

Prepare for the Power and Cooling Demands of High Density Systems

HIGHLIGHTS

Prevent or eliminate costly power and cooling problems associated with introducing or operating high density systems

Data center readiness for the seamless integration of new technologies and eliminate surprises or obstacles that can occur

Reconcile the need for more power and cooling with goals and objectives for “green” operations

Expert consulting from a company with extensive knowledge of HPC environments

SGI® Dense Systems Assessment

Today’s high density servers are pushing many data centers to their limits when it comes to power and cooling. New dense servers sometimes use as much energy as is needed to cool ten typical homes in the summer. Providing sufficient cooling becomes even more challenging as increasing performance demands, decreasing form factors, and tighter packing cause ever higher power densities. This trend is expected to continue.

SGI’s Dense Systems Assessment can help you maintain control of the situation by specifically addressing the issues that can arise from the installation of new high density servers as well as preparing your data center for your future server demands.

Assessing Your Situation – and Offering Expert Solutions

Maybe you are considering high density equipment, but you are not sure whether your facility has the capability to power and cool it. Or you already know that your facility won’t be able to cope with this equipment. Maybe you’ve made the move to high density blade servers – and now you’re experiencing power and cooling issues as a result. Whatever your situation, SGI’s Dense Systems Assessment can help, by assessing your data center’s readiness for high density systems and making practical recommendations to accommodate their power and cooling needs.

Helping You Conserve Resources – and Save Money

SGI’s recommendations for cooling high density systems in your data center will always incorporate the latest innovative, energy-efficient technologies. Water-cooled rack doors and active floor tiles are examples of how the Dense Systems Assessment can help you reduce operating cost.

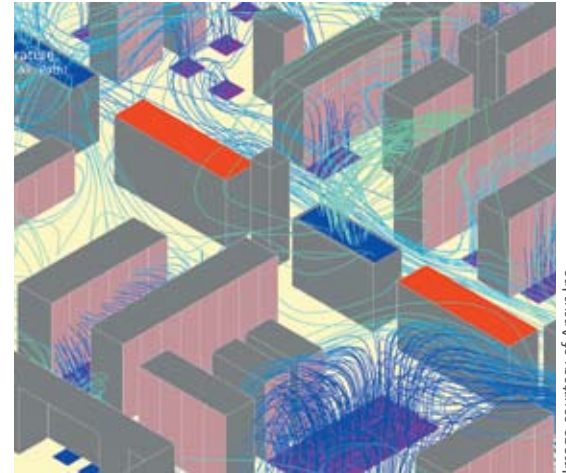


Image courtesy of Ansys Inc.

Complete Service to Prepare for High Density Systems
SGI’s Dense Systems Assessment follows a phased approach based on interviews with your Facilities and IT personnel, followed by a visit to your facility to gather information on space utilization, power distribution systems, electrical loads and cooling system configuration. An analysis period results in the delivery of a formal report with recommendations on how to modify the data center environment to either prepare for the high density system installation or modifications to your existing data center.

A Proven Delivery Methodology

SGI’s Dense Systems Assessment relies on a proven methodology that applies data center industry best practices at every level of the process.

An Unmatched Set of Resources

SGI offers:

- A comprehensive service for assessing data center readiness to meet power and cooling demands of high density systems
- Deep technical knowledge in HPC environments coupled with extensive experience integrating high density systems into the data center
- An industry-leading resource for high density servers and storage



SGI® Dense Systems Assessment

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Successes

Remediating Inadequate Cooling

After installing new high density systems in an existing data center, a high-tech company experienced significant cooling challenges. Using on-site observations and advanced analysis tools, the SGI experts identified the hot spots resulting from the installation. Recommendations such as server placement to improve air flow and addition of water cooling technology eliminated the hotspots without costly data center modifications.

Assessing and Preparing the Data Center

Water cooling is one way to efficiently cool high density systems, but what happens in environments that can't accommodate water-based solutions? Taking an innovative approach to the problem, SGI analyzed the environment and identified a number of options. The customer selected an air-cooling solution based on a cold corridor configuration and active floor tiles which when installed produced the cooling needed to efficiently run the servers.



To Learn More

For more information about SGI Dense Systems Assessment and other services in SGI's portfolio of Professional Services, contact your SGI representative or visit www.sgi.com/products/services/professional.

SGI Professional Services delivers a unique convergence of technology, innovation, and expertise for exceptional business results

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