



Cooling a hot issue?

MINKELSTM
COLD CORRIDOR
SOLUTION



The heat load in data centers is increasing rapidly, the adaptation of a cooling strategy is often necessary. Many data centers and server rooms use the Hot Aisle / Cold Aisle system whereby the air is supplied via perforated floor tiles in front of the cabinet. This air is guided into the cabinets through vented doors. In this traditional set-up air recirculation occurs which leads to a substantial decline of the efficiency of the system. Minkels can improve the system significantly with the Cold Corridor solution.

MINKELS COLD CORRIDOR SOLUTION

The system is based on the principle of complete separation of hot and cold airflows which leads to significant efficiency improvements. This is achieved by enclosing the roof section between opposing cabinets on the cold aisle with glass panels. Both ends of the cold aisle are sealed off using sliding doors to contain the air. In addition all cabinets are fitted with side skirts and blanking panels between the equipment, in this way the only route for the air is through the equipment.

The cabinets are now considered to be an extension of the floor void and the room is now the hot aisle. The advantages are clear. The temperature between the bottom and top of the rack is now quite constant. This enables the deployment of servers at any position in the rack.

With an even spread of temperature within the Cold Corridor we can increase the under floor air temperature and make significant savings on OPEX. If the supply temperature is approximately 20 degrees Celcius the possibility of "FREE COOLING" can also be considered.

In addition 75% of server failures occur in the top third of racks as the temperature is always a lot higher than the bottom of the rack. Now that the cooling in the rack is under control the equipment is more reliable.

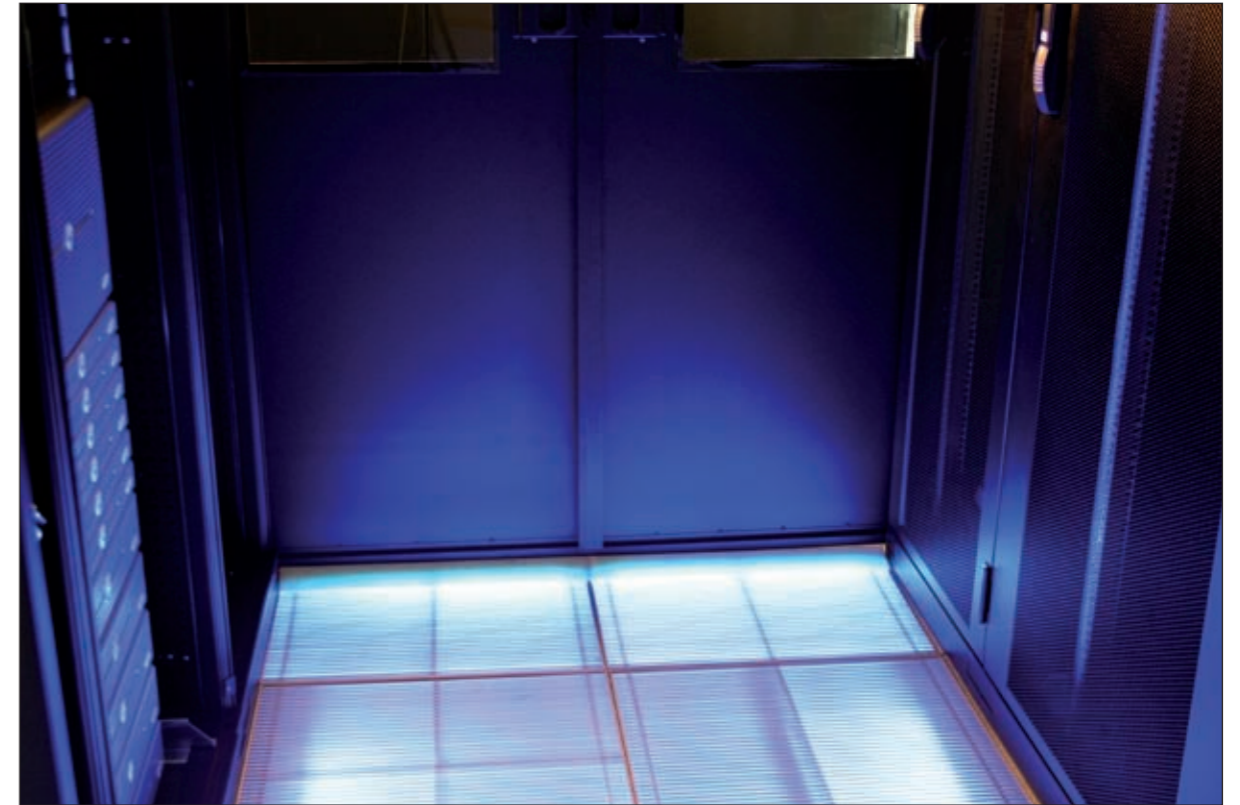
Minkels Cold Corridor solution

Why Choose the Minkels Cold Corridor solution:

- Energy saving and efficiency improvements.
- Can be integrated in existing situations easily.
- Fully scalable, from small to large deployments.
- Rack space can be fully utilised.
- Reduce downtime of equipment.

