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Lifting the Fog: The High Potential of Cloud Computing

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IT leaders are looking to the clouds ...



Cloud

- 75% of IT decision-makers knowledgeable or very knowledgeable about Cloud
- 45% have Cloud on their IT roadmap—either researching or implementing
- But security and loss of data control are top concerns

Software as a Service

- 90% report successful SaaS implementations, 65% generated reasonable returns
- But 54% wished they had done more rigorous cost benefit analysis before implementation

Infrastructure as a Service

- 41% either interested or implementing pay per use hosting of virtual servers

Cloud: Source: CIO Magazine Cloud Computing Research, June 2009

SaaS Source: Avanade Cloud Research, January 2010 (C-level, business and IT execs, 16 countries)

IaaS: Source: Forrester, Cloud Infrastructure-As-A-Service: Interest And Adoption By Region, Frank E. Gillett May 29, 2009

The Roots of Cloud Computing

Virtualization

One computer acting like many



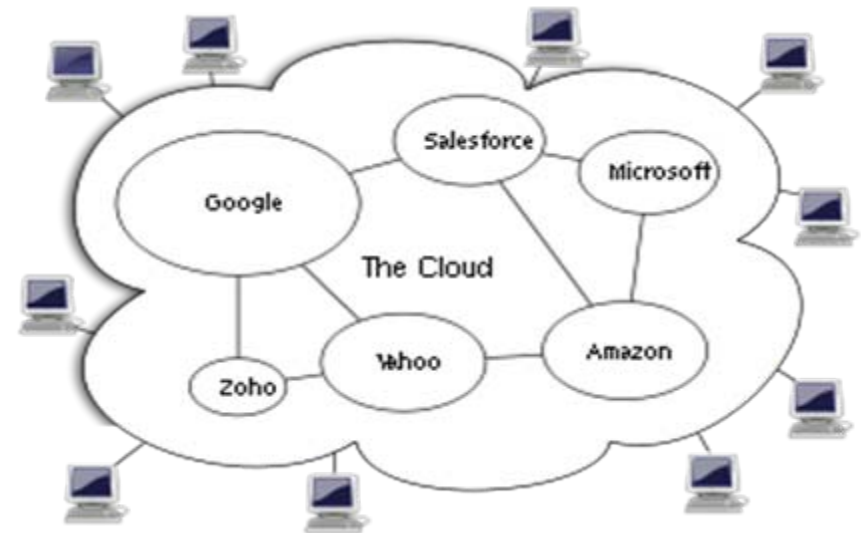
Grid Computing

Many computers acting like one



Cloud Computing

A combination of both Virtualization and Grid, but the end user does not have to care about the underlying architecture.



Evolution of Cloud Computing



1990

Grid Computing

A form of distributed computing composed of heterogeneous, networked, loosely-coupled computers, acting in concert to perform large parallel computing tasks

1998

Utility Computing

The packaging of computing resources, such as computation and storage, as a metered service

2000

Software as a Service

A model of software deployment where an application is hosted as a service provided to customers across the Internet

Usually subscription based

2008

Cloud Computing

Evolution of the grid-utility model

IT-related capabilities are provided “as a service” and accessed from a network (cloud), with a transparent location, underlying infrastructure and operation



What is Cloud Computing?

Analyst Gartner defines cloud computing:

- Cloud is a style of computing where scalable and elastic IT-related capabilities are provided as a service to external customers using Internet technologies.

Accenture defines cloud computing as:

- Cloud Computing allows companies to access IT-based services such as infrastructure, development, applications and business processes, via the internet.
 - Rapid acquisition
 - Total cost of ownership at least 40% less
 - Requires little if any capital
 - Operationally, contractually and financially flexible
 - Able to match or improve the functionality that you have today, getting better over time



Cloud Further Defined: Four Different Types of “Clouds”



