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The ROI Of Cloud Apps

by Liz Herbert and Jon Erickson
for Sourcing & Vendor Management Professionals

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A Total Economic Impact™ Analysis Uncovers Long-Term Value In Cloud Apps

by Liz Herbert and Jon Erickson
with Duncan Jones and Rory Stanton

EXECUTIVE SUMMARY

Cloud applications continue to gain momentum in enterprise applications as buyers are attracted to fast deployment speeds, low upfront costs, and ongoing flexibility to scale up or down as needs change. But as firms spend more and more of their closely guarded IT dollars on cloud applications, sourcing executives must scrutinize the long-term value of these investments. Today's cloud investments represent millions of dollars of annual IT spend for some larger consumers of cloud. This report analyzes the longer-term, five-year cost of ownership and value for cloud applications across four categories: customer relationship management (CRM), enterprise resource planning (ERP), collaboration (including email), and IT service management.

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NOTES & RESOURCES

Forrester interviewed client references from the following vendors: Appian, Ariba, Epicor, Microsoft, Mimecast, Netsuite, and Ultimate Software in industries ranging from healthcare to electronics to manufacturing. We used this information to create an ROI model based on our TEI analysis framework.

Related Research Documents

"Evaluating Application Fit With Cloud"
May 5, 2011

"Packaged Apps In The Cloud: Cost Of Ownership Models Evolve Toward The Transparency Of SaaS"
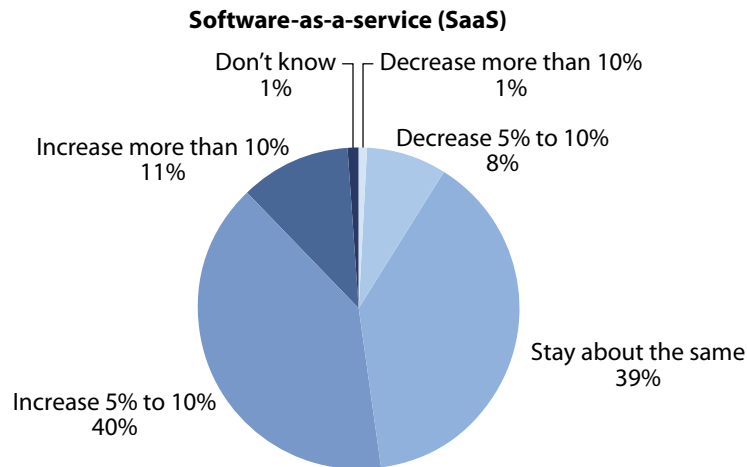July 23, 2010

BUYERS LIKE CLOUD APPS' LOW UPFRONT COSTS — BUT QUESTION LONGER-TERM VALUE

Cloud applications, also known as software-as-a-service (SaaS), are taking the software market by storm.[1] Cloud giant salesforce.com boasts nearly 100,000 companies in its CRM-centric client base; SaaS keeps growing at rapid pace across sectors like ERP (NetSuite, Workday, and Business ByDesign), IT service management (CA, BMC, HP, and Service-now.com), and email (Google, Microsoft Office 365, and IBM Lotus Live).

Buyers gravitate to these solutions because of their low upfront costs and fast speed of deployment. Many SaaS solutions also offer a more user friendly UI than their on-premises competitors due to their more recent introduction or the providers' ability to rapidly update the UI through automatic, seamless upgrades. For example, salesforce.com has evolved its original eBay-like look-and-feel to today's more modern Facebook-like design. Our recent budgets survey shows that 51% of firms plan to increase spending on software-as-a-service, while only 9% plan to decrease spend (see Figure 1). But, despite such bullish growth and near-term spikes in spend on SaaS, the subscription model raises questions about its longer-term financial impact.

Figure 1 SaaS Spend To Increase In The Next Twelve Months

"How do you expect your firm's/organization's total SaaS spending to change over the next 12 months?"

Software-as-a-service (SaaS)

Don't know 1%
Decrease more than 10% 1%
Decrease 5% to 10% 8%
Stay about the same 39%
Increase 5% to 10% 40%
Increase more than 10% 11%

Base: 305 North American and European IT services decision-makers from enterprises with 1,000 employees or more

Source: Forrsights Services Survey, Q3 2010

59277   Source: Forrester Research, Inc.

FOUR FACTORS DETERMINE THE ROI OF CLOUD APPLICATIONS

Cloud is certainly fashionable at the moment among business leaders, but few understand its full implications. Sourcing executives should therefore cut through the fog of misinformation and objectively evaluate the financial impact on business when considering the adoption or avoidance of cloud applications. How? Companies can use a simplified version of Forrester's Total Economic Impact™ (TEI) model to systematically consider:

1. **Benefits.** How will your company benefit from cloud applications?

