Tech Agile
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THE ROI OF CLOUD

Courtesy: Excerpts from Lockheed & Martin Report

Moving to the cloud provides a huge financial benefit to businesses that adopt the right tactic at the right time for the right mission.

The return on investment from cloud computing when done right, is nothing short of staggering, and government agencies clearly agree. According to a study by the 1105 Government Information Group, half of the 460 government respondents agreed that cloud computing solutions have a lower total cost of ownership (TCO) than on-premise offerings. About half also indicated that the ROI associated with new cloud computing programs will happen faster than for comparable IT initiatives implemented via traditional on- premise approaches. Roughly half of the respondents work for a civilian agency, while the other half worked for military agencies. And roughly half had non-IT titles but substantial roles in technology decision making, while the other half had IT titles. Other studies validate these views and even quantify the savings. The Brookings Institution ***estimates that federal agencies are experiencing up to a 50 percent savings overall by moving to the cloud.*** In fact, some types of federal cloud deployments save more, while others save somewhat less.

"When we think about information technology and the potential of cloud computing to lower the cost of government operations, drive innovation, and fundamentally change the way we deliver technology services across the board, we recognize that this is an amazing time in the very early days of cloud computing," Federal CIO Vivek Kundra said at a Brookings event in April 2010. Many studies, including the study from Brookings, note that although organizations accrue significant savings from all types of cloud solutions, the largest savings tend to be from public cloud implementations.

Cost Savings

Smaller but still substantial financial benefits occur from hybrid cloud infrastructures. And public reports have shown significant financial and operational benefits from private cloud implementations, as well. The primary areas where all types of cloud solutions offer the most ***cost savings are direct labor (typically IT staff), hardware, software and end-user productivity.***

Labor cost savings are the easiest to calculate. By off-loading software, applications or a platform to a private cloud platform, far less time is needed to administer, maintain, upgrade and troubleshoot the technologies. For example, if a systems administrator is traditionally in charge of 140 servers, that same systems administrator can be responsible for thousands of cloud-based servers.

Automated provisioning also helps significantly reduce IT management costs. In the cloud, virtual servers are provisioned as needed automatically instead of manually. This reduces downtime and compliance issues. The 2009 Cloud Computing ROI Study by IBM Research estimated that for medium-sized cloud deployments, provisioning costs will fall by roughly half; for large clouds, however, they will fall by as much as 90 percent.

IBM Research found that 81 percent of public cloud infrastructure adoption payback is due to decreased labor.

Hardware savings also are relatively easy to quantify. By relying on hardware in a public cloud, on-site hardware has to be replaced less often and less new hardware has to be purchased. That, in turn, leads to much-reduced power and cooling costs, as well as less space needed in the data center. IBM estimates that ***medium-sized cloud deployments lead to a 62 percent savings in a year compared with an on-premise system. For larger cloud deployments, the annual savings approaches 50 percent compared with an on- premise implementation.***

MAJORITY AGREE ON THE ROI OF CLOUD COMPUTING

A cloud computing solution will have a lower total cost of ownership than an on-premise implementation: **50% Agree 37% Neutral 13% Disagree**

The return on investment from a cloud initiative will occur faster than with a traditional on- premise: **44% Agree 46% Neutral 10% Disagree**

Software savings also can be significant. Instead of buying software licenses and being responsible for recurring annual fees, organizations can opt for a pay-as-you-go model, paying only for what they use – avoiding the waste of buying seats that are never used,
commonly known as shelfware – and avoiding additional fees. And because operators of large data centers can get bigger discounts, they can pass the savings on to their customers. What's more, the cloud model enables organizations to better account for ebbs and flows in usage.

End-user productivity is at least as important as the other three categories, yet it is much more difficult to quantify. Productivity improves in cloud environments for many reasons, including the ability of end users to obtain services directly from the cloud providers. That approach reduces IT department service times by tenfold or more.

In addition, services can be rolled out more quickly, with less concern about oversight and compliance and without regard for resource constraints if the service agreement includes that type of flexibility.

Getting the best ROI possible

Although it may seem counterintuitive, it's critical to spend what it takes to make the hybrid cloud infrastructure work for you. That means investing in tools that will better manage the virtualized infrastructure of the cloud; virtualization software that manages the virtual servers; and service management software that provides the visibility, control and automation needed to best manage cloud-based services.

Also, make sure to restructure your IT organization to manage the cloud infrastructure and how it maps to the services themselves, as opposed to the underlying technology. That means changing both mindsets and processes to accommodate how the cloud works. It also means training staff to specialize in demand-planning activities such as

business analysis, capacity planning, requirements gathering, documentation, negotiation, project management, financial planning and portfolio management.

Taking these steps, although temporarily painful, will put the organization in a place where it can receive the most benefit – and the highest ROI – from cloud computing.

Measuring ROI

Measuring hard savings in areas like labor is relatively easy, but it's more difficult to measure the soft cost savings of moving to the cloud, such as higher availability, increased productivity, and anytime/anywhere access.

The first step is to create a list of Key Performance Indicators (KPI) that specifically affect your situation. For government, these would include factors such as risk, compliance, and improvement of service to people. In addition, major KPIs that all organizations need include cost, time and service quality.

Mark Skilton of the Open Group, a not-for-profit consortium dedicated to open standards, has repeatedly urged organizations to include business metrics as well, such as the speed and rate of change, optimization, rapid provisioning, increased margin and cost control, enhanced capacity utilization, and access to business skills and capability improvement.

After gathering these metrics, create a scorecard of current and future operational business and IT service needs related to cloud computing potential. Only then will you truly begin to understand the ROI of cloud.