

CLOUD - ERP: IMPLEMENTATION STRATEGIES, BENEFITS AND CHALLENGES

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ABSTRACT: ERP is a useful tool for coordinating resources, information and operations to complement the key business software and business process used in all major companies. Its significance in the company led to greater demand for ERP software. According to cloud based ERP marketing, the adoption is less likely to be adopted. Investments can grow faster, as well as service provided by the cloud. In this paper, we will try to reveal the Cloud ERP adoption by identifying its benefits and Drawbacks.

Keywords: Enterprise Resource Planning, PaaS, IaaS, SaaS, Cloud.

INTRODUCTION

To maintain competition resources, the company should strategically manage their resources by adopting the Enterprise Resource Plan (ERP) systems. Companies can use ERP systems as a strategic resource to obtain competitiveness by integrating business processes and optimizing available resources. ERP Systems work primarily by integrating inventory information with financial, sales and human resources data, which allows companies to generate their product prices, financial reports and maintain efficient resources of individuals, equipment and money. An ERP system can be hosted on an offsite server in the site or in the cloud. For an ERP system organized in the cloud, Host servers for the ERP system are not physically present in the premises of the end user simply pays the right to use the software.

A cloud ERP system enables the company to benefit from an ERP system without buying and maintaining the entire Information Technology (IT) infrastructure. Cloud ERP fix implementation provides less benefit than traditional on-site ERP systems. Overhead costs, a significant reduction in time to run the system improved cash flow for a business through a subscription policy for use the cost-effective ERP system works larger than the pre-capital cost.

1. IMPLEMENTATION OF CLOUD ERP

The three types are (Fig.1), Platform as a Service (PaaS); Infrastructure as a Service (IaaS); and Software as a Service (SaaS).

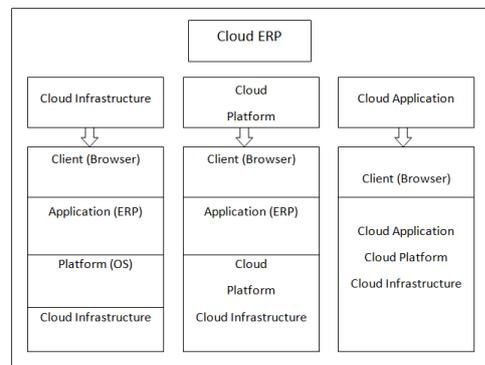


Fig 1. Types of ERP

2. PLATFORM AS A SERVICE (PAAS)

Platform as a Service (PaaS) is the Capability to use in user-generated or purchased applications of cloud infrastructure [17-20] created using programmer languages, libraries, services, and provider-supported devices. Customers cannot manage or control underlying cloud infrastructure, including network, servers, operating systems or storage, but control over the applications and configuration settings implemented for the application hosting environment.

A. Infrastructure as a service (IaaS)

Infrastructure as a service (IaaS) is the process of processing, storage, networks and other basic computing resources, where user can execute and run unilateral software consisting of operating systems and applications. Customers do not maintain or control underlying cloud infrastructure, but control over operating systems, storage and execution applications and limited control of selected networking sections.

Cloud computing [20-24] has the ability to gain the most measurable computing resources through the Internet, often sharing resources at a lower cost than on one's own computers, because most users are amongst them.

B. Software as a Service (SaaS)

Software as a Service (SaaS) is the ability to provide users with user applications on cloud infrastructure. The Applications are available from multiple client devices through a thin client interface, such as a web cluster or program interface. Customers are networks, servers, operating systems, storage or personal application capabilities excluding limited user-specific application formatting settings. The general trend of ERP project is to exceed budget expenditures and time frames. This is a significant issue for companies with limited resources. Therefore, companies must carefully consider their ERP implementation projects to avoid these problems. Project and cost overruns can contribute less benefit than expected. The Panorama study also reported the number of respondents using SaaS and Cloud ERP systems.

3. DEPLOYMENT MODELS

A cloud deployment model (Fig.2) represents a specific type of cloud environment, primarily distinguished by ownership, size, and access.

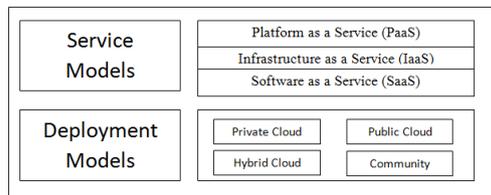


Fig.2. Models

A. Private cloud

Private Cloud is set aside for use by the Cloud Infrastructure Single Company. It is governed by a combination of the company, third party, or both by management, management and management. This model is set up on the premises of the Cloud Infrastructure Company, but is hosted in the third party data centres. In the private community, companies have the advantage of the public group by providing greater flexibility of control over cloud resources. Private Cloud is used in security applications in security, internal and control issues.

