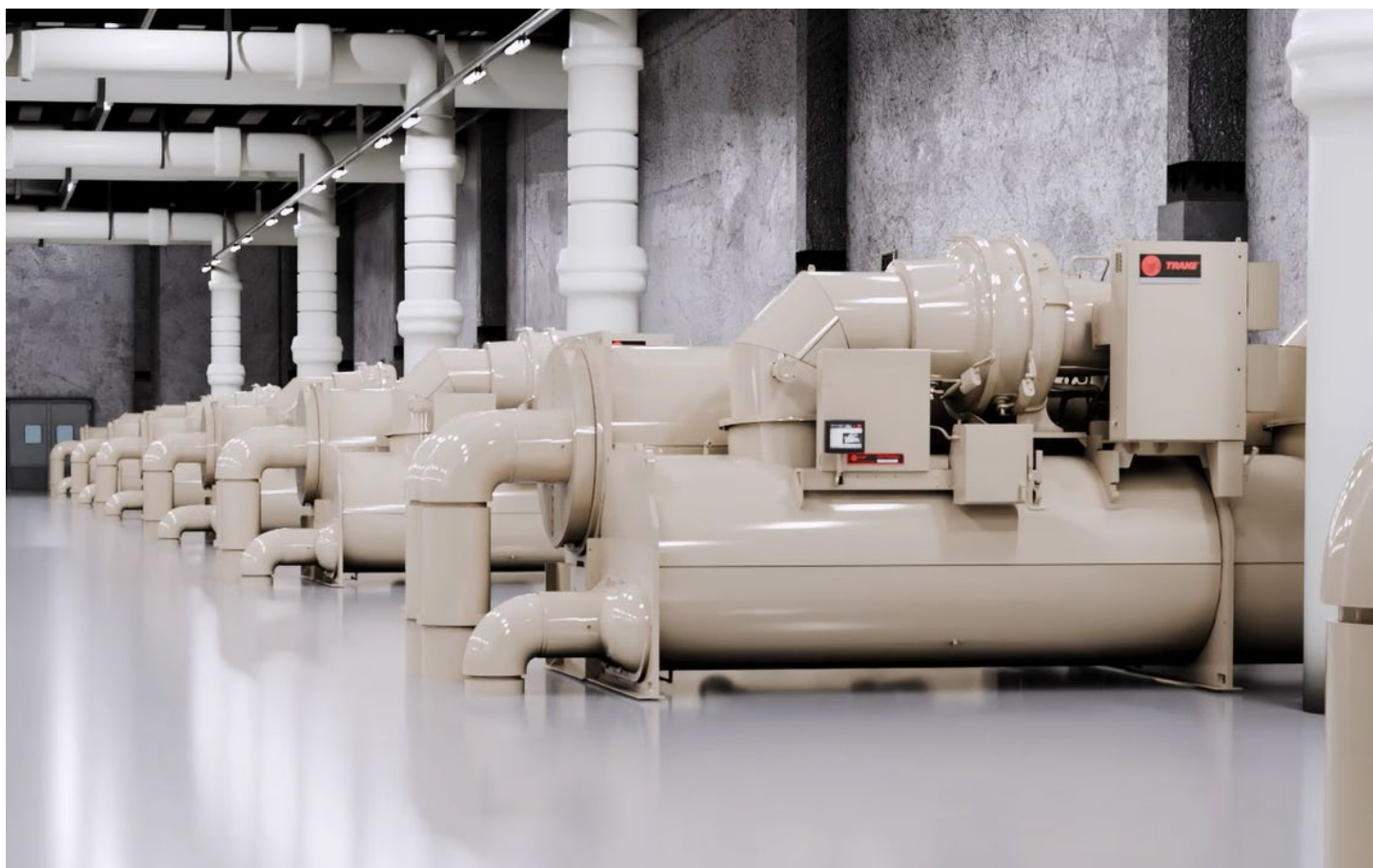




Chiller Plant Manager For Data Centers

Precision thermal management for mission-critical spaces.

Are you getting the best performance from your thermal management system?