Traditional Solutions

Tailored 1:1 or 1:few
**BPO offerings from
Accenture, others**

Implementing packages
**SAP ERP
Oracle Apps
MS Office/Exchange**

*Build Architectures, Deploying
Middleware*
**Windows/.NET
Linux/Solaris
J2EE**

Buying Hardware
**IBM Blade Center
Sun Fire X4100**

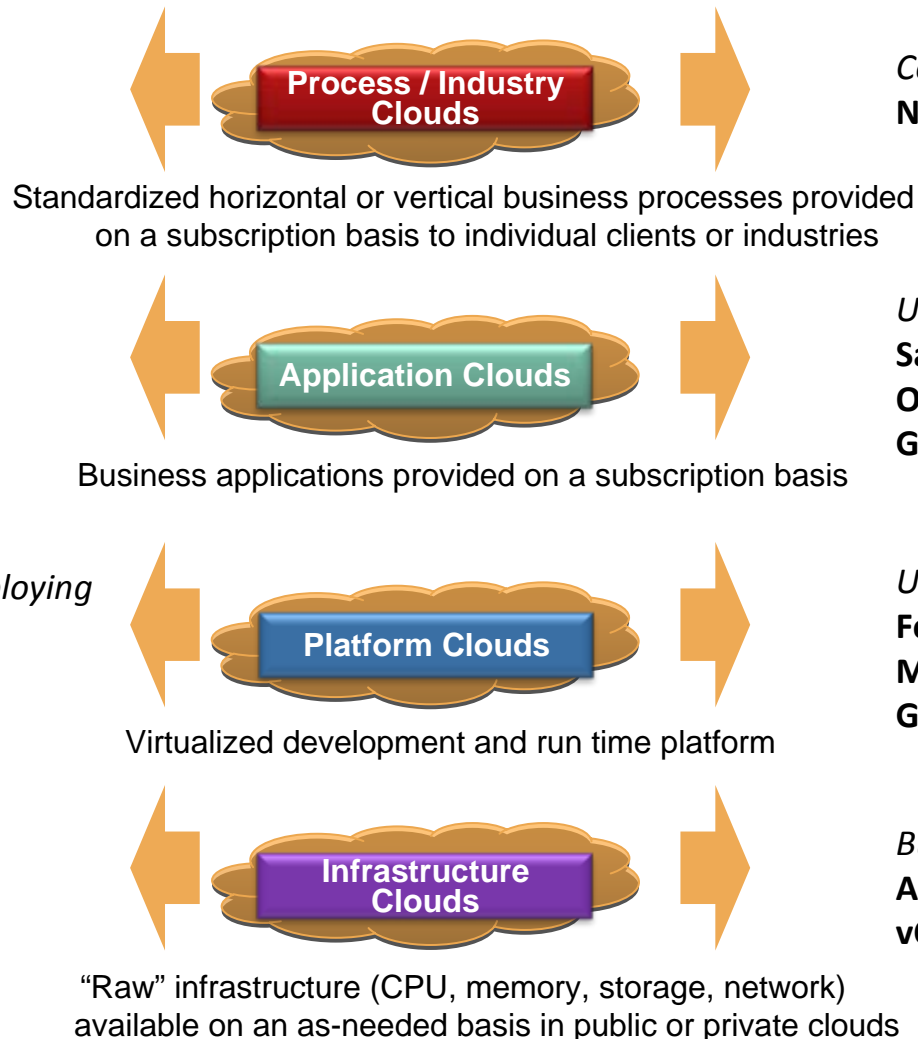
Cloud Solutions

Configurable 1:Many
Navitaire New Skies

Using fully managed, elastic service
**Salesforce.com, Workday
Oracle on Demand
Google Apps, Microsoft BPOS**

Using fully managed, elastic service
**Force.com
Microsoft Azure
Google AppEngine**

Buying Computing Time
**Amazon EC2
vCloud**



Cloud Business Benefits



Cost Reduction

- Lower infrastructure (capital) costs
- Lower maintenance and energy costs



Scalability

- Capacity only when you need it
- Ability to handle expected or unexpected changes in load
- Achieve high business agility



Speed to Market

- Reduction of time to pilot and test projects
- Faster availability to customers



