

BERGVIK FLOORING™



THE BERGVIK ISO FLOOR SYSTEM™

- Multi-size Panels provide optimized Rack layout by up to 25% to add revenue stream and improve ROI.
- Bergvik and Triad's passive River Cooling systems provide 8% to 40% reductions in Data Center energy bills.
- 20% reduction to construction critical path activities due to structure stability even when all Panels are removed.
- Up to 70% fewer pedestals in comparison to other raised floors.



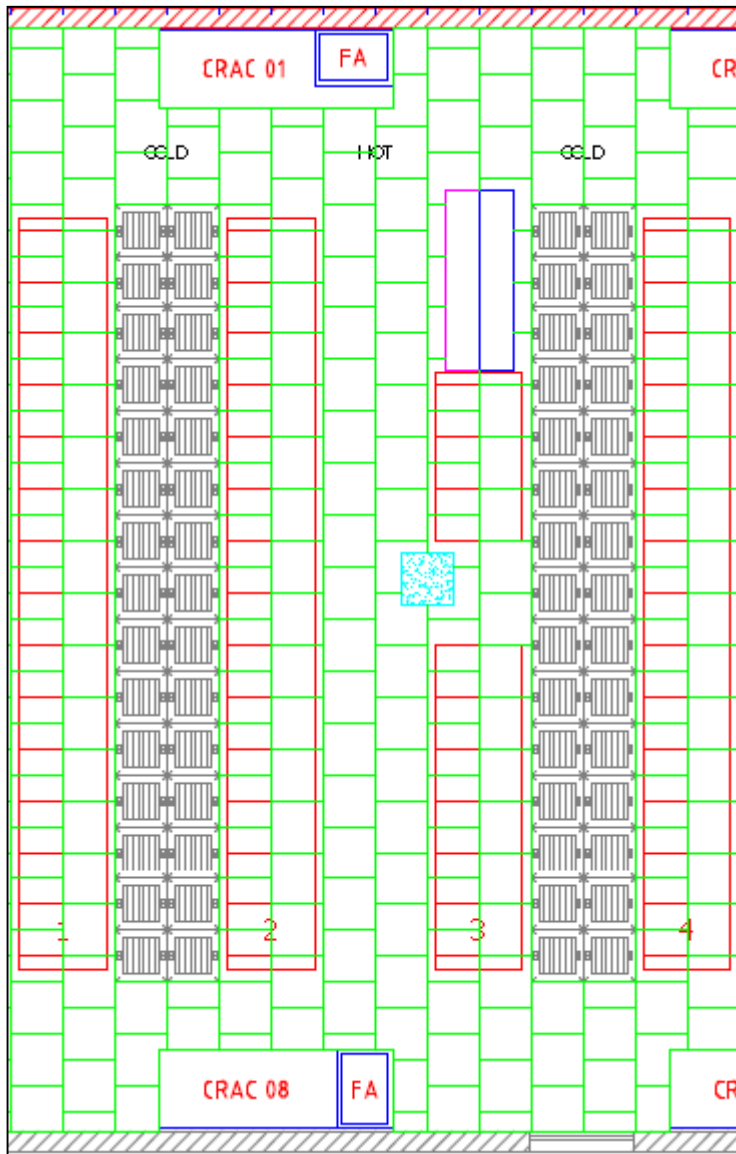
Standard Raised Flooring in Data Centers - Is there too much traditional thinking?

- Presently, +70% of cold air supply is waste, according to a white paper by Ken Brill & Bob Sullivan at Uptime Institute.
- Existing 600x600 mm floor module designs provide very limited Server Rack density.
- End-user ROI (return on investment) is long where low installed price is valued above total cost of ownership.



