A Framework for Cloud IT Total Cost of Ownership (TCO)

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About Saugatuck Technology

Saugatuck Technology, Inc., provides subscription research and management consulting ser-vices focused on the key market trends and disruptive technologies driving change in enterprise IT, including Software-as-a-Service (SaaS), Cloud Infrastructure, Social Computing, Mobility and Advanced Analytics, among others. Founded in 1999, Saugatuck is headquartered in West-port, CT, with offices in Falmouth, MA, Santa Clara, CA and in Frankfurt, Germany. For more information, please visit www.saugatucktechnology.com or call +1.203.454.3900.

EXECUTIVE SUMMARY

Cloud IT has arrived as a legitimate, attractive and powerful expression of corporate and consumer computing. As it replaces, blends with and infuses business and IT at all levels from infrastructure to applications to process, it begs to be managed. If a groundswell like Cloud IT is not managed properly, it may not only be more expensive and risky, it might create irreversible decisions that take an enterprise down a path of IT chaos.

This report will discuss a framework for Cloud IT TCO. Cloud IT can take many forms and permutations. There are a myriad of things that can be offered as a service. Saugatuck has developed a reference model called the Cloud IT EcoStack™ that ranges from raw materials to Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), Software-as-a-Service (SaaS) and Business Process-as-a-Service (BPaaS). Additionally, and most likely in the real world, Cloud IT and On-Premise IT will exist as a hybrid system with components and services in each or both camps.

Buyers that understand TCO and their own operating costs will be best positioned to make good decisions on Cloud IT solutions. Those that don't may make erroneous assumptions about Cloud IT costs that are confirmed by marketing tools presented by both Cloud and traditional IT providers.

SO WHAT?

In presenting this report, we invoke the timeless maxim that "You can't manage what you don't measure." Total Cost of Ownership (TCO) is a time-tested methodology to establish a framework by which IT systems can be assessed and therefore better managed. It is a framework by which decisions can be made and outcomes tested.

TCO DEFINED

Total Cost of Ownership (TCO) is a holistic view of IT costs across enterprise boundaries over time. That's it in a nutshell. However, there are several important concepts embedded in the words. First and foremost, the term "holistic" represents the concept of "mutually exclusive, completely exhaustive" view of the cost elements. Mutually exclusive makes certain that there is only one category for everything and that nothing is counted more than once. This implies that everything is completely compartmentalized and is one of the greatest challenges in cost accounting in an IT ecosystem. The term completely exhaustive means that nothing relevant and important is left out. This becomes very tricky in that virtually everything is related, so some practical limitations come in handy. IT costs would seem to be a straightforward concept and with capital costs it is relatively simple. An asset can be 100 percent allocated as an IT cost or partially allocated and it can be assigned to multiple – but not duplicative cost categories. With operating costs it is often not so simple to identify, allocate and enumerate. And finally, "over time" means that these costs need to be looked at over some defined period such as "useful life" or amortization table for asset cost and typically annually for operating cost.

It is also important to look at what is not included in traditional on-premise IT TCO. Typically, the benefits are not included. When benefits are included, then it becomes an ROI model and that is a different analysis. Other things that are not included are those items that do not change based on changes to the IT being studied. If the cost of the plants in the corporate lobby do not change based on an IT

scenario, then they are not included. If the lobby no longer exists based on an IT before-and-after scenario, then the plants become part of the analysis.

A fundamental tenet of traditional IT TCO is the relationship between Capital, Labor and Fee costs. The Capital / Labor / Fee ratio is an earmark that has distinguished various IT architectures, configurations, and systems. For example, data centers are traditionally centralized, capital-intensive, and labor-efficient. More distributed systems might have higher labor costs and lower capital costs. An illustration of this can be seen in Figure 1.

Observation: With Cloud IT, the cost category of Fees, a previously less significant element of TCO, becomes a dominant cost element.

