Business Agility and the True Economics of Cloud Computing

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Executive Summary

New groundbreaking global survey findings demonstrate the true value of cloud computing to the business. While it is understood in the industry that cloud computing provides clear cost benefits, CIOs are having difficulty getting a true fix on the business value that cloud might offer beyond cost reduction. These survey results reveal a direct link between cloud computing and business agility—how business outcomes are associated with agility, the role of IT for agile companies and the importance of cloud computing to business leaders.

Rebalancing the IT Equation

What drives IT in your organization—cost or agility? In economics, it is a supply-and-demand equation. Within the IT organization, it is a cost-agility equation with most discussions today focused on cost controls rather than the greater potential benefit—business agility. We hear "How much capital and operational expense can I cut with cloud?" more often than we hear "How will cloud improve revenue or my company's competitiveness?" Yet business decision makers outside of the IT organization have a different perspective.

In a newly released business-agility survey, corporate decision makers linked cloud computing directly to business agility. This data is helpful in reevaluating the IT cost-agility equation, looking at cloud approaches and reframing assessments of IT's

value to the enterprise. It shows that the hype around cloud computing is maturing into facts about what cloud can really deliver to both IT and the business. Game-changing CIOs think business transformation first, then how technology enables it. They are the ones strategizing with their CEOs and other business leaders to look beyond simple cost calculations to the business agility that cloud computing can enable.

Defining Business Agility

Business agility is the ability of a business to adapt rapidly and cost-efficiently in response to changes in the business environment. According to McKinsey & Company, the leading global management consulting firm, the benefits of agility include faster revenue growth, greater and more lasting cost reduction, and more effective management of risks and reputational threats.

Direct Link from Cloud to Business Agility

Forward-thinking CIOs are deploying cloud computing as a strategic weapon—not just for IT, but to enable full business transformation, eventually changing how they operate their business.

