Frore Systems Introduces LiquidJet™ Nexus - Defining the AI Thermal Stack for Next-Generation ½ U AI Server Systems like NVIDIA Kyber

SAN JOSE, California - March 11, 2026: To overcome the thermal barriers limiting AI performance, Frore Systems today unveiled **LiquidJet™ Nexus**, a new integrated liquid cooling system designed for the AI era. As AI compute densities surge, heat is emerging as a primary constraint, elevating what experts are calling the "AI Thermal Stack" - the infrastructure responsible for extracting heat from advanced computing systems and rejecting it into the atmosphere. The AI Thermal Stack is increasingly determining the compute density, system efficiency, and overall performance of AI Data Centers.

LiquidJet Nexus is designed for liquid cooling ½ U compute trays like NVIDIA Kyber, directly cooling GPUs, CPUs, DPUs, NICs, DC-DC power converters, and VRs. It integrates multiple multi-stage 3D short-loop jetchannel liquid cooling LiquidJet coldplates into a unified system. LiquidJet Nexus delivers 75% higher heat transfer efficiency, keeps components 8°C cooler, eliminating hoses, connectors, and manifolds, and reducing thermal stack weight by 65%. This unified system addresses the thermal demands of next-generation AI hardware.

As AI models scale and compute density skyrockets, cooling technologies are becoming a critical bottleneck to performance. The escalating GPU power densities, rack power levels, and data center energy requirements have elevated the Thermal Stack into a system-level infrastructure challenge.

"The industry has revolutionized the AI software stack and scaled the AI compute stack," said Dr. Seshu Madhavapeddy, Founder and CEO of Frore Systems. "The AI Thermal Stack is now a fundamental layer of AI infrastructure, and innovation in that layer will determine how far AI performance can scale."

LiquidJet Nexus: Simplifying the AI Thermal Stack

LiquidJet Nexus is a lightweight integrated coldplate system designed for ½U AI compute trays, combining multiple LiquidJet™ coldplates—known for their innovative multi-stage 3D short-loop jetchannel design—into a unified system that significantly simplifies the AI Data Center thermal stack.

Traditional liquid cooling implementations rely on complex assemblies of hoses, connectors, and manifolds in each compute tray. LiquidJet Nexus integrates these elements into a single system-level design, simplifying assembly, reducing weight, improving reliability, and enabling higher-density compute architectures.

LiquidJet Nexus key capabilities include:

- Support for 1/2 U compute trays, enabling 2x higher compute density per rack
- 75% higher heat transfer efficiency, enabling 53°C inlet temperature, therefore eliminating need for mechanical chillers and reducing data center power consumption by 10%
- Elimination of tray-level hoses, connectors, and manifolds, thus reducing assembly complexity and improving reliability
- 65% reduction in thermal stack weight

LiquidJet Nexus allows hyperscale data centers to improve performance and reliability while lowering power consumption and total cost of ownership.

The Emerging AI Thermal Stack

Modern AI systems are built on three interconnected technology layers:

- **Software Stack** – AI models, agents and applications
- **Compute Stack** – GPUs, CPUs, DPUs, memory, networking and power electronics
- **Thermal Stack** – the cooling architecture that extracts heat from the compute stack and rejects it into the atmosphere

While advances in software, computing and networking have driven the rapid growth of AI, the thermal stack increasingly determines how much further those gains can scale.

"Cooling is no longer just an afterthought," Madhavapeddy added. *"It is about enabling the next generation of AI infrastructure."*

Enabling AI from Cloud to Edge

Frore Systems' thermal platforms span the full spectrum of AI deployments, from hyperscale data centers to compact edge systems.

LiquidJet™ and **LiquidJet Nexus**, Frore's advanced liquid cooling technologies, improve performance, energy efficiency, and compute density in AI data centers.

AirJet®, the world's first solid-state active air-cooling chip, enables high-performance AI computing in ultra-thin, silent, dustproof, and water-resistant edge devices.

Together, these technologies redefine the thermal architecture required to support the rapid growth of AI across cloud, industrial, and consumer environments.

About Frore Systems

Frore Systems is a pioneer in advanced thermal technologies that unleash performance across data centers and edge devices. The company's flagship solutions include **LiquidJet**™, a multi-stage 3D short-loop jetchannel multi-stage liquid cooling coldplate for data centers delivering higher GPU performance, improved PUE and reduced TCO; **LiquidJet**™ Nexus, a light weight integrated coldplate system that integrates multiple LiquidJets and eliminates all hoses, connectors and manifolds enabling ½U compute trays and **AirJet**®, the world's first solid-state active air-cooling chip used in consumer, industrial, and IoT markets delivering higher performance in ultra-compact, silent, light, dustproof and water-resistant edge devices. Frore Systems' patented cooling technologies are integrated into products from major OEMs and system builders worldwide. Headquartered in Silicon Valley, with manufacturing operations in Taiwan, Frore Systems is redefining thermal architecture for the AI era.
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