2. **Costs.** How will your company pay, both in hard costs and resources, for cloud applications?

3. **Risks.** How do uncertainties change the total impact of cloud applications on your business?

4. **Flexibility.** How does this investment create future options for your organization?

This report looks at four representative scenarios in categories where Forrester sees high demand for cloud applications: CRM, ERP, collaboration, and IT service management. For each scenario, we analyzed the total economic impact (TEI) of an organization moving from an existing on-premises application to a cloud-based alternative.

Key Benefits: Cloud Applications Drive Faster Time-To-Value

Organizations that are implementing cloud applications can expect several benefits, mostly around deployment speed, subscription pricing models that align with usage, accessibility, and usability. The scale, timing, and duration of these benefits can be estimated by considering one or more key metrics and the value to the organization of improving those metrics over time (see Figure 2).

Ongoing benefits include:

- **Faster deployment speed.** Cloud applications appeal to business buyers because cloud enables them to roll out solutions much more quickly than with on-premises; many SaaS deployments take only days or weeks. Why so fast? Cloud solutions are ready to go — users need only a login and an Internet connection to get going; there is no need to procure hardware or do testing. Also, implementation is usually quicker, with a lighter, more iterative approach to configuration versus the heavy upfront customization that often characterizes on-premises deployment. This faster speed also applies to ongoing enhancements. An avid user of cloud applications told us: "The end users don't want to wait, they want to get the thing done. [We use cloud to] deliver tailored solutions with great appeal to the end user. The pace of the stuff we deliver is so much quicker."

- **Reduced support needs.** Cloud applications' clients often can reduce or eliminate IT support; the SaaS provider typically includes a help desk in the subscription, and technical support needs are lower since the provider does all the patching and bug fixing. Additionally, many cloud-based

applications were built for business and have simpler, more self-service-oriented user interfaces. For example, many companies have reduced internal IT staff by moving email to the cloud, since their subscription payment covers all necessary support, infrastructure and archiving costs.[2]

· **Simpler, more frequent upgrades.** Cloud applications offer seamless, automatic upgrades, typically two to four times per year. This means that users get access to the latest features and functionality faster than in an on-premises deployment where upgrade cycles often take three to 10 years. The more frequent, more incremental upgrades also mean that firms typically have no consulting costs or change management issues during upgrades. One cloud application client we spoke with who uses NetSuite told us that he "would have had to use consultants to upgrade the on-premises code whenever there was an upgrade. With SaaS, our upgrades happen seamlessly. There are efficiencies that we get because we always have the best version of the software."

· **Better utilization.** Pay-as-you-go applications typically yield better adoption for three reasons: 1) firms pay for what they need, eliminating the shelfware problem typical of on-premises deals, so SaaS providers have a financial incentive to encourage deployment and promote use; 2) cloud applications are typically geared toward more of a business audience, meaning they are easier-to-use and built to have a familiar (think Facebook-like) look-and-feel; 3) cloud vendors often deliver proactive health check reports that provide statistics about usage, making it easier for companies to identify employees who may need more training or incentive to use the apps.

Figure 2 Key Benefits Of Cloud Applications

Dimension	Software-as-a-service helps by . . .
Reduced cost of adoption	Reducing the licensing, training, and support costs of adding additional users.
Quicker adoption	Decreasing the time to ramp up new users, maximizing their productivity from using the application.
Improved adoption	Enabling more users to use the application.
On-premises cost avoidance	• Eliminating maintenance costs. • Reducing full-time help desk and server support, and transferring staff to higher value, proactive roles.
Improved flexibility	Reducing spend on excess capacity.

