

Success Story

CHEMICAL SOLUTIONS POWERING DATA CENTER COOLING

Gradiant delivered uninterrupted thermal management and intelligent water treatment through an integrated solution for a data center in the UAE. Specialty chemicals, centralized monitoring, and responsive field service ensured zero unplanned cooling downtime and protected Tier IV zero-time data center.

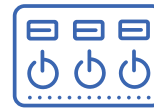
The Challenge

In this Tier IV data center (the highest classification of reliability in the industry), Gradiant delivered a fully resilient water treatment program that protected critical systems from corrosion, scaling, and microbial risk across cooling towers, chilled loops, and potable water. Automated dosing, real-time monitoring, and a fail-safe service model with predictive diagnostics and proactive field support ensured continuity. By extending protection to secondary systems, Gradiant became a critical safeguard for always-on infrastructure.

The Solution

To meet Tier IV reliability standards, Gradiant implemented a comprehensive water treatment program across evaporative cooling, closed-loop cooling and potable systems.

The customized CURE chemical suite effectively controlled corrosion, scaling, and microbial risk, while integrated auto-dosing tied to the Building Management System enabled centralized control and real-time data logging. Preventive maintenance included scheduled Planned Preventative Maintenance, third-party microbial testing, corrosion monitoring, and Legionella management. On-site critical spares, 24/7 technical support, and embedded water advisory services ensured resilience, continuity, and emergency readiness.



Data Centers



United Arab Emirates

Fast Facts

Location	United Arab Emirates
Application	Data Center Cooling Systems
Solution	Evaporative Cooling, Closed-loop Cooling, Potable Water Treatment
Industry	Data Centers
Feedwater Source	City Municipal Water
CURE Chemicals	Scale & Corrosion Inhibitors, Biocide
Service Dates	Since 2013
Delivery Model	Services

ZERO

Hours unplanned
downtime



>99.9%

Auto-Dosing
System Uptime

<2 Mils Per Year (MPY)

Corrosion rate on
Mild Steel and Copper



<2 Hours

Average response time
for call-outs



The Benefits

Gradiant's end-to-end water treatment solution delivered uninterrupted, optimized cooling performance with full-system protection, real-time control, and zero unplanned downtime.

By combining advanced chemistry, automated dosing, and predictive service, Gradiant achieved:

- Zero unplanned treatment system downtime during implementation and operation
- Comprehensive protection against corrosion, scaling, and microbial risk across cooling, domestic, and fire water systems
- Centralized visibility with real-time monitoring and control
- Reduced manual intervention and operator reliance
- Regulatory and safety compliance, including proactive Legionella management
- Rapid emergency response with dedicated on-call technical support
- Continuous optimization through performance reviews and expert consultancy



Learn more at [gradiant.com/solutions/cure-chemicals](https://www.gradiant.com/solutions/cure-chemicals)

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