



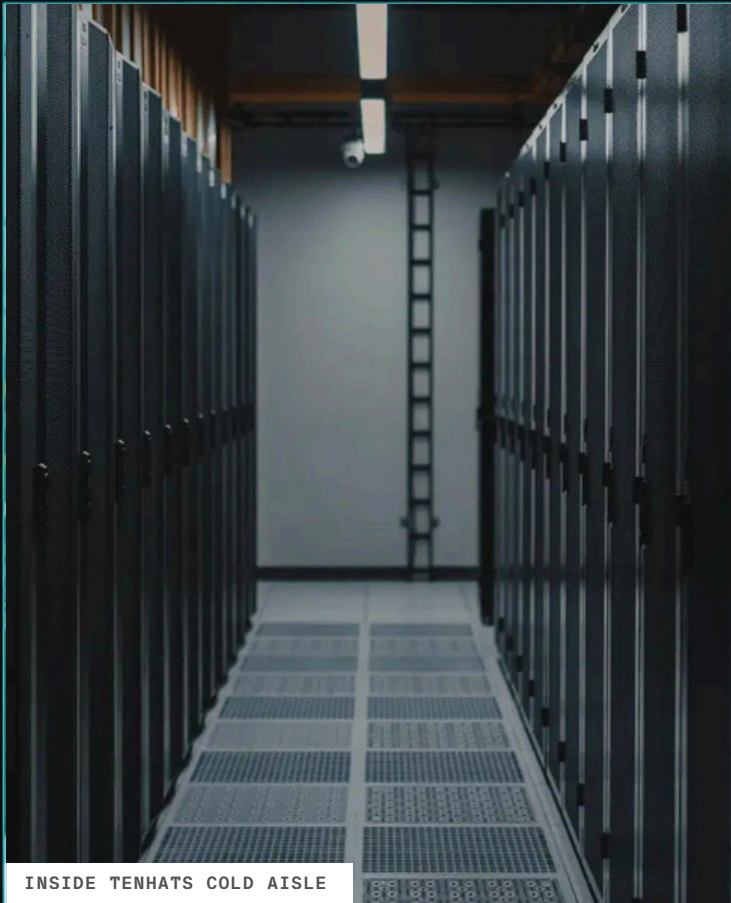
A.I.M.I.[®] at TenHats

Autonomous Cooling Intelligence

0.4 MWh/day
MODELED HVAC SAVINGS

6.6%
PUE IMPROVEMENT

Making existing data centers more efficient with autonomous infrastructure intelligence



INSIDE TENHATS COLD AISLE



OUTSIDE DX Cooling Units

THE OPPORTUNITY

As AI and enterprise workloads grow, data centers must deliver more compute without proportional increases in energy or cooling load.

THE DEPLOYMENT

FLUIX deployed A.I.M.I.® as an on-prem control layer integrated with existing BMS and HVAC systems, and no rip-and-replace.

THE SIGNAL

A.I.M.I.® showed 0.4 MWh/day modeled HVAC savings and improved PUE by 6.6%. At full-site scale, that points to up to ~130 kW of potential power headroom for additional compute.

0.4

MWh/day

Modeled HVAC savings - Full A.I.M.I.® control

1.27

PUE

↓ from 1.36 baseline

0

new sensors

On-premise BMS integration

02

Cooling that reacts after the load has already changed

FAN

15 min

fan delay · BEFORE A.I.M.I.®

COMPRESSOR

20–40 min

cooling delay · BEFORE A.I.M.I.®

- **Overcooling**
Setpoints overshoot when cooling reacts after the load has already changed.
- **Inefficient compressor cycling**
Compressors cycle on and off chasing load that has already moved.
- **Unnecessary energy use during variable workloads**
AI-era IT load patterns drift faster than reactive PID controls can follow.

THE OPPORTUNITY

Reduce the time between IT load change and cooling response — so the site uses less cooling energy without compromising operations.

