Data Center Day 2008
Data Center Transformed!

Accelerate   Consolidate   Virtualise   Automate

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IDC Predictions 2008 For The Networked Infrastructure

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Agenda

- ✓ The Global Picture

- ✓ "Eureka 2:0"

- ✓ Everything As A Service

- ✓ Sharpen Up On Blades

- ✓ "IT" Is About Form and Flexibility

- ✓ Storage As A Service : Home and The Enterprise

- ✓ Say Hello To Object-based Storage

- ✓ Virtualization: The Killer Application for iSCSI

- ✓ Oh Video, Oh Video, Where For Art Though?

- ✓ An Advertisement For Your Customer, An Algorithm For You

- ✓ Purchases Based On Green IT
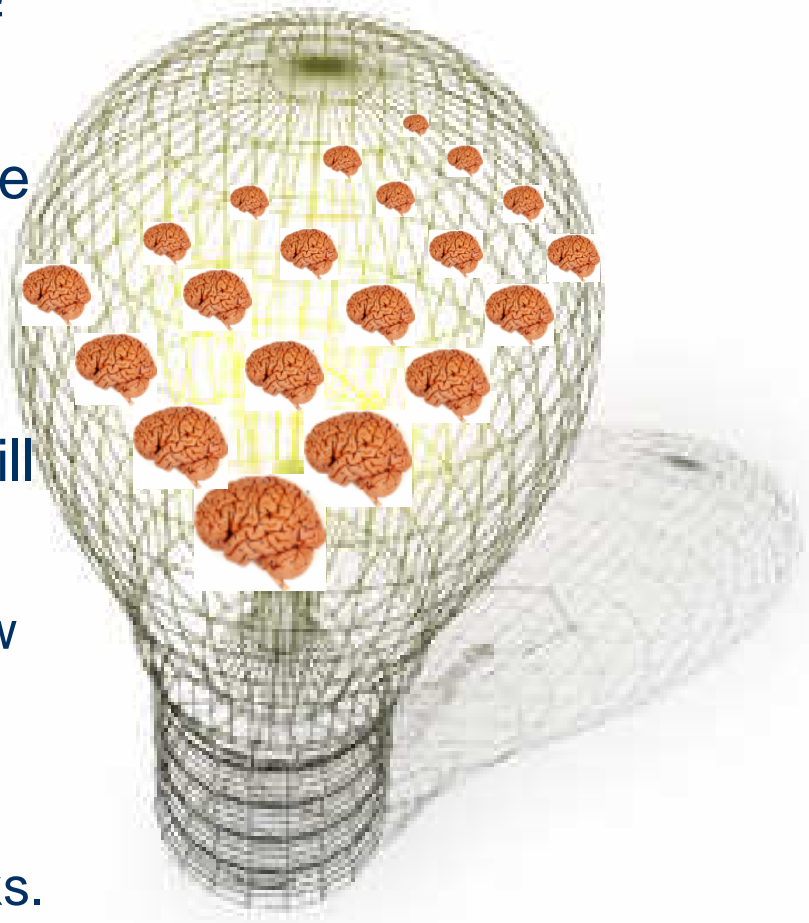
The Big Picture
Worldwide IT Spending Growth Lower

- Worldwide IT market growth in 2008 will be lower, at a moderate 5.5-6% worldwide

- Driving the significant drop in worldwide growth is downside risk building from worsening U.S. economic forecasts

  - U.S. IT spending could drop to 3-4%

- Earliest impact from economic downturns is felt, historically, in the Hardware sector, with Software impact lagging by one or two quarters, and Services impact more gradual

The Web 2.0 build-out will accelerate, creating an avalanche of user-generated video and other forms of information –2008 will see the emergence of "Eureka 2.0" software and services - leveraging text analytics, sentiment extraction and semantic search - to distill real insights

- Content Distribution Networks will grow by at least 30% in 2008, drawing in a parade of new players – including telcos, such as AT&T - to challenge leaders Akamai and Limelight Networks.

