

Technology | Australia

Powering the next generation of AI cloud services

IREN

IREN unlocks unmatched levels of performance for its cloud AI services with the latest Lenovo ThinkSystem SR680a servers with NVIDIA's accelerated computing.



Lenovo



nVIDIA

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Customer background

Who is IREN?

IREN is a vertically integrated AI Cloud provider, delivering large-scale data centers and GPU clusters for AI training and inference. IREN's platform is underpinned by its expansive portfolio of grid-connected land and power in renewable-rich regions across the U.S. and Canada.



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The challenge

The world can't get enough of AI, and IREN is ideally positioned to deliver on that demand. Founded in 2018 as an infrastructure platform for power-dense, high performance computing applications, the company has grown as an AI cloud services provider, capitalizing on its vast, vertically integrated power and compute resources to meet skyrocketing demand for AI applications.

IREN has been expanding intensely in recent years, scaling existing data centers, breaking ground on new locations, and deploying thousands of NVIDIA GPUs. Sustaining this aggressive growth trajectory requires a constant supply of AI-ready infrastructure. To secure the necessary computing capacity, IREN was keen to seal deals with new hardware partners.

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“Running AI at scale requires massive compute infrastructure. Through **deep partnerships with leading OEMs**, we’re able to rapidly deploy the capacity needed to power the demand for the **next generation of AI cloud services.**”

Denis Skrinnikoff

CTO, IREN Limited

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The
solution

Vast GPU clusters take shape

IREN joined forces with Lenovo to procure cutting-edge hardware for its data centers across Canada. Starting at IREN's 50MW campus in Prince George, British Columbia, Lenovo is supplying an extensive fleet of the latest-generation ThinkSystem servers.

Together, IREN and Lenovo configured and deployed a total 648 nodes, forming clusters featuring NVIDIA HGX B200 GPUs. The team is preparing to introduce a second cluster, which will comprise more than 600 Lenovo [ThinkSystem SR680a V4](#) nodes with NVIDIA HGX B300 GPUs.

Hardware

[Lenovo ThinkSystem SR680a V3 accelerated by NVIDIA HGX B200 GPUs](#)

[Lenovo ThinkSystem SR680a V4 accelerated by NVIDIA HGX B300 GPUs](#)

Software

[Lenovo XClarity](#)

Services

[Lenovo Premier Support](#)

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The solution

Finely tuned hardware and service

IREN selected standard server configurations built on proven components. The implementation team adhered closely to NVIDIA's reference architecture, ensuring optimal performance across GPUs, switches, and memory.

Lenovo enhanced the baseboard management controller (BMC) in collaboration with IREN to offer real-time visibility into metrics including power status, temperature, and uptime. Accessible through [Lenovo XClarity](#), it gives IREN the operational visibility it needs to manage a large-scale data center infrastructure.

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The solution

Additionally, Lenovo designed a three-year support program that's tailored to IREN's needs as a cloud service provider. Lenovo certified IREN's team as self-maintainers, training them to troubleshoot and replace components independently while maintaining access to spare parts and expert guidance when needed.

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“This was a significant cluster, and a big part of ensuring successful deployment was how **Lenovo stepped up as a partner**. The team was very proactive, working alongside our internal technology team to optimize the system and resolve any issues as they came up.”

Kent Draper

CCO, IREN

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The results

IREN's partnership with Lenovo keeps the company on the cutting edge of infrastructure development, unlocking new levels of performance, scale, and efficiency.

Lenovo ThinkSystem servers deliver extreme computational performance and acceleration, enabling IREN to efficiently power ever-larger and more complex AI models. As IREN's footprint grows, Lenovo's manufacturing capacity and supply chain responsiveness enable rapid scaling.

With these capabilities, IREN can bring next-generation AI cloud services to more customers, helping it capture greater share of a fast-growing market.



Secured thousands of Lenovo servers to expand compute footprint



Delivers extreme performance for modern AI models



Sharpens IREN's edge in a competitive cloud services market

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“Our partnership with Lenovo gives us access to **cutting-edge infrastructure that scales with our ambitions**, helping us become an even stronger competitive force in the AI cloud services sector.”

Kent Draper

CCO, IREN

Why Lenovo and NVIDIA?

IREN sought server hardware capable of supporting next-gen AI workloads, delivered by an experienced partner. Lenovo rose to the occasion, delivering servers with superior performance and uptime.

Beyond best-in-class data center technology, Lenovo also set itself apart through service and engineering excellence. During IREN's initial GPU cluster deployment, Lenovo dispatched additional engineers and technicians on-site to assist with the go-live, which proved critical to implementation success.

The partnership continues to evolve. IREN and Lenovo are already exploring future data center expansion projects in Canada, leading the way to future innovation and growth.

How do you make the most of the AI growth wave?

IREN chooses Lenovo ThinkSystem servers accelerated by NVIDIA Blackwell and Blackwell Ultra GPUs to deliver next-level performance for its rapidly expanding AI cloud services portfolio.

[Explore Lenovo Hybrid AI](#)