COMPLETE DATACENTER SOLUTIONS

Minkels offers complete data center solutions. Specific integration solutions are developed for security, cooling, power, monitoring, fire protection, cabling and all aspects in layout and design.



RAISED FLOOR

The Minkels Cold Corridor is built on a raised floor to guarantee an optimum distribution of cold air. The floor height depends on the desired capacity per rack. The perforated floor tiles (90% vented) are made from steel and have a high carrying capacity. This new development allows the air to flow into the corridor with the least possible resistance.

TOP PANELS

The top panels are transparent to allow in natural light. For maintenance the top panels can be removed and placed back very easily. The top panels as standard are manufactured using safety glass.

SLIDING DOORS

The ends of the Cold Corridor are closed with a space saving sliding-door system, also using safety glass.

Options:

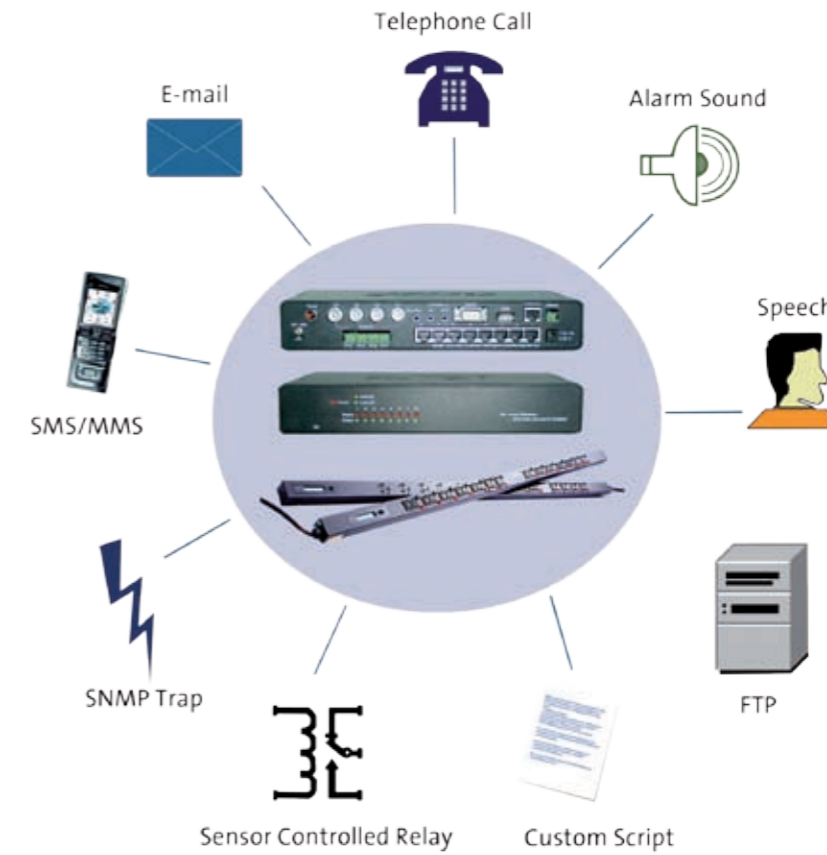
- Automatic operating doors.
- Choice of locking systems.



Additional solutions



Additional solutions



MINKELS ICT

Minkels ICT is an international company specialising in high quality cabinets and data centre solutions.

Minkels ICT customers benefit from:

- Sales and technical advice direct to the end user
- Dedication to customer intimacy ensuring the highest quality of customer support
- A proven reputation for setting a new standard in cabinet adaptability
- Versatile products and cost effective tailored solutions

CABINETS

- Highly adaptable
- Low weight/high load
- Full accessory range
- Expanding capabilities

Total commitment to technical development ensures a full range of specific solutions to manage your heat dissipation requirements.

| Heat density | Minkels engineered solution |
|---------------|-----------------------------|
| Low | Standard cabinet range |
| Medium - high | Enclosed cold corridor |
| High | Air/liquid cooled |



Electronic Locking Solution



KVM



Monitoring & Control

SECURITY AND SAFETY

- Alarms, cameras & access control
- Remote monitoring
- Detection sensors
- Fire detection & gas suppression

SPECIALIST SERVICES

- Data room and underfloor cleaning
- Siting and baying
- Server Relocation
- Data Centre Management Software

CABINET PLUS

- Intelligent Power Strips
- Basic Power Strips
- Environmental Monitoring
- Vented floor tiles
- TFT Screens
- KVM
- UPS

Minkels UK Ltd
Unit 6
Union Way
Hillbottom Road
Sands Industrial Estate
High Wycombe
Bucks
HP12 4HJ

Tel. +44 (0)1494 451706

Fax +44 (0)1494 451736

info-uk@minkels.com

www.minkels.com