

SaaS ERP: Trends & Observations 2010

Since 2007 Aberdeen has been keeping watch on deployment models of Enterprise Resource Planning (ERP). In July 2007, we characterized ERP as the *Last Bastion of Resistance to Software as a Service (SaaS)*. In June 2008 we revisited the topic and found SaaS ERP had not kept pace with the hype-cycle of other SaaS enterprise applications. Eighteen months later (at the end of 2009), in spite of the surge in interest in cloud computing and virtualization and the availability of SaaS ERP options from an increasing number of solution providers, SaaS ERP had yet to "take off." Finally in mid-2010 we are seeing an overall 61% jump in willingness to consider SaaS ERP. Will 2010 finally be the year when those walls of resistance come tumbling down? Or will they just fade away and leave us at the dawn of 2011 wondering what the fuss was all about?

ERP Deployment Methods

There is still significant confusion over terminology associated with software as a service and cloud computing. Terms such as 'SaaS,' 'On-Demand,' 'Hosted,' 'appliances,' and now 'private clouds' and 'public clouds' are often used interchangeably, and yet each has its own implications and some of these approaches can be co-mingled. For the purposes of this document, Aberdeen defines the following terms:

- **SaaS or on-demand:** The software itself is not licensed or owned by the end user; it is provided as a service.
- **Hosted:** Licensed applications are hosted by a third-party. This may be in a separate instance on a separate piece of hardware (dedicated to your company), or in a separate virtual instance (dedicated to your company) where the application is housed on hardware shared by multiple companies.
- **Preconfigured on a hardware appliance:** Licensed software is pre-configured and pre-installed on the hardware. Pre-configuration may be industry-specific and include best practices templates for workflows and role definitions.
- **Traditional license on premise:** Software is not bought and sold; instead it is licensed for use. It may be licensed to be used on a particular computer or by other criteria such as number of users.

Public clouds are typically defined the same way we have always defined SaaS or on-demand, but a **private cloud** differs in that it can actually combine a hosted model with SaaS delivery. A license may be purchased and hosted by a third party or it may be purchased and installed at a single

Analyst Insight

Aberdeen's Insights provide the analyst perspective of the research as drawn from an aggregated view of the research surveys, interviews, and data analysis.

SaaS ERP Series

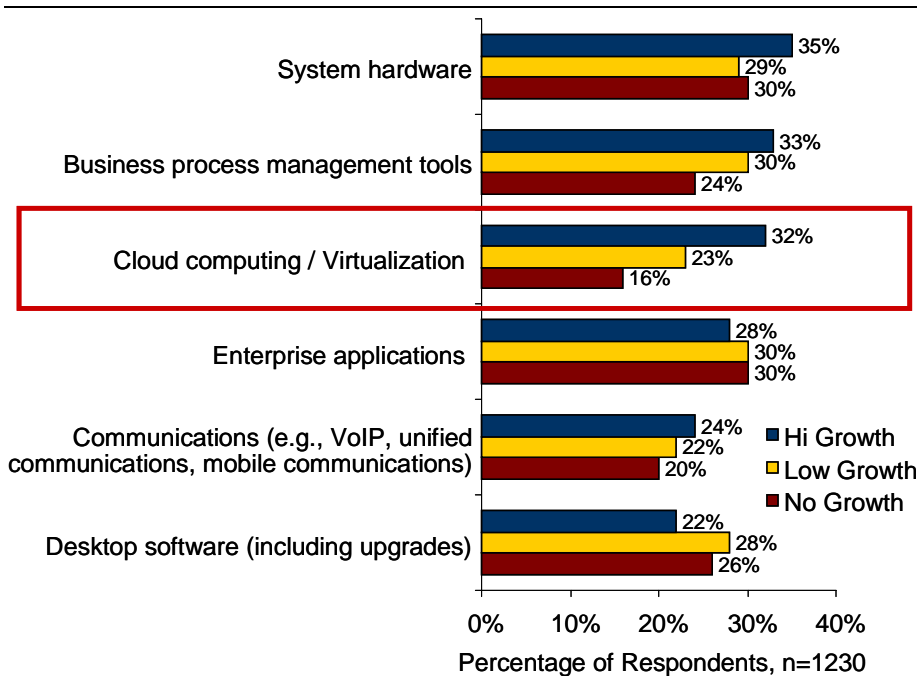
This Analyst Insight is the first in a series of Aberdeen research reports exploring the topic of SaaS ERP. While several ERP solution providers are currently equipped to deliver ERP using SaaS deployment models, how these different SaaS solutions are delivered varies from vendor to vendor. Look for a series of Research Briefs, each exploring the approach and offering of a different SaaS ERP solution provider.

