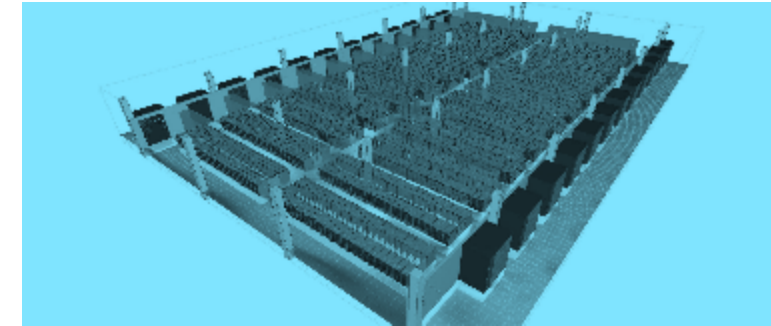


Data centre cooling with Computational Fluid Dynamics

Salute partnered with a global IT infrastructure provider to upgrade a data centre cooling system, using CFD analysis to validate performance and resilience under full load, failure scenarios, and varying environmental conditions.



Project data

-  **Deployment location:** Global data centre
-  **Deployment type:** Cooling system upgrade validated with CFD modelling
-  **Scope:** Performance simulation, resilience testing, and design optimisation

Our customer's business priority

- Ensure reliable and efficient cooling for critical IT equipment.
- Validate system performance under normal and extreme conditions.
- Reduce risk and improve operational confidence.

Problems our customer faced

- Existing cooling system required optimisation for full IT load.
- Potential vulnerabilities under failure or environmental changes.
- Need to ensure performance without costly redesign or downtime.

Solutions provided by Salute

- Conducted CFD analysis to model and simulate cooling performance.
- Tested full IT load, failure conditions, and varying wind scenarios.
- Provided detailed recommendations to optimise design and resilience.

Business Impact

➤ Increased confidence in cooling performance

ensuring reliable operation under all conditions and reducing risk of failure

➤ Improved efficiency and cost-effectiveness

optimising airflow, energy use, and reducing potential redesign costs