

Overview:

Creative Facility Design can recommend alternate designs and advice to owner/operators of Data Centers regarding environmentally sensitive buildings as well as energy consumption recommendations. Creative Facility Design has identified three keys to its success. The first is the need to only offer solutions which are based on customers demand. The second is to ensure that all of its offerings are based on economic justifications. Third, the solution should make sense beyond the environmental considerations because it has long-term economic value.

Creative Facility Design is an environmental energy consultancy that offers a wide range of services: They can evaluate the performance of load versus cooling for any given equipment distribution in an existing or new facility by creating the Virtual Facility (VF) representation of the data center. This is done using a unique application called 6SigmaDC software tools.

These consultations can continue to form the basis of further optimization for the facility design.

- For a typical pressurized floor facility, these can include:- Floor void depth analysis against pressure distribution
- Size and distribution of air handler units
- Floor tile layout and the subsequent airflow through them
- Equipment load distribution
- Failure analysis

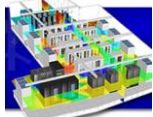
The company emphasizes service and support to differentiate itself from more price-oriented service companies.

Objectives:

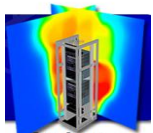
Creative Facility Design has identified key objectives that it will pursue for the long-term success of the business:

- Proven cost-benefit analysis environmental approaches to structure building, maintenance and energy consumption.
- Proactive real time tracking to the growing data center needs not just a snap shot in time.
- Maintaining historical data and asset management
- Providing solutions rather than pointing out problems
- Bridging the gap between IS and Facility Management

Focus Areas



Data Center Floor



Data Center Racks/Cabinets



Data Center Facility Manager



Data Center IT Manager

Creation of a Thermal Model

The integrated thermal prediction tool or solver can be used:

- At rack / cabinet level to aid in configuring cabinets with the rack mounted equipment
- At room level to configure the facility / room, its overall constructions and mechanical infrastructure
- As a conceptual / layout and test tool for the room / facilities IT equipment
- For ongoing change management of equipment and configuration so that changes can be tested before implementation

Creation of a thermal model of a facility implicitly results in a full inventory of the room including cabinets, IT equipment, power systems, cooling systems and ventilation grilles, in fact almost everything in the Data Center

Engagement Deliverables:

Creative Facility Design will create the following deliverables as part of this project: Perform Site Survey & Equipment Mapping

- Create Cabinet CFD Models
- Create a Room CFD Model
- Perform a Site Survey to Validate the Model
- Make Necessary Adjustments to the Model
- Provide the Client with a CFD Management Module
- Maintain a complete asset inventory log
- Maintain redundant and capacity cooling constraints of the facility
- Provides Periodic and/or Event Specific CFD Model Updates as the Operational Condition Changes
- Maintain a detailed change order log