(central) location managed by the individual company. The application itself is then delivered to the end user as a subscribed service. However, a private cloud may also exist within a public (or shared) cloud.

To the non-technical users of the enterprise application the most important aspect is that they are able to connect to the application and its data from any computer with a browser. If in fact this is possible, often times the end user does not know, care or need to know which of these deployment models are actually being used to deliver the application.

However, from a technology perspective, we see indications that investment in cloud computing (and virtualization) is on the rise. The first quarter 2010 *Aberdeen Business Review* found high growth companies significantly more likely to invest in cloud computing (or virtualization) than those companies with either low growth or no growth experienced in 2009 and planned for 2010 (Figure 1). This speaks to the need for scalability in growth environments.

Figure 1: “Top Three” Technology Investments for 2010



Source: Aberdeen Group, March 2010

This same survey found only 4% of ERP implementations used a SaaS deployment method, but this percentage increased to 10% for high growth companies. Until recently most of the ERP vendors bringing SaaS products to market concentrated on what many call the “edge” products. The boundaries (edges) of ERP have been blurring for many years now (to the point where it is difficult to determine where ERP ends and other applications begin), creating hybrid models of deployment. Now we are seeing more ERP vendors providing SaaS ERP as well, even as hybrid

Definition of Growth Categories

Aberdeen defined "growth" in relative terms. Much like Aberdeen's Maturity Class Framework which defines Best-in-Class as the top aggregate performance scorers, Industry Average as the middle 50% and Laggards as the bottom 30% in performance, we define High Growth companies as the top 20% in terms of:

- ✓ Revenue growth from 2008 to 2009
- ✓ Anticipated revenue growth in 2010
- ✓ Growth in operating profits from 2008 to 2009
- ✓ Anticipated growth in operating profits in 2010

Low Growth companies were the middle 50% and No Growth companies were defined as the bottom 30%.

environments are becoming more common. The *Aberdeen Business Review* found SaaS deployments of these edge products lead that of SaaS ERP and also tend to be more prevalent in high growth companies (Table I).

