GALAXY OFFICE AUTOMATION PVT. LTD.

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Explore the Future of Data Management & AI Ready Solutions

Here is your exclusive invitation for a pivotal program, **Enriching Outcomes - Empowering Growth with AI and Data-Driven Innovation** in association with Galaxy. Through this program, enhance your organization's data strategy and understand how AI-powered technology can transform your operations and increase organizational productivity.

Event Timing

²⁶ 2024 7 PM ONWARDS

To register for the event please contact us on marketing@goapl.com

LIMITED SEATS ONLY



MD SPEAKS

Anoop Pai Dhungat Chairman & Managing Director

Dear Readers,

This feels like the hottest summer ever, in Mumbai. And parts of Delhi were 12 °C higher than that! The challenges of climate change have reached our doorstep and need to be addressed immediately. Two of the major thrust areas of Galaxy are Artificial Intelligence and Sustainability. Here are some areas where AI can help promote and foster sustainability, to protect our planet.

Al can play a large role in increasing energy efficiency, renewability and reliability. Smart grids powered by Al can predict energy demand, optimise the distribution of electricity and thereby reducing energy waste. Machine learning models can predict weather conditions and optimise the situation and operation of wind turbines and solar panels, maximising their energy output. By improving the reliability and efficiency of renewable energy, Al will accelerate the transition to a cleaner and more sustainable energy future.

Predictive models can forecast crop yields, weather patterns, and disease outbreaks. These models will help farmers make informed decisions, optimize their operations, and improve the resilience of their crops to changing climatic conditions. By enhancing the efficiency and sustainability of agricultural practices, AI can contribute to global food security and reducing the carbon footprint of farming.

These are just a couple of examples where we can maximise the benefits of AI to create a more sustainable and resilient planet. There are many more use cases where businesses can leverage AI to make their processes more sustainable.

Do call our experts to explore how you can use Al in your business.

Happy Reading

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Future is Now

World's First Flying Motorcycle Could Hit the Skies Soon

One of the smallest jet aircraft ever designed could be several years away from becoming the first sky-legal motorcycle. When it's certified by the FAA, the Jetpack Aviation Speeder will be a flying street bike that uses eight tiny-but-powerful jet engines to cruise 60 mph for about 30 minutes.

"We're working on a special airworthiness certificate for experimental certification," says Jetpack Aviation CEO David Mayman. "It's taking longer than expected because this is a significantly different animal than the FAA has ever had to deal with before."

While the original design had four turbines, the final product will have eight, two at each corner of the bike to provide safety through redundancy. They will also allow the roughly 300-pound Speeder to carry 600 pounds, a size-to-payload ratio that sets the Speeder apart from other VTOL craft.

A barebones Speeder P2 prototype is being tested at the company's California facilities. It'll be on a tether until it gains FAA certification. The prototype has achieved autonomous takeoffs and landings. It has also hovered and transitioned to forward flight. The company is also showing off a full-scale, slick-looking black model at

events. "It's designed for a pilot with a seating position similar to a motorcycle, with either feet down or back on foot pegs like a racing bike," says Mayman.

An unmanned version is also being developed for the military market as a cargo aircraft. It can fly 100 feet above the ground at 400 mph, making it nearly impossible to shoot down. "We envision sending 10 of these from different directions, like a swarm of drones, all loaded with cargo for life-saving missions," says Mayman.

The mini-jet engines will generate enough thrust to carry two riders, even three. But if the Speeder enters the FAA's FAR Part 103 Ultralight category, it will be limited to a single passenger. Mayman says the Speeder could eventually go supersonic, though the company "doesn't yet have a technical answer for that."

A protective fuselage resembling an F1-style race car could provide the safety envelope needed to increase speed to 250 mph. "With little winglets, it could fly for nearly an hour," says Mayman.

While certification is still years away, Mayman experienced a taste of what demand might be like at last summer's Pacific Air Show. "We had a Speeder inside the VIP tent and a lot of people would come past and say, 'I don't need another Lamborghini or Bentley," he says. "'I want that."



https://tinyurl.com/bdetefrf



Technology Focus

Unveiling the RAD Model: A Closer Look

The Rapid Application Development model is a software development methodology that emphasises rapid prototyping, iterative development, and swift feedback rather than following lengthy development cycles.

This approach is particularly suitable for projects with evolving or ambiguous requirements, as it allows for quick adaptation to changes. The RAD model's core principle is minimising planning time and maximising development speed through close collaboration between developers and users. The RAD model uses different key components contributing to its flexibility and agility to achieve this feat. These include:

- Iterative Development: The development process is broken down into smaller iterations, allowing developers to focus on specific features or modules simultaneously. This results in quicker delivery and improved adaptability.
- Prototyping: RAD heavily relies on creating prototypes, which are working models of the software that showcase its key features. Prototypes help users visualise the final product and provide valuable feedback to developers, ensuring that the software aligns with their needs and expectations.
- User involvement: The RAD model encourages active user participation throughout development. This continuous feedback loop enables developers to understand user requirements better and make necessary adjustments, leading to a more user-centric final product.

