SaaS: Software as a Service

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INTRODUCTION

Software as a Service (SaaS) has been around for several years, helping companies reduce costs while still maintaining expertise within the IT function through outsourcing. SaaS applications allow companies to focus more attention on the processes that create value while still being efficient in every manner. The use of SaaS varies by industry and company, as there are various unique costs and benefits. Recently, SaaS usage has been growing and SaaS vendors are gaining market share.

WHAT IS SAAS?

SaaS is software that is accessed through an internet browser. The software is actually located on the vendor's servers, and the customers log in and perform tasks as necessary. The vendor is the one who is ultimately responsible for hosting, upgrading and maintaining the program as needed. Upgrades are performed periodically throughout the year, and since the program is hosted by the vendor, they are quick, painless, and always allow customer access to the latest version. The program is basically a "one-size fits all" approach to process standardization. Now, although customers cannot change the underlying code, they can customize the interface and tailor some parts of the software to fit their needs. SaaS vendors typically have one or two types of programs that they offer, and their support staff is usually well-trained for any type of problem that may arise. Added functionality is often requested by customers, and when possible, vendors try to incorporate them. These changes are then available to the entire customer base. The financing for this type of service is different than a typical ERP solution. The vendor at all times maintains complete control over the program, and therefore, the customer does not buy it. Instead, they pay a monthly subscription fee for the ability to use it.

SaaS Evolution

The modern version of SaaS came about only a few years ago. In the 1980s and 1990s, Application Service Providers (ASPs) were very popular. Even though they were similar to the current SaaS vendors, there is one critical difference. ASPs arrived in the market as an outsourcing company that would host third party applications. Essentially, they would install a customer's application on their servers, and the customer would then access it through a web browser. Additionally, the ASPs would try to provide technical assistance when needed. Well, as these companies took on more customers and more applications, they were less able to handle the technical expertise necessary to satisfy their customers. Into the 1990s, customers increasingly invested in their own IT department, as they could not count on the ASP, which was undesirable. As a result, when the dot com bubble burst, ASPs went under. SaaS providers analyzed this method and are now focusing on hosting only one application and being an expert on it.

SaaS Usage

SaaS is not the best option for every company. In order to make the final determination a company needs to look at the costs and benefits of this option along with other options. When analyzing the decision, a manager must look at what the software is going to be supporting.

There are many purposes for which SaaS would be a poor choice. Highly innovative companies and processes, like Boeing's supply chain process, would be too complicated for a SaaS system, along with business intelligence or manufacturing systems as those are at the core of the enterprise and affect several departments. Additionally, processes that are competitive advantages for a company, such as Wal-Marts supply chain, would also not benefit from SaaS. As mentioned before, this type of application is more for standardized processes that a company

does not want to waste too many resources on and do not depend on or require integration with other business functions. Currently, Customer Relationship Management (CRM), human resources and procurement are the three most used applications delivered through the SaaS model.

Companies use SaaS for simple processes such as Expense and Travel management and employee performance management. The accounting firm KPMG, LLP uses a program called TIMEnX, for example, to manage its payroll and expense reimbursement procedures.

SaaS Vendors

The most successful and well known SaaS vendor is SalesForce.com. It currently boasts over 51,000 customers including Cisco Systems and Expedia Corporate Travel. Although SalesForce.com does manage several applications now, it is most well known for its success in CRM software.

Other vendors include companies such as LeanLogistics, Ketera, 37 Signals, Google Apps, and Zoho. Google has entered the market with their development of GoogleDocs, alongside competitor Zoho. This is basically an online version of Microsoft Office, allowing users word processing and spreadsheet applications. LeanLogistics offers service transportation solutions, Ketera offers expense and procurement management systems, and 37 Signals develops productivity applications such as CRM and project management software.

Costs and Benefits

Although the benefits of SaaS are increasing its popularity, there are drawbacks, and each company needs to analyze both sides before determining if this is the correct path to travel on.

One of the main benefits of SaaS is immediate reduction in expenses as compared to traditional software implementation. Since SaaS users are only "borrowing" the software, they

only pay a nominal monthly fee to the service provider, whereas, traditionally, companies needed to purchase a license for software for each employee that uses it along with the time needed to install and maintain the hardware. Another major benefit of SaaS is the time it takes to implement. A typical install in a small to mid-size firm takes approximately three to six months, significantly shorter than a typical software implementation. For example, an ERP system can take anywhere from one to three years until it is fully integrated into the company's system. The advantage of this is that shareholders and other beneficiaries of the company will see the achievement of their Return on Investment (ROI) sooner. Finally, SaaS is a lower risk investment. The ease of implementation also means ease of dissociation. If a company went with a certain provider that did not perform up to their expectations, it is much easier to simply withdraw your contract and sign on with a separate provider. Traditional system installations require heavy investment upfront, making it more difficult for managers to "pull the plug" when something goes wrong.

SaaS is not perfect, however. As mentioned above, SaaS cannot be customized to fit the specific needs of the customers. This would drive up the price and complexity of the program. Additionally, it would increase the installation and implementation time, all of which are the main benefits of SaaS. Customization would also complicate future upgrades. Therefore, if a company is considering a SaaS solution, they will need to search around and possibly make a compromise between price and functionality. Secondly, this software is very static. This means that these programs may not be able to accommodate a change in the business environment. In traditional in-house systems, the IT department can tweak the coding as necessary and adapt to changes as they occur. Unless the majority of the customer base of a SaaS provider is affected in the same way, it is very unlikely the provider will make significant changes to the code.