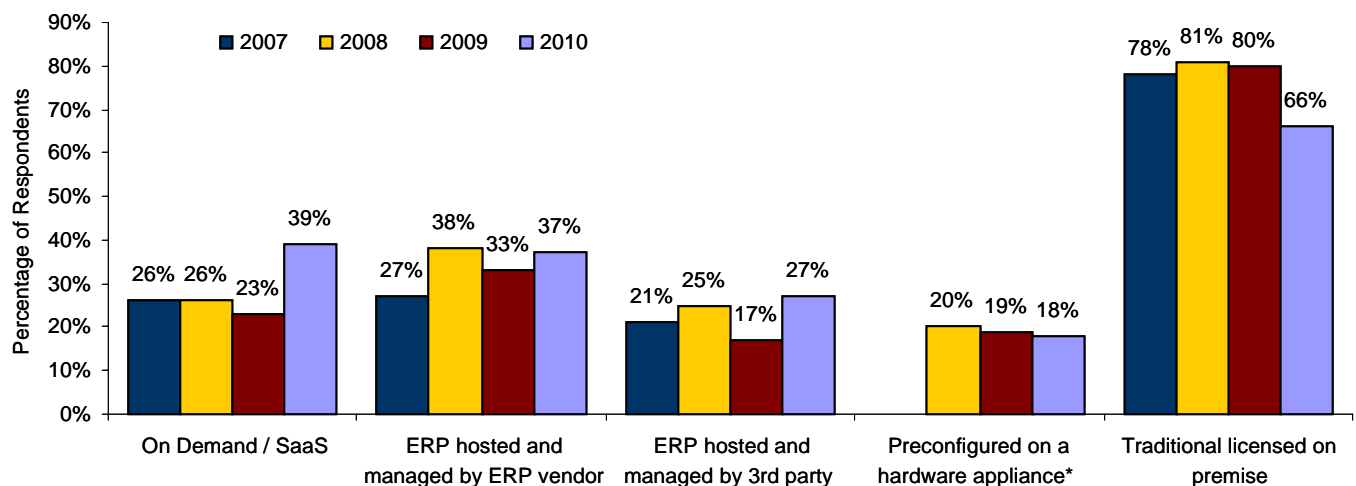
Table I: Deployment of Edge Products as SaaS

Enterprise Application	Hi Growth	Low Growth	No Growth
Enterprise Resource Planning (ERP)	10%	3%	2%
CRM for Marketing Automation	32%	21%	27%
CRM for Sales Force Automation	43%	25%	25%
CRM for Customer Service / Support	31%	17%	12%
Contact Center Management	16%	12%	7%
Talent Management	15%	15%	23%
Workforce Management	19%	13%	10%
Travel & Expense Management	16%	14%	13%

Source: Aberdeen Group, December 2009

While current SaaS ERP implementations are still rare, Aberdeen’s annual [ERP survey](#) asks respondents to select all deployment options they would be willing to consider now and in the future. Figure 2 compares responses over the past several years. The willingness to consider SaaS deployment options remained relatively steady from 2007 to 2008 and actually dipped slightly in 2009 but finally jumped by 61% in 2010 for a 16 percentage point gain.

Figure 2: Willingness to Consider Deployment Options



* The delivery option "pre-configured on a hardware appliance" was added to the survey in 2008

Source: Aberdeen Group, June 2010

Not only do we see a significant increase in willingness to consider SaaS or on-demand as a deployment method, but also notable is the decreased

willingness to consider the traditional licensed on-premise option, which dropped by almost 18%.

