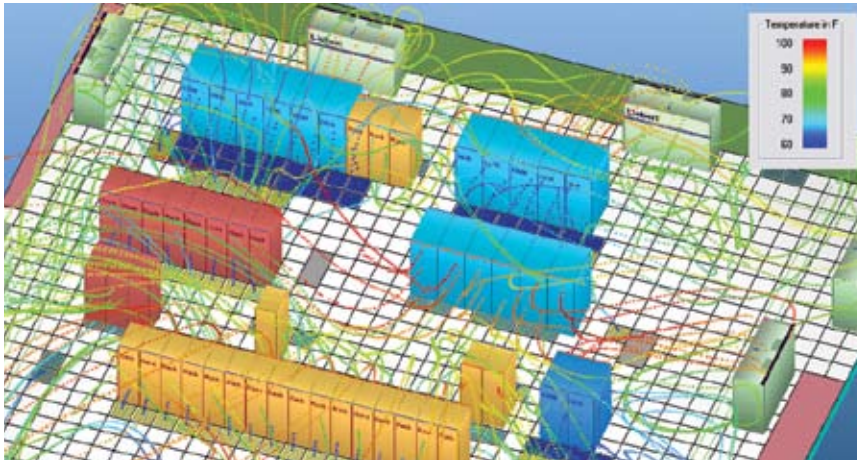


## Data Center Thermal Analysis & Optimization

Optimize data center thermal profile to eliminate hot spots and reduce energy consumption.



### Offering Highlights

- **Analyzes existing or future data center thermal capacity, installed IT equipment load, and data center features using state-of-the-art tools including Computational Fluid Dynamics (CFD) modeling software.**
- **Optimizes existing or future IT equipment layout.**
- **Evaluation completed by expert IBM thermal engineers.**
- **Attractively priced.**

### Increasing Stress on Infrastructure

In the previous 5 years the performance of servers and storage has increased exponentially. Along with this performance growth has come a significant increase in the power dissipated by the server and storage hardware. This has caused a significant strain on the data center infrastructure that was built for hardware power levels much less than what is being delivered today. Placement of IT equipment, air handlers, and other related equipment is critical to efficient use of available space. Lead time for facility upgrades and capital planning requirements mandate comprehensive planning.

### Realizing the Vision

A key step to effective deployment of IT equipment is an evaluation of the current and future thermal profile of the data center. IBM thermal analysis services enable clients to provide the best ventilation and cooling for their IT hardware by making the necessary infrastructure modifications or layout changes.

### Offering Description and Value

This offering can be divided into two phases depending on client needs. Phase 1 will focus on today's existing data center with analysis and recommendations intended for the existing situation. Phase 2 will focus on the future data center with its expected IT equipment. The analysis between the two phases is similar, while the inputs and results for each phase could be rather different.

### The Project

This rapid engagement to evaluate current and future data centers is typically scheduled to complete in an elapsed time frame of 4 weeks. This may include up to 5 days of on-site collaboration between IBM and the client.

## Typical Project Tasks

1. *Project scope/resources/schedule agreed upon*
2. *On-site evaluation and consultation*
3. *Analyze and optimize with CFD models*
4. *Final meeting with evaluation report and recommendations for data center layout*

## Who We Are

STG Lab Services is one of the fee service organizations of IBM's world renowned Systems and Technology Group development labs. Through STG Lab Services you can bring the expertise of the development community on the latest technologies to your enterprise. STG Lab Services can help you with your most difficult technical challenges. STG Lab Services exists to provide you with successful implementations of emerging technologies to help accelerate your investment ROI and help increase your satisfaction with IBM hardware.

## For More Information

To find out more about Data Center Thermal Analysis & Optimization and other related products and services, contact IBM STG Lab Services at [datactr@us.ibm.com](mailto:datactr@us.ibm.com).



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Route 100  
Somers, NY 10589  
U.S.A.

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