



The CFO's Guide to ERP in the Cloud

As CFO, your responsibility is to guide your organization through business transformation to minimize risk and recognize opportunity. The latest transformation facing organizations of all sizes is the change from internally supported business management applications, including ERP (Enterprise Resource Planning), CRM (Customer Relationship Management) and LOB (Line of Business), to cloud based infrastructure and applications.

The shift to cloud based software is being fueled by a number of factors, including:

- Virtualization (see Question 6), which enables shared use of servers, reducing the cost of IT infrastructure and support,
- In order to remain competitive, organizations want to adopt the latest technologies quickly,
- Increasing complexity of IT support requirements for business management applications.

Warning: IT may not be objective about moving ERP to the cloud

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Technology-induced change is nothing new. The real question is not, 'What is the role of technology?' Rather, the real question is, 'How do good-to-great organizations think differently about technology?'

There has been plenty of information and hype about cloud computing...with a strong shot of technical jargon thrown in. Some of the scarier technical terms are being tossed out by IT professionals threatened by the perceived notion that the cloud will make their jobs obsolete.

As the steward of your organization's financial well-being, you have the responsibility to understand the current transformation in IT and provide objective guidance.

Over a quarter (27%) of CFOs say they've become more involved in their company's operations over the past three years, and 15% say specifically that they've become more involved in IT according to a recent report by Robert Half Management Resources survey of 1400 CFOs. With a predicted increase in IT spending of 7.1 percent over 2010 (worldwide IT spending is forecast to total \$3.67 trillion in 2011) according to Gartner's 2011 Q2 update, there is a lot at stake.



35 questions you should ask before you move ERP to the cloud

This white paper is intended to guide you, the CFO, to ask educated questions as you consider moving your ERP solution to the cloud.

At the core of evaluating cloud solutions for your organization are the business drivers that determine the profitability of the business. Your ERP system is the foundation for operations and monitors the status and progress of those business drivers. While cost is clearly a primary driver, risk mitigation, compliance, operational efficiencies, or scalability may be higher priorities for your organization. As CFO you have more insight into the balance of all those business drivers than anyone in the organization.

The shift to cloud based business management technology has started. Is cloud based ERP the right choice for your organization? Let us help you decide.

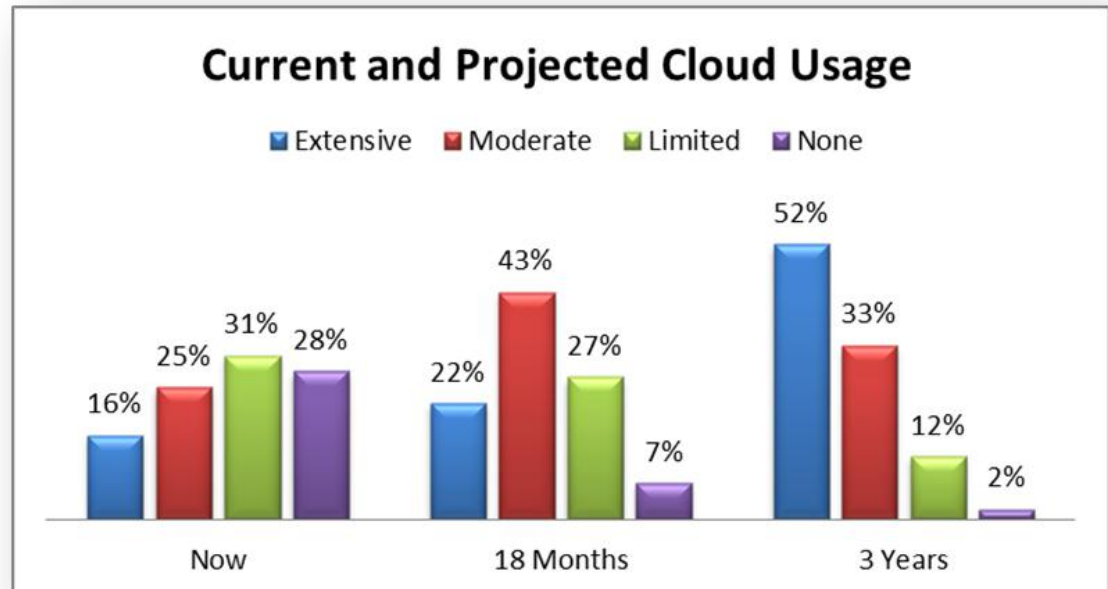




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Credits:

1. Source of charts: "How the Cloud Looks From the Top: Achieving Competitive Advantage in the Age of Cloud Computing, a report by Harvard Business Review Analytic Services based on a survey of nearly 1,500 business and technology leaders.
2. Source of charts (page 13): SMB Cloud Adoption Study Dec 2010 -Global Report: What will be the impact of cloud services on SMBs in the next 3 years? Prepared for Microsoft by Edge Strategies, March 2011.



Cloud Definitions

Let's get started with the basics. One size doesn't fit all and fortunately the cloud offers a variety of options that can support your organizational drivers. Cloud models work together, so you can use the right models for different applications in your organization.

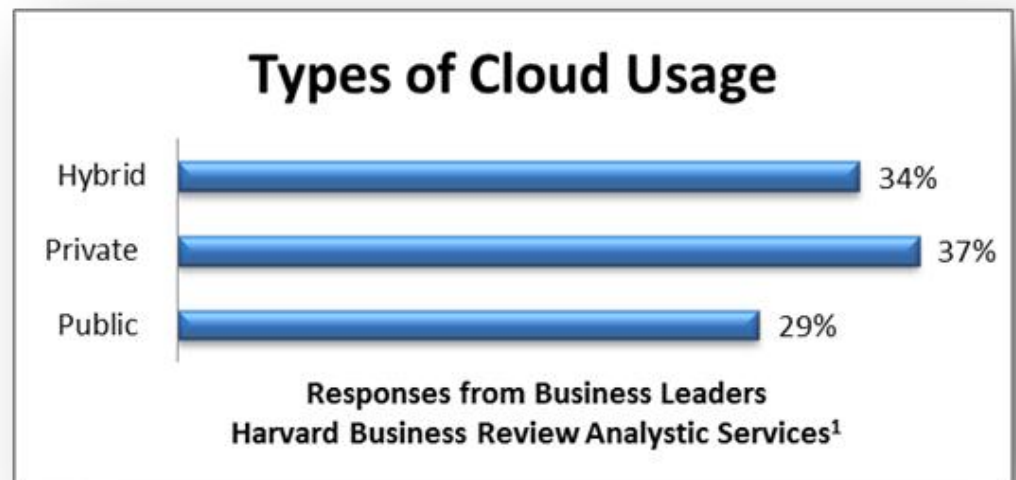
- 1. What is cloud computing?** At the basic level, “the cloud” or “cloud computing” refers to the method of delivering software, from e-mail to accounting to customer relationship management, to users via the Internet. **Public cloud** refers to infrastructure comprised of multi-tenant servers. With **private cloud** services, servers are dedicated to one organization. The term **hybrid cloud** refers to the combination of public cloud, private cloud or on premises infrastructure services.
- 2. What is IaaS, Infrastructure as a service?** Users run all their own applications, including operating systems, storage and backup on a cloud provider's infrastructure. The cloud vendor does not supply any operating system license or support, only hardware and connectivity.
- 3. What is PaaS, Platform as a Service?** Users access purchased or internally developed applications that are housed on the cloud provider's infrastructure with provider managing the operating system, storage, hardware, and networking. The cloud vendor provides the additional layer of operating system and supporting services, to allow the users to focus on supporting their custom or purchased business operating applications.
- 4. What is hosting?** The term “hosting” or “hosted” is commonly associated with ERP and LOB software. In addition to the hardware and operating systems, the cloud provider houses and manages the installation, upgrades and user configurations for the ERP application. The ERP application licenses may either be subscribed to or owned.



- 5. **What is SaaS, Software as a Service?** Users subscribe or rent access to the software application functionality over the internet. The software publisher delivers the application to many customers, storing customer application related data on public cloud servers. Also commonly referred to as “on demand.”