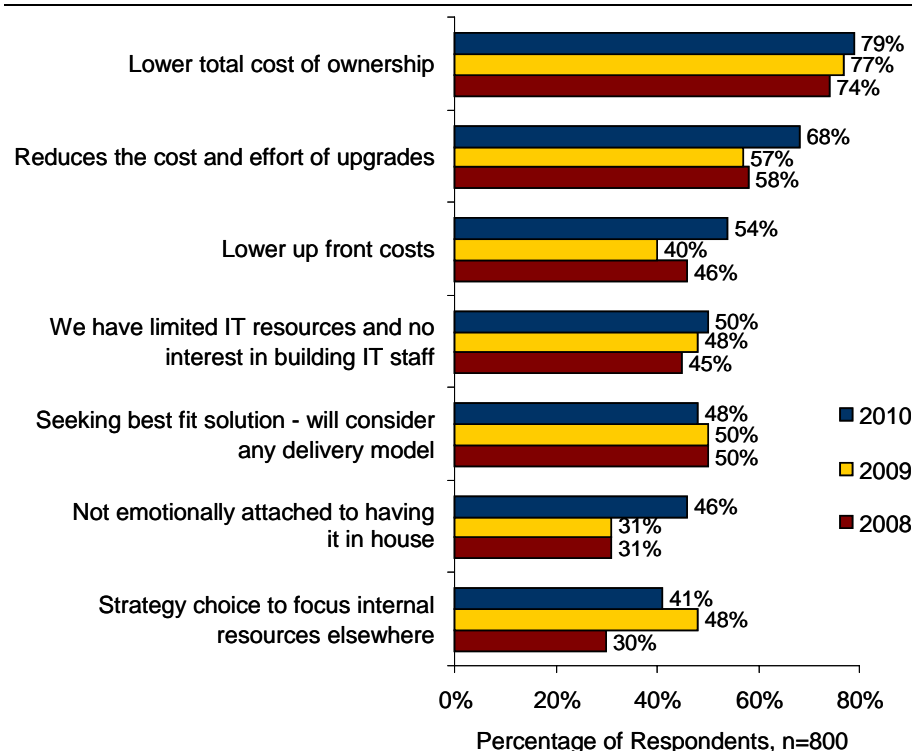
The Appeal of SaaS

While SaaS ERP implementations are still the exception rather than the norm, they do exist and Aberdeen has been interviewing SaaS ERP users since 2006. Many of the early decisions in favor of these deployments were made in spite of the solution being available as SaaS, not because of it. The earliest SaaS ERP solutions had only one deployment option. Anecdotally, Aberdeen observed the appeal of SaaS often emerged after the decision was made, not before. Over the past two years we have witnessed that mind set change. Throughout the downturn in the economy, the ability to treat the investment in ERP as an operating expense instead of a capital expense has become more appealing. Now even those who do not initially seek a SaaS solution later find they would never consider anything else in the future. Oftentimes they simply have no interest in investing in IT resources, as IT is not their core competency. Figure 3 tracks how the appeal of SaaS ERP has changed over the past few years.

"Why on-demand? First, it was OK because we did significant due diligence and had confidence in the strength and stability of [our ERP solution provider]. Secondly we are in the outsourcing business ourselves, so we embrace the concept and so do our customers. My advice to other companies...if there is any hesitation to outsource, get over that hurdle. I had budgeted for a larger IT department. When we saw the complete package we re-deployed the capital elsewhere."

~ CEO, Contract Packaging Services for Pharmaceuticals

Figure 3: Cost Considerations Provide the Most Appeal*



*Respondents were allowed to select all factors they found appealing about SaaS

Source: Aberdeen Group, June 2010

Cost is a common denominator. Often the difference in total cost of ownership between the two models lies not in the cost of software and

services, but in the cost of hardware and IT staff. While Total Cost of Ownership (TCO) has always been the top reason selected, reduced cost and effort of upgrades and lower up-front costs are only now emerging as more dominant factors. Limited IT resources (and the reluctance to invest in more) can be either a cost factor or sometimes reflective of an inability to attract IT talent, or both. A company with limited IT resources, and no desire to invest, may not be an attractive career path for young talent with high aspirations. Or it may be reflective of difficulty in finding talent based on size or location.

The desire for the best “fit” has been a consistent factor for about half of those who are willing to consider SaaS for the past three years. As more ERP solution providers offer SaaS deployment models, we may find more vertical solutions for an increasing number of industries. A common misperception in the past has been that on-premise solutions offer greater functionality. Those shopping for ERP solutions today may be pleasantly surprised by the depth and breadth of functionality available on-demand today. As with any ERP selection, the choice requires the same due diligence, with criteria that includes current features, planned features, underlying architecture, vision, financial stability, support, pricing, future flexibility, etc.

We find companies in general less emotionally attached to having ERP in house. This comes with the realization that outsourcing the care and feeding of the hardware and underlying infrastructure does not equate to giving up control over your functional ERP implementation. And finally there is the strategic decision of where to best invest resources.

Resistance to SaaS ERP Remains

While the percentage of companies willing to consider SaaS ERP deployment models has grown this year, these companies are still the minority (37%). What barriers remain to prevent companies from considering going on-demand?