Figure 1: Capital / Labor / Fee Ratios can vary by Architecture
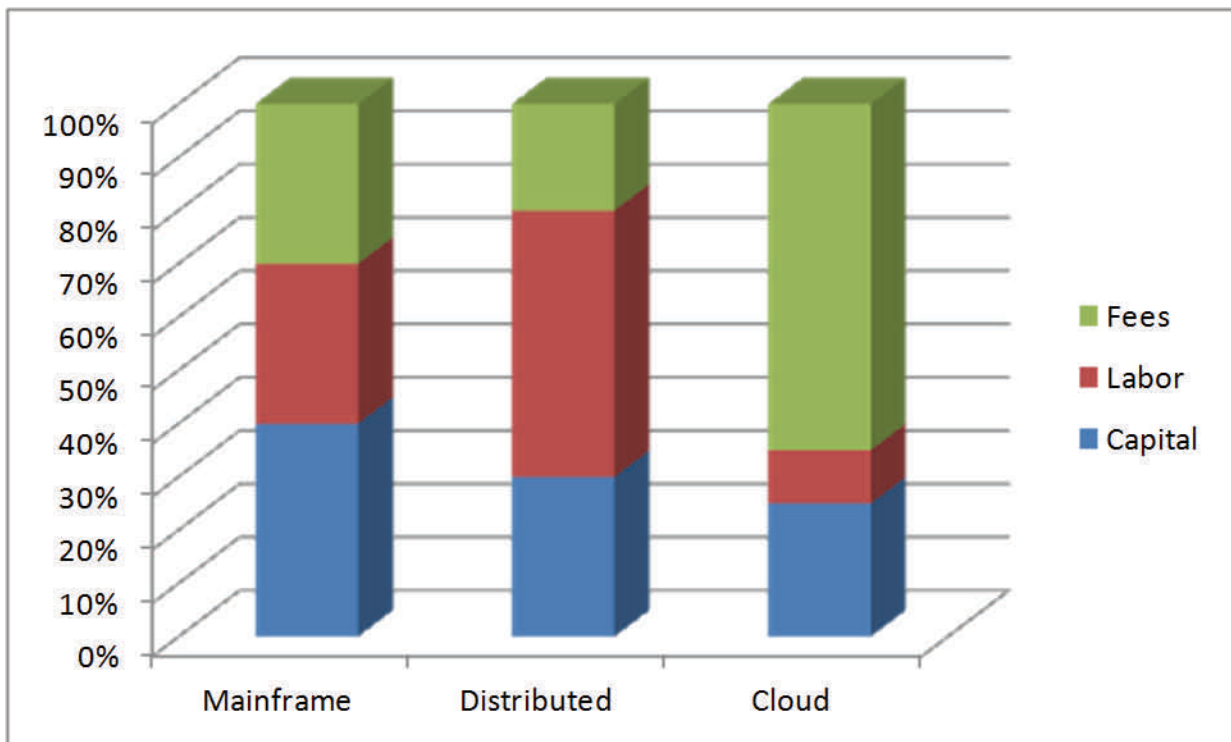
Source: Saugatuck Technology Inc.

Hard or fixed assets like hardware and facilities are included in Capital costs. Capital costs are typically depreciated and amortized over a useful life that can vary depending on the accounting method or goal. This is often referred to as CAPEX.

Labor costs include fully burdened salaries and hourly rates for all personnel allocated to an IT task, including IT staff, consultants or other outsourced professionals, and internal and internal, supply chain and customer end users.

Fees are paid for licenses, utilities, taxes, rentals, leases, and services that are not included in either capital or labor costs. Sometimes Fees are bundled into assets or Labor, and are difficult to tease out, although sometimes it is necessary to do so to expose a hidden cost that can create a risk, liability or cost increase over time.

How does Cloud IT Change the TCO Model?

Saugatuck believes that the high-level categories of Capital, Labor and Fees still represent the whole cost structure of IT. Hence, the fundamental elements of TCO do not change with the advent of Cloud IT. *The basic model has remained stable for 25 years and continues to be relevant.*

However, the packaging of those elements and how they are identified can be different. Cloud IT is defined by services and traditional IT is defined by services, applications, assets, tasks, functions and other more basic elements. So the chart of accounts for Cloud IT will have different line items than the traditional Capital/Asset and Labor model. Thus it is critical for any comparative analysis to make sure that:

1. Apples are compared to apples and oranges compared to oranges;
2. All the fruits are in the right baskets; and
3. Nothing is added, subtracted or left out of either pie.

The new service-based Cloud environment tends to abstract assets, obfuscate labor, virtualize resources and deliver IT-based business functionality at a contracted rate. These contracted service rates need to be combined with discrete local resources that remain to interface, integrate, and administrate with the service to make an operational offering.

