



eCool Solutions FAQ

Q What is Cold Aisle Containment?

The optimisation of cold air usage as recommended by the Uptime Institute.

Q How does it work?

Cold Aisle Containment creates a cold air plenum chamber within the cold aisle. This is achieved by:

- Stopping by-pass air moving through unused U space
- Stopping by-pass air through moving vertical gaps between frames and side panels
- Stopping By-pass air leaking through tile cut outs
- Preventing cold/hot air re-circulation
- Re-directing cold airflow through the servers
- Evening out cold air distribution through equipment
- Balancing airflow through vented floor tiles

Q What does it achieve?

- The most efficient use of cold air for 'free' cooling
- Increased efficiency of CRAC/chillers
- Reduced power usage by both cooling system and hardware
- Reduced carbon footprint
- Increased uptime (even in the event of a CCU (CRAC) failure)
- Increased resilience
- Potential increase in redundancy
- Hotspot elimination
- Hot/cold aisle compliance to TIA 942 and ASHRAE

Q What are the cost savings?

- Reduction in energy bills for cooling system
- Reduced capital cost on new builds due to reduced requirement for coolers
- Reduced hardware replacement and labour

The system also provides the opportunity for increased rack U space usage.



Q Is it difficult to fit?

- eCool Solutions Cold Aisle Containment system can be customised to fit varying rack size
- Installation is possible in a live environment with no interruptions to uptime

Q What else needs considering?

- The balancing of CCU/CRAC units
- Floor tile vent balancing
- The effects on fire suppression systems
- Maintenance of work area evacuation routes
- Maintenance of lighting LUX levels to TIA 942 and building regulations
- Compliance to TIA 942 and HSE Signage Directive 90/664
- Effect on BMS
- Work area noise levels
- Access to overhead space
- Capability to expand

For more information and to read case studies of the system in use, visit www.ecoolsolutions.com