Interestingly, a factor those willing to consider SaaS found most appealing also prevents others from considering it. We found 68% of those willing to consider SaaS cited reduced cost and effort of upgrades as a factor that draws them to on-demand. However, for those not willing to consider SaaS, the need or desire to control their own upgrade process was also a deterrent (Figure 4). So upgrades can have either a positive or negative impact on any company’s willingness to consider SaaS ERP.

Aberdeen’s 2010 ERP research finds upgrades are generally performed every 3.5 years (increased from 3.3 years in 2008) and are often delayed for a number of reasons. Budget and time constraints, combined with the lack of perceived value are most often to blame. If operations are running relatively smoothly, there is no perceived urgency to upgrade or make use of enhanced features and functions. As time goes by, technology matures and software vendors continue to innovate with new features and functions.

“For our business, I don’t ever want it in house. It is not what we do and not what we want to do. Sure we could do it if we wanted. But it is not where we make money. It was important for us to work with a financial strong company that we can trust. Who has more resources to protect my data? Me or [my ERP solution provider]? I wouldn’t have done it with a company without a strong track record. But my ERP vendor clearly has more resources and more expertise than we do.”

~ CEO, Small Manufacturer
with 65 employees

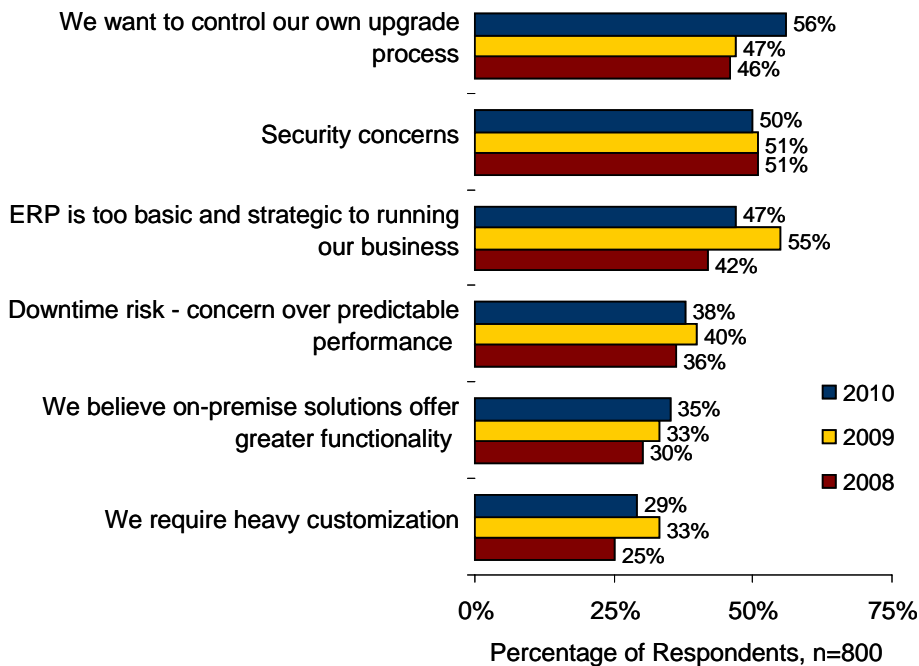
Top Reasons why Upgrades are Delayed

Aberdeen asked survey respondents to our annual survey, “What are the top three reasons that keep you from upgrading, or delay the upgrade process?” Responses include:

- √ 51% currently installed release satisfies our needs
- √ 41% not enough new features to build a business case for upgrading
- √ 39% customizations make the cost of upgrading cost prohibitive
- √ 33% uncertainty over the quality of new releases
- √ 30% budget/cash flow issues
- √ 29% upgrade process is too long and hard; we are likely to skip releases but eventually ‘catch up’

Often companies find themselves falling behind and the need to upgrade only increases.

