

SaaS and Cloud ERP Observations

Is Cloud ERP Right for You?

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SaaS and Cloud ERP Observations: Is Cloud ERP Right for You?

Over the past six years, Aberdeen has been measuring the willingness of organizations to consider Software as a Service (SaaS) as the deployment model for their Enterprise Resource Planning (ERP) implementations. In that time, organizations have become more educated on both the benefits and potential issues that factor into a SaaS ERP decision. As a result, the willingness of organizations to consider a SaaS or cloud deployment model for ERP has steadily increased. At the same time, the willingness to consider the traditional on-premise model has steadily decreased. Aberdeen predicted that eventually, deployment models of all types would become equally considered. While on-premise deployments are still the overwhelming majority, they continue to fall out of favor. But this year's data shows that the demand for cloud solutions has slowed as well. Are we getting closer to the point when those trends meet in the middle? And if so, what does that mean? Each deployment model has its unique pros and cons, but if all deployments are equally viable, how is an organization to choose between ERP solutions? This Analyst Insight examines trends in ERP deployment models and provides clues as to whether cloud ERP is the right fit for your organization.

What is the Cloud?

Before going forward, it is important to distinguish between the many ERP deployment methods organizations are using. For the purposes of this document, Aberdeen provides the following definitions:

- **Traditional license on-premise:** Software may be licensed for use on a particular computer, or by other criteria such as number of users. The license can be either on a term basis or perpetual, and is often treated as a capital expense. The software is located in-house.
- **SaaS or on-demand:** The software itself is not licensed or owned by the end user; it is provided as a service. It is often paid for on a subscription basis, and can be accessed from a normal internet connection. SaaS avoids a large upfront capital investment. This deployment method is often referred to as the Public Cloud.
- **Hosted:** Licensed applications are hosted by a third party. This deployment method may be in a separate instance on a separate piece of hardware (dedicated to an organization), or in a separate virtual instance (dedicated to an organization) where the application is housed on hardware shared by multiple companies. Sometimes this deployment method involves a Private Cloud, where the

Analyst Insight

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

What is ERP?

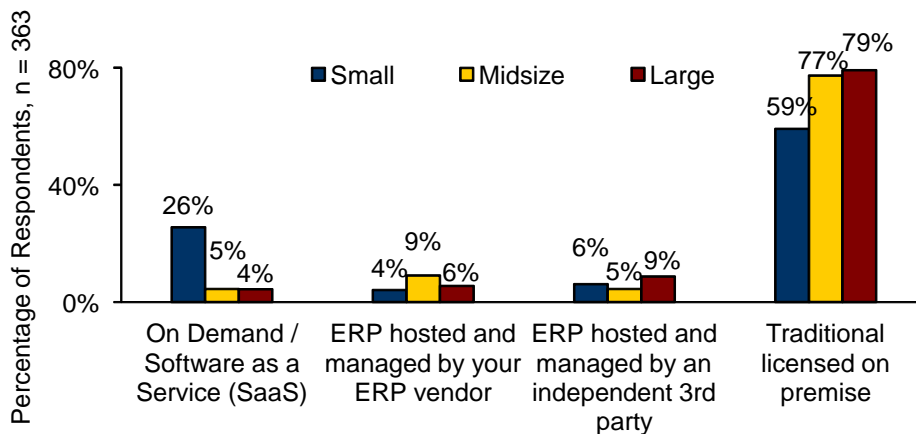
Aberdeen defines ERP as an integrated suite of modules that forms the operational and transactional system of record upon which any business is based. With its roots in Material Requirements Planning (MRP), it is most ubiquitous in the manufacturing industries, but has truly expanded beyond these boundaries to become a mature business application that provides value to a far more extensive set of industries. ERP systems provide much-needed capabilities, such as management of financial, product / inventory, human capital, purchasing, and other transactional data within one environment.

instance of ERP is hosted by a third party and then delivered to the end user on a subscription basis.