59277   Source: Forrester Research, Inc.

Key Costs: Cloud Applications Require More Focus On Vendor Management

Cloud applications reduce or even eliminate the high upfront costs for hardware and licenses that firms spend for on-premises projects. They typically reduce customization costs in favor of lighter-weight, point-and-click configuration and more pre-built "best practices" in the applications. Instead they require ongoing subscription costs to rent the software and often greater costs for multivendor orchestration and ongoing vendor management. Organizations implementing cloud applications can expect (see Figure 3):
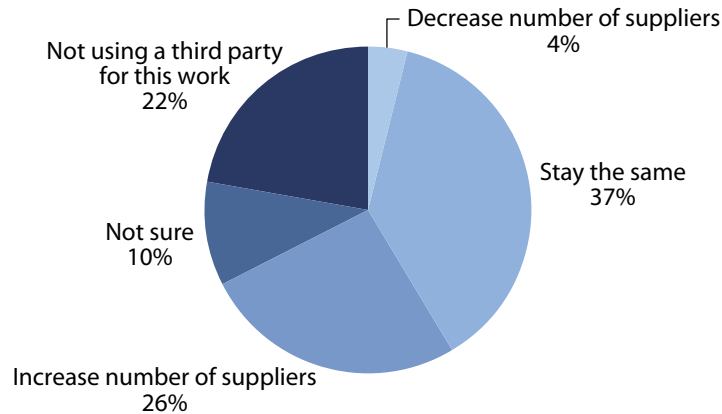
- **Ongoing subscription costs.** The primary cost associated with cloud applications is the ongoing rental fee for using the application, often per user per month or usage-based. Typical usage metrics include storage (i.e., number of documents) or throughput (i.e., number of transactions processed). The rent versus own model for cloud means lower upfront costs, but for some deployments these costs will cross over, ultimately becoming more expensive than a license-plus-maintenance alternative.

- **Vendor management.** Cloud applications require more focus on contracting, SLAs, and performance management. Contracts can be anywhere from month-to-month to five years long; firms must focus more on contract renewals and negotiations than in on-premises cycles. Some technology solutions are emerging to help with vendor management of cloud vendors, including performance management solutions like HP Cloud Assure and Gomez. However, these technology solutions come with a price tag as well.

- **Cloud orchestration costs.** Many cloud solutions focus on a specific module, such as recruiting or goals management for employees. The cloud landscape does not offer very many full suite solutions. This means that firms often face a fragmented, multiple application landscape as they move more and more technology to the cloud. In a recent survey, we found that 26% of cloud subscribers plan to increase the number of cloud vendors they work with over the next year (see Figure 4).[3] This multivendor environment means additional costs for areas like integration, provisioning, end user support, upgrade management, testing, and workflow.

Figure 3 Key Costs Of Cloud Apps

Upfront costs	• Implementation • Single sign-on configuration • Third-party process consulting • Third-party content development • Competency development • External content (competencies)
Recurring/annual costs	• Subscription • Change management • Testing and certification • End user support and administration • Integration • Training

59277   Source: Forrester Research, Inc.

Figure 4 SaaS Suppliers Are Multiplying

"How do you expect your number of SaaS suppliers to change in the next 12 months?"

Decrease number of suppliers
4%

Not using a third party
for this work
22%

Stay the same
37%

Not sure
10%

Increase number of suppliers
26%

Base: 1,007 North American and European IT services decision-makers from enterprises
with 1,000 employees or more
(percentages may not total 100 because of rounding)

Source: Forrsights Services Survey, Q3 2010

59277   Source: Forrester Research, Inc.

Risk Analysis: As Cloud Market Evolves, Buyers Should Expect Consolidation And Shakeout

No change — or avoidance of change — is without risk. Factoring this uncertainty into the analysis converts an optimistic, and potentially unachievable, plan into one with higher accuracy. Initial estimates can be refined by factoring in two key risks:

- **Vendor viability as the market shakes out.** The advent of cloud platforms, such as Azure and Force.com, has lowered the barrier to entry for solutions. Many cloud startups can get going with a small team of coders — with little or no startup costs or venture capital. As a result, cloud applications proliferate — but some may have a short life span, either because of failure or acquisition. While acquisition can sometimes be a benefit that adds stability and investment, it can also be a risk that leads to changes in contracts, changes in pricing, or even a shutdown of the acquired technology (as happened with Google's acquisition of Plannr). Overall, vendor viability risks are high as this early market moves at such a fast pace.

- **Vendor lock-in.** Cloud applications are usually easy to get started. But in the longer term some firms find it can be difficult — and expensive — to switch vendors. In some cases, users become "hooked" on user-friendly cloud applications. Business users may strongly resist switching from an application they like. Also, most vendor switches will require data migration and implementation costs to move to a new solution (whether cloud, hosted, or on-premises).