From reactive cooling to predictive coordination

03

Predictive cooling intelligence on existing infrastructure · ~2 MW colocation site

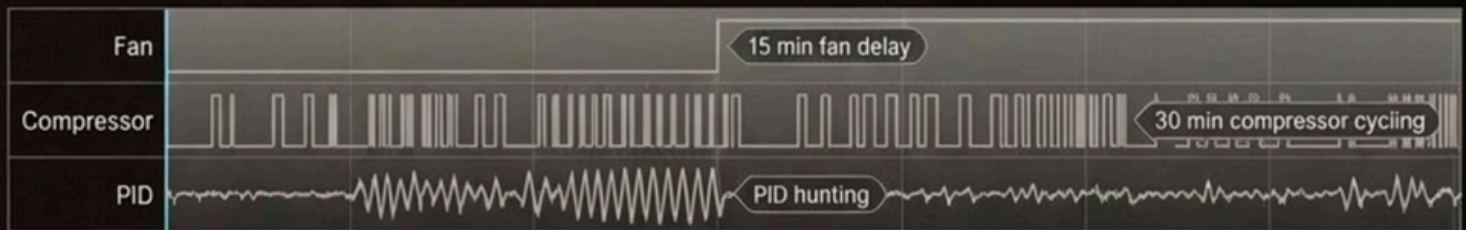


CONTROLLED ASSETS

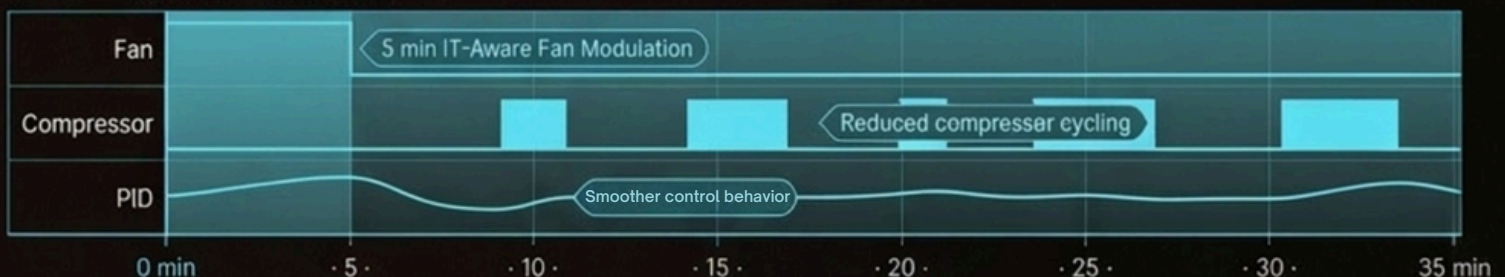
Vertiv Liebert DSE 500 · Air-cooled DX free-cooling units



BEFORE · NORMAL DX OPERATION



AFTER · A.I.M.I. AUTOPILOT



WHAT THIS MEANS FOR THE SITE

COOLING EFFICIENCY CREATES POWER HEADROOM: LOWER HVAC LOAD TODAY AND A PATH TO SUPPORTING MORE IT CAPACITY ON EXISTING INFRASTRUCTURE.

0.4 MWh/day

modeled HVAC savings
* 146 MWh/year

< 14 Days

to learn site behavior faster
time to value

~130 kW

potential power headroom
proj. at full 2 MW facility
profile

0 EXCURSIONS

during the full
A.I.M.I.® pilot

Up to 23% lower observed HVAC power

Up to 6% PUE improvement

CURRENT RESULT: 0.4 MWH/DAY MODELED HVAC SAVINGS.

FULL-SITE PROJECTION: UP TO ~130 KW POTENTIAL POWER HEADROOM

0.4 MWH/DAY REFLECTS CURRENT-PERIOD MODELED HVAC SAVINGS. ~130 KW IS A FULL-SITE PROJECTION BASED ON PUE IMPROVEMENT, NOT DIRECTLY MEASURED COOLING REDUCTION.

Performance results from the TenHats deployment

Performance period: December 2025 – March 2026 · Independent review by TRC

CDD = Cooling Degree Days, a measure of how much cooling a building needs based on outdoor temperature.

OPERATING MODE	CDD	IT LOAD (KWH/DAY)	ACTUAL HVAC (KWH/DAY)	MODELED SAVINGS	PUE
Baseline	26.8	7,296	2,615	N/A	1.36
Full A.I.M.I.® Control	21.3	7,383	2,018	399	1.27

0.4 MWh/day

modeled HVAC savings
· ≈ 146 MWh/year

1.27 PUE

↓ from 1.36 baseline

METHODOLOGY NOTE

TRC's preliminary analysis showed 0.4 MWh/day of modeled HVAC savings during full A.I.M.I.® control days, with PUE improving from 1.36 to 1.27. Because HVAC behavior is affected by weather, IT load, cooling degree days, and base cooling load, final attribution remains under review.