The New Status Quo

According to data from the [2012 ERP Benchmark survey](#) as of October 2012, the majority of ERP solutions are currently deployed on-premise (Figure 1). This is unsurprising, since SaaS and hosted solutions are only now coming to the forefront. For many years, on-premise solutions were the only option. Therefore, it is mostly "younger" implementations that are deployed in this manner. Today, the gap between on-premise and SaaS solutions is more pronounced in larger organizations. Seventy-nine percent (79%) of deployments in Large (over \$500 million in annual revenue) are on-premise compared to only 4% as SaaS. While the gap is still significant between SaaS and on-premise in Small (under \$50 million in annual revenue) organizations, it is much smaller than it is for larger organizations. This report will illustrate some of the reasons that SaaS is attractive to smaller organizations. When it comes to hosted solutions, the deployment rates are all over the board. This may be because hosted solutions offer some of the benefits of a SaaS solution, but can offer greater customization; hence, their adoption rate is higher in larger companies.

Figure 1: Current ERP Deployments*



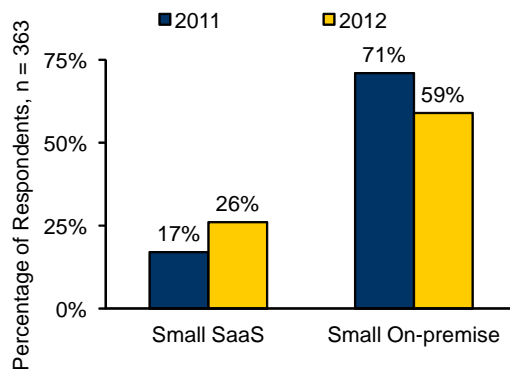
*Remaining deployments are pre-configured on a hardware appliance
Source: Aberdeen Group, October 2012

These discrepancies might not always be the case in the future. For example, over the last year there has been a 53% increase in the adoption of SaaS in Small organizations (Figure 2). This is countered by a decrease from 71% to 59% in on-premise deployments. Many small organizations are purchasing ERP for the first time. While the majority of deployments are still on-premise, if these trends continue, these adoption rates may meet in the middle or change 180 degrees.

SaaS ERP Deployments vs. On-Premise by Industry

- ✓ Financial Services: 33% SaaS vs. 33% On-Premise
- ✓ Healthcare: 13% SaaS vs. 75% On-Premise
- ✓ Manufacturing: 8% SaaS vs. 78% On-Premise
- ✓ Non-Profit: 6% SaaS vs. 71% On-Premise
- ✓ Professional Services: 12% SaaS vs. 76% On-Premise
- ✓ Retail: 17% SaaS vs. 50% On-Premise
- ✓ Technology: 11% SaaS vs. 77% On-Premise
- ✓ Utilities: 25% SaaS vs. 58% On-Premise
- ✓ Logistics: 19% SaaS vs. 57% On-Premise

Figure 2: Big Changes in Small Organizations

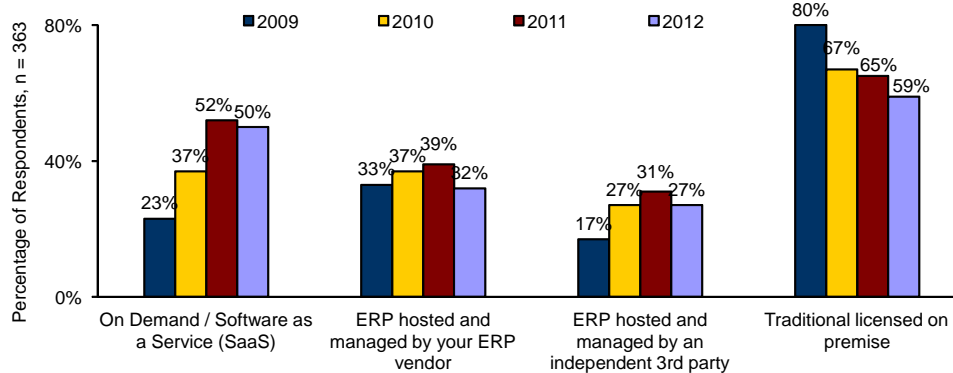


Source: Aberdeen Group, October 2012

Where are We Going?

