**ISSUE #3** 

## ASEAN CIO DAILY

#### Show Daily Newsletter for the 8th ASEAN CIO Forum

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### INDUSTRY NEWS



# **Big risks but bigger opportunities: Six transformative tech trends to watch in 2025**

Research and advisory firm Info-Tech Research Group has released its Tech Trends 2025 report highlighting six pivotal trends that are poised to transform the IT landscape in the coming year.

As the pace of technological innovation accelerates and organisations are facing unprecedented challenges and opportunities, the firm's report provides insights on how IT leaders can harness technologies including AI, quantum computing, and cybersecurity while mitigating the risks they introduce.

Historically, CIOs have been tasked with preserving the integrity of an organisation's past through meticulous record keeping. However, in 2025, the role of the CIO will evolve as the focus shifts from maintaining the past to forecasting the future.

With the rise of generative AI and the impending era of quantum computing, CIOs will need to increasingly adopt forward-thinking strategies to anticipate and simulate future business scenarios, according to the report. The six key tech trends identified for 2025 are:

Al avatars and chatbots: Generative Al is making it increasingly difficult to distinguish between human- and Al-generated interactions. Al avatars and chatbots, now integrated into many enterprise systems, are transforming user experiences and the way organisations handle customer service, software development, and marketing.

However, the rise of deepfakes presents new security threats, raising the need for robust AI detection and defence mechanisms.

**Deepfake defence:** With the increasing sophistication of Al-generated digital humans, deepfakes are becoming a powerful tool for fraud and misinformation. IT leaders are prioritising Alpowered detection tools and content authentication methods, such as blockchain, to combat the rising threat of Al-powered cyberattacks and ensure the integrity of their data.

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Al ranks as the second-most disruptive force to business operations, just behind talent shortages, with a disruption risk score of 3.55 out of 5, according to Info-Tech's findings.

**Quantum advantage**: Quantum computing has moved beyond theoretical exploration and is now accessible through cloud platforms, enabling real-world business experiments.

As organisations begin leveraging quantum hardware to solve complex problems, industries such as media, government, and financial services are leading the charge in quantum investments.

33 per cent of organisations in the media, telecom and technology sectors are investing in quantum computing, followed by 27 per cent in the public sector and 20 per cent in financial services.

**Post-quantum cryptography:** With the threat of quantum computers breaking current encryption methods looming on the horizon, organisations must prepare for 'Q-day'.

The adoption of post-quantum cryptography is now a critical priority, particularly for industries handling sensitive data, such as finance, healthcare and government.

Info-Tech reports that 31 per cent of advanced IT departments plan to invest in post-quantum cryptography before the end of 2025, compared to 16 per cent of average IT departments. This preparedness is critical as organisations face increasing risks from 'Harvest now, decrypt later' cyber-attacks. **Expert models:** As AI matures, organisations are increasingly developing custom AI models tailored to their specific industries. These expert models improve the accuracy and relevance of AI outputs, enabling businesses to derive exponential value from AI investments.

Info-Tech reports that 80 per cent of high-maturity IT departments or "Transformers" have already invested in AI or plan to do so by the end of 2025, compared to 72 per cent of average IT departments. Higher maturity firms are also twice as likely to expect exponential value from AI by 2025.

Al sovereignty: While Al offers significant opportunities, it also poses risks to industries such as music, news, and customer service. The firm explains in the report that organisations are focusing on balancing Al adoption with governance and control to protect sensitive data, reduce costs, and ensure Al performance.

By 2026, more companies will run localised AI models to improve cost-effectiveness and maintain control over their AI initiatives.

Privacy and security concerns top the list of factors influencing AI investment decisions, with 65 per cent of respondents citing it as a key consideration.

From leveraging AI avatars and quantum computing to safeguarding data with post-quantum cryptography, the firm advises that IT leaders must act now to futureproof their operations in the coming months.

