise AI, delivering strong performance for tasks such as Retrieval Augmented

Geneneration (RAG), classification, summarization, entity extraction, and tool use. These compact, versatile models are designed to be fine-tuned with enterprise data and seamlessly integrated across diverse business environments or workflows.

While many large language models (LLMs) are trained on publicly available data, a vast majority of enterprise data remains untapped. By combining a small Granite model with enterprise data, especially using the revolutionary alignment technique InstructLab – introduced by IBM and Red Hat in May – IBM believes businesses can achieve task-specific performance that rivals larger models at a fraction of the cost (based on an observed range of 3x-23x less cost than large frontier models in several early proofs-of-concept).

The Granite 3.0 release reaffirms IBM's commitment to building transparency, safety, and trust in AI products. The Granite 3.0 technical report and responsible use guide provide a description of the datasets used to train these models, with details of the filtering, cleansing, and curation steps applied, as well as comprehensive results of model performance across major academic and enterprise benchmarks.

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Apple's AI Upgrade, Meta's Search Ambitions, and Digital Scam Alerts

Apple Integrates AI into iPhone 16: Transforming Siri and Boosting Productivity

Apple released a free software update that will inject its first dose of artificial intelligence into its iPhone 16 line-up as the trendsetting company tries to catch up with technology's latest craze. The update to the iOS 18 operating system arrives more than a month after the iPhone-maker launched four devices equipped with chips that the company says were specially designed to power the AI features. The AI infusion is supposed to transform Apple's often bumbling virtual assistant Siri into a more conversational, versatile, and colourful companion whose presence will be denoted by a glowing light that circles the iPhone's screen as requests are being handled. Other AI features included in this software update will handle a variety of writing and proofreading tasks, summarise the content of emails, and other documents.

Meta Working on AI Search Engine

Facebook-parent Meta is working on an AI-based search engine as it looks to reduce dependence on Alphabet's Google and Microsoft's Bing.

Meta's web crawlers will reportedly provide conversational answers to users about current events on Meta AI, the company's

chatbot on WhatsApp, Instagram, and Facebook. Scraping web data to train AI models and search engines, however, has raised concerns about copyright infringement and fair compensation for content creators.

How to Protect Against 'Digital Arrest Scams'

A recent scam has emerged, resulting in significant financial losses for individuals and businesses, amounting to crores of rupees, under the guise of "digital arrest." In this scam, fraudsters impersonate law enforcement officials to deceive their victims. The prevalent use of the scam has prompted even the Prime Minister to issue a warning to the public regarding this.

Users are advised to tread with caution when receiving suspicious calls from fake officials claiming that you are in trouble.

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Integrating Technology | Driving Growth

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