Figure 4: Biggest Factors Preventing the Consideration of SaaS



Source: Aberdeen Group, June 2010

However, Aberdeen research finds those with SaaS deployments are often in a better position to take advantage of innovation delivered by ERP solution providers. While most SaaS ERP solution providers still package together enhancements in a traditional release cycle, these are often delivered far more frequently than those delivered to traditional on-premise implementations. While not exactly a forced march, SaaS customers are not allowed to slip too far behind with upgrades. By taking on some of the burden of the upgrade process, SaaS ERP solution providers do indeed reduce the cost and effort of the upgrade.

Otherwise, the chief barriers to SaaS ERP deployments have not changed dramatically over the past three years. Security is the most consistently cited deterrent and remains a top concern. In spite of increased confidence in electronic forms of communication by both businesses and consumers today, 50% of those who will not consider this deployment model for ERP cite security concerns. This, coupled with the 38% who express concern over the risk of ERP not being accessible because of downtime tells us that the confidence level could be higher. However, if concerns about security are preventing you from considering SaaS, take a close look at your own on-premise operations today. Are they as secure as you think they are? The maturing of supply chains and extension of distributed business networks makes interoperability a basic business requirement today. This interoperability will challenge those who today operate in a closed, insular

Delivery of Upgrades in a SaaS Environment

Aberdeen added two other options in collecting information regarding how often updates are performed. In SaaS deployments:

- √ 31% indicated all bug fixes and innovation were delivered as minor updates on a regular basis, eliminating the need for any major upgrades
- √ 46% indicated opt-in enhancements* are delivered on a continual basis

*a significant portion of the SaaS deployments were Plex Systems customers and this is a specific feature provided by this solution provider

environment and introduce a new level of vulnerability and forces the question, “Who is best equipped with the proper resources to secure your data and your environment?” The answer may very well be, “those whose very existence depends on their ability to provide a safe and secure environment.”

The feeling that ERP is too basic and strategic to leave it to someone else was the number one factor preventing the consideration of SaaS last year and fear over this has calmed a little this year. Just because ERP is running in the cloud does not mean you are handing over your business to anyone else. You are still running ERP and running your business.

Customization is a top concern as well. While many believe they will not be allowed to “customize” ERP if it is delivered on-demand, many modifications that used to require programming today can be performed by configuring or tailoring the solution without ever touching the underlying source code. Anecdotally, Aberdeen hears SaaS ERP customers referring to “customization” even when we know their solution provider does not allow for real customization. Instead these companies are able to tailor the system to make it appear customized.

Different SaaS ERP solution providers will treat customizations differently, therefore impacting the ability to lower up-front costs and control ongoing costs. All vendors support a certain level of tailoring to individual needs that adds little expense either up-front or on an ongoing basis. Generally this “tailoring” involves configuring the installation and requires no programming level changes. Other vendors do indeed allow customization and in fact our 2010 ERP survey participants running SaaS environments are only slightly (12%) less customized than their on-premise counterparts. However, Aberdeen did find that companies with SaaS deployments were better equipped to configure to their individual needs.

One factor influencing the solution provider’s willingness and ability to deliver customization (beyond configuring the implementation) will depend on whether the solution is multi-tenant or multi-instance (see sidebar definition). A multi-instance solution provides more opportunity for customization but some vendors who deliver multi-tenant solutions will provide customizations and deliver them as product innovations that can be selectively implemented. This is more a question of target market and policy defined by the solution provider, but can impact the company’s profitability and therefore its financial stability.

Often both SaaS vendors and industry observers will point to the ability to deliver a true multi-tenant solution as a form of value delivered to the SaaS customer. In reality, whether the vendor delivers multi-tenant or multi-instance matters far more to the vendor than to the end user. It is the vendor that benefits most directly from being able to offer a multi-tenant solution because this allows them to scale delivery with less cost of sale and service. Obviously delivering bug fixes and product innovation to a single instance of software supporting many different customers places far less burden on the vendor. For this reason and / or because of the need or

Level and Method of Customization

Aberdeen asked what level of customization had been made to the survey respondent’s ERP software:

- √ 14% for SaaS deployments
- √ 16% for all respondents

We also asked what percentage of necessary tailoring could be achieved without programming:

- √ 63% for SaaS deployments
- √ 59% for all respondents

Flavors of SaaS

Multi-tenant SaaS: Multiple companies use the same instance of hosted software; configuration settings, company and role-based access personalize business processes and protect data security.

