SGI® Data Center Assessment Service

Gaining the Knowledge Required to Tame Today's High-density Server and Storage Environments

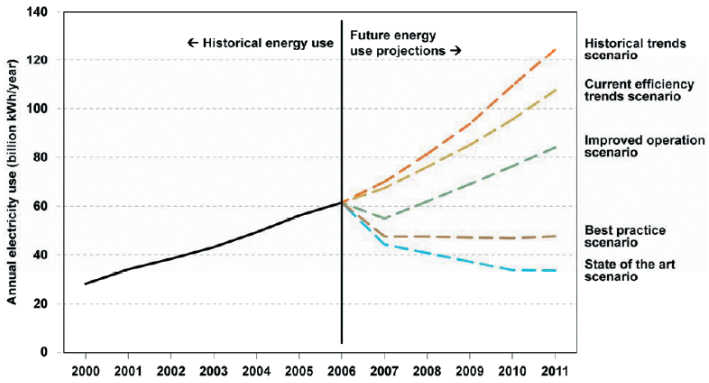
- Improve Processes
- Optimize Infrastructure
- Lower Costs
- Increase Efficiency

Today's Power Struggle

Advances in server technology are giving organizations more compute value for the money. However, the wave of advanced high-density systems has data center managers scrambling to control skyrocketing power consumption and cooling requirements. Consolidation and virtualization initiatives compound the challenge, increasing resource utilization and further driving up power consumption. The sharp increase in energy costs adds more pressure as organizations tighten spending controls.

SGI has a solution with our Data Center Assessment Service. This solution builds upon our two decades of experience pioneering server and storage technologies and understanding our customer's needs in a data center environment. The Data Center Assessment Service helps organizations analyze their data center environments and introduce optimizations to increase server and storage utilization, consolidate space, lower energy use, and save money.

According to a report from the U.S. EPA ENERGY STAR Program[1], the energy use of a typical server can be reduced 25% or more by using the latest power management capabilities. Add to this Best Practices and an additional 20% can be saved. See Figure 1.



Assessment, Analysis, and Transformation

SGI's approach for the optimization of data center resources gives organizations one vendor that can address comprehensive company-wide data center issues and requirements. It begins with a thorough assessment process. After an in-depth analysis of the facility and environment factors, the customer receives a plan for driving efficiencies into every dimension of the data center.

Starts with the Facilities and Environmental Factors Analysis:

- Gather information on and document all existing power and cooling equipment
- Measure current power usage
- Analyze cooling using sophisticated Computational Fluid Dynamic (CFD) modelling tools
- Analyze floor and space utilization
- Analyze the impact of the facilities and environment on IT systems

[1] Data from U.S. EPA ENERGY STAR Program "Report to Congress on Server and Data Center Energy Efficiency Public Law 109-431" Aug 2007

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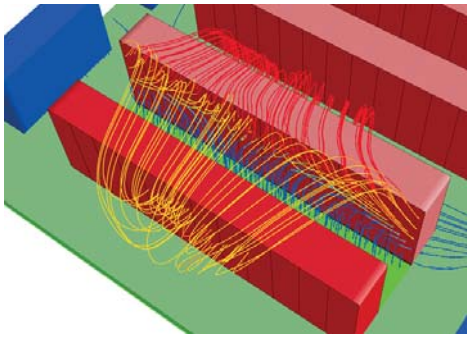
Next Step is an IT Technology Assessment:
- Perform system, storage, and application inventory
- Measure server and storage utilization
- Measure application license utilization
- Review application, server, and storage architectures

As a Result, You Receive the Following:
- Infrastructure optimization recommendations
- Considerations based on projected growth
- Cost containment
- Optimizing efficiency in terms of power, cooling, and IT resources

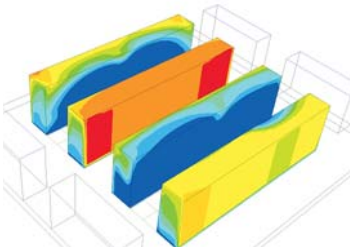
An Improved Data Center
SGI Data Center Assessment Services put knowledge into the hands of the data center management teams. With an in-depth understanding of the resource utilization, SGI can help both facility and IT teams to:

Improve Processes
- Adopt a “holistic approach” for data center resources. IT can begin to look at every single piece of equipment in the data center as a part of the whole environment and not in isolation. Facilities can also effectively account for the effects of the environmental factors on the IT decision making.
- Deliver solution-oriented recommendations. Identify problems and provide alternatives for progress.

Optimize Infrastructure
- “Right size” the data center infrastructure. Provide sufficient resources without over allocating and/or under-utilizing resources.
- Go “green”. Introduce improvements that are good for business and good for the environment.



CoolSim software from ANSYS, Inc.



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Lower Costs
- Contain and drive down excessive power and cooling costs
- Optimize software license utilization
- Identify opportunities for energy-efficient replacements

Increase Efficiency
- Improve utilization, performance, and reliability of computer resources
- Simplify the maintenance and support of all equipment. SGI can be your one-stop partner for data center issues and problems

Service Options
All of the SGI Data Center Assessment Services can be purchased collectively as a single engagement. For business and organizations that have already carried out some of the assessment or analysis steps or want to use a phased approach, individual services can be combined into a custom solution.

Standards Compliance
SGI is a member of The Green Grid℠, a consortium of information technology companies and professionals seeking to lower the overall consumption of power in the world’s data centers. The organization is chartered to develop meaningful, platform-neutral standards, measurement methods, processes, and new technologies to improve energy efficient performance in data centers.

SGI is also represented on the ASHRAE Technical Committee 9.9, “Mission Critical Facilities, Technology Spaces, and Electronic Equipment.” This group aims to contribute to the data communications industry as an unbiased engineering leader in HVAC and an effective provider of technical information.

Contact Information
For more information please contact your local SGI sales representative, or visit www.sgi.com to locate and contact a sales office in your area.

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