Picture shows a traditional raised floor

STANDARD LAYOUT DATA CENTER



Data Center 550 m²

Rack depth up to 1200 mm

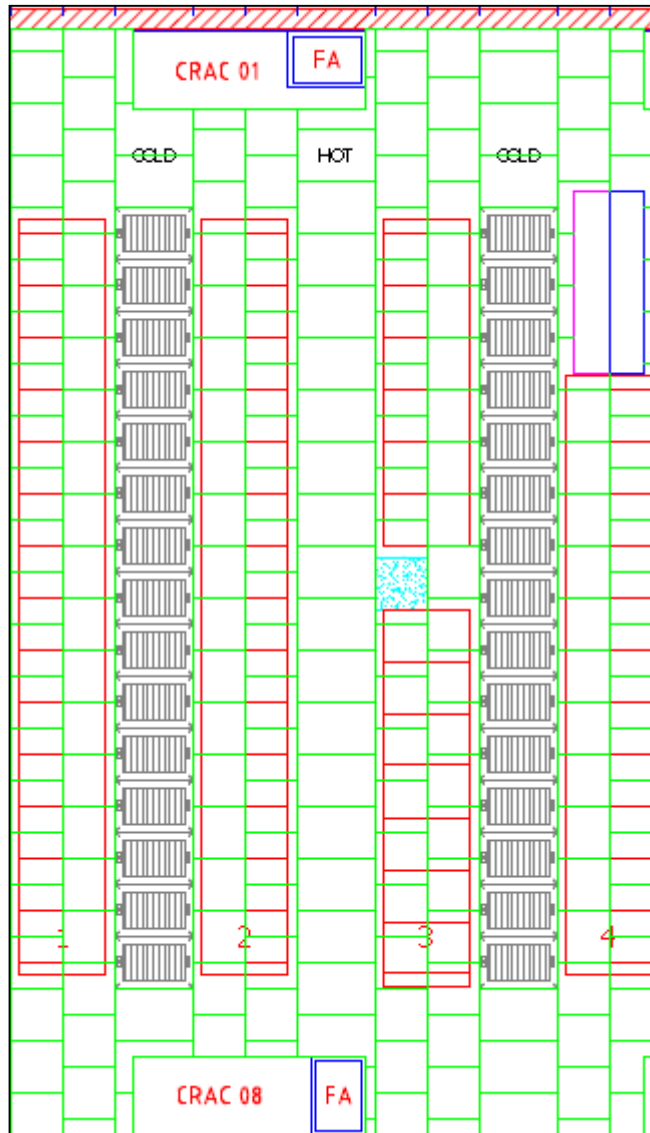
Cold aisle: min 1200 mm

Hot aisle: min 1200 mm

Space for 252 Server racks with standard 600x600 mm floor panels including Airflow Panels.

Data Center Construction cost = €21,500 per Rack.

