Next Generation Data Centers - Virtualization
Industry Report
2007

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Next-Generation Data Centers - Virtualization

1. Executive Overview

2. Market Drivers and Industry Dynamics
   Data center agility – Imperative for ROI
   2.1. Server virtualization
       Application performance scalability, manageability, and availability
       Server utilization, provisioning, and agility
   2.2. Storage virtualization
       Types of Storage Virtualization - Block and file
       Interoperability of storage infrastructure
       Capacity utilization
       Management of vast/ever-growing datasets
       Cost of enormous capacity demands
   2.3. Technology drivers
       Blade servers
       Converged 1/10 Gigabit Ethernet data center networking
       Tiered storage

3. Market Segments and Product Requirements
   3.1. Server virtualization
       3.1.1. Value-based segmentation
           Consolidation of non-business critical applications
           Qualification and test
           Dynamic server provisioning
           Enterprise-grade application support
           Price
       3.1.2. Product category-based segmentation
           Hypervisors
           VM management
           Automation/change/configuration management
           Process automation/run book automation
           Infrastructure repurposing/dynamic reprovisioning
           Application virtualization/application fabric
           Virtual appliances
   3.1.3. Product Requirements – Server Virtualization
   3.2. Storage Virtualization
       3.2.1. File Storage Virtualization
           Definitions
           Appliance
           Dedicated appliance
           Turnkey system
           Switch
       3.2.2. Block Storage Virtualization (BSV)
           Heterogeneous BSV
           Homogenous BSV
3.2.3. Product Requirements – Storage Virtualization

3.3. Network Virtualization
3.3.1. Market Segments
3.3.2. Product Requirements – Network Virtualization
3.4. Issues & Competitive Available Solutions

4. Market Forecast and Market Shares
4.1. WW IT Spending
4.2. WW Server Virtualization Forecast
   By product segments (as in 2. above)
   By OS
   By Processor technologies
   By Workloads (where do we get this data from?)
   By data center tier (ditto as above?)
   By HA levels

4.3. WW Storage Virtualization Forecast
   By Product segments as in 2. above

4.4. WW Storage Virtualization Forecast
   By Product segments as in 2. above

5. Emerging Technologies and Standards
5.1. Server technologies and standards
   Blade servers
   Clustering
   High-speed interconnects (10GbE, IB, 4G/10G FC)
   PCI V2IO SIG
5.2. Storage technologies & Standards
5.2.1. Overview
5.2.2. Core Concepts
   Elements (Files/Blocks/Records,VZ NAS & SAN File Systems, Storage Interconnects Abstracting
   Physical Storage, VZ at Host-Application Aware/Fabric/Target Storage, VZ Services (High
   Availability BU- Mirroring, Snapshots, HSM, VTL/Archival-CDP, DR/Security/Performance/Cost
   Reduction-Aggregation, Standardization, ROI), Automation Tools(Targeted Appliances/Thin
   Provisioning/Policy Generation/Application Aware VZ…)
5.2.3. Standards
   (SMSI-S, Aperi…)
5.2.4. Futures
   (Policy Based Automation, ILM, Storage Utility Model & Dependencies…)
5.2.5. Networking technologies and Standards
5.2.6. VZ using Convergence & Emerging Standards
   Data Centers
   Data Communications & IP Telecom

6. Competitive Positioning of Suppliers
6.1. Basis of Competition (Metrics)
6.2. Vendor Positioning Index (Strategy/Vision vs. Delivery/Execution)
6.3. Players by Market Segment
6.3.1. Server Virtualization vendor Profiles by Segment
   Overview, Financials (by Revenues/Gross Margin/NetProfit by Product Line),
   Products Families, Competitive Positioning, Distribution Channels
   Acronis, Altiris, Appistry, BladeLogic, BMC, CA, Cassatt, CIRBA, Citrix Systems, DataSynapse,
   Egenera, EMC VMware, Enigmatec, Fusion Dynamic, Grid Systems, Hewlett-Packard, IBM,
   Leostream, Microsoft, Novell, Opalis Software, Opsware, Optena, Optiminity, Oracle, PlateSpin,

6.3.2. Storage Virtualization Vendor Profiles

**Overview, Financials (by Revenues/Gross Margin/NetProfit by Product Line), Products Families, Competitive Positioning, Distribution Channels**

CA, EMC, NetApp, HP, HDS, Symantec, Sun, BMC, OpsWare (CreekPath), Onaro, SoftTek, Acopia, Brocade (NuView), CloverLeaf, Neopath, DataCore, Incipient, Maxxan, Sanrad, StoreAge, Falconstor, Fujitsu, Brocade, Cisco, Mcdata, Sun (Pirus),

6.3.3. Networking (Data Comm & IP Telecom) Virtualization Vendor Profiles

Data Communications
F5,
IP Telecom
Cisco,

6.3.4. System Integrators & VARS

7. Major Suppliers and their Strategies

7.1. Tier-1 Suppliers by Segment
7.2. Tier-2 Suppliers by Segment
7.3. Associated Suppliers by Segment

8. Go-to-Market/Channels of Distribution

8.1. Vendors Matrix in Value-Added Chain (Tier-1, Tier-2, Associated Vendors) by
8.2. Major Manufacturers
(Microprocessor, Components, Boards/HBAs, Controllers, Servers, Storage, Networks, VZ SW, DataManagement SW, Application SW)
8.3. Channels
(Top 100 System Integrators, VARs, Distributors, Dealers..)
8.4. End Users
(Top 200 EU by Major Vertical Markets)
8.5. Financial Investors
(Top 50 VCs, Investment Bankers..)

9. Research Methodology

10. Appendices & Reference Resources

   Technologies
   URLs
   Further Reading/Articles
   Acknowledgements