Navigating The Cloud:
A Primer For Understanding Cloud Computing

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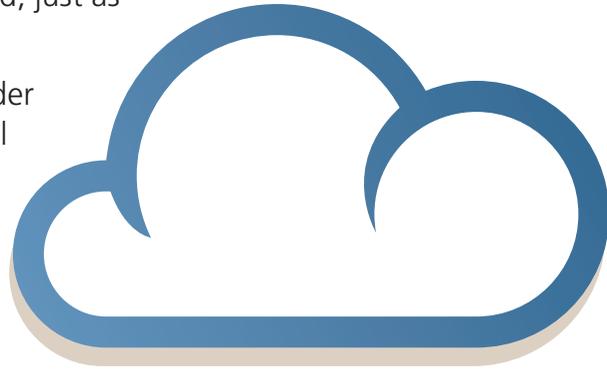
NetCenergy
Powering IT Solutions

Cloud Computing:
Modern Solutions for Today's Businesses

What Do You See In The Cloud?

For most people, looking up at the clouds brings memories of finding pictures and shapes in the sky. For a cloud expert such as a meteorologist, looking at clouds is about possibilities: What can those clouds do? And, just as importantly, what will those clouds do?

In cloud computing, your IT solutions provider is like your meteorologist. Much as the local weather forecaster on one channel can be better informed than other forecasters, not all IT solutions providers are equal. As you begin exploring cloud computing, it's important to first find an IT solutions provider who can help you select the appropriate services offered by the various cloud service vendors.

Not All Clouds Are Rain Clouds

Just the term "cloud" is off-putting to some new users who find it to have a negative connotation, making the entire concept seem ominous and unpredictable. In actuality, cloud computing offers scalable, secure, cost-effective new capabilities that can be extremely beneficial for small businesses. Typically offered on a subscription basis, cloud services are, at their most basic level, forms of off-site computing and storage. Keeping data and applications "in the cloud" enables many small to mid-size businesses to operate more efficiently than ever before, allowing every company program and byte of data to be accessible through a secure browser.

Cloud Basics

- **Data:** *Remote computing and data storage allows your staff access to information that would otherwise only be accessible from the on-site server, enabling constant access to updated files and providing business continuity in an emergency. This also reduces the need for on-site servers and related energy costs as well as server maintenance, often resulting in significant savings.*

- **Applications/programs:** *In the cloud, all applications are accessible through a browser with no new software installs or upgrades needed. This enables in-house IT staff to spend far fewer hours doing desktop upgrades and installs.*

- **Collaboration:** *Cloud computing allows you to selectively give secure access to partners and clients, making it easier for people to work together.*

Forecast: Partly Cloudy *(and that's a good thing)*

The premise behind cloud computing is rather simple. Just as water evaporates from lakes and oceans up into real clouds and then returns as rain somewhere else, data can be sent up to the computing cloud and then "rain down," on command, wherever you happen to be. In other words, cloud computing is, at its core, remote computing and data storage with instant access.
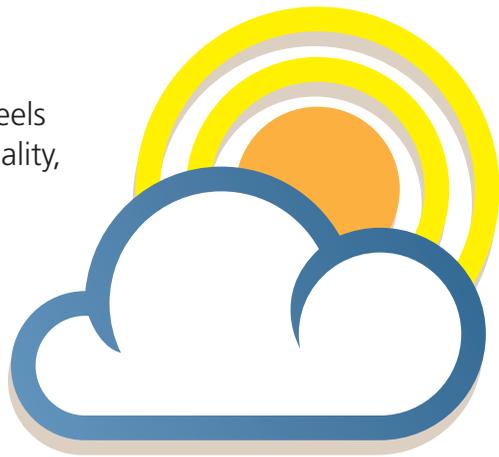
Cloud computing enables small business owners to essentially make what used to be their central server now securely accessible anytime, anywhere – all without the expense of a full-time systems administrator managing a physical server. The cloud can hold data, files, applications, and even virtual workstations. It's a means of taking the entire office server with you, whether you're going to a meeting across town or presenting to a client overseas.