Here are some of the core phases that any RAD model goes through:

- Business Modeling: The first phase involves gathering information about the business processes and workflows while identifying areas where the application is expected to provide solutions or improvements.
- Data Modeling: In this phase, developers analyse the data requirements and design the data structures necessary for the application. This includes defining data objects, their relationships, and data management rules.
- Process Modeling: During the process modelling phase, developers design the software processes to

manipulate and manage data. This involves creating flowcharts, process diagrams, and pseudocode representing the various algorithms and functions required to achieve the desired functionality.

- Application Generation: In this stage, the software's actual coding and development occur. Developers use various tools, languages, and frameworks to build applications based on the data and process models created in the previous phases.
- **Testing and Turnover:** The final phase involves rigorous application testing to identify and fix any issues or bugs. This includes unit testing, integration testing, and user acceptance testing (UAT).

Advantages of the RAD model

The RAD model offers several advantages over traditional software development methodologies, such as the Waterfall model. These benefits include:

- Faster Development: RAD's iterative approach and focus on rapid prototyping allow for shorter development cycles compared to the linear progression in the Waterfall model. For example, the development of Viber, a popular messaging app, employed the RAD model to quickly deliver its MVP, facilitating user feedback and accelerating improvements.
- Improved User Satisfaction: Involving users throughout the development process ensures that the end product meets their expectations. By continuously incorporating user feedback, the RAD model leads to higher satisfaction levels than the Waterfall model, where user feedback is typically obtained only after the final product is delivered.
- Flexibility and Adaptability: Unlike the Waterfall model, which is less accommodating to changes once the project is underway, the RAD model is highly adaptable. It allows teams to adjust to changing requirements and incorporate user feedback easily, making it suitable for projects with evolving specifications or in dynamic business environments.
- Reduced Risk: The iterative nature of RAD enables early identification of potential issues, reducing the risk of project failure compared to the Waterfall model, where problems may only be discovered late in the development process.

https://tinyurl.com/3ykbbhwu



Stay Ahead of Threats: Mastering Managed Detection and Response

MDR, or managed detection and response, is a cybersecurity service that uses threat intelligence and threat hunting to discover and respond to cyber threats. These tools are employed by IT and security specialists who monitor your endpoints, networks, and both cloud-based and hybrid environments.

To actively safeguard your devices, data, and assets, MDR is a security solution that, when outsourced to the right certified professionals, takes care of your systems and device fleets 24x7x365.

By using a third party, organizations don't need to build or expand their internal security operations or staff to take on these more sophisticated and time-consuming threats.

MDR services can handle both the complexity and volume of modern vulnerabilities at scale, dedicating the time, money, and expertise it requires to constantly monitor and quickly respond to those threats.

MDR security providers have certified engineers and researchers who monitor networks, analyze and troubleshoot incidents, and respond to threats. This ensures that your internal teams can focus on the day-to-day business objectives of your organization.

How Does MDR Work?

Some of the biggest challenges that organizations face today are highly intelligent and focused attacks from cybercriminals that can quickly and easily exploit any weaknesses in your security. It's also difficult to manage your data at scale, especially in a cloud or hybrid environment.

You need advanced software and technology to keep up with attackers and a workforce that can accurately detect and respond to threats.

Some of the primary tools and resources an MDR will use to protect your assets include alert monitoring, alert prioritization, investigation, threat hunting, and Al models.

We can break down the 5 essential components of the MDR process that help secure all your endpoints and security vulnerabilities.

Prioritization:

Even though alert systems are critical to your security infrastructure, getting too many false alarms or irrelevant alerts can cause "alert fatigue," which is why managed detection and response help determine what threats need to be addressed first. With massive volumes of alerts, MDRs use automated rules and human expertise to sort through false positives and serious threats.

Threat Hunting:

Threat detection and response are key to your security, but so is anticipating the threats coming from a human mind. Our machines and AI technology are useful, but it still takes human expertise to find and understand attacks before they do extensive damage. Threat hunting is the proactive search for cyber threats that are otherwise undetected within your network by standard tools and technologies. These practices are done by understanding the habits and goals of attackers and leveraging data retrieved from security monitoring and analytics tools.

Investigation:

Investigations services bolster your security alerts so that organizations can fully understand a breach, incident, or event to respond appropriately. Investigating the scope of the attack helps organizations understand what happened, why and how the threat breached security, when it happened, who and what it affected, and the extent of the damage.

Guided Response:

Once the threat is identified, prioritized, and investigated, the security team needs to act. Experts will help you respond to and contain threats according to the most effective action plan. This level of advice may include basic activities to strengthen your security or step-by-step instructions to eliminate a threat.

