Integrating Strategic Planning for Cloud and SOA

Topic: Cloud Computing

Date: June 2011

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Abstract:

Moving to Cloud Computing at any level, private, public or hybrid, represents a major challenge and opportunity for enterprises. But for an enterprise getting beyond the experimentation, niche and commodity applications to actually deliver the expected cost benefits with minimum risk is always harder than anticipated. Full blown Cloud adoption implies mature and sophisticated SOA implementation and impacts many business processes and requires coordination of multiple, disparate disciplines. Experience tells us such an adoption process requires integrated business driven strategic planning.

Introduction

In October 2010 Gartner Group assessed that Cloud Computing is at the top of the Hype Curve[1], the peak point of inflated expectations. But no one really needs this authoritative assessment to confirm an opinion that the industry in general is still in the early stages of Cloud Computing. An even more recent survey[2] reveals that just 7% of organizations have approved cloud strategies and most organizations are now planning to establish strategic plans. So notwithstanding the cautionary reports, most government and commercial enterprises are planning to move rapidly to embrace the profound change inherent in this computing model.

Clarify Scope and Objectives

As many organizations embark on strategic planning for Cloud Computing they should be strongly advised to think hard about the scope of their planning activity.

First, what's becoming very obvious is that we are in the midst of a significant paradigm shift. Cloud Computing is a major change in its own right, but in fact it is essentially only one phase in a much longer running cycle that commenced back around the year 2000 and continues to transition the entire industry from monolithic IT at all levels to service oriented everything.

Second, the scope of the strategic plan should reflect core business service strategies. This is unlikely to be an all-encompassing enterprise level plan, rather a cross cutting plan driven by business domain or value chain that ensures business innovation and restructuring opportunities are not limited by existing application boundaries or As-Is model perspectives. The objective should not be to establish a "one size fits all" Cloud for the enterprise, rather a coherent framework in which alternatives can coexist with strong governance over key policies. At all costs avoid bottom up planning based on technology.

Whilst Cloud is the "trend de jour", a study of the leading platform offerings, particularly Amazon, Microsoft and Oracle, shows that Cloud based solutions are synonymous with SOA. These leading IaaS and PaaS platforms are all completely service oriented and demonstrate sophisticated, next generation SOA implementations. All the platform capabilities are delivered and consumed as services and whilst the end user may choose to deploy conventionally architected applications, they would be highly suboptimal in terms of cost, portability and business agility.

At this juncture we also need to revisit the question of what is the Cloud. Not surprisingly, like most important trends, the concept is morphing as it matures. In the early stages of Cloud, the emphasis has been heavily focused on cost restructuring particularly in the areas of automation and standardization of technology infrastructure and rationalization and optimization of those resources. The PaaS layer has been mostly used for

niche and non-core business applications and the SaaS layer has been used primarily for conventional Web applications including CRM and HR, and commodity applications such as office productivity and email.

The next stage of Cloud will be focused on business services and the operation of an ideal service architecture which rationalizes the morass that is the typical enterprise application portfolio. In this process the Cloud based services will align with customer facing business services to form the service oriented enterprise.

One might even wonder if the term Cloud will be relevant in just a few years time? The term is already coming under pressure because Cloud covers such a multitude of architecture concepts. Even the early standards work undertaken by NIST[3] is rapidly dating as for example multi-tenant is no longer a unique identifying characteristic, and as the base models of private, hybrid and public are changing with the emergence of the Virtual Private Cloud.

It seems probable therefore that the industry will go full circle and Cloud will be a primary enabler of the Service Oriented Enterprise, or, heaven forbid SOA 2.0.

Integrate Strategic Planning

This discourse is not wild speculation, it is high probability. As a consequence we recommend that strategic planning for Cloud should be fully integrated with SOA planning. This is particularly the case when strategic ambitions are broader than purely technology infrastructure rationalization.

Cloud, like SOA will continue to evolve over a number of years. In this rapidly changing environment a form of planning is required that anticipates and prepares for constant evolution and change. Organizations need to plan on continual and rapid maturing of both external capabilities including suppliers, technologies, standards, products and services, as well as internal skills, competencies and capabilities.

Everware-CBDI has been advising larger commercial and government enterprises on maturity modeling and roadmap planning techniques for many years in Component Based Development, SOA and more recently Cloud Computing. Our research and experience has shown that widely available, two dimensional maturity models are very superficial and in practice several perspectives are needed to create an effective change adoption and management plan:

1. A high level maturity model (L1) that links business objectives and goals to maturity levels, scenarios and outcomes.

2. A roadmap that transforms maturity levels to timeframes, identifies programs, projects, products and technologies that deliver the scenarios.

