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Lenovo's Innovation Roadmap

Takeaways from the APAC Analyst Summit

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As AI adoption continues to surge, the tech infrastructure market is undergoing a significant transformation. Traditional IT infrastructure providers are facing increasing pressure to innovate and adapt to the evolving demands of AI-powered applications. This shift is driving the development of new technologies and solutions that can support the intensive computational requirements and data-intensive nature of AI workloads.

At Lenovo's recently held Asia Pacific summit in Shanghai they detailed their 'AI for All' strategy as they prepare for the next computing era. Building on their history as a major force in the hardware market, new AI-ready offerings will be prominent in their enhanced portfolio.

At the same time, Lenovo is adding software and services, both homegrown and with partners, to leverage their already well-established relationships with client IT teams. Sustainability is also a crucial message as it seeks to address the need for power efficiency and zero waste lifecycle management in their products.





Lenovo's AI Strategy

Lenovo's AI strategy focuses on launching AI PCs that leverage their computing legacy.

As the adoption of GenAI increases, there's a growing need for edge processing to enhance privacy and performance. Lenovo, along with Microsoft, is introducing AI PCs with specialised components like CPUs, GPUs, and AI accelerators (NPUs) optimised for AI workloads.

Energy efficiency is vital for AI applications, opening doors for mobile-chip makers like Qualcomm. Lenovo's latest ThinkPads, featuring Qualcomm's Snapdragon X Elite processors, support Microsoft's Copilot+ features while maximising battery life during AI tasks.

Lenovo is also investing in small language models (SLMs) that run directly on laptops, offering GenAI capabilities with lower resource demands. This allows users to interact with PCs using natural language for tasks like file searches, tech support, and personal management.



Lenovo's Computer Vision Solutions

Lenovo stands out as one of the few computing hardware vendors that manufacture their own systems.

Leveraging precision engineering, Lenovo has developed solutions to automate production lines. By embedding computer vision in processes like quality inspection, equipment monitoring, and safety supervision, Lenovo customises ML algorithms using customer-specific data. Clients like McLaren Automotive use this technology to detect flaws beyond human capability, enhancing product quality and speeding up production.

Lenovo extends their computer vision expertise to retail, partnering with Sensormatic and Everseen to digitise branch operations. By analysing camera feeds, Lenovo's solutions optimise merchandising, staffing, and design, while their checkout monitoring system detects theft and scanning errors in real-time. Australian customers have seen significant reductions in retail shrinkage after implementation.



AI in Action: Autonomous Robots

Like other hardware companies, Lenovo is experimenting with new devices to futureproof their portfolio.

Earlier this year, Lenovo unveiled the Daystar Bot GS, a six-legged robotic dog and an upgrade from their previous wheeled model. Resembling Boston Dynamics' Spot but with added legs inspired by insects for enhanced stability, the bot is designed for challenging environments. Lenovo is positioning it as an automated monitoring assistant for equipment inspection and surveillance, reducing the need for additional staff. Power stations in China are already using the robot to read meters, detect temperature anomalies, and identify defective equipment.

Although it is likely to remain a niche product in the short term, the robot is an avenue for Lenovo to showcase their AI wares on a physical device, incorporating computer vision and self-guided movement.



Considerations for Lenovo's Future Growth

Lenovo outlined an AI vision leveraging their expertise in end user computing, manufacturing, and retail. While the strategy aligns with Lenovo's background, they should consider the following:

Hybrid AI

Initially, AI on PCs will address performance and privacy issues, but hybrid AI - integrating data across devices, clouds, and APIs – will eventually dominate.

Data Transparency & Control

The balance between convenience and privacy in AI is still unclear. Evolving transparency and control will be crucial as users adapt to new AI tools.

AI Ecosystem

AI's value lies in data, applications, and integration, not just hardware. Hardware vendors must form deeper partnerships in these areas, as Lenovo's focus on industry-specific solutions demonstrates.

Enhanced Experience

AI enhances operational efficiency and customer experience. Offloading level one support to AI not only cuts costs but also resolves issues faster than live agents.



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