In a couple of years, many companies will talk about how cloud helped them create a much tighter connection between IT transformation and business transformation. That will be the win in this cloud era.
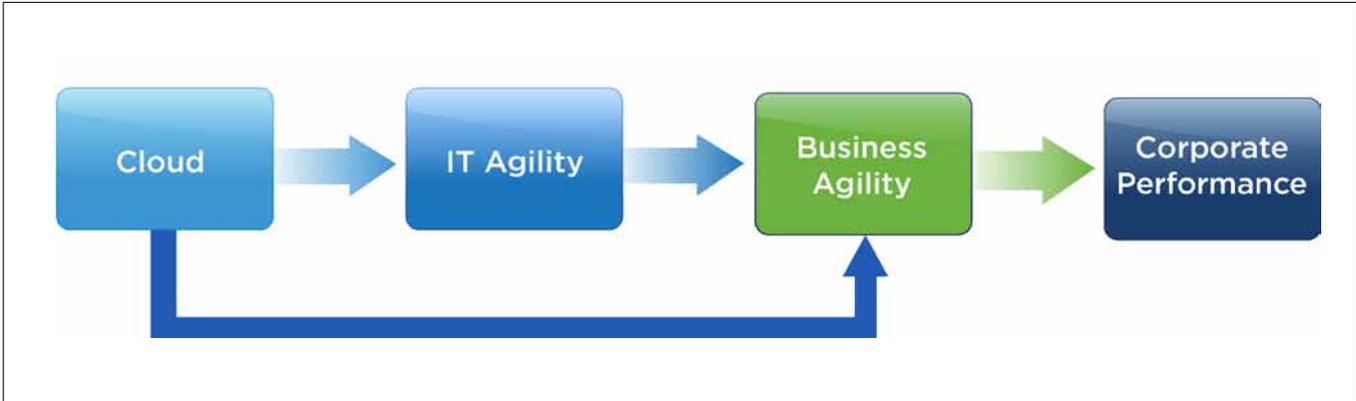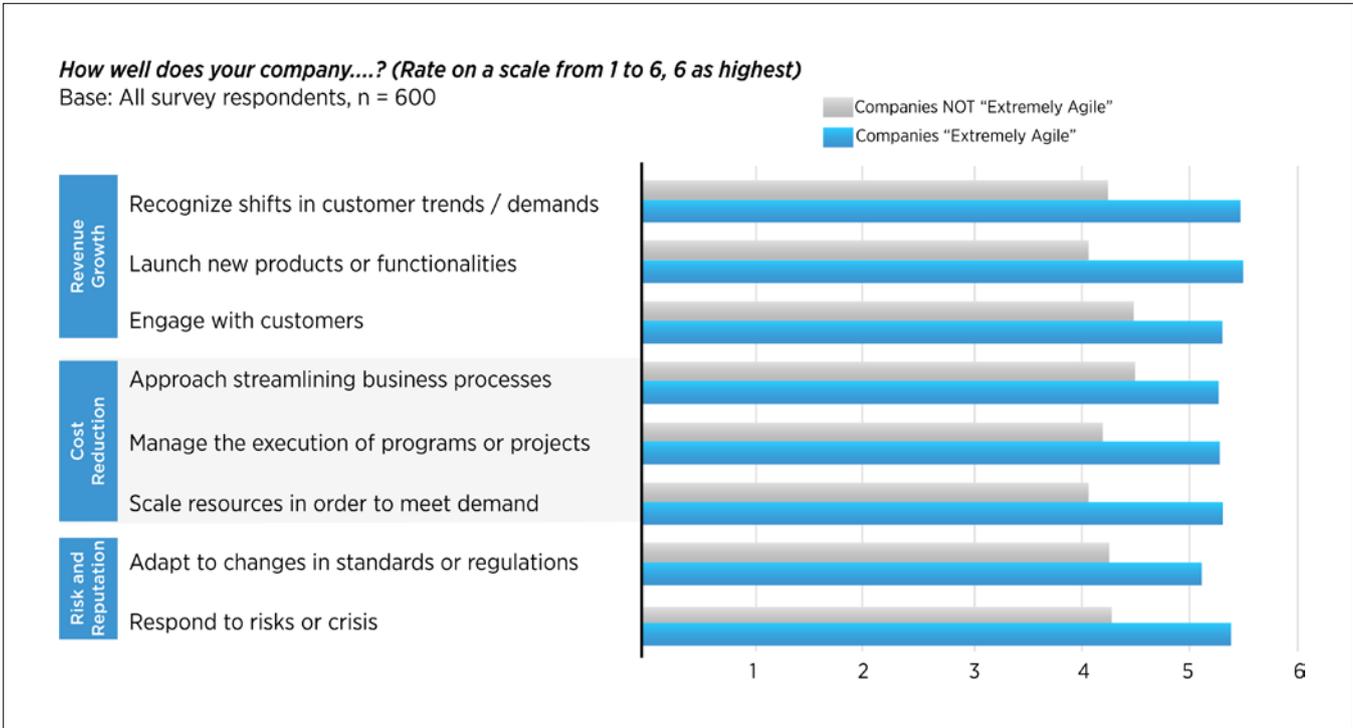

Figure 1. Corporate decision makers linked cloud computing directly to business agility in a recent survey.

Agility Critical to Achieving Key Business Outcomes

In February 2011, 600 corporate decision makers participated in a business-agility survey conducted for VMware® by independent market-research firm AbsolutData. The majority of respondents (67 percent) came from companies with more than 5,000 employees, while 30 percent had more than 30,000 employees. The respondents participated from around the world—37 percent from the United States, 27 percent from Europe and 36 percent from Asia—and from 18 different industries. Sixty-two percent of those surveyed were in business management and 38 percent in IT management.

The survey results show:

- More than 80 percent of respondents agree that agility is moderately or more than moderately linked to improving corporate revenue, cost and risk profiles, with 66 percent identifying business agility as a priority.
- "Extremely agile," companies outperform others across all business-agility dimensions, particularly "recognizing shifts in customer trends/demand," "launching new products or functionalities," "managing the execution of programs" and "scaling resources in order to meet demand."