The Tech Trends 2025 report is informed by Info-Tech's Future of IT 2025 survey, which gathered responses from nearly 1,000 IT decision makers globally between March and July 2024, with contributions from key regions such as APAC, the U.S., Canada, and the U.K., and representation from 17 industries, including financial services, healthcare, government, and manufacturing.

## New Hitachi EverFlex transforms IT operations with scalable, cost-efficient hybrid cloud and IaaS solutions

Hitachi Vantara is reinforcing its commitment to enhancing IT operations with its new generation of the Hitachi EverFlex infrastructure-as-a-service (IaaS) portfolio.

Hitachi EverFlex is designed to simplify and optimise IT capacity and operations by managing diverse and distributed infrastructure through advanced heterogeneous automation and flexible service options, meeting the evolving needs of enterprises seeking scalable, adaptable, and economical IT infrastructure for business outcomes.

As enterprises increasingly turn to hybrid cloud environments to meet their diverse IT needs, there is a notable shift towards consumption-based models that offer greater agility, lower total cost of ownership (TCO), and simplified operations management.

The portfolio of services helps organisations tackle key IT challenges with a consumption-based model that aligns costs with actual business usage. This approach not only reduces initial capital expenditures but also ensures IT expenses are directly tied to business needs.



By leveraging hyper-automation and Al-driven insights, companies also gain the agility to quickly diagnose and fix IT problems before they escalate, streamlining processes and boosting overall productivity.

Additionally, the portfolio's advanced services improve security and address skills gaps, enabling organisations to focus on strategic initiatives while benefiting from Hitachi Vantara's trusted expertise and dependable support.

### Menlo Security introduces enhancements to Zero Trust access solution and advances secure enterprise browser capabilities

Menlo Security has made enhancements to Menlo Zero Trust Access, the company's Zero Trust solution, which keeps enterprises steps ahead of adversaries and extends Menlo's leadership in the Zero Trust arena.

The enhancements to Menlo Zero Trust Access provide a comprehensive approach to safeguarding enterprise browsing and addressing critical aspects of zero trust. Menlo Zero Trust Access supports application visibility and control, SaaS governance and URL content filtering.

As organisations seek enhanced protection and work to replace legacy secure Web gateways (SWGs) or Cloud Access Security Brokers (CASB), Menlo Zero Trust Access delivers enhanced protection and ease of use for both administrators and end users, while enabling hybrid work. "These latest additions extend Menlo's leadership and the applicability in Zero Trust that has recently been validated by GigaOm and by Coalfire," said Nick Edwards, Vice President of Product Management at Menlo Security.

"Organisations trust Coalfire's independence and frankness. Their report indicates that the Secure Enterprise Browser Solution solves Zero Trust challenges and extends beyond Zero Trust Access. I am pleased that we have advanced our capabilities and are demonstrating a broader reach towards data protection and network separation, while keeping cyber gangs away from our customers' browsers, endpoints, and networks."

## Deconstructing the future of work in ASEAN with robotics



The rapid advancement of robotics technology is poised to transform the future of work in Southeast Asia (SEA).

As countries in the region strive to become more competitive in the global economy, robotics promises to enhance productivity, address labour shortages, and reshape industries from manufacturing to healthcare.

However, this transformation also spurs concerns such as job displacement and the need for a skilled workforce to operate alongside advanced technologies.

One of the leading pioneers in AI and robotics in SEA, **dConstruct Technologies** is an award-winning deep tech company headquartered in Singapore with a mission of making smarter robots for a better world.

We spoke with **co-founder and CEO Lim Chinn Hwa** and gathered his insightful takes on deploying robotics, and how ASEAN countries could leverage robotics to build a stronger and more resilient economy while promoting sustainable growth and inclusivity.

Lim was a panel speaker for a plenary discussion on the future of work on day two of the 8th ASEAN CIO Forum.

