Power/Cooling Trends and Data Center Best Practices

Identify opportunities for IT system and infrastructure improvements

Offering Highlights

- ***A single day on-site interactive workshop reviewing power, cooling and energy efficiency associated with IT systems and data center infrastructure.***
- ***Data center walk through, and presentation of trends and best practices information.***
- ***Provides an overview of approaches for improved energy efficiency, and power and cooling robustness.***
- ***Introduces the concepts of monitoring and control of the data center infrastructure and IT systems.***
- ***Reviews opportunities enabled by systems consolidation and virtualization.***
- ***Culminates in a site visit report with detailed observations and recommendations for improvements and next steps for the IT systems and data center infrastructure.***

Increasing Stress on Infrastructure

In the last 5 years the performance of servers and storage has increased significantly. Along with this performance growth has come an increase in the power dissipated by the server and storage hardware. This has caused a significant strain on the data centers that were built for hardware power levels much less than what are being shipped today. For example, much higher rack power levels have caused customers to spread out their server products in order to cool them in the current facilities, using up valuable and expensive raised floor space.

Offering Description and Value

This offering helps our clients understand the current and future power, cooling and energy demands that IT equipment will place on their existing or planned data center infrastructure.

The overall approach is to work with the client to understand the impacts of their data center IT systems and infrastructure pain points. Companies are having power and cooling issues in their data centers. Increasing

operating and energy costs are driving a need for improved efficiency. Environmental stewardship also has highlighted the importance to improve energy usage. The use of best practices to address these interrelated issues produces common benefits. Virtualization and consolidation as well as monitoring and control of operations can be important parts of an efficiency strategy. This offering helps to identify issues and opportunities for improvement in these areas

The consultant will provide the client with best practices knowledge to architect a unique and balanced plan to successfully help optimize IT resources and reach business goals with less risk, possibly reduced Total Cost of Ownership, greater efficiency, and keeping the power levels of the IT equipment within the power constraints of the data center.

The Project

This client/consultant engagement is performed at the client's site as a single day workshop and discussion. The consultant will educate the client as to industry power and cooling trends of IT systems and then show how best practices can help handle the power and efficiency challenges in the data center.

Typical Project Tasks

1. *1. Discussion of client's IT and data center issues and objectives for the challenges of power, cooling and energy efficiency.*
2. *Walk through of the client's data center raised floor and support areas, for non-disruptive observations.*
3. *Presentation and discussion of trends and best practice information*
4. *A site visit report will be provided, which identifies observations and recommendations for improvements and next steps for IT systems and data center infrastructure.*

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 Power/Cooling Trends & Data Center Best Practices Evaluation and other related products and services, contact IBM STG Lab Services at datacntr@us.ibm.com.

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