There is further proof that ERP deployment options are trending towards the middle. It comes from the trends that Aberdeen has seen over the past four years in the deployment options that organizations are willing to consider for their ERP solutions (Figure 3). From 2009 to 2011, the willingness to consider SaaS and cloud options steadily increased. In particular, SaaS ERP solutions saw large gains. Over the same time frame, the willingness to consider on-premise solutions steadily decreased. This year, that trend has continued for on-premise solutions. However, the willingness to consider a cloud solution has appeared to tail off. Will on-premise solutions continue to lose favor, with cloud solutions staying somewhat static? If that is true, organizations may be deciding that deployment option is not something that should be a deciding factor when selecting an ERP solution. For those organizations, there are other factors that are more important and should be considered before selecting based on the key benefits of a cloud or on-premise solution.

Figure 3: Increasing Cloud Considerations



Source: Aberdeen Group, October 2012

The Willingness to Consider SaaS by Industry

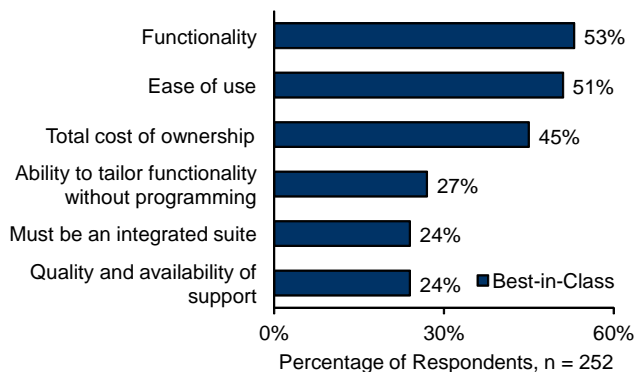
The willingness to consider SaaS vs. On-Premise ERP solutions varies from industry to industry:

- ✓ Financial Services: 44% SaaS vs. 33% On-Premise
- ✓ Healthcare: 40% SaaS vs. 50% On-Premise
- ✓ Manufacturing: 39% SaaS vs. 69% On-Premise
- ✓ Non-Profit: 64% SaaS vs. 56% On-Premise
- ✓ Professional Services: 64% SaaS vs. 56% On-Premise
- ✓ Retail: 56% SaaS vs. 39% On-Premise
- ✓ Technology: 53% SaaS vs. 49% On-Premise
- ✓ Utilities: 25% SaaS vs. 67% On-Premise
- ✓ Logistics: 70% SaaS vs. 61% On-Premise

What's Important When Choosing ERP?

If the willingness to consider the various deployment methods for ERP is becoming less differentiated, it stands to reason that there are more important factors that must be considered first when selecting an ERP solution. If an ERP solution is not going to help the business to standardize processes, contain costs, and provide visibility to decision-makers, it doesn't matter how it is deployed. Aberdeen's [ERP Selection: Finding the Right Fit](#) illustrated the top ERP selection criteria of the Best-in-Class (Figure 4). Most important were functionality and ease of use. Truly, the ERP solution must contain the functionality and features to support the business if the implementation is going to add value to the organization. Beyond that, employees need to actually be able to use the system in order for it to provide full benefits. Only then does the actual cost of the solution come into play. If functionality, some of which may need to be obtained through additional customization (i.e. programming), and ease of use are equal when weighing two ERP options, the organization should then move on to the other factors. Some factors favor SaaS or cloud solutions, while others favor on-premise. This report will show that cloud solutions may be easier to implement and support and cheaper to pay for. At the same time, these solutions may be less flexible for customization and can force upgrades on organizations that may not want them.

Figure 4: Best-in-Class ERP Selection Criteria



Source: Aberdeen Group, September 2012

Still, while deployment model was not even in the top ten ERP selection criteria for the Best-in-Class, selecting a solution based on the cloud deployment model is more prevalent in top performing organizations. Fourteen percent (14%) of Best-in-Class organizations select ERP based on the cloud deployment model compared to 6% of All Others (Figure 5). On the other hand, only 4% of the Best-in-Class are basing their ERP decision on whether or not the prospective solution is a traditional on-premise solution. In summary, while deployment model is far from a differentiating factor, Best-in-Class organizations that do select their solution based on deployment model are more likely to implement a cloud solution.

