Big Cloud, Little Cloud

Choosing the right Managed IT Services Provider for your business can provide increased Employee Productivity and Network Security while even reducing costs…letting you sleep at night!

While there is no longer any doubt that Cloud computing is here to stay, many questions remain as to which type of Cloud service best serves which customers. Yes, there are differences. And, sorting through them could very well determine whether your company has a great experience, improves communications, security, availability, etc. or deals with endless frustrations, most likely ending up with the unfortunate determination that the Cloud is just a lot of hype, and you are better off without it. Let me say from the start while a full Cloud implementation may not be the best solution for your company (although it is for many), almost all companies of any size will benefit from the use of at least some Cloud services.

The question is, what Cloud services and which Cloud vendors?

But let's back up just a little bit and go over just what the cloud is. Being in the "Cloud" means instead of your company's servers being located in your office, they are housed in a highly secure data facility offering levels of availability, security and mobility that are almost impossible to achieve on your own due to cost and space requirements. Please don't believe that your data is somehow out there floating, easily captured by cyber thieves, or easily lost because, after all, how secure can a "cloud" be? If you would like to learn more about the safety and security that comes from being in the Cloud, there is a link at the end of this paper that will take you to more information on Cyber Security and other Cloud subjects.

These days, every time I watch TV, ads from Fortune 1000 and Fortune 500 companies are offering cloud services. They are running some very slick ads that take you to very slick websites, and to be sure their

services are absolutely perfect for some companies. Your job is to figure out if they are the best fit for you, and if not, who is.

Companies come in all sizes with an almost unimaginable variety of business types. According to the US Census Bureau, there are about 30,000,000 businesses in this country, so you can imagine the variety of Cloud solutions that are available today.

To begin to understand what works best for you and your company, let's look at a few of the basic types of Cloud services that are available today:

Software as a Service (SaaS)

You may already be using Software as a Service programs and not be aware of it. Have you switched from buying Microsoft's Office on CDs to using their online version of Office 365? Are you a small business now using the online version of QuickBooks…or a large sales-focused company using a CRM (customer relations management) system such as Salesforce? These programs are Software as a Service and there are two major factors that differentiate these programs of today from programs of old: 1 – generally speaking, you do not buy them, you subscribe to them, paying monthly or annual fees. 2 – you access them online through your web browser rather than by installing their software from CDs. For the most part, under this framework, you are generally "leasing" a single service or, in the case of Office 365, for example, a particular suite of services.

Platform as a Service (PaaS)

PaaS is just that: a "platform" that eliminates the need for the client to build and maintain complex IT infrastructure necessary in the development and running of software. The provider usually provides the operating system, programming language, database and web server. The provider also scales the resources to match the client's needs.

Infrastructure as a Service (IaaS)

If you own or run a growing company, you probably understand the complexity that comes with modern IT infrastructure. But because of this complexity, your company may be a bit behind when it comes to having the most up-to-date servers, firewalls, software, etc., not to mention perhaps having limited availability, security and mobility. With Infrastructure as a Service, however, your managed IT services provider maintains the servers and software in its secure data center, usually on the most up-to-date equipment, while also providing the latest versions of software, such as Office 365.

Considering the above three basic types of Cloud services available, it can be difficult to determine the best provider for your company, but as a starting point, the National Institute of Standards and Technology (NIST) has set up some guidelines you may want to consider. [6] For example, they have determined that the essential characteristics that vendors must provide include:

> **On-Demand Self-Service:** enables the customer to provision computing power, storage, network and software in a flexible way when the customer wants it without going through an IT department. Customer must be given the ability to set his own computing capabilities, such as compute time, connectivity and storage.

Broad Network Access: network resources are hosted in a private cloud network, protected by a firewall, and must be accessible through standard mechanisms.

Resource Pooling: resources (including storage, processing power, memory, bandwidth and virtual machines) are pooled so as to be available to multiple customers as each customer's needs arise. Sharing these resources decreases the total amount that would otherwise be necessary if each customer functioned independently. In other words, 1+1+1+1+1 does not equal 5. It may only equal 2.

Rapid Elasticity: scalable provisioning. As a business's needs grow, the resources they use must be able to quickly, often dynamically, expand to a significant if not unlimited capacity. Conversely, if a business downsizes, this capacity can be reduced so the business is not left with excess equipment and operating expenses that it needs to shed, likely at a considerable loss.

Measured Service: transparency. The customer must be able to see usage through monitoring, controlling and reporting.

