



Managing Change for Successful Cloud Computing Adoption

By David Amborski and Andrea Heaberg

Abstract

As adoption of the cloud market continues to evolve and mature, it is impacting directly or indirectly every aspect of an organization that is considering or actively pursuing this strategy. As we examined the rationale for an organization's move to cloud computing, we were struck by the similarities in value drivers between a transition to the cloud and enterprise resource planning (ERP) transformations of the 1990's: such as; service, flexibility and cost. Yet, many ERP implementations struggled due to an under investment of time, money and resources; focus was on the technology, not necessarily holistic business process re-engineering and certainly not the "people" side of the transformation. Fast forward to today's techno-hype called cloud computing. What is it that makes cloud computing, and its' obvious extension, social computing, different and perhaps more challenging?

Cloud computing is much more about the way technology is managed and delivered than it is about the technology itself. When viewed solely as an IT project or technical solution, the culture of the company will often determine the outcome. The cloud requires a shift in thinking and behaving regarding how an organization conducts its daily business, installs processes, builds supporting technology, and manages people. If the cloud strategy is not well thought out, or if the C-suite isn't aligned, then cloud computing can disrupt solid business models, good operating principles and competitive strategies.



Cloud Adoption Impacts People

The cloud offers a great path forward and while the technology may be ready to go; many times people are not - change management becomes very important. Traditionally, resource constraints, more than anything else, have left little time or energy for a vigorous amount of communication and training across a broad enough group of employees. The bar has been raised considerably over the past couple of years regarding usability, functionality, and access. Employee use of social computing is becoming the "new normal" as workers are demanding transparency, instant information at their fingertips, easy apps, and more autonomy and mobility.

The cloud could change your culture or corporate personality. This could be especially evident in those corporate environments that have not transitioned from more traditional vertical or "silo" driven organizational models. Much like the due diligence that is required with an ERP implementation or transition to an offshore development model, an examination of the operating culture of the organization is mission critical.

Social computing is allowing collaboration, and a shift of behavioral patterns of users and the communities in which they work. Mobility offers new access channels to applications and data, and at the same time provides end users with a wide variety of device choices. The combination of cloud, social computing and mobility can be used to increase geographic diversity and raise the productivity of virtual teams. Users expect to get access to personal, work, business applications and data from any device, anytime and anywhere.¹

The challenge this presents to companies is that "command and control" will give way to connect and collaborate, letting others lead the leader when they know best about formulation of a direction, and the effective execution on that direction. Recently Tracey Rothenberger, CIO, Senior Vice President and Chief Process Officer for Ricoh Americas, let 9,000 employees choose their own mobile phones and tablets and coined the term BYOD. In other words, employees are empowered and lead the decision making process. Most company organizational structures are too middle management laden to accommodate such a shift,

with managers and supervisors generally unyielding when it comes to relinquishing control. Additionally, this begs the question as to whether or not employees are adequately prepared technically, emotionally and socially. Are they ready to assume this new role and responsibility? Therefore, the thought of change management being important to success, begins to emerge.

To address this change, companies must reassess their thought patterns regarding where and how personnel perform work. Organizational redesign and realignment of span of control will be needed in order to orchestrate a change of this magnitude. Business processes will need to be redesigned for the change in workflow patterns and collaborative decision making by virtual teams. There will need to be an emphasis on building virtual teams, requiring additional training.

Shift to People-Centric Access

Most IT departments will not allow the mix of business and personal use computers, much less free flow data access outside the company firewall. The biggest argument that is used is security, which translates to an unwillingness to accept the risk or simply being uncomfortable with data being outside of the internal control of the organization. In a recent webinar with clients, Earl Perkins, Gartner research vice president, indicated the time has come for IT departments to embrace new ideas about security policy. CIOs must reassess their mandate to meet the business demands by instituting proper controls of the application and tools, and provide skilled personnel to support an internal environment. This approach may be too costly and may necessitate the need to reevaluate the feasibility of a cloud service. Either approach requires a cultural shift, resulting in the need for organizational and business process change management, communications and training.

CIO's Need to Stay Ahead

The need for flexibility is driving constant change. CIOs are faced with trying to keep up with and balance market and business trends, an increased emphasis on data integration and security, governance and compliance, application erosion, mobile device models, and information consumption in both structured and unstructured forms. Now cloud computing is causing a seismic shift in the IT management model, from IT hardware and network management to IT services

¹ "Gartner Predicts 2012: Four Forces Combine to Transform the IT Landscape", Published: 9 December 2011 Analyst(s): Daryl C. Plummer, Peter Middleton.

delivery. This emphasis and shift in the management model has an impact on both IT and non-IT employees.

The CIO and IT manager role is now more important than ever, but that role is changing. Enterprise IT is failing to anticipate the emerging skills shifts that will be necessary to compete with the major cloud services providers (systems administrators are now developers of “programmable infrastructures”)². This shift is creating a multitude of challenges, requiring IT personnel with business acumen, technical knowledge, and a service oriented mindset. Information life cycles require IT personnel to focus on business users and business user requests take too long to implement. All this requires analysis using new thinking and customer-centric approaches that are unfamiliar to many IT departments.