Aberdeen Methodology

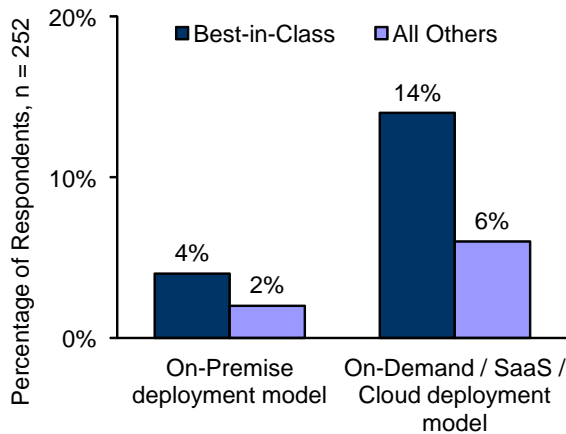
The Aberdeen maturity class is comprised of three groups of survey respondents. Classified by their self-reported performance across several key metrics, each respondent falls into one of three categories. All respondents within this group are currently using ERP:

- ✓ **Best-in-Class:** Top 20% of respondents based on performance
- ✓ **Industry Average:** Middle 50% of respondents based on performance
- ✓ **Laggard:** Bottom 30% of respondents based on performance

✓ In the report [ERP Selection: Finding the Right Fit](#), Best-in-Class organizations from the [2012 ERP Selection, Implementation, and Training](#) survey achieved:

- ✓ 16% improvement in profitability over the past 2 years
- ✓ 18 months until ROI for ERP solution

Figure 5: Deployment Model Far from the Deciding Factor

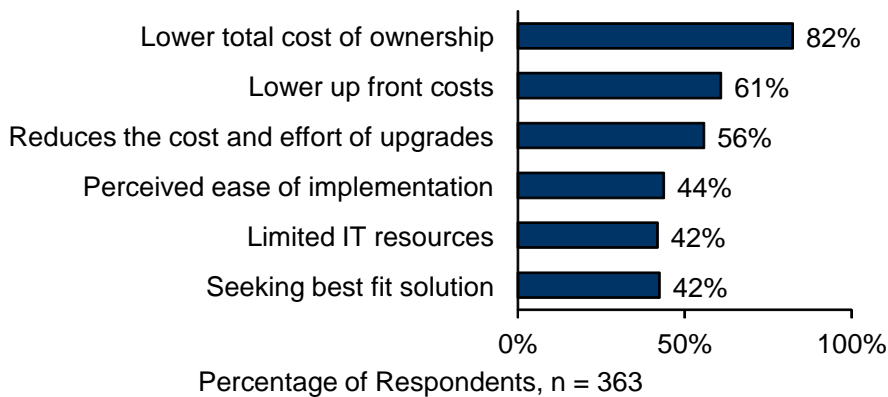


Source: Aberdeen Group, September 2012

Why Cloud ERP?

When organizations reach the point in their ERP selection process when it does come time to consider deployment model, there are several positive factors that are making organizations willing to consider a SaaS solution (Figure 6). According to data from Aberdeen's the [2012 ERP Benchmark survey](#) as of October 2012, many of these reasons have to do with cost. Since SaaS is paid for by subscription it is seen as having lower up-front costs as well as a lower total cost of ownership. Additionally, there are hidden cost savings with a SaaS solution that some organizations might not consider. Forty-two percent (42%) cited that they have limited IT resources. With a SaaS or cloud solution an organization can rely on the resources of their vendor for support rather than having to invest in internal resources.

Figure 6: Positive Factors Influencing SaaS Decisions



Source: Aberdeen Group, October 2012

Also, a SaaS solution is seen as easier to implement and maintain. Forty-four percent (44%) of organizations believe that a SaaS solution can be

implemented more quickly with less disruption to the business. Another 56% believe that a SaaS solution reduces the cost and effort of upgrades. Rather than having to go through another substantial upgrade process, upgrades are handled automatically by the vendor.

