



Environmental
ESD
Air
Power
Noise
Structure

Project: Sydney CBD Data Centre



Description:

This data centre is an 18 storey voice and data communications hub supporting internet and pay per view TV. The building services infrastructure is required to achieve a very high level of availability. Construction of this project was completed in June 2003 and comprised the full fit out of a 1000 sq m shell including augmentation of the building existing chilled water and power supply infrastructure to support up to 600W sq m equipment loads

Scope:

KAE undertook the mechanical, electrical, fire & hydraulic, architectural services design and construction administration for this new 1000sq m data centre.

This project highlights KAE's expertise in successfully delivering a fully coordinated, multi-disciplinary design solution to a technically demanding client brief.

The air conditioning and power supply systems in particular are required to achieve an extremely high level of availability with an expected time between failure of 400 years and incorporating multiple levels of redundancy.

Summary of Deliverables:

- Strategic raised floor data centre
- Close control air conditioning
- Essential power supplies and controls
- New central plant chillers
- Energy savings

KAE Value Add:

- The design methodology enabled a complete refit of existing AHU plant rooms whilst maintaining full cooling capability throughout the construction period.
- Recommissioning of the central chilled water pipe work and controls system allowing the building to be brought back under auto control and whilst achieving significant on going energy savings.
- Resolution of chronic hydraulic balance issues on the chilled water system enhancing system responsiveness and reliability.
- Integration of an additional 1.0MW chiller into an existing air handling units with a new mezzanine.
- On time delivery of project.