Using the Cloud Stack as a Framework for an Integrated TCO Model

Saugatuck has developed a reference model for IT that provides a framework for looking at TCO. The model has five levels that encompass the basic technologies found in the traditional TCO analysis to entire business processes delivered as a service. Note that this stack can be implemented as a private, public or hybrid Cloud, so a TCO model needs to have line items that include all components and services. When individual line items are delivered as a service, the fee and associated other costs for the service is input and the individual line items are reduced accordingly.

Level 0 includes discrete elements like hardware, software, networking and services. related components and services. For our analysis, services will include internal labor and fees for external services. This is the domain of traditional IT TCO models. Our TCO model will start with the appropriate line items to properly account for a working IT infrastructure.

Level 1 represents an Infrastructure-as-a-Service (IaaS) Cloud offering – basically, an abstraction of Level 0 that is delivered as a Fee. Hosting, execution, storage, and network workloads are delivered at this basic level. Again, this service may not entirely displace similar functions delivered in-house and may be set up as an on-demand, hybrid or other workload balancing capability. As workloads shift to this delivery service, line-item costs in the Layer 0 model can be adjusted. Some line items like contract administration and vendor liaison may increase when a Cloud services component is added to the mix.

Level 2 represents the Platform-as-a-Service (PaaS) market segment. At this Level, the elements of IT service functionality can be assembled into a business application.

Developer tools, utilities and platform features like mobility and security are available to build applications that can be public- or private-Cloud-based. This Level can, but does not necessarily need to, abstract and subsume Levels 1 and 0. This Level also can introduce more complex support, integration and administration costs while reducing other costs.

Figure 2: Saugatuck's Cloud IT EcoStack^{TM}
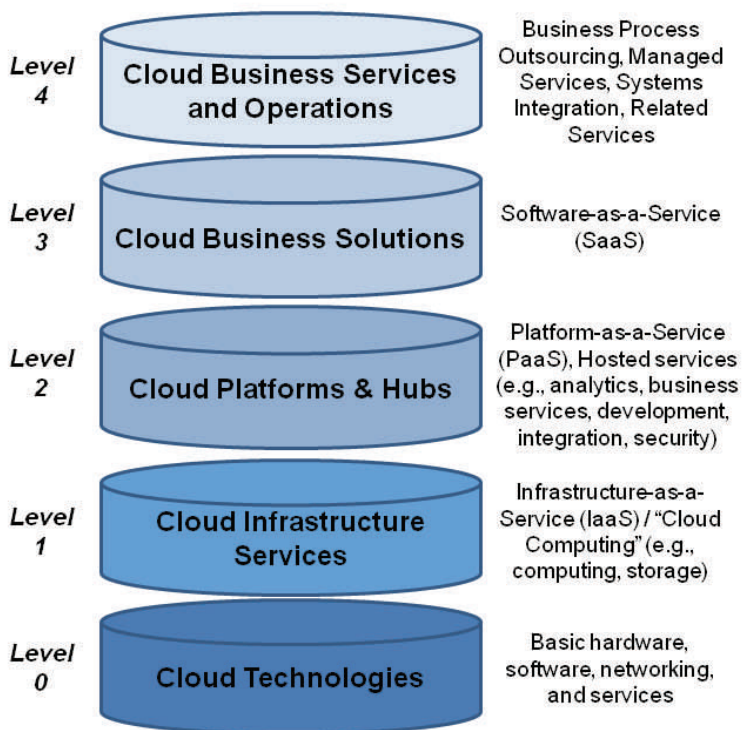
Source: Saugatuck Technology Inc.

While Levels 0-2 are building blocks and IT department-centric, Level 3 represents the delivery of a functional application that solves a business problem. Software-as-a-Service enables corporate units like Sales, Marketing, HR and others to access and use a Cloud based application. Again this can be a custom company specific application running on a private Cloud, hosted on premise or remotely, or a commercial public Cloud application or any hybrid permutation.

At Level 3, end-user operations, a classic component of TCO, emerges. End-user operations are the IT-related tasks that end users perform, sometimes instead of IT professionals. These include line items like informal technical support, local data management, troubleshooting, and application development / configuration.

End-user operations have been a controversial cost component, often referred to as soft costs. They are also tricky to calculate or even estimate. The argument for recognizing these costs is that a demand factor like technical support would indicate that "n" IT professionals would be required to meet the demand. If the IT support team is understaffed, the demand is not reduced; it is balanced by other resources.