Remediation:

Finally, an MDR ensures that organizations recover properly from an attack, helping restore your systems to their original and secure state. Incident recovery and remediation are meant to get your networks and endpoints running like normal and prevent further compromise, especially by removing malware, ejecting intruders, cleaning the registry, etc.



Special Focus

Benefits

24/7 Monitoring:

Continuous monitoring to detect and respond to threats in real-time.

Expertise:

Access to a team of experienced security professionals without the need for in-house staffing.

Reduced Detection and Response Time: Faster identification and mitigation of threats,

Faster identification and mitigation of threats, minimizing potential damage.

Cost-Effective:

Often more cost-effective than building and maintaining an in-house Security Operations Center (SOC).

MDR vs EDR vs MSSP vs Managed SIEM

In the cybersecurity landscape, understanding the

distinctions between MDR (Managed Detection and Response), EDR (Endpoint Detection and Response), MSSP (Managed Security Service Providers), and Managed SIEM (Security Information and Event Management) is crucial. MDR provides comprehensive threat monitoring, detection, and response services, leveraging human expertise and advanced technology. In contrast, EDR focuses on the endpoint level, detecting and responding to threats but requiring more internal management.

MSSPs offer a broader range of security services, typically focusing on monitoring and management rather than active threat hunting and response. Managed SIEM, meanwhile, aggregates and analyzes data from various security feeds, an essential part of threat detection but often lacking the proactive response element.

Each solution has its strengths, and the ideal choice depends on an organization's specific security needs, resources, and existing infrastructure.

Galaxy's MDR services integrate advanced technologies, threat intelligence, and human expertise to provide comprehensive threat detection and response capabilities. By leveraging these services, organizations can enhance their security posture, reduce the risk of breaches, and ensure a swift and effective response to potential security incidents. To talk to our experts, email us at **marketing@goapl.com**

Managed Detection and Response





AWS working with Indian startups to solve for world

Cloud computing platform Amazon Web Services (AWS) is working closely with Indian startups to export their "great ideas" and innovation to markets like the US, a senior executive said.

"There's been a lot of momentum from India that we are seeing, which is scaling globally," Gaurav Arora, director and head of startup business in Asia Pacific and Japan at AWS, told ET. He said among Asia Pacific and Japan (APJ) countries, India has the most mature startup ecosystem and "shines out" as it solves for the world.

Further, most of the startup cohorts that AWS has for its different programmes come from India, he added. Over half of the 63 startup founders who joined a recent AWS US GenAI delegation were Indian, Arora noted.

Arora said GenAl is a major focus area for the company. It aims to enable startups and other customers to leverage the technology in a practical and cost-effective way through custom chipsets for training and inferencing, serverless access to foundation models to build on top of, and off-the-shelf GenAl applications.

It also gives them access to AWS's marketplace of customers which would help startups scale up globally. Indian startups that are leveraging GenAI using AWS services include customer engagement platform Yellow.ai, fintech firm INDmoney, and health and fitness app Healthify. Arora said since its inception in 2013, the AWS Activate programme has provided about \$1 billion in AWS promotional credits to startups across the APJ region.

AWS had earlier said it has plans to invest \$12.7 billion in India by 2030 in local cloud infrastructure, bringing its total investment in the country to \$16.4 billion by 2030. These investments are expected to accelerate innovation and productivity and contribute an estimated \$23.3 billion to India's GDP by 2030, according to AWS.

Nvidia unveils Rubin AI chip, set to come in 2026

Nvidia has unveiled its next generation artificial intelligence (AI) chip called Rubin ahead of Computex in Taipei. Currently under development, the AI chip will be based on 8 stacks of HBM4 memory, the next iteration of the essential high-bandwidth memory. The platform will be available in 2026.

The new chip platform will be equipped with new GPUs to train and launch AI systems. It will also have a central processor called "Vera".

Speaking in a keynote address at National Taiwan University, Jensen Huang said that Nvidia sees the rise of generative AI as a new industrial revolution and expects to play a major role. The company also introduced new tools and software models along with Project G-Assist, an AI powered assistant. Nvidia has pledged to release new AI chip models on a "one-year rhythm," Huang said.

"We are seeing computation inflation," Huang said. As the amount of data that needs to be processed grows exponentially, traditional computing methods cannot keep up and it's only through Nvidia's style of accelerated computing that we can cut back the costs,

Huang said. He touted 98% cost savings and 97% less energy required with Nvidia's technology, saying that constituted "CEO math, which is not accurate, but it is correct." A Bloomberg report states that Nvidia has been the main beneficiary of a flood of AI spending, helping turn the company into the world's most valuable chipmaker. But it now looks to broaden its customer base beyond the handful of cloud-computing giants that generate much of its sales.

As part of the expansion, Huang expects a larger swath of companies and government agencies to embrace AI, the report added.

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