OPTIMIZED LAYOUT DATA CENTER

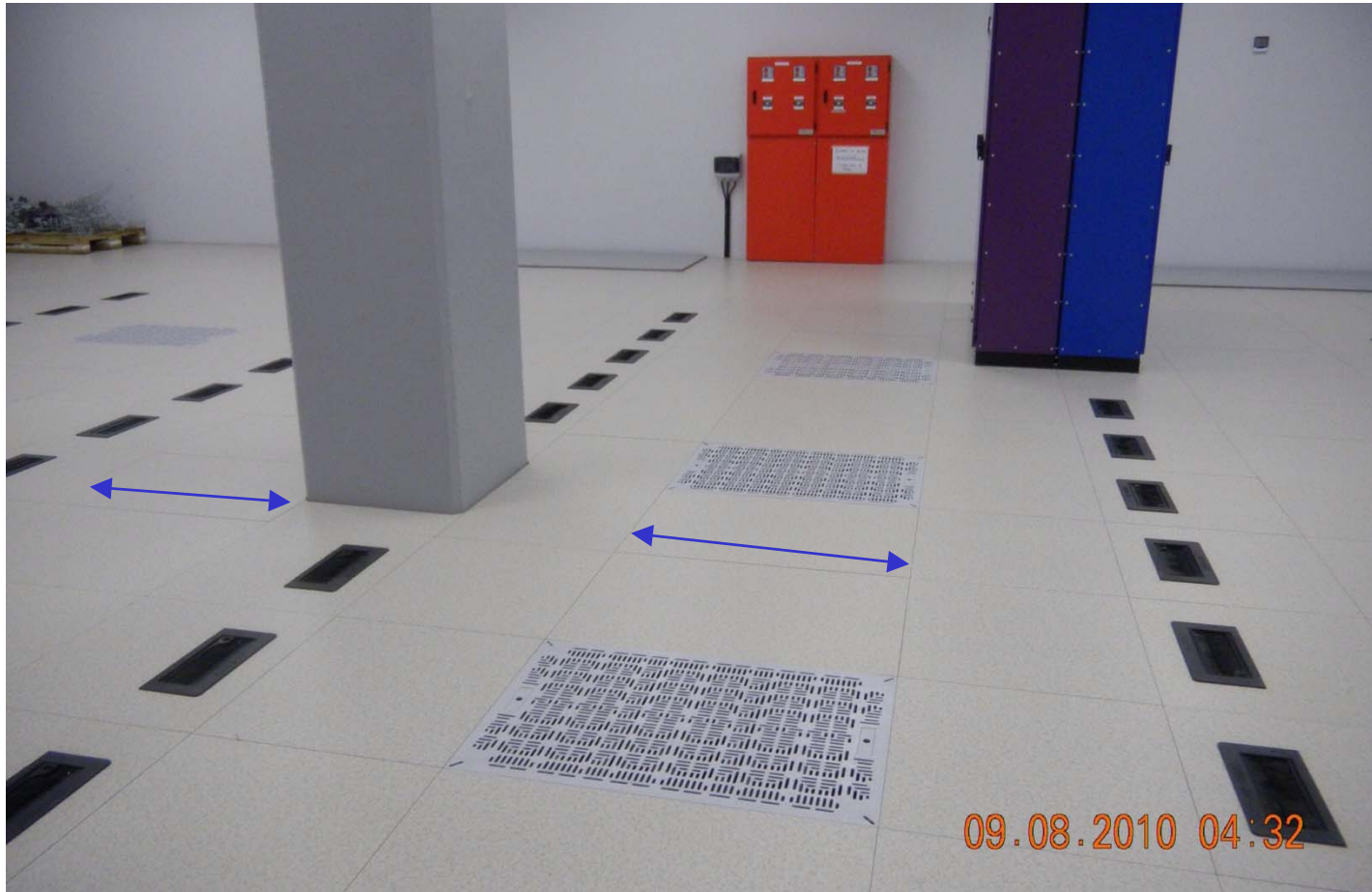


Data Center 6000 550 m²
Rack depth up to 1200 mm
Cold aisle: 900 mm
Hot aisle 900 mm

Space for 280 Server racks with 600x600 mm floor panels under Racks and 600x900 mm Solid Panels and Airflow Panels in cold and hot aisles.

Data Center Construction cost = €15,700 per Rack.