These resources need to be accounted for. Quite often the cost to resolve technical issues with non-professional support is much a higher and less effective effort. *Saugatuck believes that these costs need to be part of the model, but may be optionally excluded depending on the nature of the analysis.*

In Level 4, an entire business processes like Procurement or Talent Management is delivered as a whole people + process + technology solution. The nature of this Level is that it truly abstracts and encompasses all the lower levels and adds more non-IT line items to the model.

WHAT IS A CHART OF ACCOUNTS FOR CLOUD IT?

Saugatuck submits that a TCO framework and a working model can be developed to identify, quantify and analyze the cost of computing regardless of architecture, delivery method or level of complexity.

Let's begin with a conceptual model (see Figure 3). The conceptual model uses the traditional IT infrastructure TCO model as a starting point. We will call this Tier 1, corresponding to Level 0 and Level 1 in the Cloud IT EcoStack^{TM}. This part of the model will have detailed line items for hardware, networking, operating software, labor and fees.

Figure 3: A Conceptual Model for Cloud IT TCO
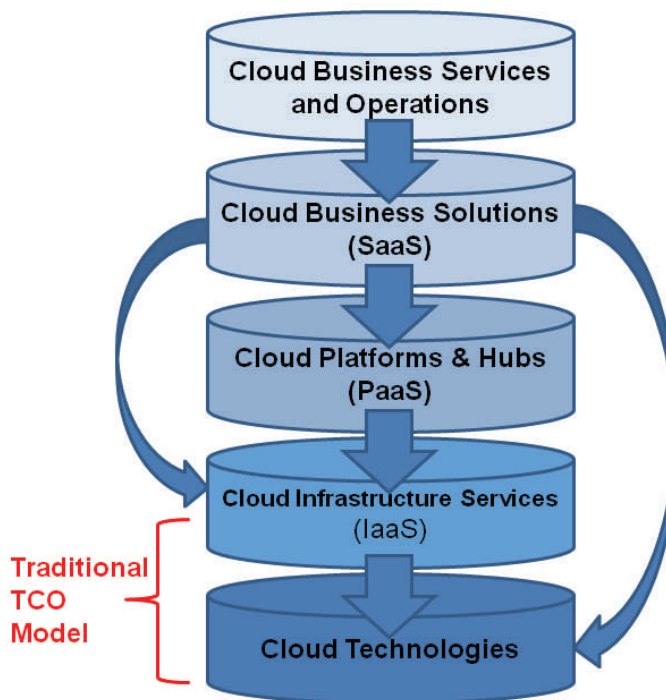
Source: Saugatuck Technology Inc.

We will use a high-level Chart of Accounts rollup for illustrative purposes (see Figure 4). An actual model in regular use will contain hundreds of detailed line items. The key point is that the baseline TCO model that can be used for comparative purposes should contain all of the line items needed to address Cloud IT offerings and permutations, as well as the on-premise stack. Some of these line items may be zero

units and zero dollars until they are applied to a Cloud module. More likely they will have values, but the amount will change significantly in some line items. For example, the line item "Vendor Management" might be 1X in the traditional non-Cloud world, but be 12X with a Cloud IT component. At the same time, "Compute Servers" might be reduced by 80 percent and "Network Servers" might increase by 30 percent.

In Figure 3, we illustrate that the relationships between the Cloud IT EcoStack™ modules have different relationships to each other and to the traditional on-premise model. The cost differential between the Level 0 and Level 1 IaaS segment segments in the Cloud IT model could be substantially different than the equivalent Tier 1 IT infrastructure model, although it should not affect the other Levels or Tiers. However, the Cloud IT Level 2-PaaS module can sometimes subsume Level 1-IaaS resources (such as with Force.com), and impact the comparative line item values relative to impact traditional Tier 1 IT infrastructure. Similarly Cloud IT Level 3-SaaS typically integrates and makes transparent the delivery of all Levels of service below it (Level 2, Level 1 and Level 0 – such as with the delivery of an off the shelf Cloud business solution such as from NetSuite, Workday, Ariba, SuccessFactors or even Salesforce.com).

In a traditional IT infrastructure model, middleware would be called Tier 2, and business applications will be called tier three - with each of these Tiers typically delivered on a stand-alone and un-integrated basis, given the historical preference by IT organizations to bring the stack together themselves when delivering value to internal and external customers. Tier 4-BPaaS similarly can subsume and make transparent any or all of the lower Cloud IT Levels, or possibly in combination with traditional Tier 1, Tier 2 and Tier 3 resources, as solution providers and enterprises increasingly deploy hybrid solution stacks. The key point here is that one must be careful to understand when various dependencies and inter-dependencies might apply across the Cloud IT stack, as it might be applied to the TCO model.