B. Public cloud

Public cloud that provides cloud infrastructure services in the general public or large industry group on the Internet. In these cloud models, infrastructure is not available by the user but by the cloud service provider. Storage backup and repurchase services are used on these models without any cost or subscription or use.

C. Hybrid cloud

Hybrid cloud is a combination of other cloud models. Public cloud, private cloud or community cloud. This model takes advantage of all the models that are part of it. It therefore involves scalability, cost effectiveness and data security in a model. This model's inconvenience makes it hard to implement such a storage solution.

D. Community cloud

The model type community cloud shares the cloud infrastructure of many communities. In this model, the cloud infrastructure is provided in the courtyard or in the third party data centres. It is managed by participating companies or third party. Community cloud takes benefits of both public cloud as well as private cloud.

4. BENEFITS OF CLOUD ERP

Benefits vary when organizations use cloud-only or cloud with web-based software. The benefits of the cloud are only: Scalability, paying for use and reducing IT cost. Cloud [25-27] web based software uses additional advantages: SaaS is ready, easy to access, client software, real time data, faster, simplified remote access, handling, and platform compatibility. Advantages of SaaS: Less upfront fees, faster installation and less maintenance hassle. When running as a SaaS in a web-based ERP system cloud, the company receives three models with a model.

Businesses have been able to profit from cloud computing services. They may have to pay for infrastructure and software on the basis that they can go, which they cannot afford. Thus, cloud computing businesses offer an opportunity to improve their maximum efficiency. Cloud computing segments separated IT resources such as files and programs from tools that can be used to access many benefits, such as filling or retrieving resources available or improving rapidly. These businesses will scale or down on their IT and give flexibility to make changes faster. Modern world market sites need to be flexible and flexible to

make companies more flexible. This is more important to SMEs because it is more appropriate to use the changing environment when compared to LE. They are the driving force that promotes the IT industry to bring new items and additions, such as cloud computing.

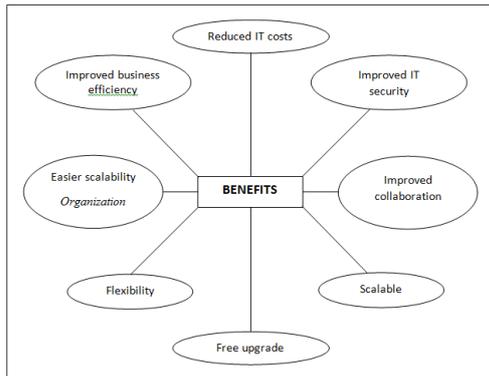


Fig.3. Benefits of Cloud ERP

Companies that are connected to cloud-based ERP solutions are enjoying many benefits (Fig.3) Cloud-based ERP solutions are a suite of ERP applications that are normally distributed to users over an Internet connection, usually accessed via a browser. Software does not usually need to be installed on the system and is paid for each-user, each-month, flat-rate fee.

A. Drawbacks of Cloud ERP

One of the most frequently reported losses of cloud ERP systems is the major additional costs in execution. Cloud ERP systems provide basic functionality and do not typically provide extensive customization of traditional ERP systems. Therefore, any extensive customization will come at a high cost. Another frequently reported disadvantage is security risks outside control of the end user. This is especially relevant to customers because ERP systems are an integral part of their business processes. Loss of security breach data can have dangerous consequences. Cloud ERP systems have a risk of lacking a clear performancebased service level agreement (SLA), which includes a base subscription expenditure.

As business rises, cloud ERP systems lead to easy scalability of the ERP system. There is no need to invest in new infrastructure from the end user. This is done by Cloud ERP Vendor or Host. Cloud ERP systems that can reduce the time of data execution are processed in very short time. This capability is one of the main reasons chosen by the cloud.

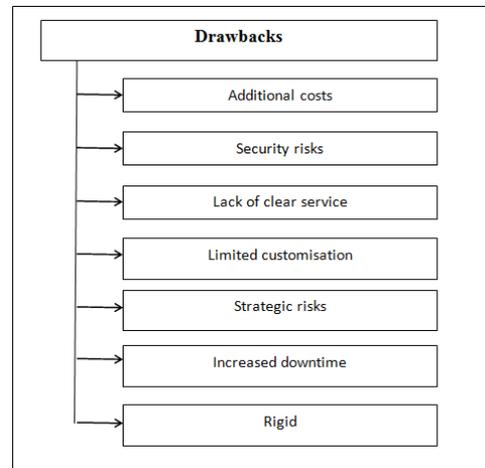


Fig. 4. Drawbacks of Cloud ERP

Fig.4 demonstrates the key additional costs, risks, and limitations of cloud-based ERP and hosted ERP in comparison with on - premise ERP.

5. CONCLUSION

This document summarizes the importance of Cloud ERP to provide business solutions to small and medium enterprises. Cloud-based ERP has been analysed superficially by analysing strategies to implement and the main challenges to face. Understanding the strategies and challenges, Cloud ERP companies can be successfully implemented for their business applications.

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