INDUSTRY TRENDS: HOW ENTERPRISES ARE ADOPTING CLOUD COMPUTING

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OVERVIEW

- What is the Cloud?
- What is Cloud Computing?
- How Companies Adopt It?
- Case Studies
- What the Future Looks Like
WHAT IS THE CLOUD?

- A Sea Change
- Disruptive technology
- Analogy: “From Steam power to electricity on the factory floor”
- “. . . the glue that connects the web of devices that users choose to access during the different aspects of their daily life.”

Steve Kleynhans, VP Research, Gartner
HOW BIG IS CLOUD MARKET GROWTH

Total Cloud Spending:

<table>
<thead>
<tr>
<th>Year</th>
<th>Spending</th>
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<tbody>
<tr>
<td>2009</td>
<td>$58 billion</td>
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<tr>
<td>2010</td>
<td>$68 billion</td>
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<tr>
<td>2011</td>
<td>$77 billion</td>
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<tr>
<td>2016est</td>
<td>$240 billion</td>
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Source: Gartner, Visiongain
# How Big is the Cloud Market

- London School of Economics Study (2010)

  Using smartphones as a cloud industry proxy forecast:

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<tr>
<td>U.K.</td>
<td>70%</td>
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<tr>
<td>Germany</td>
<td>56</td>
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<td>Italy</td>
<td>54</td>
</tr>
<tr>
<td>U.S.</td>
<td>34</td>
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GARTNER REPORT: MEGATRENDS 2012

- A New Style of Personal Computing in the Cloud
- Consumerization
- Virtualization
- Ever available self service cloud
- The mobility shift
- Require enterprises to fundamentally rethink how they deliver applications and services to users.
Cloud services are often developed in one of two ways:

- **Private clouds**
  - apps, data and necessary infrastructure are dedicated to a single party

- **Public clouds**
  - data and apps of non-related parties may reside on the same servers and more likely managed by a third party
Cloud computing is a style of computing in which scalable and elastic IT-related capabilities are provided "as a service" to customers using Internet technologies.

David Cearley, Gene Phifer, Gartner, 2012
WHAT IS CLOUD COMPUTING?

BASIC CATEGORIES OF DELIVERY:

- **IaaS** – Infrastructure as-a-Service
- **PaaS** – Platform as-a-Service
- **SaaS** – Software as-a-Service

Source: KPMG, 2011
IaaS – Infrastructure as-a-Service

- Infrastructure provided
  - Fundamental computing resources such as servers, desktops, and network equipment
  - Consumer able to deploy and run arbitrary software
  - Scalable up or down
- Service providers: EC2: Amazon Web Services
  IBM Smart Business Test Cloud
  Rackspace
  GoGrid
PaaS – Platform as-a-Service

Platform provided:

- The capability provided is to deploy onto the cloud consumer-created applications using programming languages and tools supported by the provider

- Service Providers:  
  - Force.com (salesforce.com) 
  - Google App Engine 
  - Windows Azure (Microsoft)
SaaS – Software as-a-Service

Applications on-demand:
- eliminates the need to install, run, and maintain programs on internal systems
- Formerly known as ASPs
- Service Providers: Google Apps, Salesforce.com, Zoho.com
CONSENSUS BENEFITS OF CLOUD COMPUTING

- Reduced costs
- On-demand scaling/handling peaks
- Disaster recovery
- Deployment flexibility
806 executives responded that:

- 81% had already moved some activities to the cloud
- 17% expected 2012 investment “to skyrocket, with some planning to spend over a fifth of their IT budget on the cloud”
- 10% were already running entire core IT services on the clouds
- 13% said the process was underway
WHAT COMPANIES BELIEVE THAT CLOUD COMPUTING WILL DO

- Reduce costs
- Change interaction with customers and suppliers
- Accelerate time to market
- Provide management with greater transparency on transactions
- Fundamentally change the business model

KPMG, “Clarity in the Cloud”, 2011
WHO ARE THE LEADERS?

SERVICE PROVIDERS:

- AMAZON
- SALESFORCE (SaaS market)
- GOOGLE
- RACKSPACE
- MICROSOFT (PaaS and SaaS market)
NEXT TOP PROVIDERS OF CLOUD COMPUTING

- GoGrid
- Verizon

Source: Gartner, 2011
HOW DO COMPANIES ADOPT IT

CASE STUDY: KPMG Client

- Results using cloud as a supplier network
  - Reduced latency between and among suppliers
  - Reduced lead times on information exchange from 30 days to 1 day
  - As demand changes at the store, all parties see and act upon the changes
  - Resulted in more product getting to the right place at the right time with less inventory through the supply chain
THE CASE OF RAZORFISH

Background/Driver
- Improve ability to respond quickly to customer demands for web campaigns
- Support high volume short run campaigns more cost effectively

Process/Solution
- Used Rackspace as a cloud infrastructure platform.
- Build Blogs, Microsites, campaign-related pages for large companies, such as Southwest Airlines, H&R Block

Result/Benefit
- Set up reduced from 4-6 weeks to 24 hours
- On average at 25% of previous cost

Key Lesson:
If you are moving web-centric applications with solid security and management practices, you can move them with little deviation to cloud infrastructure
THE CASE OF HR ANSWER LINK

Background/Driver
- Need to deliver a number of HR applications in a SaaS model, but a traditional approach would take 24 months to deliver

Process/Solution
- Private implementation of Longjump
- Built cloud application services for HR to be delivered through their partner channel

Result/Benefit
- Developed in 4½ months vs. 24 months
- Able to provide a highly customizable service to their customers
- Focus development on application design instead of infrastructure, database and security model design

Key Lesson:
The cloud can be used to deliver highly customizable services
CLOUD COMPUTING

WHAT THE FUTURE LOOKS LIKE?
“The projected $1 trillion IT services market is at the beginning of a phase of further disruption, similar to the one the low-cost airlines have brought in the transportation industry.”

By 2015, low-cost cloud services will cannibalize up to 15 percent of top outsourcing players’ revenue.
WHAT CLOUD COMPUTING HAS NOT DONE

- Overcome questions about security
- Created user trust

LinkedIn: Sample from Cloud Computing Group, 2012
Clouds Are for Consumers (and Startups).

Even as a large number of enterprises move pilots onto external clouds, it will become clear that the real trend is for enterprise to stay away from clouds in all key areas, for reasons both of security and reliability.
Highly important for a company to remain competitive in today’s business scenario.

To remain competitive it needs to embrace the latest technologies, methodologies, processes, and applications,

Managers need to be very dynamic to take the best decisions to accelerate changes in business processes.

Changes vary from minor adjustments to revolutionizing the entire business, systems and processes.

They need tools which would assist them with proper decision making.