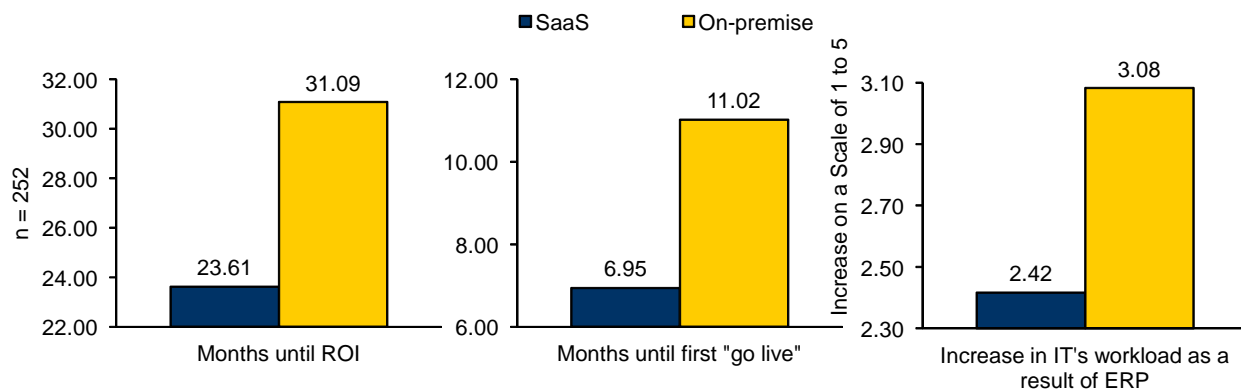
Finally, in support of the above findings, 42% of organizations are seeking the best fit solution, regardless of deployment model. Therefore, if some of these perceived benefits are part of the overall ERP strategy, SaaS becomes an attractive option. This means organizations looking for a low cost option that can be implemented quickly, does not tie up IT resources, and is not disruptive to the business would look to SaaS. But these are purely perceptions; are these benefits too good to be true?

Data collected for Aberdeen's [ERP Selection: Finding the Right Fit](#) helps to verify these perceptions (Figure 7). First, in relation to TCO, organizations with SaaS ERP achieved Return on Investment (ROI) more quickly than those with on-premise ERP. Additionally, for those organizations that need to get their ERP up and running as quickly as possible, SaaS solutions average 6.95 months from installation to "go live" compared to 11.02 months for on-premise solutions. Clearly, these cloud solutions are easier to implement. On-premise implementation projects are more likely to go over budget, disrupting the organization for a longer amount of time and adding unforeseen costs (see Fast Facts). Finally, when it comes to organizations that have limited IT resources, those organizations would prefer to create a smaller impact with their ERP solutions. Organizations were asked to rate the impact that their ERP solution has had on their IT department's workload on a scale of 1 to 5, with 5 being the greatest impact. SaaS solutions outperform on-premise solutions in this aspect. Combined, these real facts provide validation to the positive factors influencing SaaS decisions and offer compelling reasons that these solutions may be a good fit.

Fast Facts

- ✓ Organizations with SaaS ERP spent exactly 100% of their ERP implementation budget on implementation, compared to organizations with on-premise ERP that went 12% over budget.

Figure 7: Validating Perceptions

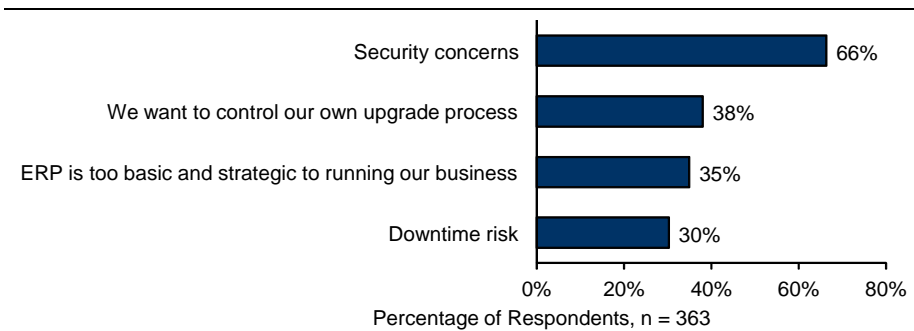


Source: Aberdeen Group, September 2012

On the other hand, Aberdeen's the [2012 ERP Benchmark survey](#) as of October 2012 uncovered reasons that some organizations may not be

willing to consider a SaaS solution. Two major concerns involve security and stability. Sixty-six percent (66%) of those unwilling to consider a SaaS solution cite security concerns. They may be wary of exposure of internal financial data to competitors or of the potential to compromise customer data. Additionally, 30% are concerned about downtime risk. They believe that a SaaS solution may be more likely to go down more often than an on-premise solution.