One of the choices you are going to have to make is whether you are going to sign on with a local provider, or a major national company. As with most everything, there are advantages to both. There is a certain comfort level that comes with signing on with a multi-billion dollar, multi-national company. They have the ability to bring to the table whatever resources you might need. On the other hand, the smaller local company is more likely to take the time to get to know your company and your industry, and assign dedicated people to your account. When a problem arises on a Sunday morning, are you calling a stranger or a friend?

What about equipment servicing? Even if you decide to move all your servers to the Cloud, you will still have PCs, laptops, tablets and smartphones in your office, your employees' homes, or wherever your employees happen to be working. If you choose to work with a major player, make sure they have tech support for your equipment available whenever you (or your employees) may need it.

As your business grows and your computing needs evolve and grow, will they have personnel who truly understand you, have worked with you, and can quickly and effectively work with you to develop solutions that are cost effective, and that resolve your issues? Or will you be obligated to pay substantial fees to a stranger in a state a thousand miles away as he learns about your business and attempts to fit your IT into their cookie cutter process?

Today, every Cloud computing company is concerned with security and takes steps to protect its clients. Still, big companies tend to move slowly while smaller companies often have the agility to make necessary changes on the fly and often work together, sharing experiences and knowledge to the benefit of everyone involved. For example, Dave Moorman, president of DynaSis, belongs to a team of CEOs and presidents of 12 similar managed service providers from all over the country. These 13 highly skilled and talented professionals gather four times a year for three days - discussing, developing and sharing strategies and resolutions to the latest challenges facing IT support companies and their clients. For example, together they have developed a 12-layered approach to IT security that includes a unique and proprietary solution for thwarting cyber-theft, crypto and other viruses by instantaneously dropping and quarantining infected server drive mappings from the network. This 12-layered solution has resulted in cyber intrusions being reduced to a small fraction of what they once were, and rapid recovery in the case of those that do happen.

By the way, if you believe that as a small company you are less likely to suffer from a crypto-virus or hacking attack, you need to be aware that in 2014, 71% of cyber attacks were against small businesses. Again, we refer you to the link at the bottom of this paper that takes you to our White Paper on Cyber Security 2016.

On the other hand, if your inclination is to work with a really small IT company, make sure that they have the resources and experience to accomplish your goals. While every large company started small, you may not want to be among a managed IT provider's first clients, especially when it comes to the Cloud. The IT support world has become a highly technical and complicated place, so much so that it is virtually impossible for a small team to have the education and experience required to handle every problem that a client may encounter.

Also consider that companies that are "too small" may not have the resources necessary to cover multiple problems at multiple clients at the same time. And just because your normal business hours are Monday through Friday from 8 to 5, do not assume that you will never have the need for service while you are working from home on a Sunday morning…or at midnight across the country preparing for a presentation. After all, 8 to 5 is less than 25% of a week.

Choosing the right managed IT support services company is vitally important. It will reduce stress, make your employees more productive, greatly decrease chances of cyber intrusion, eliminate downtime and greatly lower the chances of losing your company data. Best of all, it will let you sleep at night.

Here is a detailed checklist of what to look for in a Managed IT Provider. Use it!

- If your industry is truly unique, do they understand it, and are they adaptable and experienced enough to help you achieve your goals?
- Can they provide you with several references with whom you can speak?
- Have they been in business long enough to be financially sound?
- Are their response times for normal and emergency calls satisfactory for your needs?
- Are their support services available 24 x 7 x 365 days a year, or do they have limited hours?
- Are their response times guaranteed?
- Can the company you are considering provide you with an in-depth IT Assessment that analyzes your current system, determines your current pain points or vulnerabilities, and gives you a roadmap for IT success today and in the future?
- Do they charge flat monthly fees or on an hourly basis?
- Do they proactively monitor their clients' systems, or only react to an emergency?
- Are they adequately staffed to service your business?
- Are their technicians properly certified and do they have a program to keep these certifications up-to-date?
- Will they track and report the metrics of their own service as it relates to you?
- Will you have a dedicated Account Manager and primary technician assigned to you, or will you constantly be dealing with different people?
- Do they have an office and data center that you can visit?
- Will their service maintain your HIPAA (or other) compliance requirements?

Please visit the resources on the next page for more information. As promised, the first link will take you to the DynaSis website with the Cyber Security 2016 white paper referenced at the beginning of this piece.

1: http://www.dynasis.com/the-latest/#articles

2: http://www.bitheads.com/what-types-of-cloud-services-are-available/

3: https://en.wikipedia.org/wiki/Cloud_computing#Infrastructure_as_a_service_.28IaaS.29

4: https://technet.microsoft.com/en-us/magazine/hh509051.aspx

5: http://www.census.gov/compendia/

6: https://technet.microsoft.com/en-us/magazine/hh509051.aspx