BUSINESS VALUE OF SPEED AND FLEXIBILITY VARIES BY TYPE OF APPLICATION

To arrive at a quantitative assessment of the economic implications of cloud applications, Forrester evaluated the key drivers of benefits, costs, and risks for an organization moving from on-premises to the cloud. We provide examples of the ROI calculation for three software categories: 1) business productivity apps including email; 2) CRM; and 3) ERP, including human resource management.

Beyond considerations common to most types of SaaS, firms must consider application-specific issues as well, including:

- **Impact of software usability.** Solutions with large, fluid user populations will reap huge benefits from an easier-to-use, intuitive design. For example, CRM products have a high churn end user population of sales teams. In these cases, usability is a significant factor that can materially reduce training time and cost and increase end user adoption, and thereby improve ROI (see Figure 5, see Figure 6, and see Figure 7). Other applications, like IT applications or finance applications will usually be less affected by UI design, since they are used by a smaller population that will likely undergo application and process-specific training upon hire.

- **Breadth of application footprint.** The amount of application functionality will determine hardware and IT staff that can be retired or redeployed (costs saved). If the cloud solution replaces a large on-premises application (such as an HR suite like Ultimate Software or a full ERP like NetSuite or Business ByDesign), organizations will save IT resource and support costs. But if the cloud application is more of an add-on or replaces only a portion of a larger enterprise application, the reduction in hardware, support, and IT staff will be small.

- **Value of upgrades.** Seamless, automatic upgrades matter more for some cloud application categories than others. New, rapidly evolving categories will benefit significantly from frequent feature/function enhancements, as will those like security and compliance that need frequent content updates. Conversely, firms might be less inclined to care about new functionality in mature, stable spaces such as accounting.

Figure 5 Model: Total Economic Impact Analysis Summary — CRM

	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present value
Total benefit	$846,402	$925,104	$1,015,713	$1,087,261	$1,170,779	$5,045,258	$3,766,700
Total cost	$923,701	$777,555	$793,106	$808,968	$825,148	$4,128,478	$3,143,096
Net cash flow	-$77,299	$147,548	$222,606	$278,292	$345,632	$916,780	$623,604
Cumulative cash flow	-$77,299	$70,250	$292,856	$571,148	$916,780		
NPV	$623,604						
ROI	20%						
Payback	Between 12 and 24 months						

Figure 6 Model: Total Economic Impact Analysis Summary — ERP

	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present value
Total benefit	$1,839,659	$2,038,992	$2,252,645	$2,449,698	$2,661,231	$11,242,226	$8,375,573
Total cost	$2,158,865	$2,011,192	$2,051,416	$2,092,444	$2,134,293	$10,448,209	$7,920,401
Net cash flow	-$319,206	$27,801	$201,230	$357,254	$526,939	$794,017	$455,172
Cumulative cash flow	-$319,206	-$291,405	-$90,176	$267,078	$794,017		
NPV	$455,172						
ROI	6%						
Payback	More than 2 years						

Figure 7 Model: Total Economic Impact Analysis Summary — Business Productivity Applications

	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Present value
Total benefit	$906,787	$986,696	$1,078,537	$1,151,342	$1,236,142	$5,359,504	$4,004,053
Total cost	$923,701	$777,555	$793,106	$808,968	$825,148	$4,128,478	$3,143,096
Net cash flow	-$16,914	$209,141	$285,431	$342,373	$410,994	$1,231,026	$860,957
Cumulative cash flow	-$16,914	$192,228	$477,659	$820,032	$1,231,026		
NPV	$860,957						
ROI	27%						
Payback	Between 12 and 24 months						

CLOUD MEANS FASTER ABILITY TO CHANGE TECHNOLOGY, FLEXIBILITY TO QUICKLY SCALE

In addition to the tactical benefits described previously, moving to cloud allows organizations to more quickly make changes to their technology, including the ability to quickly scale up or down. This flexibility that is created has a business value to the organization. Cloud application owners can:

- **Rapidly scale investment up or down as needs change.** Cloud applications allow firms to quickly scale out, into new groups or regions; this is often referred to as elasticity. They also allow firms to scale down — some cloud applications such as RightNow Technologies and Business ByDesign provide the quarterly or annual option to reduce unused seats (of course with the caveat that the per-seat price may increase with lower volume). Cloud applications also should ensure that there is always latent capacity available; firms no longer need to plan when to add infrastructure.

- **Enable business users to take a more active role in technology.** Some of cloud's biggest advocates are business users. They feel empowered by cloud technologies that support point-and-click customization, meaning that business users can make modifications to the UI, workflow, or reports, without having to rely on IT.[4] These business users see cloud technologies as more flexible because they can enact changes in real-time in line with business demands.

