

UPGRADE TO REDUCE RISK AND SAVE ENERGY



85%







of data center cooling units installed between 2000 and 2009 still use inefficient constant speed fans - and none have supervisory system controls¹.

50%

of U.S. data centers are upgrading or plan to upgrade their thermal systems in the next 12 months with variable speed technologies, intelligent controls or cooling unit replacements¹.



If conditions like these apply in your data center, maybe it's time for an upgrade:

 You need more visibility into thermal system performance	 You can only control single cooling units, not multiple units together	 Cooling is controlled by under-floor air pressure not rack inlet temperature
 Cooling unit fans run at constant speed regardless of load	 Fine-tuning thermal system performance requires a lot of manual effort	 You keep paying to replace drive belts

Thermal system upgrades improve protection and deliver significant savings with a fast ROI.



LOWER RISK

100%

Cooling unit fan redundancy and fewer moving parts

8x

Faster cooling unit restart times²

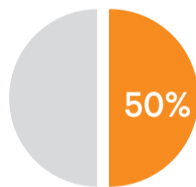


Self-healing operating routines

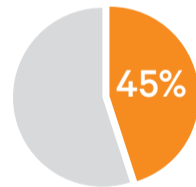


Coil freeze protection

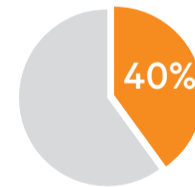
MORE SAVINGS



Reduction in cooling energy costs with variable speed technologies and intelligent controls³



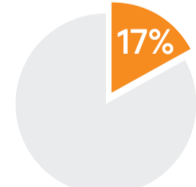
More economization hours annually⁴



Energy reduction from multi-unit teamwork control alone⁵



Reduction in future thermal system deployment costs⁶



Reduction in TOTAL data center energy costs⁷

More Protection. More Efficiency. More Insight. No Headaches.
LEARN MORE ABOUT THERMAL SYSTEM UPGRADES, VertivCo.com

1- Vertiv™ proprietary research.

2- Vertiv internal research comparing Liebert iCOM and other controls.

3- Based on a data center with a 500kW IT load at 1.76 PUE, electricity costs of 10 cents per kW-Hour, with Liebert iCOM controls and variable speed technologies, there would be a drop in energy consumption from 380kW to 190kW, or 50%. Actual Vertiv customers have experienced higher savings.

4- Based on 20 cooling units with Liebert iCOM controls, an 8kW savings / unit during economization, and electricity costs of 10 cents per kW-Hour. Automated economizer switchover provided by Liebert iCOM controls provides 1,100 additional economizer hours per year, or 45% more than without intelligent controls.

5- Based on 5 cooling units using Liebert iCOM controls, with fan speeds coordinated via machine-to-machine communications and running at 60% load v. 5 units without intelligent controls and fans running at different levels of 30%, 35%, 60%, 80% and 100% respectively.

6- Vertiv calculations based on time saved through auto-discovery or unit types, automated wireless sensor associations and room editor for simplified installation.

7- Based on a 50% improvement in cooling energy efficiency and data center cooling accounting for 38% of total data center energy costs.