How well does your company....? (Rate on a scale from 1 to 6, 6 as highest)
Base: All survey respondents, n = 600

Companies NOT "Extremely Agile"
Companies "Extremely Agile"

Revenue Growth
- Recognize shifts in customer trends / demands
- Launch new products or functionalities
- Engage with customers

Cost Reduction
- Approach streamlining business processes
- Manage the execution of programs or projects
- Scale resources in order to meet demand

Risk and Reputation
- Adapt to changes in standards or regulations
- Respond to risks or crisis

Figure 2. 'Extremely agile' companies perform better across all business agility strengths. (Based on McKinsey & Company's Business Agility Framework.)

Business Transformation Across Industries

The importance of agility strengths can be seen in different industries:

Healthcare organizations are in the midst of a major business transformation as they adopt electronic health records (EHR/EMR) to *reduce risk* of accidental deaths and lawsuits, and to improve *patient engagement* with improved safety and quality of care. To support those business requirements, IT undertakes an overall IT modernization effort to safely accelerate the EHR/EMR transition from manual paper-based file systems to computerized physician order entry (CPOE), so digital information can follow the patient. With cloud computing, healthcare organizations gain on-demand and cost-effective delivery of patient records to any clinician, in any hospital, in any location, with greater reliability, resiliency and security of patient information.

Similarly, governments, schools and other public-sector entities are being mandated to transformtheir cost structures. In addition, they must *respond to risk and crisis*, supporting citizens and providing services for disasters and unforeseen events such as H1/N1, and adapt to *external constraints* (e.g., dynamic changes in policy and budgets). To support agency needs, IT begins a transition that will enable it to rapidly deliver and scale citizen services, as well as efficiently adapt to the changing demands of government. Cloud computing provides a variety of agencies with a dynamic, secure and compliant solution that dramatically reduces IT services delivery time.

Around the world, retail banks are seeking to *grow their customer bases and revenue* by delivering new mobile services to market faster, so that end users have greater control of their finances. IT is aligning with business's goals, getting business-critical, customer facing mobile applications into production faster, so that customers can access them sooner. IT is enabling the transformation using a cloud computing approach. This includes a compliant, secure and controlled test and development environment that IT can leverage quickly to provide production applications that end users can access on any device, at any time, anywhere.

Strong Links Between IT Agility and Agile Companies

It is often difficult to tell whether companies are agile because IT is agile, or whether an agile business culture already in the company is influencing IT. Regardless of origins, leaders in agile companies understand the importance of tightly coupling business agility and IT agility.

- **'Extremely agile' companies report IT is one of their top two agile business functions.**
- Companies that are not agile report IT is among the two least agile of their business functions.

