



Introduction

As AI workloads drive unprecedented growth in data center power consumption, cooling efficiency has become a central sustainability challenge.

While air, liquid, and immersion cooling address bulk heat, localized hotspots increasingly limit utilization, increase cooling energy, and constrain scalable growth.

Actasys introduces Precision Jet Cooling — compact, solid-state actuators that deliver targeted, adaptive airflow directly to thermal bottlenecks, enabling higher compute density with significantly improved energy efficiency.

Value Proposition

- Targeted hotspot mitigation at GPUs, accelerators, and high-speed interfaces
- Improves performance per watt and reduces overcooling at the system level
- Enables higher rack density without proportional increases in cooling energy
- Low power, always-on operation with minimal impact on PUE
- Solid-state, high-reliability design suitable for fleet-scale deployment
- Software-driven adaptability aligned with real-time thermal and workload conditions



Scaling Thermal Efficiency Without Redesign

Scaling AI infrastructure sustainably requires improving cooling efficiency at the point of constraint.

As data centers grow, localized thermal bottlenecks increasingly drive overcooling at the system level, wasting energy and limiting utilization.

Actasys enables targeted thermal relief exactly where it is needed, allowing operators to unlock stranded performance, increase rack utilization, and reduce unnecessary bulk cooling.

Unlocking Performance at Scale

Thermal bottlenecks increasingly cap performance long before power or infrastructure limits are reached — forcing throttling and inefficient energy use.

By mitigating localized hotspots near GPUs, accelerators, and high-speed interfaces, Actasys enables higher sustained performance per watt, improved utilization, and more predictable operation across large-scale AI deployments.



Designed for Hyperscale Deployment

Actasys solutions are designed for seamless deployment in large-scale, energy-constrained data centers.

Compact, solid-state, and data-driven, they provide operators with a practical tool to improve cooling efficiency, reduce airflow demand, and extend infrastructure capacity without disrupting existing thermal architectures.