Data center cooling is complex, with technologies constantly evolving to meet zero-downtime demands while managing energy efficiency and adapting to changing thermal loads. While advanced HVAC equipment is essential, achieving high performance depends just as much on intelligent control systems, coordinated plant operation, and specialized operator expertise. Optimizing these systems across energy use, uptime, and maintainability is critical — and getting it right is essential.

Built on the proven foundation of chiller plant control used in thousands of plants worldwide, Trane's Chiller Plant Manager expands system intelligence, scale, and resiliency to support the demanding cooling needs of modern data centers. Backed by more than 100 years of thermal equipment and controls expertise, Trane helps simplify plant complexity with an integrated management approach designed to improve reliability, enhance efficiency, and support long-term operational confidence in critical spaces.



How does it work?

Bring Clarity to Complexity

At its core, Chiller Plant Manager uses sophisticated strategies to dynamically manage the rotation, staging, and sequencing of multiple chillers. Built-in functions and customizable sequencing provide the flexibility to meet your facility's specific requirements while balancing proven logic with targeted optimization. The result is an integrated plant management approach that expands system intelligence, scale, and resiliency to support the demanding cooling needs of modern data centers.

Designed for simplicity and ease of use, Chiller Plant Manager helps protect uptime, improve performance, and drive greater efficiency over the long term. Backed by Trane's expertise, the platform supports sustainable operation well beyond initial commissioning — helping maximize equipment life, minimize energy use, and build long-term operational confidence.

- Chiller staging — Defining the ideal number, combination and order of chillers to balance run time and efficiency across multiple units.
- Pump pressure reset — Reducing pumping energy and improving valve control by properly controlling pump pressure.

- Chilled water reset — Establishing rules for when chillers can use warmer water to achieve the desired temperature settings to save energy.
- Free cooling — Running energy-consuming compressors less by using only the cooling towers when indoor and outdoor conditions are favorable.
- Heat recovery integration — Repurposing energy during periods of simultaneous heating and cooling by using heat recovery chillers to move waste heat from cooling spaces to areas that need heating.
- Enhanced cooling tower staging — Determining the right number of cooling towers to operate most efficiently under any circumstance.
- Chiller/tower optimization — Maintaining the optimal tower water setpoint to balance energy use between cooling towers and chiller compressors.
- Thermal storage integration — Leveraging installed Thermal Battery[®] ice storage systems to avoid high-cost, peak-demand energy use, and storing waste energy for use later.

What can you expect?



Energy Improvements

Data centers account for 1-1.5% of the total global electricity use¹ and HVAC can account for up to 40% of that usage within a facility². An optimized cooling system can lower energy costs and reduce carbon emissions across the data hall, while also freeing up valuable energy capacity to support growing AI factory production and other high-density computing demands.



Resilient Performance

Chiller Plant Manager is engineered with rapid system-level decision-making that helps safeguard uptime, maintain stability in critical areas, and ensure your facility operates the way it's designed. Trane controls orchestrate thermal management equipment across your entire ecosystem, balancing equipment usage, mitigating wear from inefficient operating conditions, and consistently enforcing best-practice operation.



Layered Redundancy

Chiller plant manager is engineered to eliminate single points of failure throughout the thermal management system. Through layered redundancy and failsafe architecture, Trane controls help reduce the risk of unplanned downtime and keep critical data center environments stable in the event of unit or system failure.



Improved Productivity

Trane controls are designed, installed, and maintained by skilled professionals who tailor each solution to your thermal system. With support from data-center-qualified technicians, your team can work more efficiently and stay focused on other priorities. Trane's pre-engineered approach minimizes custom programming and helps deliver a consistent, efficient installation and commissioning process.

