



What is the Cloud?

It is hard to avoid buzzwords like “cloud computing” and “in the cloud” lately. We thought we’d take this opportunity to try and simplify the concept.

Terms such as cloud computing simply refer to applications and resources that are available on the internet and can be accessed from just about any device with internet connection. I guarantee you are already interacting with an aspect of cloud computing. For example, Google’s Gmail (Hotmail, Yahoo, etc.) is considered in the cloud because the content of the mail is not saved on your computer or server, but somewhere else, allowing you to access it from various locations. This is different from the email many of you probably have within your organization- POPmail where your e-mail tends to be accessed and downloaded to a single computer and erased from the server once you have it.

How Does the Cloud Work?

Now that we have an idea of what cloud computing is, let’s go a bit deeper with how the cloud works: Cloud computing is made up of two parts: a front end and a back end. They connect to each other through a network, usually the internet. The front end is the side the computer user- or client- sees. The back end is the “cloud” section of the system.

The front end consists of the client’s computer (or internal computer network) and the application required to access the cloud computing system. Some cloud computing systems use web browsers to interact with the cloud. Others have unique applications that provide network access.

On the back end of the system are various computers, servers and data storage systems. A central server administers the system, monitoring traffic and client demands to ensure everything runs smoothly. It follows a set of rules called protocols and uses a middleware to communicate with other networked computers.



software solutions that mean business.

What are the Benefits to Going to the Cloud for Small to Mid-Sized Businesses?

Most organizations have purchased computer hardware for employees to do their jobs, but in order to use software, each computer needs specific software or software licenses installed. Whenever you have a new hire that needs a new computer, you buy and install the software on their computer. Now, many of the programs we use every day, including Microsoft Office, Adobe software, and email are available via the cloud. Instead of installing a complete suite of software, you only load one application that allows the user to log in to a web-based service specific to their job functions. Remote machines located elsewhere run everything from the email to the more complex and demanding programs.

The types of applications that can be run from the cloud are virtually limitless. With the right middleware, a cloud system can execute all of the programs a normal computer can run. The cloud allows clients to access their applications and data from any computer connected to the internet.

Cloud computing is creating a huge workload shift. The network of remote computers (the cloud) does the heavy lifting to run applications; local computers just need access to the cloud. In-house hardware and software demands decrease with cloud applications. This means less memory, less power, and our small devices- smart phones and tablet PCs- can potentially run robust software we never imagined on such a small device, thus bringing hardware costs down.

In addition to potential savings on hardware and software costs, corporations can also save physical space. Cloud computing gives companies the option to store data on someone else's hardware, removing the need for physical storage space on the front end. Plus with less physical hardware, or software on site, corporations can save money on IT support. Streamlined software in theory should have fewer problems.

Some companies that have opted for pay-as-you go cloud subscriptions, rather than putting up significant upfront hard-



ware and software costs when implementing new systems, have seen their balance sheets "cleaned" of capital intensive, depreciating assets that do not directly produce revenue. Their income statements are seeing capital expenditures swapped for operating expenses. Expenses are seen as more controllable and give their business greater flexibility to manage profits. Switching to the cloud means more capital resources are freed up to invest in revenue generating assets. For small to mid-sized businesses, this means they can now exploit market opportunities to grow.

Is It Safe To Have All Of My Data In The Cloud?

For some business owners, cloud computing raises concerns about security and reliability. They like to know where their data is and like to have control over it. While it is not difficult to find instances of security breaches and failures in cloud computing (Amazon had mass server failure just a few weeks ago), you cannot entirely eliminate risk from any computing environment.

Security lapses do happen, but think of how many successful transactions happen every day without problems- we are talking trillions of transactions. Cloud computing companies take great measures to lessen these risks. Plus back end systems need at least twice the number of storage devices it requires to keep all its' clients information stored. Copies of client information are stored on these various devices so if one does fail, the central server can access backup copies of data that otherwise might be unreachable.

Other common concerns of business owners transitioning to the cloud include data mobility and ownership. Cloud services have differing policies on data sharing between devices, and whether or not the back end company or the client owns the data. There have been instances where upon severed ties, all data was destroyed. If you choose to move to the cloud, you will want to ensure you can export your data in standard formats.

ERP Deployment Option Comparison	 On-Demand	 On-Premise
Criteria		
Low cost of entry	yes	
Low Ongoing Cost		yes
Low IT support Requirements	YES	
Access from Anywhere	YES	yes
Own and access your own data	1	YES
Customization capabilities	yes	YES
Integration with legacy systems	yes	YES
Works if internet goes down		YES

"1"- some SaaS offerings allow you to own and easily access your data, others do not. "YES"- Emphatic yes.

"yes"- yes, but benefits could be limited.

Adapted from a report by ERPcloudNews.com

Cloud Computing And ERP

We are seeing the migration of many widely used business solutions to the cloud. Microsoft recently introduced Office 365 for professionals and small businesses- a service that combines Microsoft Office's web apps with web enabled tools to give you access and easy collaboration on Microsoft Office documents. CRM systems are commonly found in the cloud, and now ERP systems are shifting that way.

Cloud computing is inspiring new thinking on ERP deployments. Traditionally, mid-sized companies purchased their licenses from Microsoft or Sage, implemented on-premise and away they went. Now, you can choose to purchase a Software as a Service (SaaS) solution (available on-demand), or a license you own. If you opt to own the license, you can choose to deploy it on-premise, or outsource it to an external provider (hosting). When you purchase ERP as SaaS, you are renting a complete turnkey package.

Above is a table that describes different deployment arrangements offered by ERP software vendors. As mentioned previously, traditional software licenses can be installed on your

premise or hosted at a service provider. This hosting provider can provide additional services such as back-up, monitoring, disaster recovery and updates. The introduction of SaaS provides a different option to traditional software licensing. Note there are many deployment options that can blur the lines between the two.

Web-based applications developed for the cloud are more efficient; however there are advantages to an on-premise deployment, specifically for distributors and manufacturers. These include integration with other on-premise systems and solutions, and the fact that you can still work regardless of internet access. When hosted on-premise, the benefits of outsourced IT are lost, but sometimes it is better to have access to your data in-house.

As you can see, there is no one-size fits all deployment solution for ERP. Not all companies will benefit from moving to their ERP to the cloud at this point. We would be happy to discuss this with you. Contact our office at 206.285.4348 to have a conversation about the viability of going to the cloud for your business.