NETWORK SERVICES

SaaS: Friend Or Foe?

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Software-as-a-service offerings are expanding, and gaining more acceptance.

How would you like to just stop deploying enterprise software, stop monitoring application performance, and stop participating in the finger-pointing and second-guessing which occurs when there are performance problems? That's the basic attraction of software-as-a-service (SaaS).

Customers access SaaS applications and data via the Web and essentially rent the application from the SaaS provider on a per-user or per-month basis. The SaaS provider is responsible for delivering, securing and managing the application, data and underlying infrastructure.

SaaS sounds good, but you need to also consider the main trade-off: Someone else will be responsible for your organization's application performance and for safeguarding your corporate data. Is your organization ready to make that kind of trade-off?

Many already have, by embracing SaaS solutions like Salesforce.com and NetSuite, which include customer relationship management (CRM), collaboration, salesforce automation, productivity and even financial management applications. And, they are happy with their decisions, according to a 2006 survey by THINKstrategies and Cutter Consortium. We found more than 80 percent of the organizations that are currently using an SaaS solution are satisfied with it, are planning to expand their use of SaaS, and are willing to recommend SaaS.

These aren't just small- and mid-size business (SMBs), which were formerly thought to be the target market for SaaS. In fact, many Fortune 500 and Global 2000 companies have been early adopters.

Despite the positive ratings from current SaaS customers, however, more than a quarter of our survey respondents indicated they are still concerned about the reliability, security and long-term financial viability of today's SaaS providers (Figure 1). Some of these concerns are fallout from the dot-com bust, which saw the disappearance of many SaaS predecessors, which at that time were known as application service providers (ASPs).

The demise of these ASPs reinforced the apprehension that many companies, large and small, have about entrusting their software requirements to third parties. But there are important differences between today's SaaS providers and yesterday's failed ASPs.

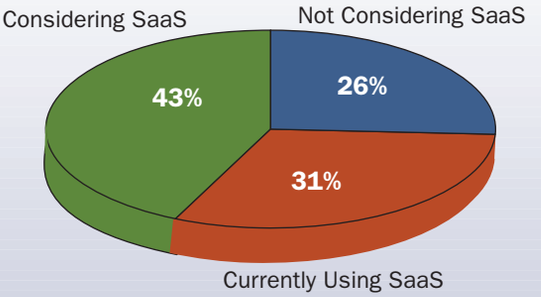
Learning From The Past

Most of the ASPs failed because they couldn't capture enough customers to offset the capital costs of building out their hosting facilities. They were trying to sell Web access to legacy applications from the big software vendors, and they often used the same pricing model—the upfront, perpetual software license. Companies were understandably reluctant to purchase the same applications under the same licensing terms, but from these untested service providers.

Many SaaS providers learned from the mistakes of the ASPs. Instead of providing Web access to resold enterprise software, SaaS providers developed their own Web-based applications, taking full advantage of modern programming tools and resources. Rather than building out massive server and database farms, so that each client has its own resources, SaaS providers base their wares on a new design paradigm, the multi-tenant application and data architecture. Multi-tenancy makes serving multiple clients more scalable and cost-effective.

Finally, today's SaaS solutions are priced on a "pay-as-you-go" or annual subscription basis.

FIGURE 1 Is Your Organization Using Or Considering Software-As-A-Service?



Source: 2006 *THINKstrategies/Cutter Consortium Survey*

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This frees organizations from the perpetual license and enables them to purchase access to applications and data storage as needed or "on demand."

SaaS providers also are making it easier for customers to access and experience their applications by incorporating the collaboration features found in popular social networking sites, such as Wikipedia.com, MySpace.com and Facebook.com. Some may think such Web 2.0-type features and functions are irrelevant to corporate environments, but the *Harvard Business Review* recently reported that more than 13 percent of companies already are using wikis to encourage people to contribute to online documents or collaborate on other content, and instant messaging is now generally accepted in many organizations.

We ought to expect that Web-based collaboration and communications tools and services will also become more acceptable. Most IT vendors are betting on this trend, and are looking for ways to capitalize on it. A recent case in point is Cisco Systems' offer to purchase WebEx in March. Of course Cisco could sell WebEx conferencing services, but it could also use WebEx technologies and WebEx Connect partnerships to develop a wider array of Web-based SaaS collaboration applications and services.

There are already hundreds of SaaS offerings from scores of vendors, as you will see if you visit our SaaS directory site (www.saas-showplace.com). More than 1,400 Web-based, on-demand applications are listed there, in more than 80 categories. Among the newest SaaS offerings are hosted versions of network and systems management tools aimed toward the IT/network professional (see "New SaaS Management Solutions").

Pay-as-you-go pricing frees the enterprise from licenses and infrastructure upgrade costs

The Incumbents' Challenge

At $50 to $150 per seat per year, SaaS offerings clearly cost less up front than many organizations would have to spend for comparable in-house solutions. Like most lease vs. buy decisions, there is a break-even point for SaaS, generally around three years, but that depends on a number of factors, including the application, the organization and the degree to which it has already invested in related software licenses, server and networking infrastructure, floor space and personnel.