## What inspired you to start an AI and robotics company?

One of the opportunities that came my way was when I met a group of very talented local engineers. They were figuring out how best to use their skills, and I didn't want to see this group of young, talented people leave Singapore. It didn't make sense to me for Singapore to lose this kind of talent, so I decided to embark on a journey with them. I provided them with seed funding and gave them the freedom to build what they wanted.

We had a mutual understanding that whatever we developed would be in the AI and robotics space-not because it was easy, but because it was difficult.

These people were incredibly talented, and they weren't interested in doing the same old thing. They were technical "hunters," always looking for their next big challenge. I saw them as people searching for their own technical Mount Everest.

We gave them the opportunity to explore, and within the first year, they felt like they had achieved something that most people couldn't.



dConstruct Technologies

How can ASEAN nations collaborate to develop a robust AI and robotics industry, and what collective strategies should be implemented to ensure innovation and talent development in this rapidly evolving field?

First of all, the AI and robotics industry is traditionally dominated by the Europeans, North Americans and the East Asians (China, Japan and South Korea). If ASEAN countries were able to build out their robotics industries over time, they would also be building very advanced technologies that are not just applicable for all walks of life but also produce derivatives and diversify into many other innovations at the same time.

ASEAN is not a powerhouse as far as robotics are concerned. It will be left behind if we choose to not do anything today. I think ASEAN mustn't be left behind in terms of innovation and capabilities.

The Internet has already created the digital divide between those that can access it and those that cannot. Al and robotics will push that divide even further apart. So, how do we solve this problem?

We need to get AI and robotics into the curriculum of universities and technical colleges right away. The innovation and capability competency must first be in place.

This is not a moral issue but a survival issue for all of us in ASEAN. Once this is in place, we can be sure that the divide against the rest of the world is not that great.

The second layer that comes after education and needs to come into place is how do we translate this into an economic differentiator. We then need to define or determine what kinds of jobs or tasks that people are less likely to take up, such as cleaning jobs.

In China and North America, when they build a factory, they build it with robots in mind, and they are willing to build it from scratch. This is not the case in our region. The most suitable type of robots for ASEAN therefore will be humanoids that are able to move around in a human environment. I believe that would create phenomenal use cases and productivity for the entire region.



Image: dConstruct Technologies

### What are some of the critical skills that the ASEAN workforce must have in the age of AI and robotics?

I believe the most important skill today is the ability to embrace lifelong learning.

With AI and robotics advancing at an exponential pace, if we don't adopt the mindset that we need to learn continuously, we'll be in trouble.

You can't just rely on your qualifications, like having a first-class degree in computer science from a reputable university and think that's enough. It's about having the right attitude. You need to commit to learning every day.

In today's world, while technical expertise is crucial, soft skills, like communication, are equally important.

Take for instance, a company hired you based on your IQ, but you'll only get promoted based on your EQ. It's simple. You need to have a solid foundation of technical skills such as STEM, but once you have that, your success will depend on how well you can influence others.

It's not about forcing your way through; it's about guiding and persuading.

I believe if we want to create a successful society, we need to focus on cultivating the right business culture, as it has the biggest influence on shaping behaviour.