Figure 8: Concerns Influencing SaaS Decisions



Source: Aberdeen Group, October 2012

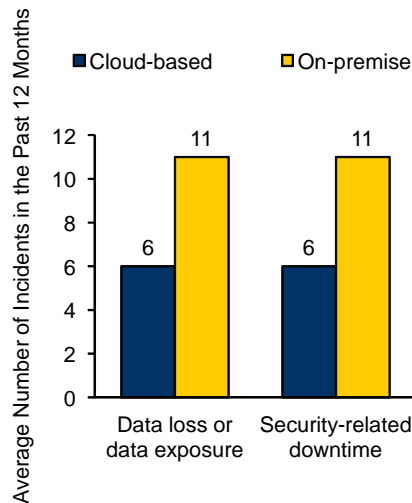
The other two negative perceptions of ERP delivered in the SaaS model indicate that these organizations feel that a SaaS solution is not substantial enough. Thirty-eight percent (38%) want to be able to control their own upgrade process. They want to choose when to upgrade their product, which may be a sign that they feel they need customization that may be "broken" by an upgrade. Further proof of this is in the 35% that feel that ERP is too basic and strategic to running their business to be implementing a SaaS solution. These organizations may not want to implement a multi-tenant SaaS solution that could be perceived as being "off the shelf" and not tailored to help run their business specifically.

Just as Aberdeen's data can be used to prove some positive perceptions about SaaS ERP, Aberdeen's data can also help to negate some detrimental perceptions about cloud solutions. Aberdeen's report [Web Security in the Cloud: More Secure! Compliant! Less Expensive!](#) found that, on average, on-premise solutions had 11 incidents of data loss or data exposure in the last 12 months, compared to 6 incidents for those that are cloud-based. Additionally, on-premise solutions had 11 incidents of security related downtime, compared to 6 for cloud-based solutions. This is evidence that the actual impact of cloud based solutions on security and stability has been communicated poorly. Are on-premise solutions truly as secure as they are believed to be, or is security best left to those organizations (the SaaS ERP vendors) whose existence depends on their ability to provide safe and secure environments? If an organization is choosing an ERP solution based on its potential security, wouldn't it make sense to rely on the capabilities of an organization that is committed to providing security rather than on your own internal firewalls, which may be insufficient?

What is multi-tenant?

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.

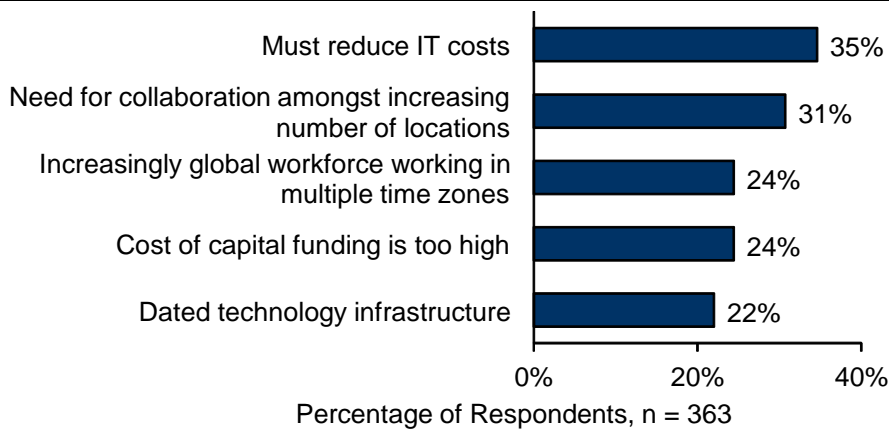
Figure 9: More Secure, More Stable



Source: Aberdeen Group, May 2010

With these positive and negative perceptions in mind, what is it that is actually causing organizations to adopt a cloud solution? According to Aberdeen's [2012 ERP Benchmark survey](#) as of October 2012 there are several top business drivers that push organizations towards the cloud (Figure 10).