- 6. **What is virtualization?** The creation of a software layer between existing computer hardware and host operating systems. This buffer layer of software allows multiple “virtual machines,” each hosting their own operating system and application, to run side-by-side on the same physical hardware.

- 7. **What is an MSP, Managed Service Provider?** An MSP provides management of network based services, applications and equipment to end users. The MSP often acts as the agent for a cloud provider with value added services to monitor applications and manage user issues.





Potential Benefits

Cloud computing is an opportunity to completely transform how your business and its people work. Saving the organization from capital expenditures that last longer on the balance sheet than in the server room may be the most often cited benefit, but there are some you may not have considered.

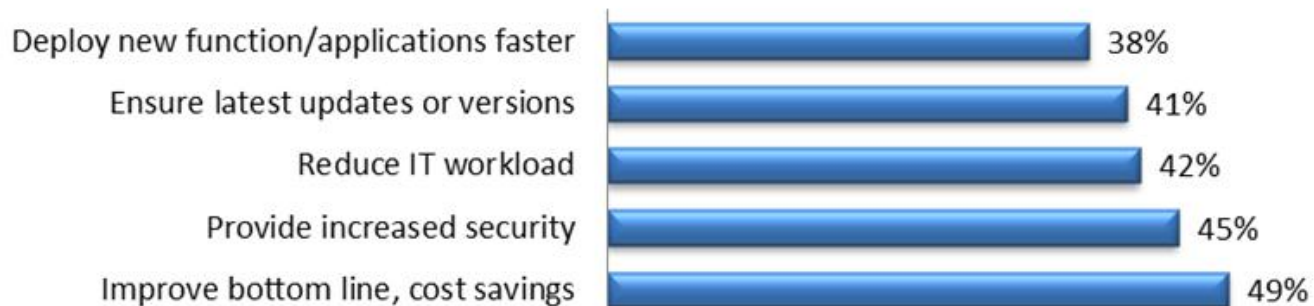
8. **What are the cost savings associated with moving ERP to the cloud?** Capital costs are reduced because there is no need to purchase computer hardware to house your ERP system. Operational costs, including IT support, power to run servers and server operating systems are reduced or eliminated. CFOs also find savings in the ability to rely on predictable monthly costs.
9. **How will cloud services affect the internal IT team?** By moving your applications and workloads to a cloud platform, common help desk calls and other IT management tasks like procurement and server configuration are reduced. IT staffers can be reduced or allowed to concentrate their talents on tasks that will improve the business and revenue generation rather than on general technical problems.
10. **How does a cloud ERP solution improve ability to scale?** With cloud computing, you can adjust users and applications up or down to meet the changing demands of your business. You can trial applications without a large capital investment and roll out new applications to groups reducing risk and spreading training costs.
11. **Will my data be more secure in the cloud?** Many CEOs feel that when their data is in-house it is secure and under their control. What is often missed in this conversation is that cloud providers have much more expertise in securing data than typical internal IT departments do. Let's face it, the server room in



many companies is no more than a locked closet that does little to protect against break in or natural disaster. In most cases, cloud computing is more secure than an organization's current situation. We'll address this subject further in "Common Concerns."

12. **Is cloud ERP an effective business continuity strategy?** As thousands of companies in Katrina's path found, business continuity plans are better made now than when the emergency is upon you. Cloud vendors' core function is providing infrastructure business continuity, so you can focus on your people and facilities in the face of disaster.
13. **Will we be able to get all the reports we need from a cloud based ERP system?** If flexible reporting is important to your organization, make sure that the ERP system that you choose provides your users with easy views into the data they need. Some ERP providers limit the number of reports that you can access.
14. **Will cloud ERP work with Office and Outlook in the cloud?** Some ERP systems have the same tight integration in the cloud as on premises, so you can send invoices and POs via email. It is important to ask your ERP cloud provider if you can automate common processes in your organization.