So then we can determine the impact of Cloud IT IaaS to the baseline on-premise TCO. This module will be "dropped" into the traditional Tier 1 IT infrastructure model, and will likely modify the affected line items in that model. As noted, Level 1-IaaS (and its associated Level 0 components) has the closest affinity to the traditional Tier 1 IT infrastructure layer, and will impact many of the line items in that model. Essentially Infrastructure-as-a-Service provides basic IT functionality like storage, compute execution, networking and hosting as a Cloud service. This service might be a repackaging of a virtualized on-premise infrastructure delivered by an internal IT department as a bundled offering.

A common scenario for this type of offering is that the IT department will reclaim an application that was originally implemented by a department external to IT. The original infrastructure is virtualized, managed and often billed back to the department as a hosted service. Or IaaS might be a delivered by an external provider that offers private, public, on-demand or hosted resources either integrated into a hybrid solution - or any combination of these cases.

As noted, the Level 2-PaaS services sometimes include Level 1-IaaS components or it may simply be an additional capability that is contracted to supplement an IT development effort. Line items that Level 2-PaaS might affect include software licensing, development hardware, vendor management, security, IT or business professional development personnel. Other line items could be impacted depending on the nature of the development / configuration process, rollout and maintenance

Figure 4: Cloud IT TCO Chart of Accounts

	Unit Cost	Quantity	Total
Capital Assets			
Hardware			
Servers			
Clients			
Network			
Storage			
Peripherals			
Other			
Facilities			
Data Center			
Non-Data Center			
Labor - Direct			
IT			
Non-IT			
Labor - Contract			
IT			
Non-IT			
Fees			
Licensing			
Maintenance			
Utilities			
Lease/Rent			
Regulatory			
IT-as-a-Service			
IaaS			
PaaS			
SaaS			
BPaaS			

Source: Saugatuck Technology Inc.

requirements. Typically Level 2-PaaS offerings are utilized for web-based solutions and include specialized tools and capabilities not found in current IT inventories, thus are additive to TCO. In other cases, IT has core competencies in application and web development and PaaS is supportive or possibly redundant. Only a baseline inventory and assessment will tell.

Level 3-SaaS, like Level 2 and Level 1 Cloud IT offerings can be applied directly to a traditional on-premise TCO model. Software delivered as a service implies that development, hosting and management capabilities are included. There may be infrastructure implications to facilitate the distribution of the software capability or to replace an in-house system.

As Cloud services become more abstracted from the IT infrastructure building the line item, TCO models becomes less detailed and more difficult to apply. BPaaS goes beyond just IT capabilities and delivers a business process-as-a-managed service. Theoretically, a business process might not even use any IT functions, but in reality every modern business has a lot of IT automation in their processes. The TCO model can support business processes, but then it starts to become a different model. Saugatuck believes that while a TCO model based on assets and resources can be applicable to services, a business process TCO model may need to be outcome driven. This implies a different model . As such, BPaaS can be partially applied to the traditional TCO model, but there are more to business processes than IT cost.

THE CRITICAL CLOUD IT COST DRIVER

Complexity increases IT TCO. Complexity usually also inhibits effective and efficient service delivery performance. Generally, complexity drives cost in a non-linear fashion (see Figure 5). It's no surprise that successful IT service providers either internal or external continuously try to reduce the complexity of their services. Sophisticated TCO models have a complexity survey that assesses the IT operation (How many operating systems do you support?) and the business (How many languages does tech support need to speak?) complexity and assigns an index that changes either line items or the bottom line TCO.