Figure 10: The Tipping Point



Source: Aberdeen Group, October 2012

Unsurprisingly, cloud is an attractive option for those that want to keep costs low or have limited access to cash. Thirty-five percent (35%) need to reduce IT costs, so they rely on their ERP vendor for technology support. Additionally, 24% are not able to secure capital funding. Rather than a large up-front capital expenditure, they can use a SaaS option and pay on a month-to-month basis and treat their solution as an operating expense. These benefits allow an organization to take advantage of the operational

improvements that are enabled by ERP while relying on the same technology infrastructure they already have.

Additionally, many organizations are choosing the cloud because of its ability to connect people across the world. Internet access is all that is required for employees to be able to use their ERP system. Therefore, global organizations that span across many time-zones may be looking towards the cloud. This presents real-time data to employees no matter when and where they are, so that they can make more agile decisions and collaborate. At the same time, the organization can more effectively promote standards across the organization. This amplifies some of the key benefits of ERP.

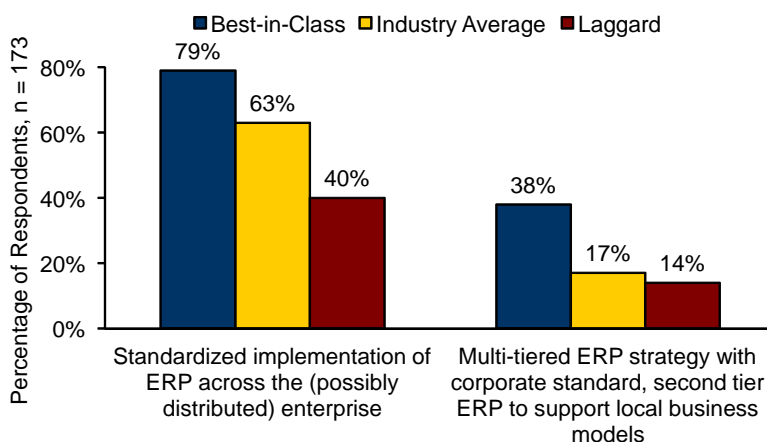
These benefits are attractive to organizations that are implementing ERP for this first time, but there is a way in which cloud solutions can benefit larger organizations that already have ERP implemented. Data collected for Aberdeen's *ERP in Manufacturing 2012: The Evolving ERP Strategy* found that Best-in-Class organizations are over twice as likely as All Others to have a multi-tiered ERP strategy with a corporate standard and a second tier ERP to support local business models. In a multi-tiered ERP strategy, there is often one standard ERP implementation for the corporate offices. This would be referred to as an "administrative ERP". Additional ERP solutions that may offer different functionality or configurations are implemented at separate locations. This would be referred to as an "operational ERP". Often times, the locations receiving an operational ERP are new business units. These business units often need to get up and running quickly, do not have existing IT resources, and are disconnected geographically from the rest of the organization. This is a perfect opportunity to implement a cloud solution.

ERP in Manufacturing Best-in-Class

In the report *ERP in Manufacturing 2012: The Evolving ERP Strategy*, Best-in-Class organizations achieved:

- ✓ 20% reduction in inventory as a result of ERP
- ✓ 97% inventory accuracy
- ✓ 3.37 days to close a month
- ✓ 94% manufacturing schedule compliance
- ✓ 97% complete and on-time shipments

Figure 11: Cloud Could Be A Part of a Multi-tier Strategy



Source: Aberdeen Group, October 2012

The Benefits of the Cloud

As of October 2012, Aberdeen's *2012 ERP Benchmark survey* has found a correlation between improved performance and the implementation of SaaS

ERP solutions. While this does not necessarily mean that a SaaS solution alone provides better company performance, it does show that organizations that are run more effectively are choosing SaaS for their ERP deployments. These organizations are closing their books, delivering goods and services, and collecting cash more quickly. They have more accurate reports. Employees are exceeding performance metrics and making quicker decisions. This all leads to greater operating margins. ERP has an impact on all of these performance metrics, and organizations that choose SaaS are out performing their peers.

