ASUS | BUSINESS

NVIDIA.

POWERING AI, FOR TODAY AND TOMORROW

As the success of AI continues to grow, so do the opportiunities. But, to capture these oppportunities, organisations need the right infrastructure in place to provide the performance demands of tomorrow's AI.

Discover how ASUS is helping organisations meet the huge processing and performance requirements that are crucial to achieving all the potential of AI.
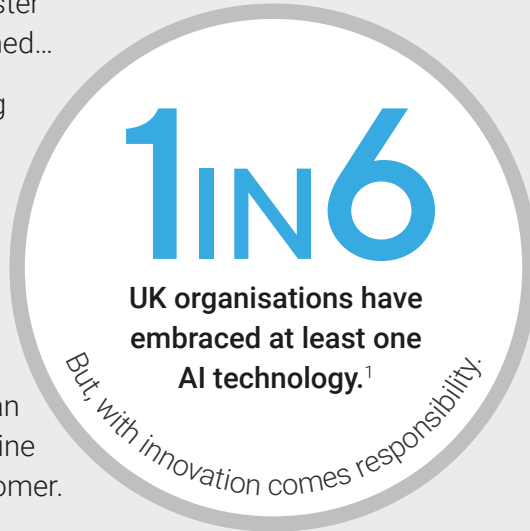
AI is accelerating innovation faster than we could have ever imagined…

It's streamlining tasks. Boosting productivity. Enabling more informed decisions based on accurate, predictive insights. It's personalising experiences. Bringing innovative ideas to life – at speed.

In manufacturing, anomalies can be detected on the production line before they affect the end customer.

In transportation, AI can process sensor data and make critical decisions in real time for autonomous vehicles. In healthcare AI is accelerating time to diagnosis, so patients receive life-saving treatment earlier.

To unleash the full potential of AI and generative AI (GenAI), huge processing power is required; a complex infrastructure of software and servers for fast access to the huge volumes of data that enable intricate tasks, like…

1IN6

UK organisations have embraced at least one AI technology.[1]

But, with innovation comes responsibility.

Machine learning

Deep learning – a machine learning technique that uses vast amounts of data to build layers of understanding

Large language models

In fact, the computing power required for AI is doubling every 100 days and is projected to increase by more than a million times over the next five years,[2] highlighting the urgent need for servers and infrastructure that can accomodate such growth.

The rapid increase in computational capacity requirements is seeing the rise of supercomputers to…

Eliminate latency

Manage high volumes of data and move processing to the Edge

Ensure the resiliency of high-performance compute

AI supercomputers mark a new era of computing – simplifying programming and supporting the larger memory requirements of AI tasks. Delivering organisations with:

Countless processors and finely tuned hardware

Fast, scalable computing power

Ample storage

Secure networking

ASUS: AI SOLUTIONS AS INDIVIDUAL AS YOUR GOALS

We embed four strategies across our portfolio to deliver future-ready AI solutions built for your business:

- Cross-estate AI capabilities: from Edge to server and beyond

- A holistic AI server solution: from software to hardware

- Rapid response fulfilment for almost any requirement: with top-tier components, strong ecosystem partnerships, feature-rich designs, and superior in-house expertise

- AI expertise that leverages internal software whilst partnerships with software and cloud providers offer complete solutions

ASUS ESC N8-E11/E11V AI server: the coolest item in your rack

Powered by NVIDIA®'s HGX H100/H200 accelerators, ESC N8-E11/E11V boasts optimised power efficiency and thermal design with both air cooling and direct-to-chip (D2C) liquid cooling solutions . Reducing the need for traditional fan cooling, bringing down power consumption and optimising performance. Dedicated CPU and GPU airflow tunnels also serve to expel heat, reducing operational cost and ensuring peak performance is maintained.

NVIDIA HGX H100/H200

ASUS ESC N8-E11V

Case study

Lowering the barrier of entry to AI innovation with India's fastest HPC AI Supercomputer

Yotta's Shakti Cloud stands as India's first AI-centric cloud platform, designed to enable researchers, data scientists, and senior developers to outsource the challenges of high GPU costs, scalability, and software optimisation. With ASUS ESC N8-E11, a 7U dual-socket server powered by eight NVIDIA H100 Tensor Core GPUs, Shakti provides a high-performance, reliable platform to support complex processes, leaving users free to innovate.

Case study

The latest high-performance computing system by the National Center for High-performance Computing (NCHC)

The National Center for High-performance Computing (NCHC) in Taiwan, Forerunner 1 provides the resources for anything from research topics such as climate prediction,to astrophysics simulation, molecular model simulation, and more. ASUS was integral in the construction of Forerunner 1, from data centre construction to cabinet installation, testing and onboarding. To create a greener solution, ASUS refined the liquid-cooling setup, achieving a remarkable PUE of just 1.17 (surpassing the 1.28 accepted standard) and reaching #92 in the Green 500 in November 2023.

ASUS | BUSINESS

NVIDIA.

THE DRIVING FORCE BEHIND AI

Elevate your AI computing infrastructure with ASUS and NVIDIA®. And power up your infrastructure with servers that are ready to meet the needs of your AI workloads today and tomorrow.

Experience it for yourself with a remote PoC trial. Test it in your own time – without leaving your site – and see how it could help you achieve your AI ambitions.

FIND OUT MORE

Sources:

1   https://www.ons.gov.uk/businessindustryandtrade/
    itandinternetindustry/articles/understandingaiuptakeand
    sentimentamongpeopleandbusinessesintheuk/june2023
2   https://spj.science.org/doi/10.34133/
    icomputing.0006#:~:text=Challenges%20in%20
    computing&text=For%20example%2C%20the%20
    computing%20power,increase%20in%20computational
    %20capacity%20requirements.