Cloud Computing Enabling IT Agility

For companies with agile IT functions, business and IT leaders agree that infrastructure and technology are the primary drivers of that agility. The survey shows that agile companies that have already adopted enterprise-wide cloud deployments are paving the way for their IT organizations to become more responsive and flexible to the demands of the business. In contrast, in companies with non-agile IT organizations, a fundamental disconnect exists between what IT and business stakeholders see as the problem: IT cites money and skill sets, while business cites a lack of infrastructure and technology to meet its needs.
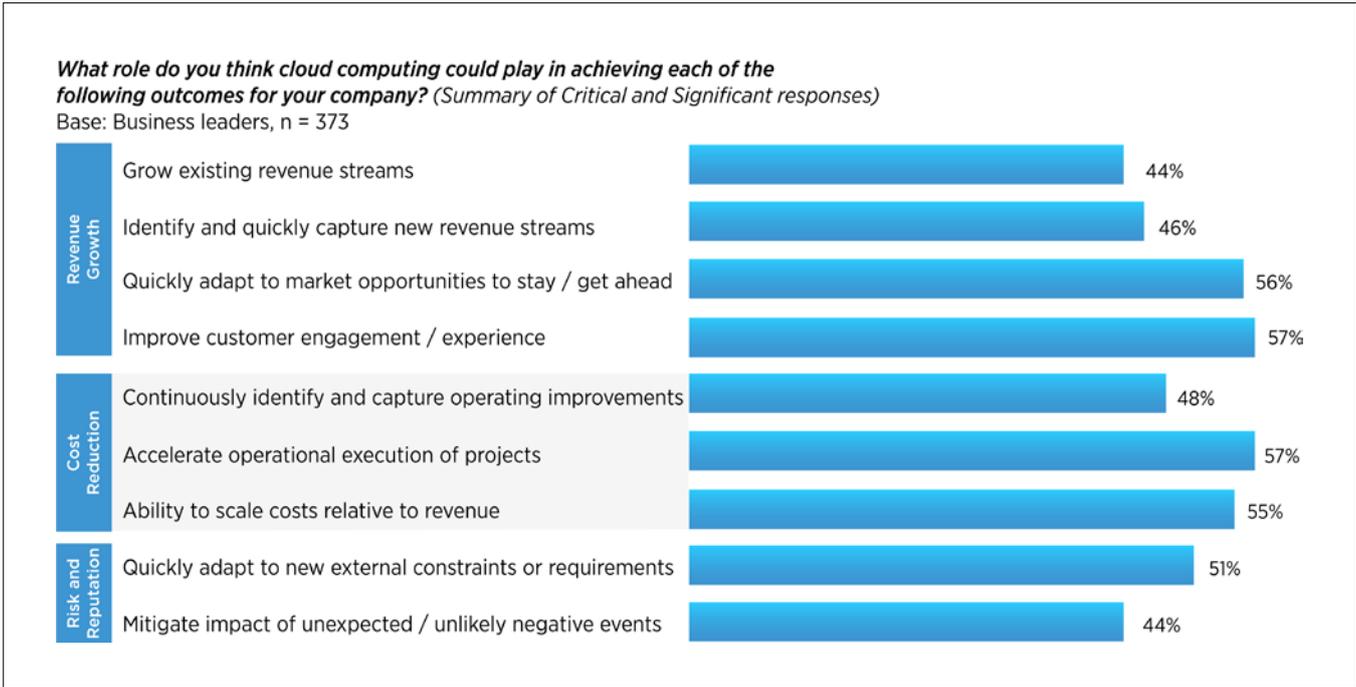
- Nearly two-thirds (65 percent) of respondents believe that cloud computing plays a key role in increasing IT agility.
- **Almost three-quarters (72 percent) of respondents who have already deployed cloud enterprise-wide believe cloud plays a key role in IT agility.**
- The majority of survey respondents (65 percent) agree that cloud computing could help their organizations maintain a flexible architecture to support changes

Business Leaders Linking Cloud Directly to Business Outcomes

Software as a service (SaaS) grew quickly in popularity because of its ability to rapidly satisfy the needs of business users, not CIOs or IT teams. When line-of-business leaders had difficulty getting into IT's priority queue, they went to the cloud for software solutions. Now cloud is fulfilling its promise to be more than just SaaS, but also infrastructure as a service (IaaS) and platform as a service (PaaS), and business users are taking advantage of these new capabilities and going around IT again. Line-of-business leaders now have good alternatives, and they are choosing them because their businesses demand greater agility.

Survey responses indicate that companies that hesitate to embrace cloud because of perceived risks may actually be hindering faster revenue growth, greater and more lasting cost reduction, and more effective management of risks and reputational threats. Looking ahead, many future business leaders will be determined by how they embrace the cloud.

- **Cloud can make the entire organization more "business agile" and "responsive," according to 63 percent of business leaders that responded.**
- Companies with enterprise-wide deployments believe cloud can help achieve 10 percent greater business agility outcomes, such as key revenue growth and cost reduction.
- **Companies with enterprise-wide cloud deployments are three times more likely to achieve business agility that is "much better than the competition."**

What role do you think cloud computing could play in achieving each of the following outcomes for your company? *(Summary of Critical and Significant responses)*
Base: Business leaders, n = 373

Revenue Growth
- Grow existing revenue streams — 44%
- Identify and quickly capture new revenue streams — 46%
- Quickly adapt to market opportunities to stay / get ahead — 56%
- Improve customer engagement / experience — 57%