However, just as some clouds bring light showers and others hold no rain at all, cloud computing options and services vary dramatically between cloud offerings. So it's important to hire the most reliable, accurate, trustworthy IT solutions provider to be your meteorologist in cloud computing, before making any decisions.
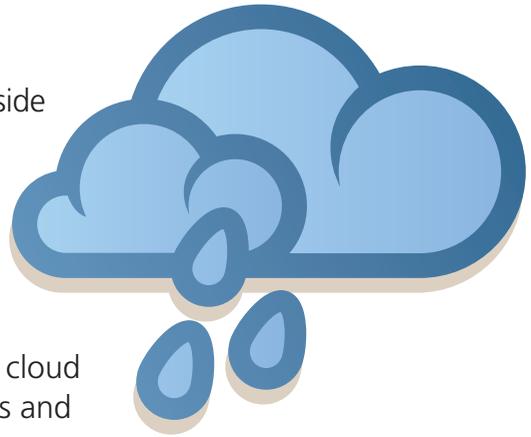
Enjoying the Shade...

For some, entrusting data to some nebulous cloud feels a bit like leaving a file cabinet out in the rain. In actuality, modern cloud computing services offer significant protections and benefits such as:

- Maintaining instant access to real-time data and applications whether you're in the office or on the road.

- Saving money by not having to pay for server upgrades, replacements, and related IT resources.

- Ensuring business continuity by protecting your current and historical data from on-site disasters. Protect your data outside the office by having employees store all information with remote off-site backups in the cloud, not on their laptops, which can easily be lost, damaged, or stolen.

- Focusing on your core competencies instead of spending excessive amounts of time and on potentially maintenance-heavy, rapidly outdated hardware.

- Benefiting from on-demand scalability. You wouldn't lease a bigger office for a short-term increase in business volume. Why buy servers you won't need in six months? Cloud computing is scalable, allowing you to choose the amount of storage you need without the expense of new hardware or the delay of waiting for delivery, installation, and setup.

...While Avoiding the Rain

As with any technological advances, there can be a downside to cloud computing. So it's important that you have a trustworthy "meteorologist" so you're never venturing out unprotected. With cloud computing, there are four main issues to be aware of:

- As with most technology, there are security concerns when employing cloud services. While most reputable cloud services are able to block external attacks from hackers and the like, there are other security issues to consider.

  – **Plan Ahead:** How secure is your data in the event that your cloud service vendor goes out of business, is sold, or merges with another firm? Will you still be able to recover your data in a usable format?

  – **Recovery:** What steps does the cloud service vendor take to back up your data? Is your cloud content stored in multiple locations? What would happen to your data if the vendor experienced an on-site disaster?

  – **Compliance:** For industries bound by regulatory and compliance issues such as health care and banking, it's important to keep in mind that the security of your data is still your responsibility, even if it's in the cloud instead of being housed on-site. You or your selected IT Solutions Provider must find out whether the Cloud Services Vendor is familiar with the requirements of your industry and how they will comply with regulatory changes, audits, and industry security certifications.

  – **Privacy:** Privacy laws vary based on locality. While your data may be physically stored half way around the world, it's important to know what privacy standards the cloud service vendor uses. If you need to have your data secured according to your local standards, be sure to include this in your contract and discuss it with your IT solutions provider or if you decide to go it alone, discuss it directly with your vendor at length.

- Utilizing the cloud does take your data out of your hands. Although the high level of access creates more control over your data, system problems often cannot be managed on site on your terms. Look for a IT Service Provider who not only sell cloud services, but also manage them and offer significant access to their technological support staff.

- Cloud computing generally saves you money, but it may not be a good fit for everyone. Some small businesses end up spending too much on consultants and setup, and others experience costly workflow slowdowns due to challenges during the transition from physical server to cloud storage. Always ask questions, be wary of IT solution providers who don't provide detailed cost breakdowns, and take a phase-in approach to adopting cloud services, rather than affecting an all-at-once shift.

- When the Internet goes down, your cloud access goes down with it. As well, when there's a cloud access problem, such as when a local server goes down, work stoppages and slowdowns are inevitable. Be sure to obtain detailed explanations as to how Internet and cloud service disruptions are handled.

Plan For Sun, But Pack For Rain

In business, as in life, it's always best to plan for the best while being prepared for the worst. With small business computing, this means it's important to consider the benefits of properly working technological services while also being well aware of, and prepared for, the worst-case scenario. As you begin looking for an IT solutions provider to develop a cloud computing plan for your business, make a list of questions to ask during each consultation, and include the following topics:

Clarity

Cloud computing may be a simple concept at its core – but it's also incredibly complex because there are innumerable ways to utilize, access, sell, and purchase it. A good IT solutions provider will offer clarity in the cloud by explaining your options in layman's terms, teaching you what you can accomplish with the cloud, and providing quality service for reliable products. Be wary of those who only talk "tech speak," and sell large bundles of packaged solutions. Instead, seek a provider who brings a sense of clarity and transparency to cloud computing.