High Performance Computing

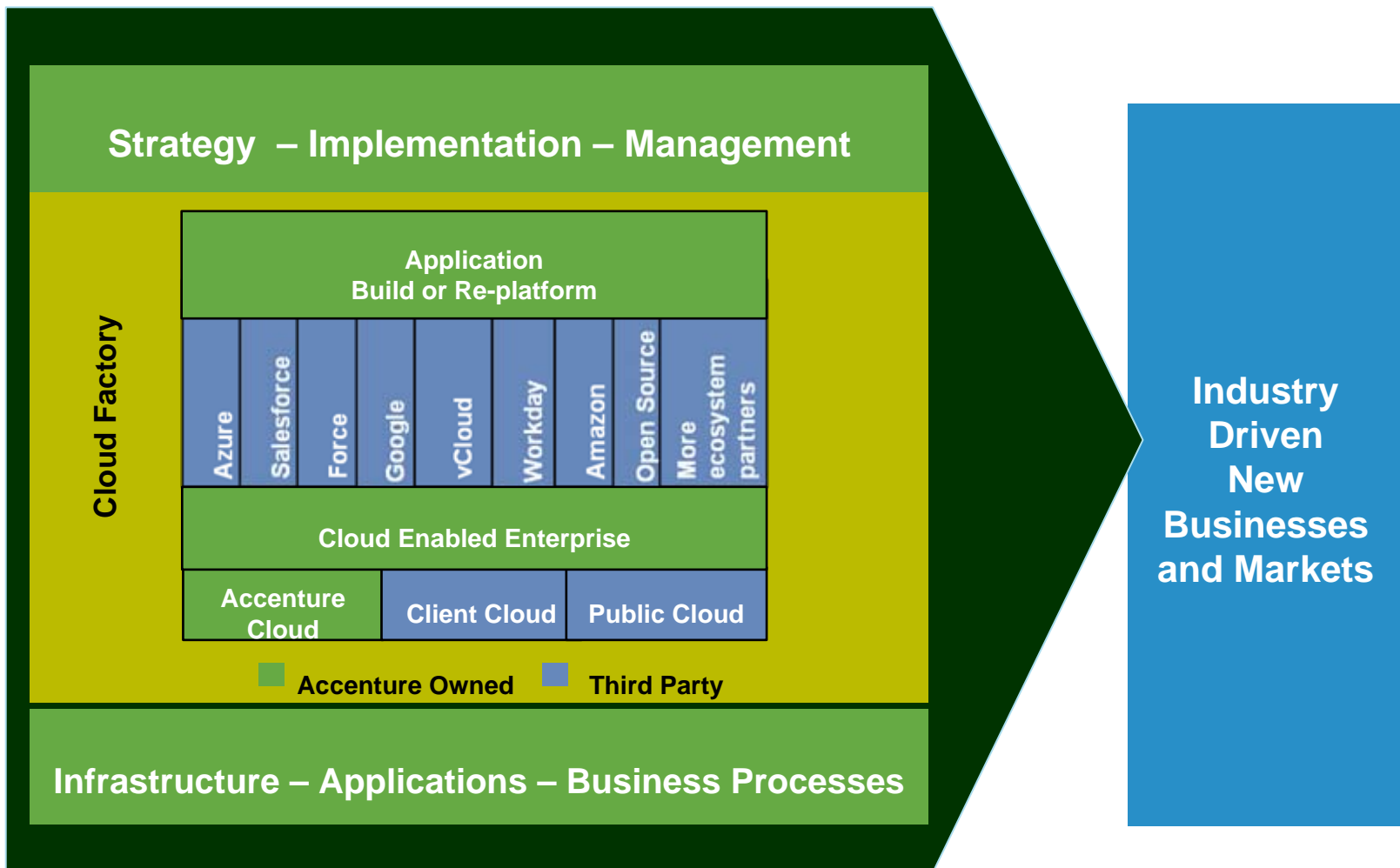
- Increased capacity from your current physical infrastructure
- Avoid provisioning (and paying) for the peak
- “Infinite” computing capacity on demand

Uptake of cloud-based services provides competitive advantages to early adopters



Cloud Type	Example	Details
Infrastructure Cloud	Real estate property	Utilizing the Amazon Elastic Computing Cloud, a real estate website has saved over £200k during start-up from lower data-centre and server costs, and thousands of hours of system admin time.
Application Platform	World leading energy firm	Using the Microsoft application platform, the firm has created a data visualization solution that taps into the Microsoft Virtual Earth mapping platform, to save crisis teams hours each day in tracking, and reduce times in critical emergency response scenarios.
Desktop	Global pharmaceutical company	Migrating 100,000 employees from Lotus Notes to Microsoft's hosted suite , which includes Exchange for e-mail, SharePoint, Office Communications Online and Office Live Meeting, all managed from Microsoft's own data centers.
Application Service	IT services and solution provider	Salesforce.com deployed their cloud-based CRM to an IT services and solution provider, enabling them to maximize sales effectiveness and efficiency across five geographic regions. This assisted in an increase of the value of the client sales pipeline by 172% , while creating global standard CRM reporting.
Web Service	Large Telco enterprise	Using Amazon Web Services, a social networking and live web solution provider, teamed with a large Telco enterprise to deliver live music concert streaming to web and handheld users. Use of the Amazon service reduced the time for staging from 3 days traditionally, to 1 hour , and at a fraction of the cost.
Business Process	Airline	A market niche airline saved over 73% on distribution costs by using Open Skies by Navitaire compared with the previous in-house managed reservations system.