Furthermore, the customer puts a lot of trust in the vendor. Some companies have very sensitive data which they need protected. It is a difficult thing to relinquish control to a third party and have them manage and secure the information. Finally, SaaS requires constant payments of a specific amount throughout the use of the service. If the company is planning on using this service for 10-15 years, eventually, the costs may actually be larger than that of a traditional system. Even though traditional installations require a larger upfront cost, 10 years down the road, the cost of the system will be minimal and mostly related to maintenance.

FUTURE

The future of SaaS is as high as the sky. Right now, SaaS venders are focusing their efforts on small and mid-size firms; however, larger firms are beginning to enter the market. This is a very prosperous market that is growing exponentially each and every year. This growth will continue as larger software developers hop on the bandwagon and start developing and selling this type of product. For example, in the past few years three large software companies have started to enter the market. The latest entrant is German-based software company SAP. They introduced their first SaaS program, named Business ByDesign in September of 2007 and released it to the public sometime in the first quarter of 2008. This program offers end-to-end automation CRM, human resources, collaboration, supply chain management, and financial processes. The other two large companies, Microsoft and Oracle, have already released a version of SaaS.

The future of this type of product is solely dependent on customer acceptance. ASPs failed mainly because they tried to do everything at once. SaaS vendors will need to focus on what the customers really want and try their best to provide it. Additionally, they will need to

maintain a knowledgeable support group to deal with customer problems, as those are bound to happen.

Also, in the future, SaaS providers will need to increase and maintain secure databases that the customer can access at all times. As the world is continuously growing more and more global, the work day less and less from 8am to 5pm. Companies in the USA need to communicate with those in China, and therefore, the databases need to be available 24/7.

As the SaaS vendors continuously improve and develop programs, the market will continue to grow. There are a lot of benefits to this method of delivery and as the larger developers begin to enter the market, it will continue to grow exponentially.

IBUY

The University of Illinois at Urbana-Champaign currently uses the SaaS model to assist with its procurement operations. The procurement department, now named iBuy, uses a program called Higher Markets Express to automate the procurement process. SciQuest is the vendor, who hosts the program (Higher Markets) on its servers. This program allows professors and other faculty members to purchase books and supplies from outside suppliers. These outside suppliers have pre-set contracts with the university, which SciQuest has incorporated into the catalogue. In an interview with Lauri Quirk, iBuy's Procurement Systems Coordinator and Barb Roemer, iBuy's Associate Director of Procurement Systems, they described SaaS and iBuy, with a comparison to Amazon.com. They said, "[you] log on, find the products [you] want, and check out."

Ms. Quirk and Ms. Roemer described some advantages to the newly adopted Higher Markets system as well as a few disadvantages. They mentioned one very big benefit to this new program, which was an automation of the process. This program allows the university to

completely automate the procurement process, for the most part. Instead of each person requiring approval for each purchase, the new process uses charge codes and purchase levels. Therefore, purchases with insignificant amounts of money can pass through more easily, saving the university time and money. SciQuest has been able to upload the contract details made between the university and the third party suppliers so department orders can utilize these cost savings. Additionally, the user interface of the iBuy program is very user friendly. As mentioned earlier, this program uses online catalogues and predetermined prices in a method very similar to Amazon.com. It also allows each user to set up a profile to save charge codes and shipping information, reducing the risk of entry errors. Finally, another huge advantage to this method of software delivery is the absence of in-house programmers. SciQuest has their own vendors, which the university procurement department can contact with any problems and they can look at the code and help alleviate any problems.

However, just like with everything else, there are shortcomings to Higher Markets. There are certain work flow customization items that Ms. Quirk mentioned which are not able to be placed into the system. They have proposed certain changes to SciQuest, however, the company has the ultimate authority in determining what is developed for the program and what is not. Another similar disadvantage is that anything that needs to be worked on with this program has to be done through SciQuest. Often times, the university has found them difficult to work with and sometimes they have only a limited knowledge of the program itself. Ms. Roemer mentioned in the interview that because this is a developing market, employees within SciQuest are moving around all the time. They have yet to be able to speak to someone with any consistency. Finally, Higher Markets is upgraded periodically throughout the year on a set schedule. The schedule has three upgrade times, which Ms. Quirk and Ms. Roemer do not feel is

often enough. When these upgrades do occur, the program is offline and not accessible to anyone. Although this does occur on the weekends when most university departments are closed, there have been times when this is inconvenient, especially because the university has no say in what weekend it takes place.

When looking at the new iBuy system as a whole, Ms. Quirk and Ms. Roemer both agree that it is a huge step up from what they had previously. The previous application was the Banner system currently still in use for other purposes, such as student registration. The Banner system was far less capable than the current one and cost them more than four times what it currently does with the new system. They also agree that every program is going to have its disadvantages no matter how hard you try to avoid them. The best thing to do is to accept them and try to work your way around them. In all, the movement to Higher Markets was a successful one for the procurement department and will benefit them for many years to come.

CONCLUSION

Software as a Service is an up and coming technological solution that will help many small, mid-size and large firms reduce costs and become more efficient. Today, there are several SaaS vendors that offer solutions to many different application problems companies are facing. As SaaS continues to become popular, the larger developers will begin to flood the market with SaaS solutions to meet any and every need of the business customer. Although SaaS will not provide competitive advantages to companies that use it, it will allow those companies to focus more attention and resources where they can achieve those advantages. The future of this software delivery method looks promising.