Top 5 things cloud services allows you to do





- 15. As a startup, is a cloud ERP system more than we need?** Cloud ERP is a perfect fit for startup organizations and start up divisions within an existing company. You can use the functionality that you need and expand your use as the company grows. Since there is no capital investment and no IT team needed, you can test markets and change course if your business changes.
- 16. Will company divisions in other countries be able to use the same ERP system?** Cloud computing is a driving force in supporting global expansion. One ERP system can service business operations around the globe, eliminating complex manual reporting from multiple ERP systems. You and your employees will access the application and your data from anywhere by using any PC, mobile device, or browser.
- 17. Will employees working from home be able to access the system?** Cloud computing can help you support green and employee satisfaction initiatives by allowing employees to perform all of their tasks at home through an internet connection. You also significantly reduce the risk of corporate data being lost or misappropriated by eliminating the need to transport files on laptops and flashdrives.
- 18. Will our IT team still need to upgrade the ERP application?** This may be the best news of all. With cloud based ERP, upgrades happen in the background without you having to be involved. Of course, you will want to coordinate with your vendor on the best time to upgrade to prepare your teams to take advantage of the new functionality.
- 19. Does the cloud provide an opportunity to re-architect our systems?** Absolutely, especially when it comes to line of business applications, many IT professionals have historically lived by the doctrine, “if it’s not broken don’t fix it.” By moving to the cloud, you can replace aging line of business applications with systems that will support new world applications.

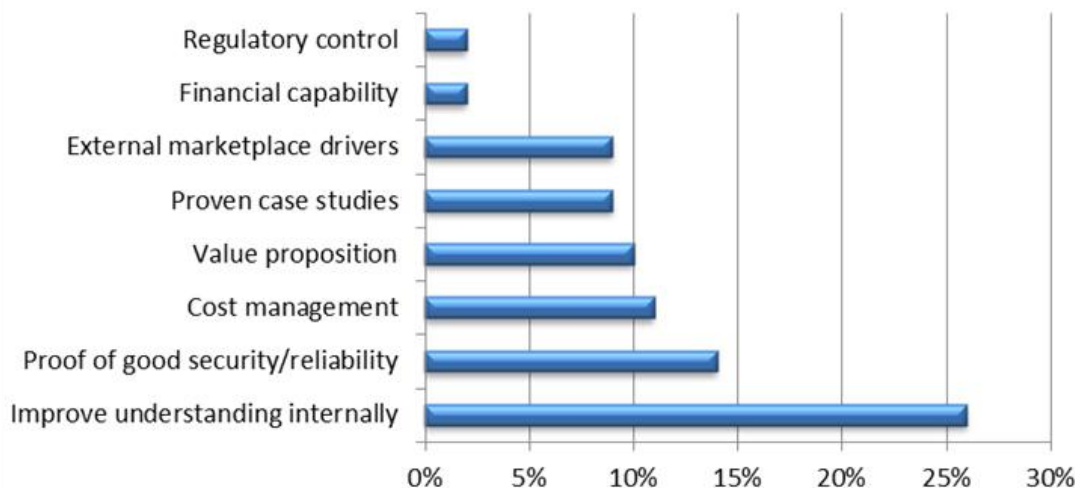


Advantage of the Cloud



20. **Will we still be able to get help from our business consulting partners?** Many organizations depend on the expertise and best practices that their current VAR brings to the organization. Especially with an ERP system, VARs add the expertise of CPAs and business analysts to the implementation, upgrade process and continuing education of the users of the system. The cloud won't change the need for personal relationships with application specialists that will help you get more value out of the ERP system than you could get on your own.