Accenture Cloud Framework



Governments in the Cloud

Challenges

- Serving the public
- Politics (keep IT in country)
- Tough standards (e.g. privacy)
- Organizational issues
- Procurement processes

Success Factors

- Common standards
- Common service levels
- Appropriate security and data privacy standards
- Overcoming departmental ownership issues
- Maintaining procurement flexibility

The G-Cloud

Main Benefit Areas

- Reducing and avoiding fragmentation
- “Citizen-centric” processes
- Data intensive processes
- Sharing load across departments
- Standardizing IT services
- Quick development platforms
- Increased IT supplier competition

Future Opportunities

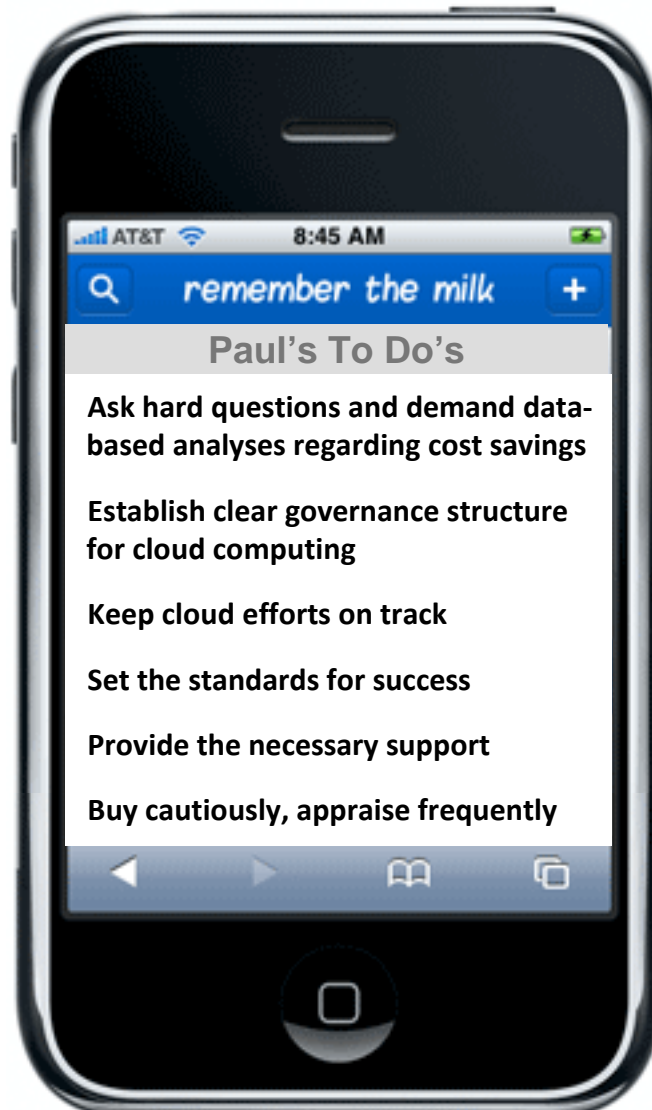
- Cross-Departmental sharing
- Pre-approved platforms and applications
- Improved data security
- Data analytic capabilities (e.g. fraud)
- Competitive IT supplier market
- Community clouds
 - Inter-departmental cooperation
 - Small and medium sized businesses

Top Cloud Challenges

- Governance
- Transparency
- Business Continuity
- Financial Control
- Data Security
- Operational Support
- Service Catalog
- Contract Agreements



What Are My Next Steps?



Summary

- Cloud interest and take-up among our clients is on the rise
- Cloud offers attractive benefits and several challenges – our clients are looking for assistance
- Start with cloud assessment
- All should monitor the “signposts” carefully to avoid the hype



Questions?