Cost Reduction
- Continuously identify and capture operating improvements — 48%
- Accelerate operational execution of projects — 57%
- Ability to scale costs relative to revenue — 55%

Risk and Reputation
- Quickly adapt to new external constraints or requirements — 51%
- Mitigate impact of unexpected / unlikely negative events — 44%

Figure 3. The majority of respondents agree that cloud can help businesses improve the customer experience, accelerate the operational execution of projects and quickly adapt to market opportunities. Based on McKinsey & Company's Business Agility Framework
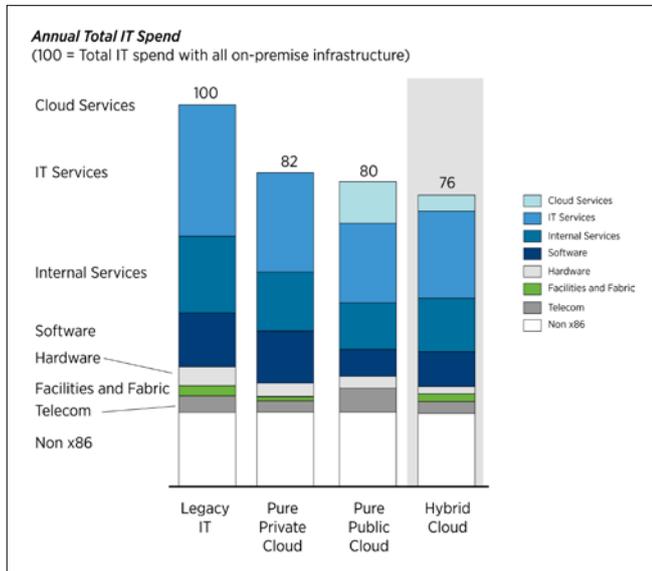
Cloud Economics

With business agility established as the primary business driver, the other half of the IT equation is cost. Virtualization—the foundation for cloud—is well-documented to provide IT cost savings. Funds can be redirected to IT innovation that accelerates business, such as cloud.

Today, the availability of on-demand, inexpensive, self-service computing capacity via public clouds is creating new competition for internal IT organizations. Public cloud providers provide a pay-per-use model for IT and publish upfront rate cards on using compute and storage resources. The cloud industry rate card is so attractive that it is driving IT organizations to try to improve services and service level agreements (SLAs) at lower costs than those at which they offer IT services today. In a sense, the public cloud has been a wake-up call for IT organizations. They must now consider the variety of cloud models—public, private and hybrid—with different cost savings.

The beginning of the cloud era is the right time for IT to change its own understanding and measurement of IT. This change is long overdue, as many IT departments today do not know the cost of IT for specific applications or line-of-business usage. Costs are assumed to be "corporate taxes" spread across the entire business. The cloud era dictates that IT departments will have to become much more knowledgeable and accountable for knowing, exact costs, allocation models, accurate chargebacks, etc. This is an impossible task in an environment of heterogeneous silos of technology.

For most enterprises, the hybrid cloud is the most economical model. According to recent VMware and EMC research, hybrid cloud deployment would reduce typical total IT spend by approximately 20 to 30 percent.

Figure 4. The hybrid cloud is more economical than pure public cloud or pure private cloud models.

Hybrid clouds offer lower IT spend through virtualization and consolidation, optimized workload sourcing, optimized provisioning and higher productivity in application development and maintenance

More than Economics: The Value of Hybrid Cloud

If you remember, not long ago IT decision makers had to choose between deploying applications on an intranet or extranet, and then most applications just ran on the internet. In three years, the distinction between private and public clouds will slowly dissipate, and the two will complement each other in a way that leverages the best of both worlds—a hybrid cloud that may simply be called the cloud. But the need for both will remain, because there is so much investment in legacy environments within the datacenter. That is not going away. It would be nice to have it just run better and be more cost-effective in someone else's datacenter, but if that could happen, everyone would have outsourced IT by now.