RECOMMENDATIONS

SMART CONTRACT NEGOTIATION STRATEGY CAN INCREASE THE VALUE OF CLOUD APPS

Sourcing executives can help their organizations get even more value out of cloud purchases by:

- **Determining the right deal length.** Sourcing executives should consider planned usage as well as the evolving vendor landscape to determine the right deal length. If they are making a significant bet on the application, they should favor longer deals. They also may like to lock-in a low rate through a longer (three to five year) deal in a maturing market like CRM. If they are in fast-growth mode or have other significant variability, sourcing executives should opt for shorter deals that give them room to change course. Similarly, in markets that are still quickly evolving, sourcing executives should sign shorter deals; new options and acquisitions mean that they will want to consider alternative options more frequently.

- **Opting for the best-value license category.** Cloud applications now offer more advanced pricing. Some vendors offer multiple tiers of applications (that vary by functionality or performance and disaster recovery commitments) and multiple licensing options, such as enterprisewide license options that eliminate explicit user-based pricing. With price tags getting into the millions annually for more complex cloud deployments, sourcing executives should help their firms navigate the licensing options to figure out which will create the best deal overall. They also need to consolidate contracts and put an end to one-off contracting by business, which prevents organizations from getting volume discounts.

> • **Minimizing "hidden" costs.** Cloud contracts often restrict storage, API calls, mobile device access, or "sandbox" test environments. Sourcing executives should try to understand their planned usage (as best as possible) and negotiate for these to be included. Similarly, some cloud vendors charge extra for third-party SaaS escrow or for disaster recovery; sourcing executives should determine their needs based on tolerance for risk and sensitivity of data.

SUPPLEMENTAL MATERIAL

Methodology

Forrester Research uses a defined methodology for analyzing and evaluating the costs, benefits, and risks of a proposed solution. This methodology, termed Total Economic Impact (TEI), provides a holistic view of the decision by including an analysis of costs, benefits, flexibility, and risk. By including an assessment of risk, TEI provides a realistic view of expected outcomes, rather than one shaded by early optimism and enthusiasm.[5]

Unlike a cost- or technology-based analysis, TEI does not rely on industry averages or factors that are applied to all organizations, but is a methodology for evaluating projects. The TEI methodology forces the determination and quantification of relevant metrics in light of an organization's current state and future goals. Firms can use the TEI model as a proactive and predictive tool

ENDNOTES

[1]   Forrester recently analyzed more than 120 software product markets to determine SaaS' current and potential impact. While we found that SaaS will minimally affect many markets, it will create many changes in sourcing decisions for some key markets. SaaS as a disruptive technology occurs in software products that represent about 25% of total global software market, especially in customer relationship management, human resource management, IT management, and security software. Moreover, SaaS is becoming a sustaining technology for many incumbent vendors, as SaaS products complement licensed software products — either by serving niches where licensed products have not been adopted or by addressing unmet needs. Overall, SaaS will more than double from 7% of software spend in 2010 to 16% in 2013. See the January 26, 2011, "How SaaS Will Change Technology Sourcing Strategy" report.

[2]   Email isn't cheap, and it's only getting worse for most companies as business and technical factors combine to drive costs higher and higher. Employees are demanding larger inboxes as sending larger files becomes more commonplace. Regulation and litigation drive investments in archiving and eDiscovery platforms. Increasing use of mobile devices to access email also drives investments to manage access. Cloud-based providers have practically untouchable economies of skill and scale that translate into attractive pricing for companies spending far more than they'd like on email today. See the March 22, 2011, "Market Overview: Cloud-Based Email Vendors" report.

[3]   Forrester's Forrsights Services Survey, Q3 2010, was fielded to 1,007 IT executives and technology decision-makers located in Canada, France, Germany, the UK, and the US from enterprise companies with 1,000 or more employees. This survey is part of Forrester's Forrsights for Business Technology and was fielded from August 2010 to September 2010.

[4] Source: Josh Bernoff and Ted Schadler, *Empowered: Unleash Your Employees, Energize Your Customers, Transform Your Business*, Harvard Business Review Press, 2010 (http://www.forrester.com/empowered).

[5] For an in-depth discussion of TEI and the individual elements within the methodology, please see the August 4, 2008, "The Total Economic Impact™ Methodology: A Foundation For Sound Technology Investments" report.

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