

Caught in Design. Not in Production

Business Objective

A hyperscale operator with two upcoming sites in India had commenced facility implementation when a design peer review revealed critical gaps in cooling capacity and power distribution — gaps that, if uncorrected, would have resulted in a thermally unstable, under-cooled production environment.



BUSINESS NEED

Validate Cooling Capacity Against Full IT Load

- Identify and correct the failure to account for total cooling load not just IT capacity in the original design.

Eliminate Negative Airflow Across Data Hall Areas

- Detect and resolve airflow distribution failures identified during cooling design validation.

Optimise Electrical Distribution Architecture

- Reduce cable complexity and improve scalability by recommending the right power distribution approach.

SOLUTION & IMPACT

Cooling Capacity Corrected Before Construction

- Recalculation across 2 sites prevented commissioning of a thermally inadequate facility, avoiding costly rework.

Negative Airflow Eliminated Across Critical DC Areas

- Design corrections submitted before a single rack was powered on at either site.

Scalable Electrical Infrastructure Delivered

- Continuous bus bar replaced cable-heavy distribution, future hyperscale expansion enabled from day one.

Conclusion

Technavious caught a potentially catastrophic set of design flaws before a single rack was powered on. Through rigorous cooling design validation and electrical architecture review across two hyperscale sites, critical capacity shortfalls and airflow failures were corrected in design — saving the operator from costly rework and ensuring both facilities launched thermally stable, scalable, and ready for production.