Data Center Thermal Analysis and Optimization

*Visualize the impact of new or proposed changes to cooling capacities and loads*

**Thinking isn’t knowing**

Take a look at the thermal profile of your data center—including IT power and cooling systems—to identify, diagnose and remedy trouble spots or energy inefficiencies. An IBM® Data Center Thermal Analysis and Optimization assessment can help clients more efficiently deploy IT equipment by evaluating current and potential data center thermal capacity and installed equipment.

**Offering value**

Depending on client needs, the assessment can be divided into two phases. Phase one provides analysis and recommendations focused on the existing data center. The second phase is geared to IT equipment for the future data center. Analysis within the two phases is similar, but input and results will differ.

Key benefits and features include:

- Uncover the most efficient ventilation and cooling for IT hardware
- Learn methods to address data center hot spots and cut costs
- Avoid or delay time and capital outlay for data center renovation, expansion or relocation
- IT efficiency projects which result in reduced power consumption may be eligible for participating government agency and utility company incentives
- Mitigate system reliability, risk and availability concerns posed by thermal problems and failure scenarios

**Highlights**

- Analyzes existing or future data center thermal capacity, installed IT equipment load and data center features
- Utilizes state-of-the-art tools, including Computational Fluid Dynamics (CFD) modeling software
- Optimizes current or subsequent IT equipment layout
Do you need a thermal profile?
When you know the amount of energy you use—and where—you can discover ways to reduce overall energy consumption now as well as plan for future needs. Ask yourself:

- Do you understand the potential impact of new IT systems or facility changes in your current data center?
- Are you planning for high density computing or storage systems?
- Is data center power, cooling or space approaching or already at a point which constrains future growth?
- What are the thermal and cooling aspects of a new, anticipated or existing data center?

For more information
Pricing depends on the size and complexity of the data center. Learn more about Data Center Thermal Analysis and Optimization and other related products and services. Contact stgls@us.ibm.com or visit:

ibm.com/systems/services/labservices