The complexity and rapid acceleration of change of this nature means that companies will need to aggressively engage in organizational change management activities. These activities should include: leadership alignment (what’s the mandate?), stakeholder impact analysis (viability, risk, benefits, socio-political influences) organizational readiness assessments (cloud deployment), and IT skill assessments and training. HR organization and job restructuring (role and responsibility modeling), business process redesign (support models), team building (problem solving and decision making), and massive amounts of communication will also be foundational to this effort. As a result of these variables and their potential impact on the organization’s operational effectiveness, decision makers must evaluate the proposed cloud adoption from multiple stakeholder perspectives. It is only through this multifaceted approach that the organization can effectively prepare through understanding and assimilating a diverse range of stakeholder concerns and a broad range of feedback from the organizational environment.

Understand the True Value of Cloud Computing

Cost savings and expected return on investment of the cloud are highly touted. The lure of reduced or no infrastructure overhead management, costs derived from operational versus capital budgets, and pay for what you

use (theoretically) seem to make a strong case. Yet, simply outsourcing a company’s IT portfolio solely as a means of spreading out the payments associated with IT spend as an operational cost cutting measure is very short sighted.

Cloud computing cannot be counted as assets on balance sheets. A myriad of fact-based scenarios must go into a cost benefit analysis, along with the pros and cons of various resource usage patterns and deployment options. Whether public or private clouds are on your company horizon, we highly recommend a cross functional analysis to determine the true cost of cloud ownership. Try the cloud in small segments first. The price to experiment is low, and gaining experience while the technology matures is invaluable. From an enterprise perspective, costs are important, but so too are customer relationships, public image, flexibility, business continuity and compliance.

In the recent economic downturn, companies have been forced to become leaner and do more with less, causing the worker skill gap to widen. Companies must now look to not only how technology is driving how things are done (given that technology is being used in different ways), but also must take a different philosophical view about job changes and how people work together. Companies are entertaining more internal consulting (staffing) models versus an outsourcing model. Organizations can bring in the “hired gun” to cover knowledge/skill gaps and buy resources necessary to get the work or project done versus hiring a consulting company for “blanket coverage” or mass hiring of company employees.

One of the business drivers is that “if you don’t have all the expertise you need inside the company you can rent it”, taking a “test drive” before you buy approach. This type of resourcing is not without its drawbacks. There are still customer (internal employee) and operational (vendor) people management components. Within Human Resources, the approach to staffing and workload effort management requires a significant shift in resource planning. Organizations will have to totally rethink (reengineer) their hiring, training, promotion and pay practices.

While many organizations view the cloud as the next logical transition step in IT outsourcing, it is the context

² “Hype Cycle for Cloud Computing, 2010”, Gartner: G0001557, Cameron Haight.

in which the migration to cloud computing is made that can have far reaching affects. Cloud and social computing are creating disruptive change across the enterprise; from financial accounting, human resources, vendor acquisition, to end user access and usage. Leaders must understand these changes to ensure that they are buying the right things and managing them the right way, in order to gain the expected returns. Foundational change management thinking and approaches associated with obtaining buy-in, inspiring employees, driving organizational changes, overcoming objections, and linking strategies between IT and customers of IT are critical to a successful cloud computing initiative.

Head Off Cloud Computing Challenges with a Strategic Plan

Cloud adoption decisions are challenging for a variety of market, socio-political, and organizational reasons. It is unlikely that all organizations will completely outsource their back-end computing requirements to a cloud service provider. Rather, the value models will reflect the usage patterns to drive the type of cloud solution deployed. It is more likely that companies will establish hybrid models based on dedicated servers, organizational clouds and possibly utilizing more than one public cloud provider. How the application portfolio is distributed across the enterprise depends not only on technical issues, but also on factors (for example, concerns about costs, security, risk, compliance and control), that have impact on work practices as well as constraints from existing business models.

Therefore, the challenges that need to be addressed are:

- 1) to develop a cloud strategic plan that includes people, processes, technologies, and how that strategy will align with the business strategy of the organization;
- 2) to provide accurate information on costs of cloud adoption, including end user training and communication;
- 3) to support risk management;
- 4) to ensure that decision makers can make informed decisions about trade-offs between the benefits and risks; and

5) to ready the organization for the change. Transition to “virtual” platforms and management approaches and the speed of that change is unlike any other time in our history. Traditional, hierarchical organization structures are too inflexible to support this rate of change. New organizational structures with smaller, flatter design are emerging. “Unmanagement,” that is the empowerment and innovation of self defining and self-organizing work groups, is replacing top down management approaches and models, and “on-the-job training to provide the work experience” is shifting to “grow your own experience” with its own intrinsic rewards.³

Conclusion: Assessing Your Organization's Cloud Computing Readiness

Here are three basic questions to ask yourself about your company's readiness for cloud computing.

- Does your organization have an overall cloud-computing strategy; do you have consensus on the use of cloud services?
- Is your leadership aligned around stated business, IT and strategic goals and objectives?
- Would you describe your company culture as one of sharing and collaboration?

Organizations must be prepared to consider strategies for coping with fast-paced changes in the marketplace or risk being left behind. Change management and organizational alignment initiatives are always needed when change occurs - in process or in structure – and must be woven into the overall fabric of an organization. This dramatic shift in IT thinking and management for cloud computing is no different. It will require a focused, organizational change management approach.

³ “The Cloud Adoption Toolkit: Supporting Cloud Adoption Decisions in the Enterprise”, Ali Khajeh-Hosseini, David Greenwood, James W. Smith, Ian Sommerville. Cloud Computing Co-laboratory, School of Computer Science University of St Andrews, UK, 2010.

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