Figure 5: Complexity Drives TCO Costs
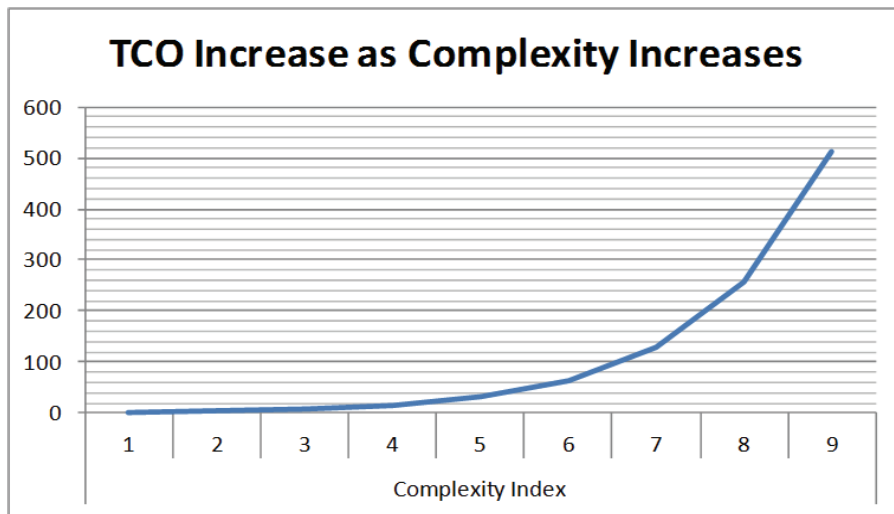
Source: Saugatuck Technology Inc.

Most likely, adding a Cloud IT solution to the mix will decrease complexity in some areas and increase it in others. Often, it reduces business complexity, while it adds potential IT complexity in certain areas such as data synchronization.

Best practices that decrease IT TCO include the following:

- **Asset management.** With Cloud IT, many assets become abstracted as they are either virtualized and/or delivered as a service. This will make asset management more complex, while also making it even more critical to cost management. Implementing and adapting Asset Management governance – including "doubling down" on any existing efforts to ensure their accuracy – is paramount (514CIO, Introducing IT Asset Models for Managing Disruptive Technologies, 10Oct2008).

- **Vendor management.** Implementing Cloud IT is an outsourcing exercise, and vendor management becomes a critical skill and practice for Cloud-using enterprises as more critical services are delivered by third parties.

- **Service delivery (see Figure 6).** IT service and process management maturity and expertise, as defined in frameworks like ITIL, will certainly reduce TCO in any Cloud IT permutation (815MKT, Is ITIL Relevant For The Cloud?, 30Nov2010).

Figure 6: ITIL Service Lifecycle Elements

Lifecycle Process	Lifecycle Sub-processes
Service Strategy	Demand Management, Strategy Generation, Service Portfolio Management, IT Financial Management
Service Design	Service Level Management, Service Catalog Management, Capacity Management, Availability Management, Service Continuity Management, Information Security Management, Supplier Management
Service Transition	Transition Planning and Support, Change Management, Release and Deployment Management, Service Asset and Configuration Management, Service Validation and Testing, Evaluation, Knowledge Management
Service Operation	Event Management, Incident Management, Request Fulfillment, Problem Management, Access Management
Continual Service Improvement	Service Measurement, Service Reporting, Service Improvement (The Seven-step Improvement Process)

Source: Saugatuck Technology Inc.

- **System integration/hybridization.** Very few large enterprises, and relatively few smaller firms, will have all IT in the Cloud in the near future. Through at least YE 2015, greater than 90 percent of enterprises will operate in one or more hybridized environments, interlinking on-premises systems with Cloud-based capabilities. Therefore systems integration, data integration, and process integration need to become enterprise IT core best practices/capabilities immediately. Optimizing SI enables optimized hybrid Cloud-plus-on-premises IT and business environments, reducing security exposures, reducing the effects of network latencies, decreasing/removing data irregularities, and removing/reducing other important and practical Cloud-legacy interaction obstacles that increase Cloud TCO (944CLT, Cloud Business Summit Leadership Report: Key Insights and Best Practices, 31Aug2011).

- **Virtualization.** Reducing the span (e.g., number, type, formats) of IT resources reduces TCO and improves TCO management capabilities. Virtualization is already widely used to reduce the number of software instances (and to help reduce implementation variations) within most enterprises. It helps improve Cloud TCO by reducing the number and types of software to be integrated with any Cloud-borne services and capabilities. But best practices regarding hardware and software management also need to be in place in order to truly improve TCO in any virtualized environment (439STR, x86 Virtualization: Treating Symptoms While Awaiting a Cure – Part 1, 29Feb2008).

COMMON CLOUD IT TCO MYTHS AND LEGENDS

Myth #1: A Cloud TCO Model Cannot Be Built.