- Market makers – notably Cisco, IBM, Google and Microsoft – will move strongly into Software-as-a-Service

- Other Segments Accelerate Online Shift

  - (Web 2.0) Data Center-as-a-Service

  - Storage-as-a-Service

  - BI-as-a-Service

- Ecosystems shift online: new tools, new players

  - Online solution configurators are critical
  - Next-generation "-aaS" SIs

Blades will account for more than 10% of all server units shipped worldwide in 2008

- Support for flexible computing will drive the change

- Expect to see more, and different, blades (by chip type, by operating system) will help to break down "information silos"

- Reduced cabling, reduced connections to network, switches, I/O, storage systems—will all combine to reduce opex

- All-in-one management is key; expect to see improved visualization of blade workloads in 2008

Virtualization/ Consolidation	Flexibility/ Management

Form factors directly impact IT flexibility

Combination of multi-core processors and server virtualization—and the core count is rising

- Individual servers, with 2-4 sockets, will be getting "richer" in terms of configuration (memory, I/O)

- Increasing density (sockets x cores) will transform small servers into enterprise computing powerhouses

- However: There's still a need for improved management of "Ps and Vs"– physical and virtual servers . . .

- And a need for improved high availability (HA), mapped to the workload type, and supporting x86 virtualization

Online storage (storage-as-a-service) will be accepted as a viable option

Driven by:

- Corporate Responsibilities (both to regulators and consumers)

- Power, cooling, real estate resource limitations and costs

- Maturity and acceptance (by both corporations and individuals)

Evidenced by the # of M&A's and new offerings:

- EMC acquired Mozy

- IBM acquired Arsenal

- Seagate acquired EVault

- Amazon's S3 and the rumored Google "*Gdrive*"

Vendors Design New Object-Based Storage Systems

- To date, tiering of storage based on applications

  - In many cases, this is inefficient

- Data/storage management is no longer a mutually exclusive function within IT

  - Needs to be tightly integrated with corporate/governmental policy

  - By focusing on each data object (read: file), this enables
    - Non disruptive data migrations (which provides data persistence/permanence)
    - Multiple tiers for any given data type
    - Granularity (ie. specificity) in data management

IDC Top Predictions 2008 For The Networked Infrastructure

Virtualization Will Be The Killer Application For iSCSI

- \>40% of virtualized servers will be connected via iSCSI

- Strong endorsement by VMware, Microsoft, Dell

- High level of Ethernet and IP experience and expertise among SysAdmins responsible for virtualized servers

- Convergence towards Ethernet

  - Leads to virtualization of network

- Affordability of 10GbE by 2HCY08

- "Built-in" advanced features like QoS

Video Distribution Will Be __THE__ Biggest Factor Driving Network Consolidation To All IP-based Networks

- Triple play services continue to generate large amounts of network traffic as service providers continue to expand and converge their networks.

  - Some providers have consolidated their desparate networks, including their wireless, onto one delivery platform. Others have merged part of their network, and will require an expansion program to deliver the high band-width services.

  - This trend will drive the need for more intelligent devices in the network to support next generation video applications (personalized TV, targeting advertising across all media forms)

Targeted and Personalized Advertising <u>Will</u> Drive Telecom and IT Equipment Into Provider Networks and Datacenters

- Although 'Content Is King", the real way to grow revenue is through targeted advertising across all media

  - The systems for information gathering, algorithms, data mining to support the intelligent advertisement is not mature

  - Cable and Service Provider Operators will be seeking help from all of their vendors to move from simple advertisement intelligence to sophisticated ads.

  - This will also allow start-ups to deliver software-centric, algorithm based products built of COTS (Commodity Off The Shelf)

Green IT Solutions Will Become an Important Purchasing Criteria for Customers

- More energy-efficient systems and improved power-management features will emerge in 2008

- Power costs for volume servers will grow from 50% of server cost, to 70%+ of server cost by 2011

What's So *New* About 2008?... LOTS!

In 2008, the IT industry's biggest market makers will jump in with both feet: demonstrating that they are **substantially rebuilding their core businesses** on these disruptive models and principles.

There will be so much investment in these disruptive markets, business models and offerings, that they will – in fact –
cease to be considered "disruptions" ...

IDC Predictions 2008: The "Post-Disruption" Marketplace Takes Shape, December 2007