

CyberAgent Inc.

Scaling AI GPU infrastructure with 800GbE

Realize performance and scalability with agility for the unknown with Juniper

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Industry

Media and entertainment

Region

APAC

Overview

“With the QFX5240 switch, we were able to build a lossless, high-performance, low-latency 800GbE network as the foundation for our AI environment. While scaling up our GPU clusters, we also achieved **significant cost reductions** and **improved power efficiency.**”

Shotaro Koshoji
CIU Platform Div.,
CyberAgent Inc.

Juniper network powers 3x GPU scale-up and 50% efficiency boost

CyberAgent Inc., a leader in media, advertising, and gaming in Japan, has prioritized AI to drive innovation and efficiency. To accommodate the rapid expansion of in-house AI development, CyberAgent Inc. upgraded its network from 400GbE to 800GbE with Juniper, achieving a fourfold increase in port density per pod and improving the data center network's power efficiency by 50%. This robust network foundation is expected to support the future growth of its AI business.

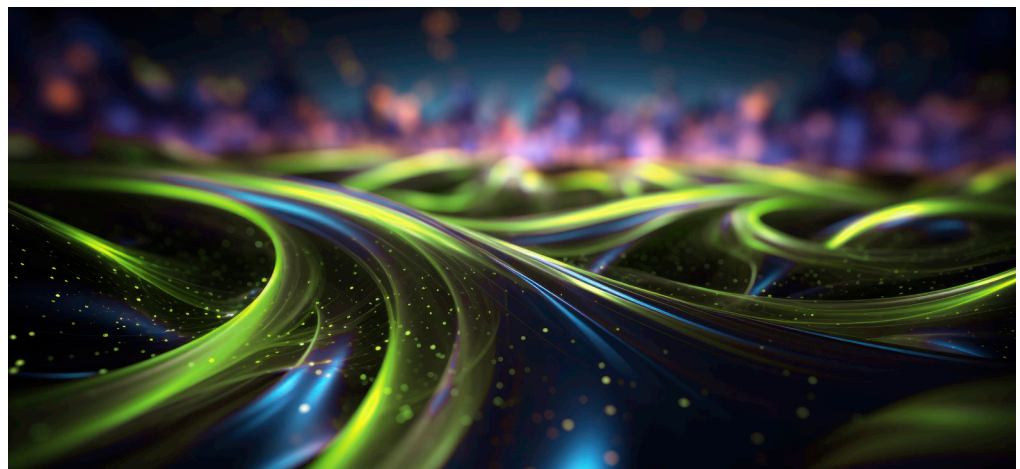
Challenge

Rapid AI growth was straining CyberAgent Inc.'s GPU and network infrastructure.

The company built a private AI platform, Cyclocloud, for internal AI projects, providing cost advantages and on-demand GPU access for its developers. However, increasing demand resulted in frequent GPU overbooking. To scale its infrastructure, CyberAgent Inc. planned a multifold GPU expansion. This expansion highlighted a new challenge: ensuring stable, lossless, high-bandwidth, low-latency connectivity between GPUs—something its existing 400GbE network couldn't guarantee.

Transformation

To scale its private AI platform, CyberAgent Inc. deployed a high-density 800G network using Juniper QFX5240-640D switches. Choosing Juniper's 800GbE solution reduced the switch count by half while quadrupling port density.



“With the QFX5240 switch, we were able to build a lossless, high-performance, low-latency 800GbE network as the foundation for our AI environment,” said Shotaro Koshiji, Network Engineer, CIU Platform Div. at CyberAgent Inc. “While scaling up our GPU clusters, we also achieved significant cost reductions and improved power efficiency.”

Outcomes

Network efficiency

3x

GPU capacity through architectural optimization

Reduce hardware footprint

50%

Fewer switches. Consolidated from 8x400GbE switches to 4x800GbE switches

Greater power efficiency

50%

Reduction in power consumption and rack space due to QFX switch density

Solution and implementation

Juniper QFX5240 Switch

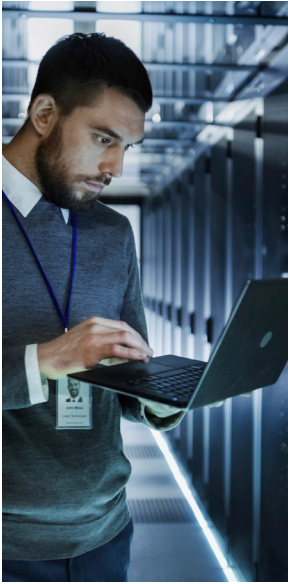
High-performance networking for AI data centers

The QFX5240 switch is the network foundation of CyberAgent Inc.’s private AI data center.

The QFX5240 is built to meet the advanced networking demands of large-scale clusters, delivering high-density 800GbE ports in a 2U fixed form factor. Powered by Junos OS software, the QFX provides advanced network services optimized for AI/ML workloads. As a cornerstone of AI networks, these switches accelerate training by enabling high GPU utilization and delivering fast job completion time (JCT).

Joint testing with Juniper ensured a smooth rollout for CyberAgent Inc. and validated lossless, low-latency performance. The new network improves power efficiency by 50% and establishes a strong foundation for scalable AI infrastructure. Juniper’s technical support and high-performance switching enabled a fast and successful deployment.





800GbE network supports AI growth

With Juniper, CyberAgent Inc. achieved a 3x GPU scale-up, while reducing switch count from eight to four and improving power efficiency by 50%. The new 800GbE network delivers stable, lossless, low-latency AI operations, ensuring CyberAgent Inc.'s users can reliably access GPU resources. By reducing the hardware footprint and increasing port density, the infrastructure meets current demands and positions CyberAgent Inc. for future AI innovation.

Increased backbone capacity and reduced space and power demands

CyberAgent Inc. cut its switch count in half—from eight 400GbE switches to four 800GbE switches—reducing its hardware and space needs. QFX5240 switches also enabled an improvement in switch density, which resulted in a 50% reduction in power consumption and rack space.

Enhanced speed and operational reliability

Deployment speed and operational reliability were enhanced through Juniper's proactive support and joint validation.

Future-ready AI scalability

Powered by a Juniper 800GbE backbone, CyberAgent Inc. is well-positioned to meet its future AI scalability needs efficiently, with high bandwidth and low latency.

Juniper 800GbE: Network scalability that just keeps going

To learn more about networking for the AI data center, visit

<https://www.juniper.net/us/en/forms/2024/networking-the-ai-data-center.html>

To learn how Juniper 400GbE and 800GbE routing solutions can help your performance, scalability, and sustainability needs, visit

<https://www.juniper.net/us/en/solutions/400g-and-800g.html>

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