¹ <https://www.iea.org/energy-system/buildings/data-centres-and-data-transmission-networks>

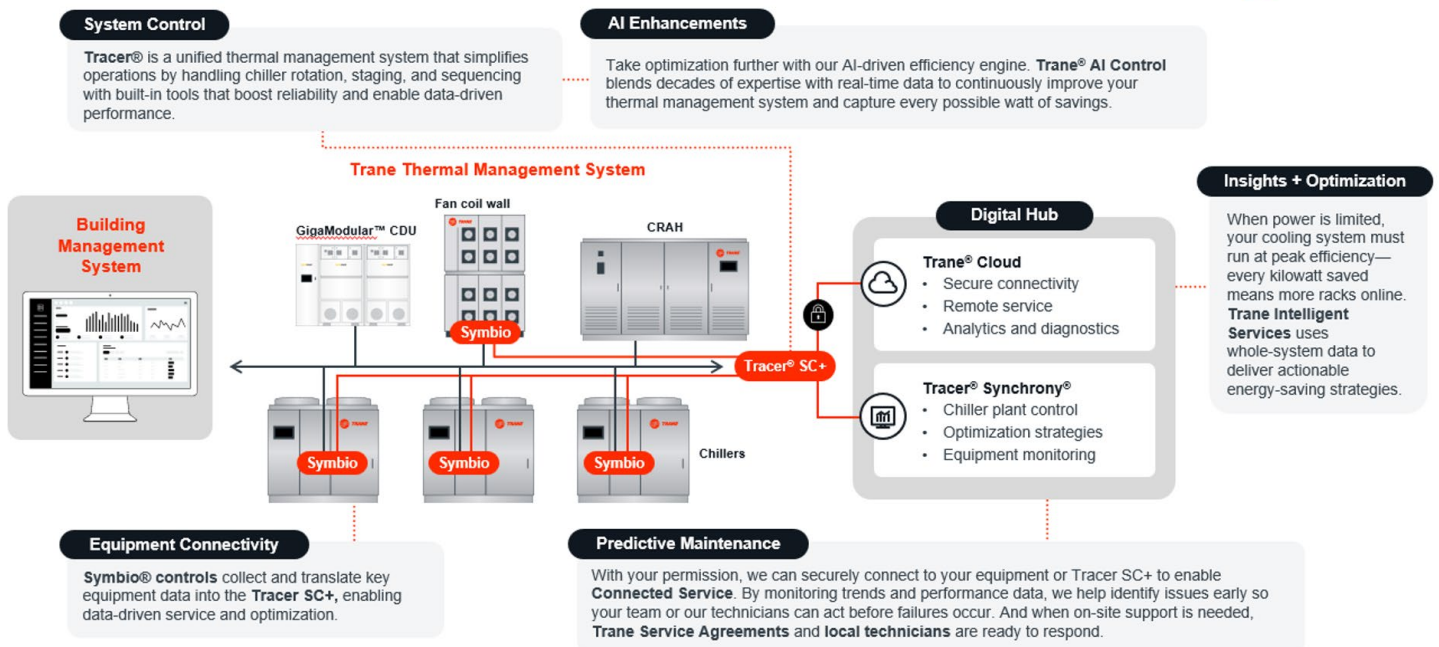
² <https://www.energy.gov/eere/iedo/energy-efficient-cooling-control-systems-data-centers>

A complete optimization solution

Optimizing your chiller plant for efficient thermal management can play a major role in your sustainability and energy management plans. Chiller Plant Manager is part of our full-service approach for achieving and maintaining efficient and effective cooling. As part of this larger system strategy, the controls approach helps ensure the mechanical systems work together as designed for optimal building performance.

SYSTEM CONTROLS

Reference Diagram



Disclaimer: This is for informational purposes only and does not constitute legal advice. Trane believes the facts and suggestions presented here to be accurate. However, final design and application decisions are your responsibility. Trane disclaims any responsibility for actions taken on the material presented.

Team Up with the Chiller Plant Pros

No one understands thermal management for data centers better than Trane. From planning and installation, through commissioning, service support and asset planning, Trane experts deliver cooling solutions with deep expertise that adapts as your data center evolves. Chiller plant manager integrates seamlessly with your existing HVAC and facility infrastructure, leveraging built-in unit capabilities without the need for additional controllers.



→ **Trane has experience in chiller plants and data centers **all over the world.****



All trademarks referenced in this document are the trademarks of their respective owners.

Trane - by Trane Technologies (NYSE: TT), a global climate innovator - creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

© 2026 Trane. All Rights Reserved | BAS-SLB151-EN | 8/12/2026