Factors That Could Accelerate Move to Cloud



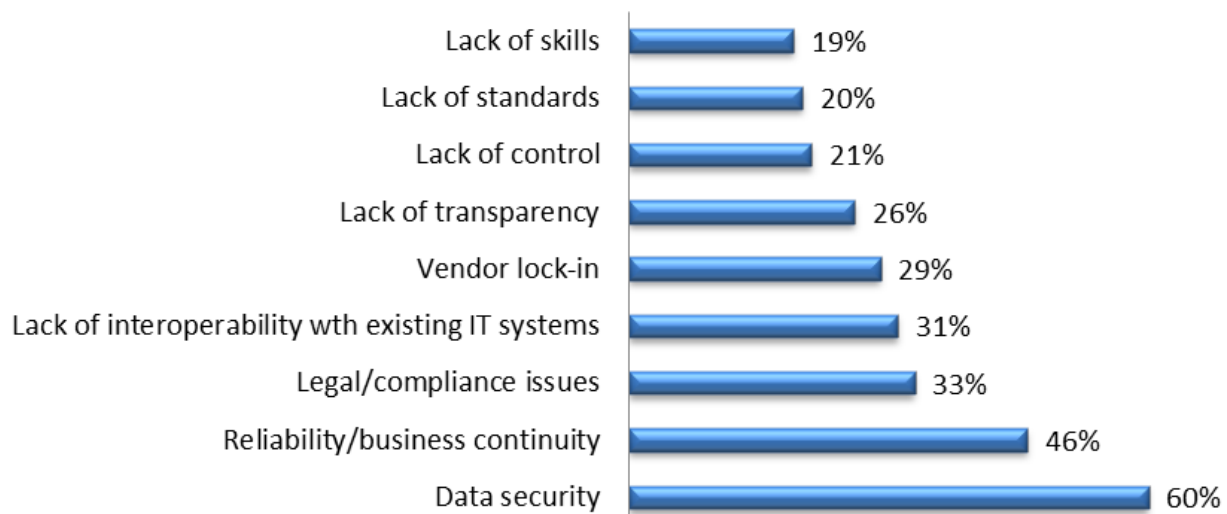


Common Concerns

Concerns about the loss of control over ERP data is a common discussion point in the evaluation to move to the cloud. As CFO, you understand that any risk benefit analysis will include obvious and the not-so-obvious factors that affect the decision.

21. **Will our data be secure from access by outsiders?** The main concern with cloud computing is security and the risk of having your data accessible to others on the web. As mentioned already, having professional security requirements in place can honestly be more secure than the current set up of most companies. If you choose a reputable cloud provider they will be able to clearly articulate specific governance, operational and regulatory guidelines that they follow to assure the security of your data. This includes helping you to understand the policies for ID management and access control — who is authorized to do what and when.

Significant Concerns with Cloud Computing

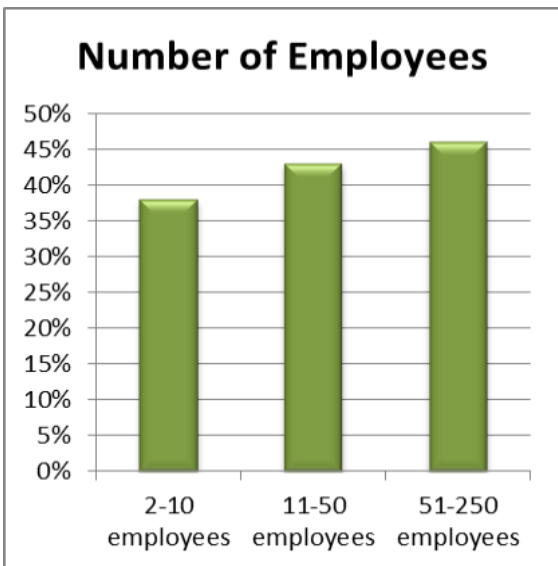
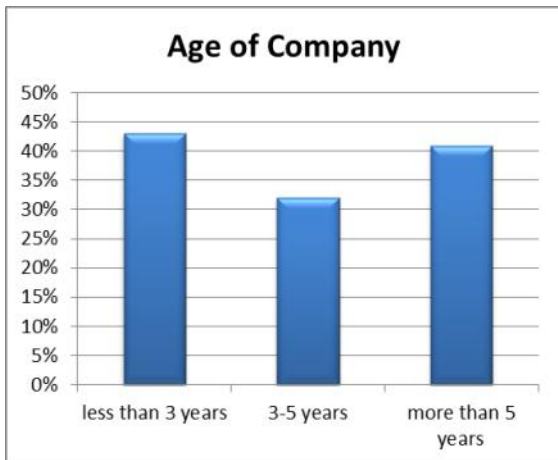
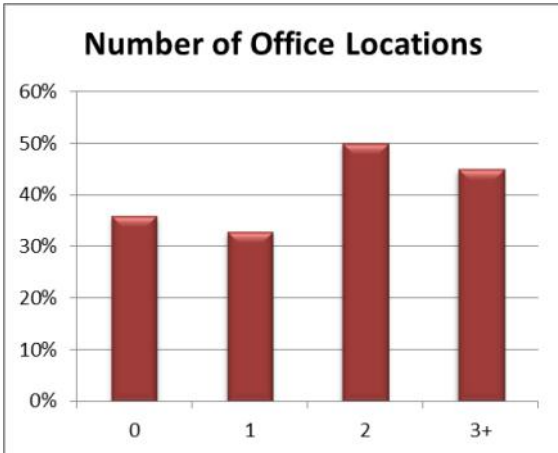