3. A next level of detail maturity model (L2) that identifies new and modified capabilities, the maturity stages they will need to transition through and key external dependencies such as technologies, standards or supplier capabilities that will be essential prerequisites for each level of maturity.
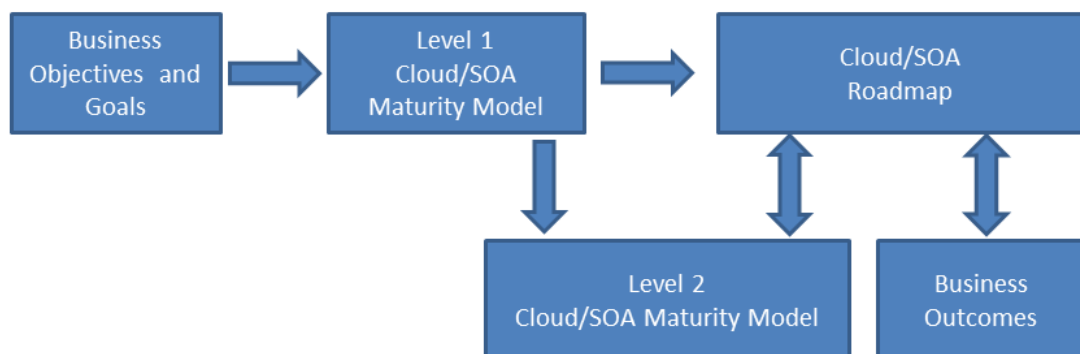
Integrating Maturity Models and Roadmap

The Figure above illustrates the L1 model establishes the all-important starting position that provides the business perspective that drives the more detailed views. There is naturally interaction between the L2 model and the roadmap as scenarios, projects and programs are matched to specific capability maturity assessments.

This approach is necessary because the roadmap is a mechanism that maps project and technology decisions onto time and is essentially about "how". So the maturity model addresses what capabilities are required to support business outcomes. The high level maturity model is therefore an essential precursor to a roadmap. Build a roadmap before you have a maturity model and you will be in danger of confusing concerns. The detailing of the roadmap and the maturity model should be undertaken interactively allowing priority and capability readiness issues to be resolved concurrently.

Summary and Recommendations

Strategic plans for Cloud and SOA must be tightly integrated. The plans must anticipate continuous change in external and internal capabilities and competencies.

Plans should not be technology driven, nor enterprise wide. They should facilitate business and technical innovation.

The high level Maturity Model is a transformation of

- Business objectives and goals to scenarios by relative maturity

- Business model to service requirements by relative maturity

The detailed Maturity Model is an analysis of

- Capability to maturity
- Capability dependency (internal and external)

The Roadmap is a transformation of:

- maturity levels to time

- capabilities to products, services, suppliers

- identification of transformation (change management) projects and programs

- mapping to business projects and programs

and a major input into the portfolio and program planning process.

Without a comprehensive plan in place that incorporates Cloud and SOA concerns, organizations will flounder, driven by technology concerns and tactical business priorities. In contrast the integrated plan will allow an enterprise to drive extraordinary competitive advantage.

Next Steps

Talk to Everware-CBDI about how our consulting services can accelerate your cloud and SOA maturity and support for critical business strategies.

Subscribe to Everware-CBDI knowledge products to accelerate Cloud and SOA capability development.

Use Everware-CBDI skills development products to ensure all business and IT roles are educated and certified in the fast emerging concepts and technologies.

About Everware-CBDI

Everware-CBDI is an innovator in architectures and practices for Cloud, Service and Component based concepts, technologies and techniques. The company has guided many F2000 companies and government

departments in establishing architecture and best practice. We make our documented best practices available to our customers through continuous skills development products, as well as providing collaborative consultancy that is designed to facilitate enterprises to demonstrate practice improvement and internalize the experience as repeatable processes.

Contact Everware-CBDI at www.everware-cbdi.com

References

KeyWords: Cloud Computing, SOA, Maturity Model, Roadmap Planning

Links:

[1]Gartner Group 2010 Hype Cycle Special Report http://www.gartner.com/it/page.jsp?id=1447613

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[3]NIST http://www.nist.gov/itl/cloud/

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