New SaaS Management Solutions

Some SaaS providers are targeting IT/network professionals with hosted management services. They figure that IT departments will prefer SaaS solutions over the cost and complexity of traditional network and systems management products, for many of the same reasons that individual business units and small companies are using on-demand applications to replace traditional enterprise software from companies like Oracle and SAP.

For instance, Klir Technologies has developed a portfolio of on-demand network performance management services, including a free, single-user version called EXPRESS. Klir's downloadable Analytics platform can be implemented quickly and can monitor network devices in remote offices or centralized datacenters from a simple and secure Web interface. It can view and analyze each application's impact on the network, including top talkers and the heaviest users. It leverages packet-sampling technologies in network equipment to monitor data flows via NetFlow or sFlow. It also retains historical data for trend analysis, and offers pre-formatted reports to evaluate key performance indicators (KPIs).

Klir also has created a blog site for users to share performance statistics, third-party information and best practices to help them identify and resolve network performance issues, and optimize the performance of their networks and applications.

Another SaaS provider, Everdream, has transitioned from a managed service provider (MSP) to selling desktop management solutions via the SaaS model. (MSPs assume the responsibility of managing the customer's IT functions, while SaaS providers supply the software functionality which enables the customer to perform the IT function itself.)

Everdream services help IT/network professionals automate asset and patch management, software compliance reporting and uptime monitoring. Everdream's platform and user interface also integrate with Salesforce.com's service-desk and CRM solutions.

Other examples include Triactive, offering a combination of software distribution, asset and patch management, and ongoing monitoring services, and Service-Now.com, which offers on-demand asset, configuration, change, release, incident and problem management services, along with a Web-based configuration management database (CMDB).

Existing networking vendors are also getting into the SaaS act, with on-demand remote IT support offerings. For example, Cisco's acquisition of WebEx could enable the networking company to offer on-demand remote access services on a subscription pricing basis to IT/network professionals who must support dispersed workers and devices. Citrix also offers GoToAssist, a remote tech support option, along with other on-demand SaaS-type access and collaboration tools as part of its CitrixOnline family of solutions. The company says CitrixOnline serves more than 20,000 businesses□

To compete with SaaS, the older suppliers will need to revamp their business models as well as their products

Generally speaking, however, the SaaS model appeals to many organizations because they don't have to acquire additional servers or other networking devices to support the new SaaS applications. The money can then go to other uses.

Others find that they can "out-task" selective functions with SaaS, which they prefer over negotiating broader outsourcing agreements. Accountability metrics are typically better with SaaS solutions than with traditional outsourcing contracts, because many SaaS developers build them into their offerings. They include activity reporting mechanisms to demonstrate accountability and to provide an audit trail. These metrics are proving to be increasingly important given the growing number of government and industry compliance requirements.

While SaaS economics are attractive to many potential customers, and the annuity revenue model is appealing to software entrepreneurs, the established software companies are understandably challenged by SaaS. They are used to charging upfront, perpetual license fees, plus charging for consulting to help companies adapt to their products, plus substantial maintenance fees to keep the applications up to date. To really compete in the SaaS market, they will have to re-architect their applications, reshape their corporate cultures and restructure their revenue recognition and commission models, so their salespeople will be as willing to sell the monthly subscriptions as the one-time big licenses.

Although none of the incumbents has undertaken such drastic measures, most have stopped dissing the SaaS model and some are even beginning to embrace it, at least indirectly. For example, IBM has a growing collection of SaaS business partners (listed at www-19.lotus.com/wps/portal/showcase/saas), Microsoft has deals with BT, NTT, Qwest and numerous other partners to deliver various hosted Microsoft applications, and SAP promises a hosted version for small businesses later this year. More specialized software vendors, such as Business Objects in the business intelligence sector, are also adding on-demand solutions to their application portfolios.

Microsoft's Bill Gates recognized the magnitude of the SaaS threat in 2005. In an internal memo which became public, he wrote, "This coming 'services wave' will be very disruptive…. Services designed to scale to tens or hundreds of millions will dramatically change the nature and cost of software solutions deliverable to enterprises or small businesses."

Microsoft's CEO, Steve Ballmer, acknowledged the appeal of SaaS when he recently told a gathering of public sector CIOs that 80 percent of their organizations would be using SaaS solutions by the end of the decade.

For Ballmer's prediction to come true, both the incumbents and the newcomer SaaS competitors will have to overcome some real and perceived risks that prospective customers associate with SaaS.

Why Companies Resist SaaS

As more companies become interested in SaaS alternatives, many also become concerned about turning over their application performance and data management responsibilities to SaaS providers. Some of these concerns are reasonable, given a series of service disruptions which Salesforce.com experienced in late 2005 and early 2006, which prevented customers from accessing the company's on-demand customer relationship management and salesforce automation applications. There is also concern about security threats such as malicious Internet attacks or hackers penetrating corporate data.

