

WINTERGREEN RESEARCH, INC.

**Worldwide Mainframe As A Cloud Computing Machine
Market Shares, Strategies, and Forecasts, 2009 to 2015**

Mainframe As A Cloud Machine



Picture by Susie Eustis

MOUNTAINS OF OPPORTUNITY

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

www.wintergreenresearch.com

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CHECK OUT THESE KEY TOPICS

CLOUD COMPUTING
MAINFRAME
SYSTEM Z
SUPERDOME
GOOGLE
GOOGLE APPENGINE
AMAZON WEB SERVICES
Scalable Symmetric Multiprocessors
Cloud Technology

Web Services

WEB SERVICES ORIENTED ARCHITECTURE
SOA

VIRTUALIZATION
SERVER HOSTING CENTERS
WEB PROPERTIES
Business Intelligence
Business Model
Business Process
Cloud Computing Interoperability
Cloud Force
Collaboration
Mashups
Salesforce.com
Web Services Apps
Web Analytics / Frameworks

OPPORTUNITY ABOUNDS

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2009-2015**

LEXINGTON, Massachusetts (August 14, 2009) – WinterGreen Research announces that it has a new study on Worldwide Mainframe as a Cloud Machine. The 2009 study has 563 pages, 127 Tables and Figures. Worldwide cloud computing markets are poised to achieve significant growth as applications become more available. Advertising support of cloud computing makes software less expensive to get and operate. The markets start to expand to provide productivity improvements.

According to Susan Eustis, lead author of the study, “innovation is what drives market growth in cloud computing. IBM and the major SOA vendors are finding new ways to support cloud computing innovation, providing software that supports flexible response to changing market conditions by using the cloud computing infrastructure. SOA Web services are the core technology. SOA reaches into every industry and every segment of the economy. The mainframe is a cloud machine because it is reliable, secure, and available.”

IBM System z is emerging as the cloud-computing platform of choice because it works and with sub capacity pricing is affordable. Utility computing can be implemented in a manner so that the user does not know what hardware platform is being used, the hardware is transparent to the line of business. Applications are developed and tested in one part of the cloud and the applications run in another part of the cloud.

Cloud computing is poised to support dynamic infrastructure. Because System z and high end HP servers are more efficient at virtualization than the mid range devices they work most efficiently in the cloud. Distributed servers cause outages because they do not have the large block of memory, cache, and memory reallocation on the fly that is needed to prevent outages.

Hybrid systems are emerging that leverage the high end mid range servers for processor intensive workload and use the System z for workload and database management. The number of images that can be ported to a high end device is a critical part of TCO / ROI analysis.

Downtime is a significant issue for a brand. A brand really takes a hit when there is Internet downtime. The blogs and media notice a ten-minute or two-hour system outage. A six hour outage is devastating to the organization that experiences it. Downtime typically costs \$1 million per minute.

The mainframe is a cloud machine because it is able to reduce outages. Mainframes are able to reduce outages to near zero. There are banks in Germany where the mainframe has been running for 6 years without any downtime.

Mainframe class hardware is needed for cloud computing to eliminate downtime for vendors focused on specialized solutions. To compete in the on-demand application suite market, utility type computing is needed. Global enterprises are positioning to participate in and serve the cloud computing market.

Both HP and IBM are poised for significant server market growth. Cloud computing changes everything. In the cloud, no one can see the hardware platform and this gives the advantage to the IBM system z which operates at a ten times cost advantage overall. This fact is documented in the market research study "The Mainframe as a Green Machine" -- WinterGreen Research 2009. IBM mainframe is highly reliable and very cost efficient.

HP continues to benefit from its advantage in benchmarking and the ability to handle processor intensive workload via hybrid high end systems. The issue for cloud computing is a hardware platform that provides the lost cost services delivery. HP SuperDome is a strong contender in the cloud computing space.

Cloud computing is being expressed as application development software and software as a service (SaaS). Application development is being used in cloud computing to permit changes to code, making systems more flexible. Automated process that is rigid is not supportive of competitive advantage.

Simplicity is the best base for cloud computing technology. Ordinary people want instant access to information. Systems that are simple to use are not necessarily simple in their architecture. Cloud computing infrastructure is based on dynamic process. By separating the location of the data from the pointers to the data, and making those separate from the presentation of data, dynamic process can be implemented in a way that is understandable to regular people. Mainframes support this dynamic software process and permit point and click software development in the cloud.

Mainframes are anticipated be a significant part of the infrastructure of cloud markets. Cloud computing services markets at \$36 billion in 2008 are expected to reach \$16/ billion by 2015. Growth comes because the infrastructure makes more computing affordable and supports more advertising revenue that lets cloud services providers push syntax out to users at little or no cost to the user.

Mainframe computing units are 10 times less expensive than the distributed servers and provide significantly more reliability and security for cloud based computing. SOA software brings the ability to develop applications from the line of business with point and click development that works without programming.

Companies Profiled

Market Leaders

IBM
Hewlett Packard (HP)

Market Participants

Selected Cloud Computing Company Profiles

Oracle / Sun
Progress Software
Salesforce.com
ebay
Microsoft Corporation
NetSuite
Amazon
Google
Yahoo!
EMC
Attachmate
3Tera
Adobe
AT&T
Cisco
CloudRamp
CloudWorks
Dell
Skype
Clarity
CloudScale Networks
eBay PayPal
Enomaly
Eucalyptus
Fujitsu

**Tibco
Hostbridge
Red Hat JBoss
Research In Motion (RIM)
SAP CRM
Sirius
Serve Path / Go Grid
RackSpace
RightScale
Trend Micro
Zeus Technology, Ltd.**

Worldwide Mainframe As A Cloud Computing Machine Market Shares, Strategies, and Forecasts, 2009-2015

REPORT METHODOLOGY

THIS IS THE 414TH REPORT IN A SERIES OF MARKET RESEARCH REPORTS THAT PROVIDE FORECASTS IN COMMUNICATIONS, TELECOMMUNICATIONS, THE INTERNET, COMPUTER, SOFTWARE, TELEPHONE EQUIPMENT, HEALTH EQUIPMENT, AND ENERGY. 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. 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. 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 2008. WITH 2008 AND SEVERAL YEARS PRIOR TO THAT AS A BASELINE, MARKET PROJECTIONS WERE DEVELOPED FOR 2009 THROUGH 2015. THESE PROJECTIONS ARE BASED ON A COMBINATION OF A CONSENSUS AMONG THE PRIMARY CONTACTS 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.

YOU MUST HAVE THIS STUDY

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Worldwide Mainframe As A Cloud Computing Machine

Market Opportunities, Strategies, and Forecasts, 2009 to 2015

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WINTERGREEN RESEARCH, HAS A UNIQUE RESEARCH STRATEGY THAT RELATES TO IDENTIFYING MARKET TRENDS THROUGH READING AND INTERVIEWING OPINION LEADERS. BY READING THE ELECTRONIC EQUIVALENT OF 40 FEET OF PAPER, WINTERGREEN RESEARCH SENIOR ANALYSTS CAN LEARN A LOT MORE ABOUT MARKETS, A LOT FASTER THAN CAN BE LEARNED THROUGH EXPENSIVE SURVEYS AND FOCUS GROUPS. THINKING ABOUT MARKET TRENDS IS A HIGH PRIORITY AT WINTERGREEN RESEARCH. AS WITH ALL RESEARCH, THE VALUE PROPOSITION FOR COMPETITIVE ANALYSIS COMES FROM INTELLECTUAL INPUT.

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