- 22. Will we still own our data?** In most cases you will retain ownership of your data, but this is a crucial question to ask your ERP cloud provider before the purchase. Equally important to ask is how the cloud provider will deliver your data to you if you choose to cancel your contract. For example, some cloud-only vendors will deliver a file of raw data that is difficult to reuse in a new system.
- 23. What should I look for in an ERP cloud provider?** Choose a vendor with a track record and lots of satisfied customers that are willing to talk to you about their experience. Carefully review the uptime guarantees, service level agreement (SLA) and other terms and conditions. Ask if the vendor has redundant infrastructure facilities in the case of a natural disaster at their primary facility. In addition, do research to establish the provider's financial stability.
- 24. What if circumstances change and we want to bring ERP back in house?** Not all ERP solutions have the flexibility to run either in the cloud or on premises. Some vendors only support cloud deployment, while others allow you to change your deployment method without forcing you to go through a new implementation. If your business needs change in the future, having this option available could mean huge financial savings.
- 25. Will a cloud based ERP system be able to integrate with the other line of business applications that we use?** The answer depends on the ERP application you choose. ERP solutions with robust sets of integration tools will allow you to integrate to other on premises and cloud based solutions. However some companies see integration and customization as a limitation of a pure cloud solution. For example, in cases where you want to edit the underlying source code or add significant new functionality specific to your business. In this case, a hosted solution may give the best of both worlds. You have the benefits of a cloud infrastructure but do not give up the flexibility associated with owning the application.
- 26. Will the ERP system response time be as fast as it is on premises?** Having adequate bandwidth and speed will be a critical part of your user experience with a cloud based ERP system. Your cloud provider will help you define the user-side requirements of internet access to ensure the response times that you expect.



Cloud adoption by company factors



27. What if our internet connection goes down? A redundant internet service can help you ensure continued operations even when your primary ISP goes down. Many organizations find that a redundant system also helps with load balancing during high usage time, keeping the ERP system responsive — even during March Madness.

28. What if the cloud provider’s internet goes down? As part of the SLA (Service Level Agreement), your cloud provider should supply uptime guarantees and explanation of the redundant systems in place to protect against major system failure. To put this in perspective, if your cloud provider guarantees 99.9% uptime this means in the worst case scenario your system would be down less than 8.76 hours per year. Likely if you carefully tracked the uptime of your on premises system you would find it is down more than you realize.

29. Will our ISV solutions work with cloud based ERP? Many organizations use Independent Software Vendor (ISV) applications to manage specific functions or industry-specific requirements. Choosing an ERP solution supported by a robust ecosystem of ISVs will ensure that the applications that you depend on will be adapted to work in the cloud. Note that there will be an additional cost to adding ISV applications to your hosted or cloud system.



Compliance Considerations

As CFO, regulatory compliance is an issue that you deal with every day. The cloud provider that you choose should have a track record with customers that share the same compliance issues as your organization. Check with those customers to make sure that the provider has been responsive to audit requests and passed all requirements.