There are reasons (security, compliance, operational control, etc.) why companies are continuing to maintain their datacenters. So, we need to maintain those characteristics and bring the benefits of cloud computing to the datacenter, or we're missing a large piece of the opportunity to drive greater

agility. That is why the emphasis on private cloud. But why stop there? There is always going to be the need for more resources. Think about demand that is spike-based by season or event, or an acquisition requiring a company to ramp up and then ramp down. Another case may be that the company just does not know what the demand will be, so it needs to make sure it has capacity for unpredictable situations. So stopping at the boundaries of the datacenter does not make sense when you have the rich public cloud option available that can be integrated into the enterprise IT strategy. That is why hybrid is such a valuable solution

The key to hybrid cloud is the standardization of frameworks and infrastructure across public and private cloud, including

• A common platform
• Common management
• Common security

Standardization is what makes applications and data portable and accessible across clouds. Given both the business and cost benefits, it is clear that hybrid clouds are the deployment model of the future.

Why VMware for Your Cloud?

By allowing enterprise IT to intelligently and dynamically anticipate and respond to business needs, cloud computing creates competitive advantage. If your business is thinking about building for the cloud, why not build for your cloud? Although true cloud computing is a standardized approach, the way every individual business approaches cloud computing is not. VMware is here to help you move beyond the limitations of a one-cloud-fits-all approach.

How you will want to approach cloud computing depends on your business. Do you want to begin with an internal (private) cloud? Do you want to leverage public cloud services? Do you want a combination?

In other words, it is not about the cloud, it is about **your cloud**. With its unrivaled experience, large customer base and partner ecosystem. VMware can help you move beyond current IT limitations, to your cloud—where you can accelerate IT, which in turn accelerates meaningful results for your business.

Your Cloud.
Accelerate IT. Accelerate Your Business.

Contact VMware today to accelerate IT and your organization's transformation to business agility through the cloud.

Resources: Download the Business Agility Survey, Feb 2011 at http://www.vmware.com/your-cloud.

Customer Profile: Global Financial Services Company

This global asset management and advisory firm manages over USD $50 billion in assets across five distinct asset classes: commercial real estate, corporate loans, derivatives and capital markets, private equity and principal investments, and residential mortgages. Using VMware cloud solutions to drive its IT transformation and cloud infrastructure, the company recovered $20B+ in assets. The company's IT organization is recognized for fueling business responsiveness and the company has saved $1M a month in IT costs

BUSINESS AGILITY FOCUS AREA	BUSINESS AGILITY STRENGTHS	AGILE BUSINESS REQUIREMENTS	IT AGILITY REQUIREMENTS AND CLOUD SOLUTION CAPABILITIES
Grow revenue	Launch new products or services	New portfolios for pricing, plus flexibility in pricing and management techniques	To accommodate extreme uncertainty, company needed - Highly elastic capacity, capable of rapidly scaling up or down - Public/private cloud integration for more capacity on demand and to support workload shifts for latency reasons
Reduce costs	Execute programs and projects	Quickly unwind 1.2M derivative transactions. Accurate intelligence and pricing. Rapidly and efficiently establish book value and dispose of assets, under scrutiny	To deploy greenfield IT and reduce lead time for deal closure, company needed - Immediate access to IT infrastructure from cloud services provider BlueLock (a certified VMware vCloud™ Datacenter Services partner); complete infrastructure and application support planned in eight months, rolled out in four - Cloud-based data and applications hosting for all workloads To reduce lead time, company needed - Dynamic provisioning enabling it to rapidly scale resources to accelerate deal execution
	Scale resources with demand	Shed 50 percent of asset base and scale operation over unknown period.	To minimize expenditures, company began to - Immediately reduce $1M in IT expenses each month - Outsource support personnel, managing with a team of three what hundreds did before - Use a pay-as-you-grow, OpEx-based procurement model with minimal upfront capital required To increase transparency, company began - Metering and chargeback to attribute expenses To further accommodate extreme uncertainty in capacity requirements, company needed to - Provide a standard service catalog with known computing and pricing characteristics
Respond to risk	Adapt to external constraints	Prepare for and address uncertain lawsuits, legal actions, and government requirements and regulations	

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