Table 1: Superior Performance of Organizations Using SaaS

Metric	SaaS ERP	On-premise
Days to close a month	5.31	5.45
Days Sales Outstanding	40.75	41.04
Hours from order taking to shipment	91.39	111.84
Complete and on-time delivery	94%	91%
Increase in operating margins over the past 2 years	13%	10%
Employees that exceed performance metrics	46%	30%
Decrease in time to decision over the past year	27%	18%
Internal schedule compliance	92%	89%
Inventory accuracy	95%	93%
Percentage of accurate financial reports	95%	93%

Source: Aberdeen Group, October 2012

Additionally, Aberdeen asks survey takers to report the improvements that their organizations have seen as a direct result of their ERP solution. Again, SaaS solutions come out on top. This helps to prove that organizations that choose a SaaS solution because of its unique benefits may derive greater operational improvements as a result.

Table 2: SaaS Solutions Influence the Benefits of ERP

Benefit as a Result of ERP	SaaS ERP	On-premise
Improvement in inventory turns	45%	41%
Reduction in operational costs	22%	14%
Reduction in administrative costs	20%	13%
Improvement in complete and on-time shipments	19%	14%
Reduction in inventory	14%	11%

Source: Aberdeen Group, October 2012

Fast Facts

- √ Organizations with SaaS ERP achieved 72% of their previously projected benefits for their ERP solution. This is compared to organizations with on-premise ERP that achieved 59%.

2012 ERP Research

Aberdeen's 7th annual ERP benchmark study is being held throughout the year and is aimed at quantifying ERP usage, identifying preferences for fully integrated suites versus point solutions, measuring Total Cost of Ownership (TCO) as well as the business benefits derived from Best-in-Class deployments. The survey also compares the performance of organizations using ERP to those without ERP. To take part in the survey, please click [here](#).

Key Takeaways

While trends in cloud and SaaS ERP adoption have increased over the past few years, trends in the adoption of on-premise solutions have decreased. As existing ERP implementations age, there comes a time when organizations are going to have to consider their next solution. Additionally, many new organizations or organizations looking to implement a new ERP in their subsidiaries are looking towards a first solution. Aberdeen's data leads us to the conclusion that deployment option should not be the whole deciding factor when selecting ERP. Rather, organizations searching for a new solution should identify the key benefits of the various deployment methods and how those benefits fit into their overall ERP strategy. The following questions should be asked:

- **Does the system have the functionality you need?** It all comes down to whether or not the features included in the software can support the processes that are key to business success.
- **Can you support the system?** With a cloud solution, organizations can rely on the resources of their software vendor, rather than investing in internal IT resources.
- **Is your organization distributed globally? How big is it?** A cloud solution enables anyone with internet access the ability to access it. This has the ability to connect people across the globe and maintain corporate standards.
- **Do you believe that security is a concern?** Does your organization trust its own firewalls or those of the software vendor?
- **How much time do you have?** Aberdeen's research finds that cloud solutions can be implemented more quickly. Is your organization in a growth phase where they need ERP support as soon as possible?
- **How are you paying for this?** Does your organization have the capital to invest up-front, or would it prefer to pay a prescription license in perpetuity? Additionally, would your organization prefer to "own" the software?
- **Will your employees be able to use it?** It does not matter if the solution is affordable, can be implemented quickly, and has the features that can support the business if employees cannot actually use it. Employee adoption is absolutely essential to attaining the full benefits of ERP.

Only after taking into account these questions should an organization consider their deployment model. In reality, deployment model does not ultimately matter; it's all about functionality, usability, and cost. While Aberdeen's data shows that cloud solutions can provide substantial benefits, in some cases where an organization needs specific functionality that is not contained in a cloud solution, on-premise could be a better option. Still,

today's trends indicate that SaaS and cloud ERP are gaining steam and are options that should receive much attention when deciding which ERP solution is the right fit for your organization.

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

To take part in Aberdeen's 2012 ERP research, click [here](#).

Related Research	
<i>SoMoClo's™ Impact on ERP</i> ; August 2012 <i>Cloud Financial Management: Cost-Effective Implementation of Budgeting and Forecasting Measures</i> ; May 2012	<i>SaaS and Cloud ERP Trends, Observations, and Performance 2011</i> ; December 2011 <i>SaaS and the Multi-tiered ERP Strategy</i> ; November 2011
Author: Nick Castellina, Research Analyst, Enterprise Applications (nick.castellina@aberdeen.com)	

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