Traditional TCO models for on-premises solutions were built using known and widely-accepted costs for hardware, software and labor as the primary components. There was a lot of infrastructure and specialized in-house skills. As outsourcing came in vogue, it was easily accounted for as a different type of headcount. But Cloud IT is presented as a service, a seat, a subscription or an on-demand cost for a business process (e.g., CRM, messaging). How can these be accounted for? Is an analysis of on-premises vs. Cloud IT meaningful? Can apples and oranges become marmalade?

In fact, this requires a TCO model to be extended and scaled up to include both the services that are provided and the underlying infrastructure. The old model is still valid and it is extended to the service level. Even the purest of Cloud solutions will inevitably include local infrastructure and most environments will be hybrid, so a complete model must continue to be holistic. TCO is already a time-based methodology, providing a platform for the multi-year analysis required for service based solutions.

As demonstrated by this framework, TCO already accounts for all the costs of services that may be delivered through Cloud IT.

Myth Buster: TCO is well positioned to extend to a service based model as Cloud IT is mixed and matched with traditional IT solutions.

Myth #2: Cloud IT Has An Obvious Lower TCO Than Traditional IT

Cloud IT (SaaS, IaaS, PaaS) seems to be a no-brainer from a TCO perspective, right? With 80 percent of the budget dedicated to "keeping the lights on" in the data center and escalating new project cost estimates, in-house IT is perceived to be costly.

However, data centers have come a long way toward maximizing efficiency. Many of the same techniques used to make Cloud solutions cost effective, such as extensive virtualization, data deduplication and energy conservation can be applied on-premises. Economic pressures continue to keep labor costs are down or flat and system management investments continue to reduce headcount. Meanwhile, Cloud IT providers need to add margin to their services to be profitable.

Myth Buster: It may be time for a benchmark of your in-house operations to assess current and projected costs to true up perceptions and provide a solid basis for comparison to market solutions.

Myth #3: Cloud IT TCO Is The Same For Everyone

Cloud email cost me $5 per seat per month. Why would my email TCO be different than yours? It might not be, but it is likely to be different. The contract cost per seat is a small percentage of the real cost of an IT service. Other factors include administrative, internal support, internal integration, end user costs and downtime. Even contract costs may vary based on deal size and negotiation skills.

Perhaps the most important factor is the IT service capability maturity level that your enterprise has achieved. Organizations with a low maturity level typically display reactive incident management, undocumented or unrepeatable processes and unplanned implementations. These factors increase the chaos and cost of any IT service regardless of the delivery mechanism. The successful service provider will have achieved high levels of service delivery maturity and that is one of their key cost differentiators.

Myth Buster: The contract cost is just the tip of the iceberg. Your costs may vary, and probably will.

Myth #4: I Can Just Use The Vendor's Numbers

TCO analysis is a very powerful tool in a vendor's marketing kit – but vendors vary in the level of sophistication in their use of TCO. Most vendors have a TCO story. Take a walk through the vendor displays at any IT trade show and the majority will claim to lower your TCO with their solution. Many of these claims are in name only, often with a grossly inadequate analysis or tortured definition of TCO.

Other vendors will produce a white paper, authored either in-house or by a consultancy or research firm. These vary in quality and bias, but more importantly are static results based on case studies or anecdotal data. At best, these documents provide background reading material. There will probably be very little correlation between your enterprise TCO and the data presented in this format.

The highest level of sophistication is a spreadsheet model where a "chart of accounts" and baseline data are built into a user interface and then customized to a prospects environment. This typically produces a report that will show the before and after TCO differences. Many master brands have developed TCO tools for a number of their products. Some of these are developed in house and some are developed by a small industry of TCO model makers. This is a key component of value based selling.

Myth Buster: Many of the interactive models are very good and will come close to predicting the TCO impact of a technology decision. However, they are only as good as the input they receive. A well prepared IT strategist, buyer or executive will have a solid grasp of their current infrastructure TCO including labor, hardware and software costs, capability and process maturity and risk factors. Then it will take multiple iterations with the model to polish the data and create several plausible scenarios with which to work. This process can add value beyond TCO by producing insights into the preparedness of the prospect and identifying critical success factors for the potential project.