0.4 MWH/DAY EQUALS ROUGHLY 17 KW OF AVERAGE COOLING REDUCTION. LARGER POWER-HEADROOM ESTIMATES ARE FULL-SITE PROJECTIONS, NOT DIRECTLY MEASURED COOLING REDUCTION.

• SO WHAT? •

BETTER PUE CREATES A PATH TO MORE COMPUTE ON THE SAME POWER ENVELOPE

6.6% PUE IMPROVEMENT POINTS TO UP TO ~130 KW OF POTENTIAL POWER HEADROOM AT A FULLY LOADED 2 MW FACILITY PROFILE.

What this means for data center operators

• LOWER COOLING WASTE

0.4 MWh/day modeled HVAC savings, equal to ~146 MWh/year run-rate

• BETTER RESPONSIVENESS

Fan response improved from ~15 min to ~5 min before inefficiency compounds

• NO RIP-AND-REPLACE

0 new sensors. Works with existing BMS and cooling equipment

• OPERATOR TRUST & CONTROL

0 SLA excursions during full A.I.M.I.® control periods with human-in-the-loop validation

• PATH TO HIGHER CAPACITY

Up to ~130 kW potential power headroom projected at a fully loaded 2 MW facility profile

• GET MORE WITH WHAT YOU HAVE

More value from existing infrastructure, no major retrofit required.