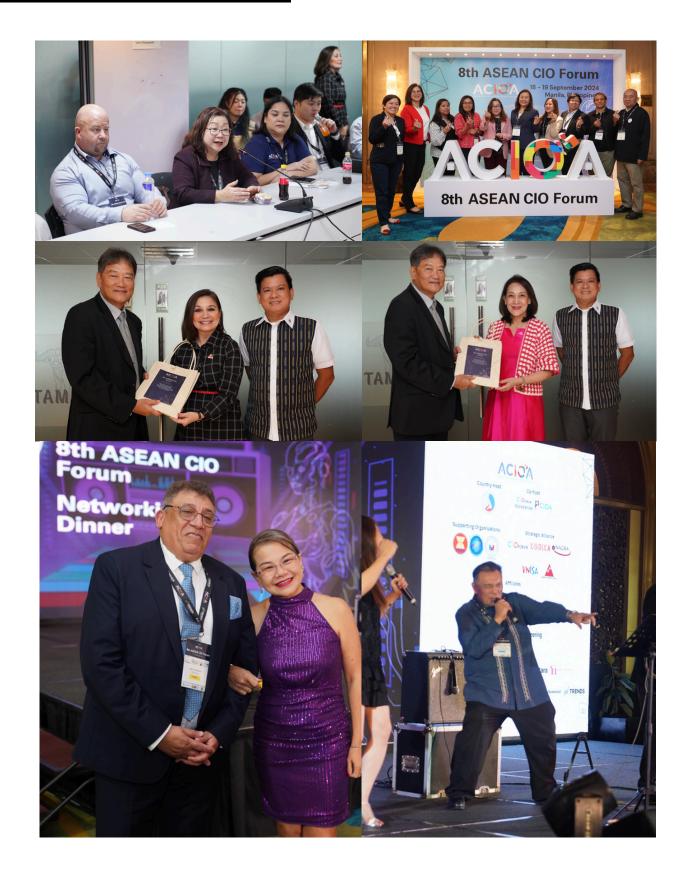
#### CAPTURED MOMENTS ON DAY TWO



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**Google Cloud Security**: Mandiant is a recognised leader in dynamic cyber defence, threat intelligence and incident response services. By scaling decades of frontline experience, Mandiant helps organisations to be confident in their readiness to defend against and respond to cyber threats. Mandiant is now part of Google Cloud. Google Cloud accelerates every organisation's ability to digitally transform its business and industry. It delivers enterprise-grade solutions that leverage Google's cutting-edge technology, and tools that help developers build more sustainably. Customers in more than 200 countries and territories turn to Google Cloud as their trusted partner to enable growth and solve their most critical business problems.

**ST Engineering** is a global technology, defence and engineering group with a diverse portfolio of businesses across the aerospace, smart city, defence and public security segments. The Group harnesses technology and innovation to solve real-world problems, enabling a more secure and sustainable world. Headquartered in Singapore, it has operations spanning Asia, Europe, the Middle East and the U.S., serving customers in more than 100 countries. ST Engineering reported revenue of over \$10b in FY2023 and ranks among the largest companies listed on the Singapore Exchange. It is a component stock of MSCI Singapore, FTSE Straits Times Index and Dow Jones Sustainability Asia Pacific Index.

Headquartered in Sunnyvale, California, **Azul** provides the Java platform for the modern cloud enterprise. Azul is the only company 100 per cent focused on Java. Millions of Java developers, hundreds of millions of devices and the world's most highly regarded businesses trust Azul to power their applications with exceptional capabilities, performance, security, value, and success. Azul customers include 36 per cent of the Fortune 100, 50 per cent of Forbes top-10 World's Most Valuable Brands, all 10 of the world's top-10 financial trading companies and leading brands like Avaya, Bazaarvoice, BMW, Deutsche Telekom, LG, Mastercard, Mizuho, Priceline, Salesforce, Software AG and Workday.

Eclypsium's cloud-based platform provides digital supply chain security for critical software, firmware and hardware in enterprise infrastructure. **Eclypsium** helps enterprises and government agencies mitigate risks to their infrastructure from complex technology supply chains.

**Hitachi Vantara** is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi Ltd., Hitachi Vantara provides the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, the company helps customers build the foundation for sustainable business growth.

Based in Singapore, **OneT Solutions** is a homegrown IT company offering a wide range of enterprise solutions and consulting services that meet the ever-changing demands of the industry. Its professional team of sales and consultants are certified and trained experts in their respective domains. OneT Solutions has worked with numerous clients in the financial, telecommunications and government sectors to overcome the challenges faced in their digital transformation journey.