Myth #5: Soft Costs Don't Count

Indirect or "soft" costs have been controversial since 1986, when the first model was created to calculate the TCO of an MS-DOS based PC. Prior to the PC, data processing was pretty much a closed system from a cost perspective. But even in these simpler times, "real" costs like end user training and downtime were outside of the IT cost center. As computing became more distributed, IT related costs leaked from the data center to the point where they exceeded IT departmental budgets. If these costs are not tracked, the shifting operational costs of IT would remain hidden and therefore unmanaged.

In many smaller companies, IT is completely delivered without a formally defined IT organization. Does that mean that there are no IT costs? Cloud IT is the ultimate expression of distributed computing. Often, Cloud IT costs are fully born in business units outside of IT while still supplanting IT department functionality. Certainly service based deliverables need to include all parties.

TCO is defined as a holistic view of IT costs expressed over time. The holistic approach is agnostic of departmental budgets and demarcations.

Myth Buster: Indirect costs are essentially labor costs allocated to IT tasks that are performed by non-IT professionals. In traditional on-premises IT systems this represents as much as fifty percent of the TCO. With Cloud IT this may be significantly higher. It may be impossible to calculate Cloud IT TCO without accounting for indirect costs.

Myth #6: The Goal Is To Lower TCO With Cloud IT

Reduced cost is a massive market driver for change, particularly in stressed economic times. Cloud IT has the perceived potential to offer IT functionality at significantly lower cost. This may be true, but in most cases it should not be the primary goal. Certainly it is not generally advisable for any of these business drivers to be sacrificed for a lower TCO. Reduced TCO certainly should be on the list of project goals and might even be the primary objective, but other factors like agility, flexibility, time to market, customer service and business process improvement also should be ranked. Additional IT concerns regarding integration, scalability, security and availability need to be appended to cost.

Myth Buster: The solution with the lowest TCO may not be the best business solution. Often reducing costs overshadows other opportunities and risks presented by Cloud IT. A balanced set of key objectives will go a long way in keeping TCO in perspective.

Myth #7: There Aren't Enough Instances Of Cloud IT Use To Build A TCO Case.

As recently as one year ago this was true except in certain SaaS segments like email and sales force automation. Now the market has matured to a point where mainstream adopters are on board and early implementations have been studied.

While there will certainly be further evolution of cost analysis for Cloud IT TCO, but we are certainly past the early adopter phase where results can be erratic and skewed.

The TCO industry has developed a number of Cloud IT models and vetted them with reliable industry data. These models are being developed for and rolled out to the sales teams of Cloud IT market leaders.

Myth Buster: Today there is enough adoption and maturity to gain a firm understanding of the line items, workloads and best practices to build credible TCO models for a broad range of IaaS, PaaS and SaaS solutions. As noted above, Business Process as a Service may require a different model that is less biased to IT services and more focused on business services.

Myth #8: TCO Is Not A Useful Metric

As a benchmarking tool, TCO is a key tool to gain insight into the workings of your business. While primarily developed to look at IT infrastructure cost, TCO has been proven to scale up through process and service delivery. It is not just a lens for cost but also shows where there is room for improvement and where there is low hanging fruit. It is a key part of the "Measure – Manage – Change cycle".

As a technology comparison tool TCO is on the short list of questions buyers ask when comparing competing solutions, including the solution of doing nothing. TCO is now the way to ask "How much does it cost?" and drills down below price.

However, the quality of market offerings for TCO does vary and the best way to undertake TCO comparisons is to have a good understanding of your own costs.

Myth Buster: TCO is an established methodology to determine the true cost of an IT decision or operational state. It is universally accepted by buyers, vendors and other industry professionals as a standard.

SUMMARY AND CONCLUSIONS

The first questions about Cloud IT – "What is it?" and "What does it mean to me?" – have largely been answered. The next question is "How much does it really cost?" As this occurs, a lot of misunderstanding and misinformation will rise regarding the real cost of Cloud IT.

Cloud IT is touted as the next level of low cost computing that clearly appeals to an enterprise lust to reduce IT costs. Lust can often overcome rational thinking. The promise of low cost, easy to obtain, high functionality IT services beckons.

TCO is a powerful tool to demonstrate the cost differences between IT solutions. However, TCO is just a tool and it is subject to the skills and biases of the presenter and beholder. Thus to different users, it can be a Hubble telescope or a pair of beer goggles.

Buyers that understand TCO and their own operating costs will be best positioned to make good decisions on Cloud IT solutions. Those that don't may make erroneous assumptions about Cloud IT costs that are confirmed by marketing tools presented by both Cloud and traditional IT providers.

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