However, since the Salesforce.com incidents more than a year ago, there have not been any service issues which were significant enough to generate public attention. In fact, many SaaS providers report 99+ percent availability and claim better security records than most internal IT/network departments.

With SaaS solutions, it is arguably easier to protect against and resolve malicious intrusions or internal bugs than with legacy solutions. The single code base that underlies the SaaS multi-tenant architecture and each customer's "instance" only needs to be patched once—not once for every customer's individual hosted implementation. In contrast, patching is much more difficult for legacy application vendors, who must offer patches for all the versions of their software that they sell to run on all the different operating systems within their customer base. Moreover, legacy applications are often customized by organizations to meet specific needs, making patch management even more challenging.

End-user support issues have also proven to be less of a concern with SaaS solutions than with legacy applications. The primary reasons are the single code base and multi-tenant architecture of SaaS solutions, which make it easier for the SaaS provider to respond to a set of common problems rather than have to diagnose customer-specific application issues. In addition, the user-friendly interfaces and workflow designs of SaaS solutions more closely match today's business processes than do traditional, legacy applications, which were often designed to accommodate IT requirements rather than to meet end-user needs.

End-user support is also easier with SaaS than with legacy applications, because the SaaS provider is the "one throat to choke." With in-house legacy solutions, application performance problems often led to finger-pointing between the IT/network and application development teams

Of course, SaaS requires a reliable Internet connection to access the Web-based service, and SaaS providers should offer service level agreements (SLAs) which guarantee service availabili-

ty, security and privacy. Prospective customers should carefully examine these SLA terms and conditions. Also make sure that the SaaS operations, or that of the SaaS service delivery partner, are certified as conforming to the Statement on Auditing Standard (SaS) 70 standards of the American Institute of Certified Public Accountants (AICPA). SaS 70 is a professional standard used by a service auditor to assess the internal controls of a service organization.

SaaS providers typically offer user portals, which enable administrators to track service records and utilization levels and permit self-provisioning of additional seat licenses. For example, Salesforce.com responded to its aforementioned service delivery issues by establishing a public website called trust.salesforce.com, where anyone can see the SaaS provider's current and historical application availability and performance records.

Data storage, backup and recovery service companies, such as Iron Mountain, are also offering technology escrow agreements which ensure that a copy of the customer's proprietary data and the SaaS provider's source code and intellectual property are securely housed in a third-party location. Of course, it is important to carefully examine the terms and conditions, and clearly understand how proprietary data can be retrieved.

Perhaps the best safeguard against poor SaaS services is the pay-as-you-go pricing model, which lets customers terminate their subscription and take their business elsewhere. This pressures the SaaS providers to consistently and reliably deliver high-quality on-demand applications.

Conclusion

SaaS offerings let organizations of all sizes test and adopt new applications much more quickly than they could with legacy software. If these new applications are used for faster handling of customer service, improved collaboration among team members and quicker time to market, then they will also help organizations squeeze greater productivity from their increasingly dispersed workers and business partners.

By comparison, traditional software projects are notoriously slow and prone to cost overruns. As a result, almost a third (31.1 percent) are cancelled before they are completed and, of those projects which are completed, more than half (52.7 percent) take twice as long or cost twice as much as originally expected, according to the U.S. Government Accountability Office and the National Institute of Standards and Technology. For those software applications which are deployed, the maintenance and management costs can be as much as ten times the original license fee, according to AMR Research.

Compounding the cost inefficiencies of legacy applications is the fact that many organizations over-provision their enterprise software in the same way they have historically over-provisioned their systems and networks. As a result, they do not use all their licensed "seats" or software capacity, and they fail to achieve the expected ROI.

Whether your company is an early SaaS adopter or a doubter, you can hardly ignore the growing number of vendors who are following successful pioneers like Salesforce.com and NetSuite into the SaaS market. Nor will IT/network professionals be able to disregard SaaS as individual end-users or entire business units adopt a widening array of on-demand applications to satisfy their day-to-day needs.

Rather than allow SaaS adoption to continue to permeate an organization in an unplanned and unregulated fashion, IT/network professionals should view SaaS as an opportunity rather than a threat. SaaS can reduce the hassles of deploying and maintaining common business applications.

SaaS can convert capital expenditures into variable business expenses. SaaS can place the burden for day-to-day application availability and performance on the application provider rather than on the in-house staff, and can free IT/network professionals to focus on more strategic initiatives. And a growing number of SaaS solutions can make it easier for IT/network professionals to perform their responsibilities successfully□

SaaS solutions are arguably easier to patch, because of their single code base and multi-tenant architecture

Companies Mentioned In This Article

AICPA (www.aicpa.org)
AMR Research (www.amrresearch.com)
BT (www.bt.com)
Business Objects (www.businessobjects.com)
Citrix (www.citrix.com)
Cutter Consortium (www.cutter.com)
Everdream (www.everdream.com)
Facebook (www.facebook.com)
IBM (www.ibm.com)
Iron Mountain (www.ironmountain.com)
Klir Technologies (www.klir.com)
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