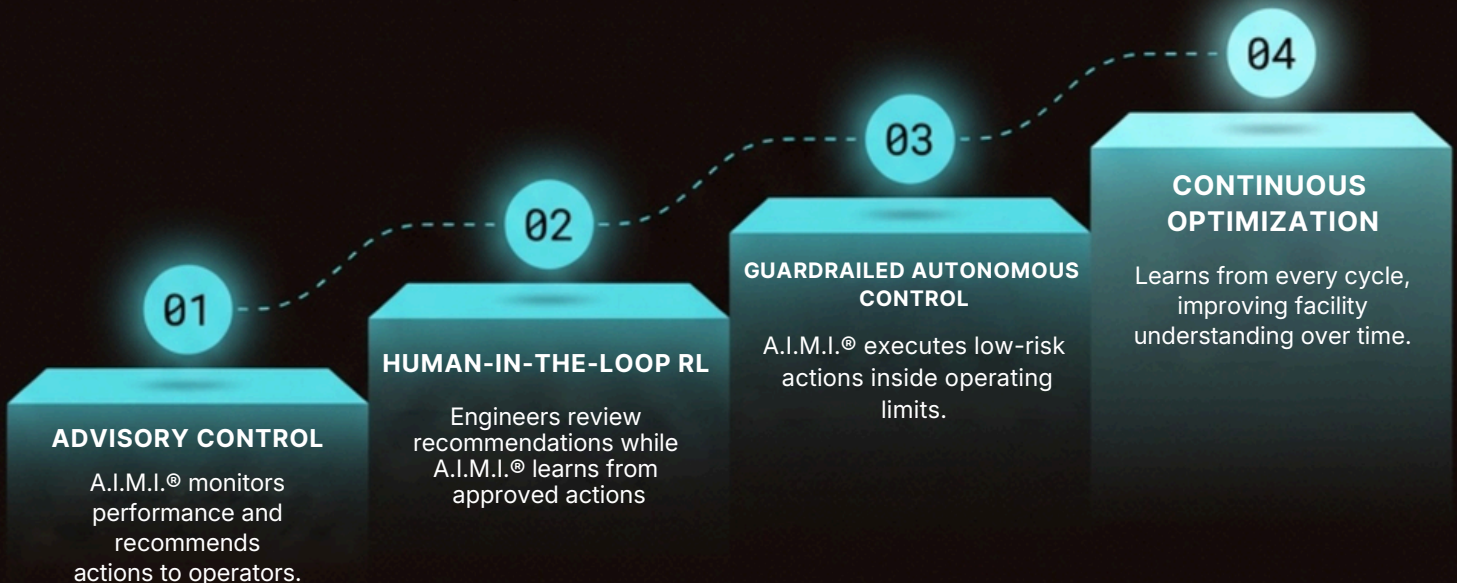
FASTEST TIME TO VALUE

2 weeks
training

4 weeks
initial results

MINIMIZE RISK · ACCELERATE VALUE · AVOID 6–12 MONTH RETROFIT TIMELINES

CONTROLS ROADMAP · From analysis to autonomous control





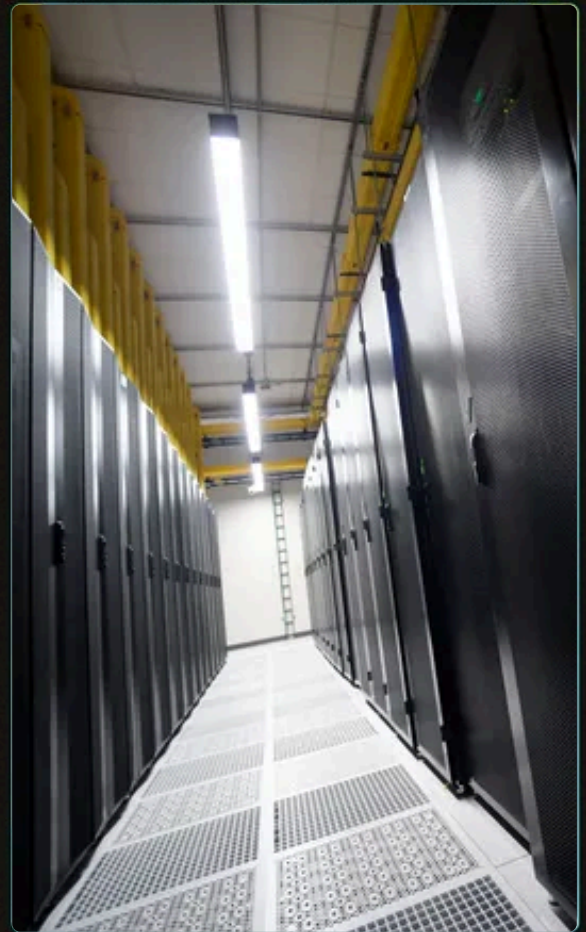
TenHats: a next-generation sustainable data center partner

"This initiative allows us to reduce energy costs by curbing peak demand, strengthen compliance with industry and operational requirements, and unlock additional capacity to support new revenue opportunities. We look forward to continuing our work with FLUIX. This is only the tip of the iceberg in terms of the potential AI brings to data center efficiency, compliance, and performance."

FROM WADE ORLOSKI, DATA CENTER MANAGER, TENHATS

- 2 MW
- 10K sq ft
- AI-ready
- Redundant power & cooling
- 24/7 armed security
- On-site technical support
- Enterprise compliance

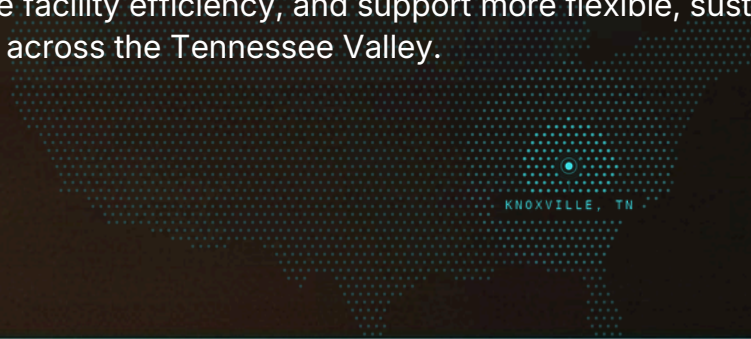
TenHats is a 2 MW data center for AI-ready, mission-critical operations, combining redundant power and cooling, 24/7 security, on-site technical support, and enterprise-grade compliance.



• ENERGY EFFICIENCY COLLABORATION •

TVA EnergyRight: supporting smarter energy use across the Tennessee Valley

TVA supported FLUIX's research and deployment of AI-driven cooling optimization to evaluate how data centers can reduce energy waste, improve facility efficiency, and support more flexible, sustainable growth across the Tennessee Valley.



0.4

MWh/day

modeled HVAC savings
≈ 146 MWh/year run-rate

1.27

PUE

↓ from 1.36 baseline

IN PARTNERSHIP



FLUIX A.I.M.I.®

Unlock more compute from existing data centers

Optimize cooling. Create power headroom. Scale compute without retrofits.

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