

ENTERPRISE RESOURCE PLANNING IN A CLOUD

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Abstract

This paper presents Enterprise resource planning in a cloud platform. Initially the paper goes with a general introduction of web application and cloud platform usage. Second half of the paper deals with Key Benefits of Cloud Computing vs On-Premise ERP, Will cloud or on-premise ERP be the best choice for your business?, pricing models and in the final part it deals with the key benefits of using ERP in a cloud platform.

Key words: ERP, Cloud, models, ROI

Introduction

In these days of complex business intelligence, enterprise web applications now serves as core business model that manages full-fledged collaborative workflow-based applications, spanning multiple individuals and organizations. An Enterprise cloud computing is a controlled, internal place that offers the rapid and flexible provisioning of compute power, storage, software, and security services (Leena and Sushil, 2010). Cloud enables enterprises to unleash their potential for innovation through greater intelligence, creativity, flexibility and efficiency, all at reduced cost. Today, cloud computing gives businesses more control and flexibility over the technology they deploy and the way they deploy it. It helps organizations reduce costs and focus resources on gaining strategic advantage. While deployment strategies differ, it is critical that an organization's

infrastructure is managed as a utility made up of secure, scalable and standards-based building blocks of integrated IT resources from storage to servers and network management tools (Leena and Sushil, 2010).

According to (D. Nurmi et al.), Cloud computing systems provide a wide variety of interfaces and abstractions ranging from the ability to dynamically provision entire virtual machines (i.e., Infrastructure-as-a-Service systems such as Amazon EC2) and to flexible access to hosted software services (i.e. Software-as-a-Service systems). All, however, share the opinion that delivered IT resources should be clearly defined, provide reasonably deterministic performance, and can be allocated and de-allocated on demand, hence need for cloud integration for our conceptual ERP web model. We have focused our research on an implementation framework of the cloud computing system since this paper provides

a solid foundation on the application-level development methodology.

At present, it is common to access content across the Internet independently without reference to the underlying hosting infrastructure just like the power grid supply. This infrastructure consists of datacenters that are monitored and maintained around the clock by content providers. Cloud computing is an extension of this paradigm wherein the capabilities of business applications are exposed as sophisticated services that can be accessed over a network (Rajkumar Buyya et al, 2009). Cloud service providers are incentivized by the profits to be made by charging consumers for accessing these services. Consumers, such as enterprises, are attracted by the opportunity for reducing or eliminating costs associated with "in-house" provision of these services. However, since cloud applications may be crucial to the core business operations of the consumers, it is essential that the consumers have guarantees from providers on service delivery. Typically, these are provided through Service Level Agreements (SLAs) brokered between the providers and consumers.

When choosing among small business solutions, many companies have to ask about the return on investment. After all, any new software integration, including enterprise planning, costs time and money. There must be something in return that the business can utilize to recoup the costs and increase profits. The cloud has changed the rules of that situation simply because the impacts aren't immediate to the average

company. Distributors and manufacturers should learn more about the uses of cloud computing especially in ERP to gauge a better understanding that helps them choose the right software overall.

Riding rather than meeting a curve

Cloud-computing solutions influence the ability to meet demand. According to the Open Group, the traditional model of meeting demand was to predict it based on an annual average and to increase capacity based on this prediction. While somewhat effective, the model proves to be inefficient. When the amount of capacity exceeds the demand, it results in opportunity costs that the company has to mitigate in some fashion. When the opposite is true, the response is lost customers. However, demand is not flat and consistent; it's more like an unpredictable curve. As a consequence, there is a great chance that a business will face fluctuations in demand, leading to both higher opportunity costs and lost customers, depending on the situation.

With the cloud, capacity is not rigid but flexible. Instead of having to increase capacity on a regular basis without having any way to lower it, capacity is usage based, meaning it meets demand in real time rather than on a predictive model. By simply meeting the demand whenever it comes, businesses avoid opportunity costs and rarely lose customers. This form of resource utilization creates a higher ROI by eliminating hidden costs.

Asking the right questions

Of course, when looking at cloud systems, it's also important to ask questions regardless of the whether the demand can be

adequately met. Asking all the right questions can help determine if the benefits are worth more than the necessary initial investment. For example, the obvious metrics to set up about the new ERP software is the relative benefits of the system in comparison to the company's current legacy systems. That includes improved efficiencies, increased accessibility to data or more flexibility once information is received. Another point to examine is the overall impact of the new systems on clients. Will customer service improve? Will people notice a difference when the cloud solution is integrated? If it might, it's a good idea to establish what kind of effects it will have. Sometimes the changes will disorient consumers and make them hesitant to continue doing business with the company that switches over.

Time is another important measure to considering a switch to cloud-based ERP. While the process of implementing ERP solutions is greatly reduced when moving from on the premises to the cloud, it can still be a long process to integrate, depending on the size of the company. That includes the planning process, any change management or training that is required and the actual installation. Developing a strategy that takes into account the amount of time to complete everything can help measure ROI, since it can influence certain matters such as optimal productivity and product delivery times. In addition, it's important to look into risks, especially if the implementation is expected to be completed rapidly. Mistakes can easily be made, and details of minor consequence may bring down the entire process and greatly hamper the possibility of any ROI.

Will cloud or on-premise ERP be the best choice for your business?

Business management software that makes critical information highly visible and contributes to more effective operation is a primary foundation of a successful enterprise. Integrated applications that store, manage and interpret data across a multiplicity of business activities from marketing and sales to project planning are essential to effective business process flow and optimization.

Key Benefits of Cloud Computing vs On-Premise ERP

On-premise solutions are installed on your facilities hardware and managed locally by your staff. Cloud solutions are implemented as software as a service (SaaS) provided by a vendor and available to your customers via a web browser. Key benefits of cloud computing solutions, to name a few, are:

- Cloud software will save your business money by curbing overall IT costs.
- Less support and resources are required for systems that aren't on site.
- Ownership costs are reduced with cloud ERP because your responsibility is implementing the software and not in supporting it.
- You have access to a full suite of tools through your computer's internet connection.

On-site means ownership costs include maintaining server rooms, hardware, software and associated space and utility expenses. Customizations, Upgrades, Re-implementations are the parts of the ownership model

Cloud based ERP saves stress by maintaining the infrastructure off site. The data is secure. And finally, enhancements are applied seamlessly without interrupting your operations so you can function more effectively.

Cloud Software Pricing Models Designed to Save You Money

The payment model for on-site ERP requires large up-front investments. Looking at costly system upgrades may offer a daunting vision of capital outlay, and other priorities may divert you from making timely changes. Cloud ERP means one monthly fee with no surprises.

The need to constantly update your business tool suite with the most recent advances is demanding, but with cloud based ERP systems, your technology is updated automatically. You maintain a competitive edge over those who are not so astute. Security of your systems and data is vital.

Key Takeaways

As your business grows and changes, you'll be able to access your cloud based ERP system without expensive investment in staffing and infrastructure. Improved business workflow, flexibility and reduced

operational costs all contribute to your return on investment. Cloud ERP offers the best solution, with a monthly payment model freeing you from large up front expenditures. Performance is of the essence. Cloud ERP will automatically adjust to your needs, dynamically allocating additional resources to handle any surge in demand. The same isn't true of on-premise systems. Cloud ERP offers immediately-available, technologically-current solutions with rational payment models. Deciding which ERP deployment model best suits your enterprise is essential to optimal operations.

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