gradiant

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.**

Data Centers

United Arab Emirates

## 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.

## 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

Contact Gradiant today at gradiant.com/contact



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