OPTIMIZED LAYOUT DATA CENTER

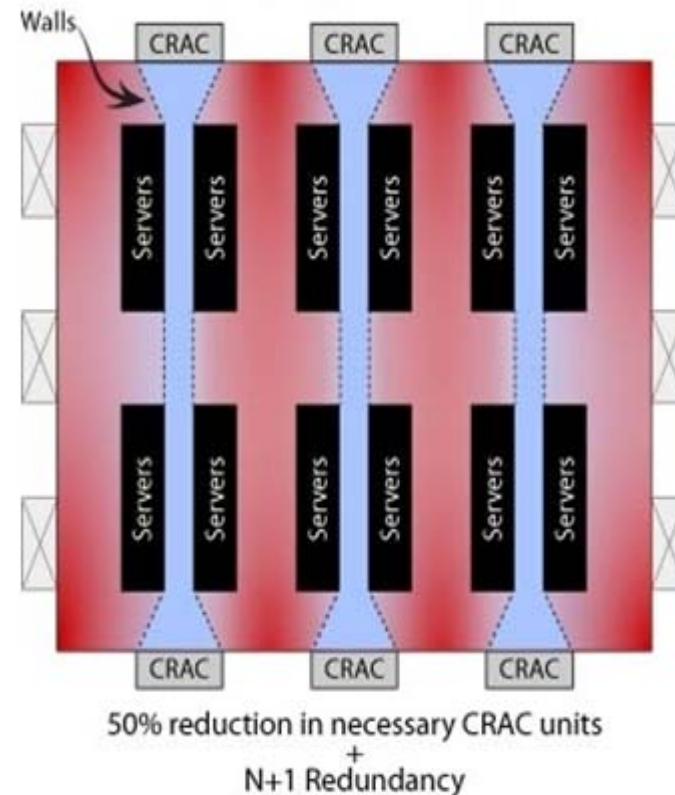


Ref: Neotel, Johannesburg, RSA. **Blue arrows** = 900 mm Panel rows

BERGVIK TRIAD RIVER COOLING

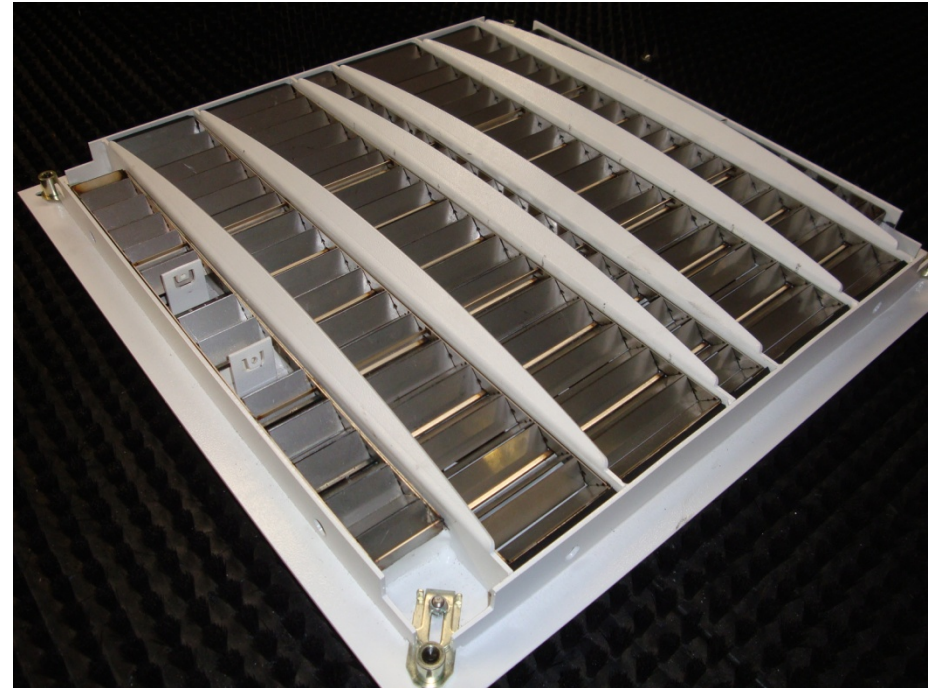
Bergvik and Triad promotes passive “River Cooling System©” by replacing ineffective airflow systems in a very cost effective way. Airflow Utilization Efficiency© (AUE) is measured by comparing the supply air temperature (65) to the temperatures at the top of the rack (80) = AUE of 15. By managing to an AUE of 10 or lower, data center managers can reduce cooling costs by up to 40%.

We also targets AUE by improving the cooling flow at all three levels of the rack. “Data center managers can save 4 percent in energy costs for every degree of upward change in the set point, according to Mark Monroe, the Director of Sustainable Computing at Sun Microsystems (JAVA).” Therefore, by lowering the lower, mid and upper server temperature by 5 – 15 degrees, the passive River Cooling systems provide 8% to 40% reductions in Data Center energy bills.



SUPERIOR AIRFLOW

- Patented Panel design with high-plume fins providing superior stratification of cold air to the upper Servers, greatly reducing Hot-Spots.
- Allows for higher set-point temperature at CRAC unit which can lower the energy cost by up to 40%.
- Vital part of the Bergvik River Cooling concept



BERGVIK®
floors on a higher level

BERGVIK, A GREEN PARTNER

- Zero waste-to-landfill policy
- Manufacturing plant powered by 100% renewable green electricity (hydro, wind and biofuel).
- Fully recyclable materials
- Up to 30 year life span.
- Forest Stewardship Council (FSC) requirements towards all suppliers.



BERGVIK FLOORING

- Company founded 1970.
- Green manufacturing.
- Focus on cost effective, energy savings solutions.
- Subsidiaries in USA and South Africa.
- Production capacity of 2500 m² per 8-hour shift.

