

The Green and Virtual Data Center



Greg Schulz

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www.thegreenandvirtualdatacenter.com

The Green and Virtual Data Center sets aside the political aspects of what is or is not considered green, to instead examine the opportunities for organizations that want to sustain economical growth that is environmental-friendly. It is based on the principle that IT infrastructure resources configured and deployed in a highly virtualized manner can be combined with other techniques and technologies to achieve simplified and cost-effective delivery of IT services in a clean green profitable manner.

“Greg Schulz has presented a concise and visionary perspective on the Green issues, He has cut through the hype and highlighted where to start and what the options are. A great place to start your green journey and a useful handbook to have as the journey continues.” said Greg Brunton of EDS an HP company

Through its pages, savvy industry veteran Greg Schulz provides real-world insight in addressing best practices, as well as server, software, storage, networking, and facilities issues concerning any current or next-generation virtual data center that relies on underlying physical infrastructures. Some of the topics covered include –

- Energy as well as data footprint reduction
- Cloud-based storage and computing
- Intelligent and adaptive power management
- Server, storage, and networking virtualization
- Tiered servers; storage, network, and data centers
- Energy avoidance and energy efficiency

Many technologies exist now, and others are emerging, that can enable a green and efficient virtual data center to support and sustain business growth with reasonable return on investment. This book present virtually all critical IT technologies and techniques to discuss the interdependencies that need to be supported to enable a dynamic, energy-efficient, economical, and environmentally friendly green IT data center. This is a path that every organization must ultimately follow.

The Green and Virtual Data Center Book is organized as follows:

- Table of Contents
- Preface
- Part I - Green IT and the Green Gap—Real or Virtual?
- Chapter 1 - IT Data Center Economic and Ecological Sustainment
- Chapter 2 - Energy-Efficient and Ecologically Friendly Data Centers
- Part II Next-Generation Virtual Data Centers
- Chapter 3 - What Defines a Next-Generation and Virtual Data Center?
- Chapter 4 - IT Infrastructure Resource Management
- Chapter 5 - Measurement, Metrics, and Management of IT Resources
- Part III - Technologies for Enabling Green and Virtual Data Centers
- Chapter 6 - Highly Effective Data Center Facilities and Habitats for Technology
- Chapter 7 - Servers—Physical, Virtual, and Software
- Chapter 8 - Data Storage - Disk, Tape, Optical, and Memory
- Chapter 9 - Networking with Your Servers and Storage
- Part IV - Applying What You Have Learned
- Chapter 10 - Putting Together a Green and Virtual Data Center
- Chapter 11 - Wrap-up and Closing Comments
- Appendix A - Where to Learn More
- Appendix B - Checklists and Tips
- Glossary

A green and virtual data center relies on the efficient usage of underlying physical resources to achieve energy savings. Green servers, storage, and networks deliver the performance, availability, and responsiveness for all types of application needs and requirements. This book provides strategies and blueprints for enabling and deploying environmentally friendly next-generation data centers.

Addressing multiple technology domains and disciplines, it looks at design and implementation tradeoffs using various best practices and technologies to sustain application and business growth while maximizing resources, such as power, cooling, floor space, storage, server performance, and network capacity.

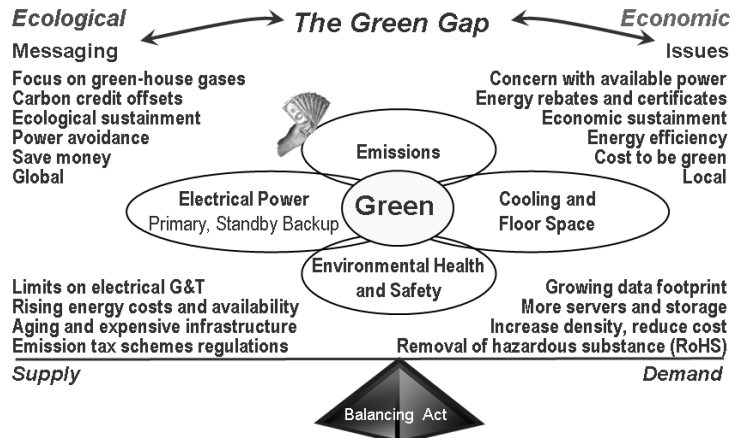
In this book, coverage shows how to make server and storage virtualization energy efficient and still be able to support a diversity of high-performance applications without degrading application quality of service or service level commitments. **The Green and Virtual Data Center** book explores performance and capacity planning in a virtual environment that supports resource-demanding applications, such as database, OLTP and streaming audio or video media in addition to enterprise and web 2.0, cloud computing along with tradition IT applications. These and other topics are covered across multiple technology domains including servers, storage, I/O and networking (LAN, SAN, WAN, MAN and NAS), software, data management and best practices for data protection including business continuance (BC) and disaster recovery (DC) for virtual and physical environments.

The Green and Virtual Data Center has 376 pages, more than 100 figures and tables, 11 chapters plus appendices, as well as a glossary. ISBN-10: 1420086669, ISBN-13: 978-1420086669, publication January 2009. Books can be purchased now at Amazon, Barnes & Noble, Borders, CRCPress.com and other venues around the world with an MSRP of \$79.95 USD. Direct special and bulk purchase questions along with editorial and review inquiries to John Wyzalek of Auerbach/CRC Press at john.wyzalek@taylorfrancis.com or call +1 (917) 351-7149.

About the Author

As founder of the acclaimed IT industry analyst and consultancy firm StorageIO, Mr. Schulz has worked as a programmer, systems administrator, disaster recovery consultant, and capacity planner across different technology domains including servers, storage, I/O networking hardware, software and services for various IT organizations including an electric generating and transmission utility. Schulz has worked for several vendors in systems engineering, sales, and marketing and technologist roles before joining an industry analyst firm and later forming StorageIO. In addition to his analyst and research duties, Greg is a prolific writer, blogger, and sought after speaker on a global basis with his practical, insightful and thought leading style.

In addition to **The Green and Virtual Data Center** (Auerbach), Schulz is also the author of the SNIA-endorsed book **Resilient Storage Networks - Designing Flexible Scalable Data Infrastructures** (Elsevier) ISBN-10: 1555583113. Mr. Schulz is available for interviews and briefings in addition to advisory consultation, keynote and speaking engagements. Learn more at www.thegreenandvirtualdatacenter.com, or at www.storageio.com or call +1 (651) 275-1563.



Information Technology

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