**Axway** enables enterprises to securely open everything by integrating and moving data across a complex world of new and old technologies. Axway's API-driven B2B integration and MFT software, refined over 20 years, complements Axway Amplify, an open API management platform that makes APIs easier to discover and reuse across multiple teams, vendors, and cloud environments. Axway has helped over 11,000 businesses unlock the full value of their existing digital ecosystems to create brilliant experiences, innovate new services, and reach new markets.

**EfficientIP** is a network security and automation company specialising in DNS, DHCP and IPAM, collectively known as DDI Technology. It promotes business continuity by making IP infrastructure foundation reliable, agile and secure. Since 2004, EfficientIP has continued to expand its reach internationally, providing solutions, professional services, and support all over the world with the help of select business partners. Its passionate teams have delivered successful projects to over 1,000 customers globally and ensured operational efficiency through dedicated customer care.

**Menlo Security** protects organisations from cyber threats that attack web browsers. Menlo Security's patented Cloud-Browser Security Platform scales to provide comprehensive protection across enterprises of any size, without requiring endpoint software or impacting the end user-experience. Menlo Security is trusted by major global businesses, including Fortune 500 companies, eight of the ten largest global financial services institutions, and large governmental institutions. The company is backed by Vista Equity Partners, Neuberger Berman, General Catalyst, American Express Ventures, Ericsson Ventures, HSBC, and JPMorgan Chase. Menlo Security is headquartered in Mountain View, California.

The Southeast Asia Plus Technology Entrepreneurs' Network (**SEAPTEN**) is a Manila-based organisation dedicated to empowering tech entrepreneurs through collaboration with groups such as the ASEAN and Philippine CIO Association. SEAPTEN aims to link together the public and private sectors of ASEAN countries and other interested nations to explore collaboration on technology and related ventures, particularly in the realm of information and communications technology (ICT) and public private partnerships (PPP).

Funded by world-class investors, including Evolution Equity Partners, Silver Lake Partners, Sequoia Capital, GV, Riverwood Capital, and others, **SecurityScorecard** is the global leader in cybersecurity ratings, response, and resilience, with more than 12 million companies continuously rated. Founded in 2014 by security and risk experts Dr. Aleksandr Yampolskiy and Sam Kassoumeh, SecurityScorecard's patented security ratings technology is used by over 25,000 organisations for enterprise risk management, third-party risk management, board reporting, due diligence, cyber insurance underwriting, and regulatory oversight.

As a leader in providing technology-enabled business services, **Trends** helps businesses navigate digital transformation and business adaptation through a wide range of solutions, including cybersecurity, cloud adoption, managed services, IT consulting, network infrastructure, data centre infrastructure, IT computing, enterprise applications, and converged access, among other capabilities.



The ASEAN CIO Association (ACIOA) is a non-profit organisation formed in 2014 to provide the platform for greater collaboration and sharing of ICT best-practices amongst CIOs, industry leaders and public sector representatives. ACIOA recognises the immense value of business relationships in the highly technical field of information systems management, believing the development of an active community of ICT leaders is key to ASEAN's success in the digital age.

ACIOA offers a diverse array of activities, programmes and resources to support ASEAN ICT leaders with opportunities for information sharing and education at the executive level. Through monthly meetings, ASEAN CIO Forums, strategic partnerships with regional ICT associations as well as resources like CIO Consulting and Business Bridge, ACIOA enables CIOs to build invaluable personal alliances and tap on the expertise of accomplished ASEAN ICT leaders.



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Al, blockchain, decentralisation, metaverse, robotics, space tech, quantum computing and Web3 – these are among the group of deep technologies that are imminent on the horizon and inextricably entwined with all the activities of business and organisations. Deeptech Times was founded to offer enterprises, business leaders and policy makers a lens through which they can better understand the progress of these technologies and their consequent issues so that they can make informed decisions.

Deeptech Times offers industry news, features and interviews that are insightful and analytical, across various multimedia formats including text, video, audio, graphics and experiential events; bringing trusted journalism and information to help business leaders navigate the deep tech landscape with confidence.

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