Multi-instance SaaS: Each company is given its own instance of the (hosted) software, but may share common services, such as an integration platform, security and permissibility models, or optimization engines.

desire for more customization, the end user may in fact prefer a multi-instance solution or seek to deliver cloud computing through a private, rather than public cloud.

Multi-tenant solution may also offer less flexibility to the users of the SaaS application. This may also not be the case if the SaaS vendor is willing to bear the burden of added complexity in productizing customizations and making them entirely optional to other customers.

Key Takeaways

The year 2010 could very well be the year in which SaaS ERP really gains strength in the marketplace. The key benefits of the SaaS alternative have always been the lower TCO and the alternative to investing in in-house IT resources. But the perceived need for control and concerns over security have been the primary obstacles which have prevented SaaS ERP from really taking off.

For those willing to consider SaaS ERP, never have there been as many choices as there are today. While in the past, the field of SaaS ERP vendors has been quite limited, and many of the SaaS-only ERP vendors were successful in spite of the fact, not **because** of the fact they offered an alternative to traditional hosted or on-premise deployments, today we see that mindset changing. As the world around us becomes more accustomed to being virtual and the technology needed to securely support a SaaS environment matures, the barriers to SaaS ERP are being trumped by the perceived benefits.

For those that feel ERP is too strategic to their business or are reluctant to relinquish the control over upgrades, consider all your ERP SaaS options. Many more configuration options are available today than ever before and not all SaaS ERP solution providers treat upgrades and customization in the same way. Explore all your options carefully before deciding between SaaS and more traditional models, and if you view SaaS as a viable option, compare all aspects of the solution and the solution provider. Fit and function are extremely important, but so are many other factors such as continued vendor viability, references, ease and speed of implementation, and ease of use. And of course, cost also weighs heavily in the decision.

For those still concerned about security, exercise caution and perform due diligence, but remember that the vendors' continued success and very existence is at stake. Those that offer viable SaaS options are experts in security, and are potentially better equipped to protect your data than you would be in an on-premise environment.

Among those where SaaS may be the most viable option are companies that may need to be up and running quickly. This may be a result of a divestiture or an acquisition or entry into a new geographic region. This may be even more appealing when that new location is in a remote area where IT resources are scarce and you have no established infrastructure. Other prime candidates for considering a SaaS ERP environment include small

“Our main decision factors [in choosing a SaaS ERP deployment]? We were growing 300% a year. If we continue to grow at this rate, we will double our staff every year. Operating in house we would have to change our infrastructure and our hardware cost would escalate. Today I don't have that issue. It doesn't matter if five people are working on it or 500.”

~ Director of Finance, food & beverage manufacturer and distributor

companies that have outgrown their spreadsheets and desktop solutions, or larger and more mature companies where legacy applications are limiting growth and IT staffs have outdated skills.

In evaluating alternative ERP solutions and deployment options today, look beyond the features and functions and consider the full solution including the ERP vendor standing behind the software and the delivery. Underlying security and architectures have come a long way to support any number of different approaches to software deployment. As cloud computing and virtualization becomes more pervasive, it is quite likely that one day soon we may wake up and look over our shoulder and wonder what took so long to get to the point where deployment model is simply one of many different configuration choices.

For more information on this or other research topics, please visit www.aberdeen.com.

Related Research	
SaaS ERP Trends and Observations; December 2009 Are the Barriers to SaaS ERP Breaking Down?; June 2008	ERP: The Last Bastion of Resistance to Software as a Service; July 2007
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