- 30. What is SAS 70?** The American Institute of Certified Public Accountants (AICPA) developed the Statement on Auditing Standards No. 70 (SAS 70) certification to validate that a company has been through an in-depth audit of their control processes. SAS 70 Type II is a detailed audit that shows prospective and current customers that the organization has been thoroughly checked and deemed to have satisfactory controls and safeguards in place either when hosting or processing information. Public companies that are required to maintain SOX certification will be given access to the SAS 70 Audited reports as part of their annual SOX compliance requirements.
- 31. Can we be Sarbanes-Oxley compliant with an ERP system in the cloud?** Absolutely. In many cases, the policies that the ERP cloud provider has in place are far more stringent than even SOX requires. Your cloud provider should be able to provide a description of each control activity surrounding data processing activities, including input, processing, output, and security to assure SOX compliance for your ERP system.
- 32. Is cloud based ERP a good choice if we are thinking about going public someday?** Cloud ERP is the choice of many start-up companies that hope to go public over time. A big part of being IPO-ready includes understanding SOX requirements for public companies and establishing company guidelines, processes, systems and procedures to keep these requirements in mind as the company grows. Make sure your ERP cloud provider can assure your compliance from the start.



Licensing Questions

There seem to be almost as many licensing permutations as there are ERP cloud providers. Be sure that you are comparing apples to apples when you evaluate your vendors. Services can be a key factor in your ERP implementation success, so define your requirements and explain your expectations clearly.

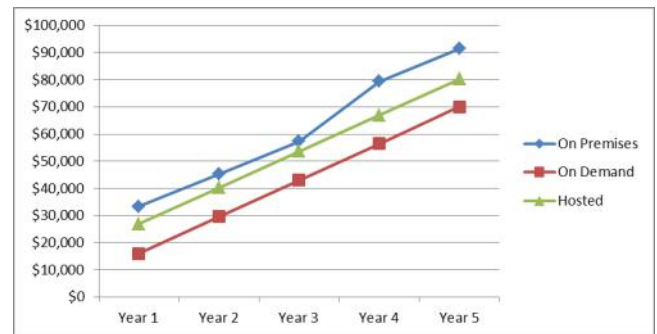
- 33. What options do I have in licensing ERP software in the cloud?** There are a number of ways that vendors are currently licensing cloud based ERP. With a **subscription model**, you pay a monthly fee — generally user based — for license to use the software. With a **hosting model**, you can own the software while the application is supported in a cloud environment.
- 34. Is the yearly maintenance fee included in the price?** If you are paying a monthly subscription fee the maintenance, including upgrades and support, is generally included. If you own the software, as in a hosting model, the yearly maintenance may not be included in the price. Check with your cloud vendors to clarify all the costs so you know you are comparing systems on the same basis.
- 35. What support services should I expect to receive as part of an ERP subscription?** Subscription pricing will include access to the software, upgrades and user support (limited to troubleshooting, will not include training issues) with no additional costs for the infrastructure. Other services, like implementation and training will depend on the vendor and should be carefully evaluated. Always check references to measure the experience of existing clients.



Sample Cost Comparison

When comparing the costs of your options for cloud based ERP solutions you'll need to factor in the cost of licensing, hardware and IT support. The example below provides a very simplified cost comparison of a 5 user system deployed in 3 different scenarios. The on premises scenario includes the cost to purchase hardware initially and upgrade it every four years, as well as a cost associated with internal IT support. Other factors that you may want to include in a more thorough analysis would be cost of capital, electricity savings, implementation and upgrade services.

An important consideration in your evaluation is the hidden costs of limited functionality. SaaS ERP providers that are new to the market will build out functionality over time as the bulk of subscribers request it. If your accounting team has to replace the automated functionality of a mature ERP solution with spreadsheets, their time should be factored into the equation.



	Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Total
On Premises							
5 users*	\$11,250	\$11,250	\$0	\$0	\$0	\$0	
Hardware	\$10,000	\$10,000	\$0	\$0	\$10,000	\$0	
IT Support	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	
Software Maintenance	18%	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050	
Total		\$33,275	\$12,025	\$12,025	\$22,025	\$12,025	\$91,375
On Demand							
5 users license*	\$225 per month	\$13,500	\$13,500	\$13,500	\$13,500	\$13,500	
Setup/Activation	\$2,500	\$2,500	\$0	\$0	\$0	\$0	
Total		\$16,000	\$13,500	\$13,500	\$13,500	\$13,500	\$70,000
Hosted							
5 users license*	\$11,250	\$11,250	\$0	\$0	\$0	\$0	
Software Maintenance	18%	\$2,050	\$2,250	\$2,250	\$2,250	\$2,250	
Hosting Costs	\$185 per month	\$11,100	\$11,100	\$11,100	\$11,100	\$11,100	
Setup/Activation	\$2,500	\$2,500	\$0	\$0	\$0	\$0	
Total		\$26,875	\$13,350	\$13,350	\$13,350	\$13,350	\$80,275

