

WINTERGREEN RESEARCH, INC.

**Green Data Center: Modernization Market Shares,
Strategies, and Forecasts, Worldwide, 2010 to 2016**

**Mainframe As a Green Machine, zEnterprise Server Supports
Updates to Legacy Systems**



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

OPPORTUNITY ABOUNDS

**WinterGreen Research, Inc.
Lexington, Massachusetts**

www.wintergreenresearch.com

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CHECK OUT THESE KEY TOPICS

**Green Data Center
zEnterprise 196
Data Center ROI
Data Center Innovation
Hybrid Systems
Application Platform
Server to BIPS Conversion
Server to MIPS Conversion
Processor Intensive Application
Cloud Computing Data Center
Linux Servers
Unix Servers
Windows Servers
Servers
LUW Servers
Processor Intensive Servers
Optimized Servers
High Performance Computing**

Green Data Center zEnterprise Capability

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Green Data Center Market Forecasts

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Green Data Center: Modernization Market Shares, Strategies, and Forecasts, Worldwide, 2010-2016

Green Data Center -- Markets Achieve Growth, Reaching \$69.7 Billion By 2016

LEXINGTON, Massachusetts (July 26, 2010) – WinterGreen Research announces that it has a new study on Green Data Center Market Strategy, Market Shares, and Market Forecasts. The 2010 study has 357 pages, 95 tables and figures. Worldwide data center markets are poised to achieve significant growth as the zEnterprise systems from IBM, new storage virtualization from EMC, and Integrity servers from Hewlett Packard converge to make cloud computing a reality.

According to Susan Eustis, the lead author of the study, “the purchase of new zEnterprise 196 servers brings a quantum improvement in data center capability. Data Center Innovation relates to hybrid systems that deal with the complexity inherent in heterogeneous systems.”

New product cycles lend renewed vigor to an existing product set. The new zEnterprise 196 from IBM sets a standard for the data center. The new mainframe is faster, better, more energy efficient, and more operationally adept with software integration systems than other mainframes and than other server clusters.

According to Susan Eustis, Sr. Analyst with WinterGreen Research, “The new mainframe from IBM, zEnterprise 196, is game changing for the data center. With a zEnterprise 196 unit, processing is up to 60% faster than with previous systems. There is significant cost reduction.” Mainframe computing is often the platform of choice for cloud computing because of the better security, reliability, and manageability.

zEnterprise 196 is encroaching on every aspect of the data center computing environment. The zEnterprise brings major innovation to the data center. It is faster, more efficient, able to manage implementation of mixed workloads, fully able to manage analytics, and driving new Web based Linux workload.

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Other vendors have equally exciting announcements for the data center. Hewlett Packard has breakthrough Integrity servers. EMC® Ionix™ storage configuration advisor improves efficiency of storage change processes in virtual data centers. Markets at \$31 billion in 2009 are anticipated to reach \$69.7 billion by 2016.

WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software. The company has 35 distributors worldwide, including Thompson Financial and Global Information GII Info-Shop, Market Research.Com, and Research and Markets.Com.

Keywords: green data center, zEnterprise 196, data center ROI, Data Center Innovation, Hybrid Systems, Application Platform, Server to BIPS Conversion, Server to MIPS Conversion, Processor Intensive Application, cloud computing data center, , Green Data Center, Linux Servers, Unix Servers, Windows Servers, Servers, LUW Servers, Processor Intensive Servers, Optimized Servers, High Performance Computing, Green Data Center zEnterprise Capability, Green Data Center Market Forecasts, [www.wintergreenresearch.com](http://wintergreenresearch.com) <http://wintergreenresearch.com/reports/GreenDataCenter.htm>

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Green Data Center Companies Profiled

Green Data Center Market Leaders

IBM
Hewlett Packard
Fujitsu
Oracle
Dell
Cisco
EMC

Green Data Center Market Participants

5. Green Data Center Company Profiles

Google
Microsoft
Novell
Progress Software
Rackspace
RedHat
Software AG
Symantec
Tibco

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Green Data Center: Modernization Market Shares, Strategies, And Forecasts, Worldwide, 2010 to 2016

Report Methodology

This is the 452nd report in a series of primary market research reports that provide forecasts in solar energy, robots, communications, telecommunications, the Internet, computer, software, telephone equipment, health equipment, and batteries to store energy. Automated process and significant growth potential are a priorities in topic selection. The project leaders take direct responsibility for writing and preparing each report. They have significant experience preparing industry studies. Forecasts are based on primary research and proprietary data bases.

The primary research is conducted by talking to customers, distributors and companies. The survey data is not enough to make accurate assessment of market size, so WinterGreen Research looks at the value of shipments and the average price to achieve market assessments. Our track record in achieving accuracy is unsurpassed in the industry. We are known for being able to develop accurate market shares and projections. This is our specialty.

The analyst process is concentrated on getting good market numbers. This process involves looking at the markets from several different perspectives, including vendor shipments. The interview process is an essential aspect as well. We do have a lot of granular analysis of the different shipments by vendor in the study and addenda prepared after the study was published if that is appropriate.

Forecasts reflect analysis of the market trends in the segment and related segments. Unit and dollar shipments are analyzed through consideration of dollar volume of each market participant in the segment. Installed base analysis and unit analysis is based on interviews and an information search. Market share analysis includes conversations with key customers of products, industry segment leaders, marketing directors, distributors, leading market participants, opinion leaders, and companies seeking to develop measurable market share.

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Over 200 in depth interviews are conducted for each report with a broad range of key participants and industry leaders in the market segment. We establish accurate market forecasts based on economic and market conditions as a base. Use input/output ratios, flow charts, and other economic methods to quantify data. Use in-house analysts who meet stringent quality standards. Interviewing key industry participants, experts and end-users is a central part of the study. Our research includes access to large proprietary databases. Literature search includes analysis of trade publications, government reports, and corporate literature.

Findings and conclusions of this report are based on information gathered from industry sources, including manufacturers, distributors, partners, opinion leaders, and users. Interview data was combined with information gathered through an extensive review of internet and printed sources such as trade publications, trade associations, company literature, and online databases. The projections contained in this report are checked from top down and bottom up analysis to be sure there is congruence from that perspective.

The base year for analysis and projection is 2009. With 2009 and several years prior to that as a baseline, market projections were developed for 2010 through 2016. These projections are based on a combination of a consensus among the opinion leader contacts interviewed combined with understanding of the key market drivers and their impact from a historical and analytical perspective. The analytical methodologies used to generate the market estimates are based on penetration analyses, similar market analyses, and delta calculations to supplement independent and dependent variable analysis. All analyses are displaying selected descriptions of products and services.

This research includes referencde to an ROI model that is part of a series that provides IT systems financial planners access to information that supports analysis of all the numbers that impact management of a product launch or large and complex data center. The methodology used in the models relates to having a sophisticated analytical technique for understanding the impact of workload on processor consumption and cost.

WinterGreen Research has looked at the metrics and independent research to develop assumptions that reflect the actual anticipated usage and cost of systems. Comparative analyses reflect the input of these values into models.

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The variables and assumptions provided in the market research study and the ROI models are based on extensive experience in providing research to large enterprise organizations and data centers. The ROI models have lists of servers from different manufacturers, Systems z models from IBM, and labor costs by category around the world. This information has been developed from WinterGreen research proprietary data bases constructed as a result of preparing market research studies that address the software, energy, healthcare, telecommunications, and hardware businesses.

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