* Microsoft Dynamics® GP Business Essentials sample pricing for informational purposes only. Note: Does not include cost of implementation services which normally range from 1 to 3 times the cost of software licenses. For more info download [“Beyond Software: How to Estimate the Cost of ERP Implementation Services”](#) or request an [Instant Dynamics ERP Quote](#) for price estimate of software, maintenance, implementation and deployment.



Summary of Business Drivers and Deployment Options

Business Drivers	Hosted	SaaS	On premises
Cost Factors			
Reduce capital expenditures	✓	✓	
Predictable monthly fee	✓	✓	
Reduce cost of IT support or staff	✓	✓	
Pay only for users/apps you need		✓	
Functionality Factors			
Support specialized (LOB) applications	✓		✓
Integration of disparate systems	✓		✓
Support remote workers	✓	✓	
Speed of deployment			
Add users quickly	✓	✓	
Add functionality quickly	✓	✓	
Deploy applications quickly	✓	✓	
Control Factors			
Own software licenses	✓		✓
Data/applications physically on your location			✓
Choose when to upgrade	✓		✓
Security Factors			
Access without internet connection			✓
Ease of disaster mitigation	✓	✓	
Secure data center	✓	✓	
Automatic backups	✓	✓	



Microsoft Dynamics ERP in the Cloud

When it comes to fit, functionality and dependability for business productivity solutions, no other company delivers like Microsoft. Microsoft Dynamics ERP solutions, just like the other productivity solutions that you use to run your business gives you the option to choose how you want to work.

Microsoft Dynamics® ERP Solutions include:

- Microsoft Dynamics® GP
- Microsoft Dynamics® SL
- Microsoft Dynamics® NAV
- Microsoft Dynamics® AX

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Cloud means different things to different people. Separating licensing options such as upfront or monthly as well as deployment options are very important points to consider. And those decisions can be made independently. With most SaaS solutions, you don't have an option. With Microsoft you have a choice.

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In addition to the traditional on premises deployment, Microsoft Dynamics ERP Solutions customers have the flexibility to choose either a hosted or SaaS/On Demand deployment by connecting with a certified Microsoft partner.

You can rely on a global network of Microsoft Dynamics partners with the industry and technical expertise to help you choose the ERP solution that's right for your business.

Benefits of Microsoft Dynamics ERP Solutions and the power of choice:

Your organization must choose the most appropriate deployment model based on your specific requirements and plans. Whatever your decision, Microsoft is committed to supporting ERP delivered the way you need it. Ultimately, Microsoft believes every company will want to distribute its processes using one or a combination of the following delivery models:

- A hosted ERP solution provides companies with a way to reduce costs and speed implementation. Microsoft works with partners to ensure that you benefit from the best technology has to offer with



the attention of a local company. These partners can recommend a hosted Microsoft Dynamics ERP Solution to meet your unique business needs and challenges.

- Traditional onsite solutions may continue to be the right business decision for your organization. Many companies host their Microsoft Dynamics ERP Solution at their own location, on their own servers. Often, companies choose onsite deployments when their IT organization has established domain expertise for that process or technology. They also choose this option when their business processes involve sensitive data or requirements or differentiate them from the competition.
- A hybrid approach allows Microsoft Dynamics customers to switch between hosted and onsite delivery to take advantage of both models, adjusting to the changing needs of departments and processes. In some cases it may be more appropriate for the solution to be housed onsite, while in other situations hosting provides a level of flexibility to support growth and expansion. Importantly today, the choice is not between one solution or the other, but often a combination of using both approaches to serve different needs of the organization.

Every day Microsoft partners are helping CFOs determine the best deployment option for their organization. Contact a Microsoft Partner today to start the conversation or learn about the “Give Me 5” offer, where you can get packages as low as *\$112/month/user, by visiting www.microsoft.com/dynamics/growyourbusiness.com.

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