Economics

Yes, cloud computing will be less expensive this month than buying and setting up a server. But what is the long-term expense? Are the monthly fees associated with cloud services more cost-effective than the costs of hardware purchases, installations, and maintenance over the course of a fiscal year?

Security

What kind of security measures does the cloud service vendor take? How do they protect your data, not only from hackers and other Internet miscreants, but also from loss through server malfunctions or human error?

Compliance

Is the IT solutions provider familiar with your particular field of work? Particularly for industries governed by mandates or legal compliance issues such as banking and health care, this is an extremely important topic. Your provider should not only be aware of your business' specific industry regulations but should also have experience with securing sensitive data. These issues need to be considered by your IT Solutions Provider when selecting the appropriate Cloud Services Vendor.

Response Time

Many companies profess to have very short response times because they reply to service requests with immediate email acknowledgements. So, while it's important to ask about response times, also ask about resolution times. How long does it usually take for them to resolve an access issue completely? What is the technical support access process? Are they available outside of standard business hours?

Performance

Lots of companies offer cloud services. However, the performance of the companies, and of the technologies they offer, can vary dramatically from one to the next. Ask the IT solutions provider about the capacity of each technology and how the cloud service vendor manages that asset. How fast is the access? How reliable? How do they handle problems? How many clients do they manage? Will they provide client references? How long has their average client been with them?

User Experience

Ultimately, cloud computing is designed to save you time and money. But if the services are hard to access, complicated to use, or unstable, they'll slow down your business and frustrate your staff. Ask for live demonstrations of cloud service alternatives and find out how using the cloud will impact the end users on your staff.
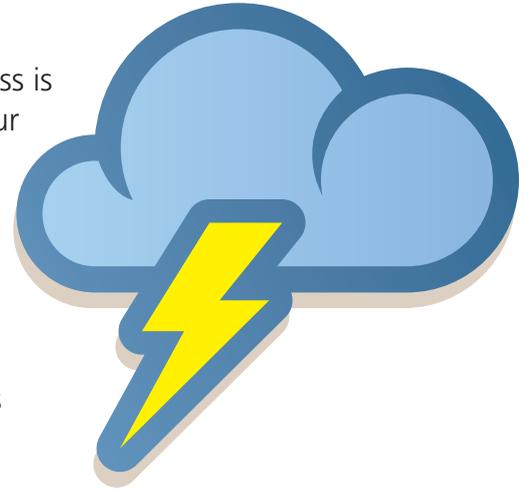
Take an Umbrella

Your IT solutions provider should be just that: a solutions provider. Many companies are simply retailers. They sell cloud software packages and walk away. Others are just consultants. They charge hourly fees to tell you what you need, and then they too, walk away.

Be wary of those who seek to push ideas or cloud products without offering ongoing service, leaving you out in the rain. Instead, look for an IT solutions provider who offers an umbrella of services – everything you need all in one secure space. Cloud computing solutions need to work with your existing systems and be functional tools for your team. Look for a thorough IT solutions provider who knows your business, has an accurate understanding of your current infrastructure and future needs, and knows how to integrate cloud solutions in a holistic manner so they seamlessly phase into the flow of your organization.

Vendor Relationships

As in so many areas of business, sometimes it's not just what you know, but who you know that matters. Look for an IT solutions provider with long-standing relationships with the industry's top developers and distributors. Ask about certifications and find out how long the provider has been working with the software companies who actually create the cloud services you're considering. When IT solution providers have outstanding relationships with their vendors, they're often able to leverage those associations to their clients' benefit in the form of more customized offerings, advanced notice of upcoming changes and new products, and special pricing.

Provider Relationships

Always ask potential IT solutions providers what their process is from beginning to end, should you choose to terminate your business relationship with a specific cloud service vendors. Will they work with your new vendor to securely transfer your data? Will they charge extra fees for termination? What procedures do they have in place for such interactions?

Data Ownership

Discussing data ownership with your IT solutions provider is another important part of interviewing a potential cloud service vendor, and it's a matter you should insist on having documented in any agreement you sign. Who owns the data you store in the cloud? Who has access to it and when? How quickly can it be migrated if need be?

Data Computing

One of the greatest benefits of cloud computing is its scalability. If you need more computing and storage, it's there. Need less? Sure. However, disreputable cloud service vendors may not discuss data volume with you up front, and then will charge you an overage fee for too much storage space. Talk about scalability, contract lengths and flexibility, and be sure to find out about any fees for scaling up or down.
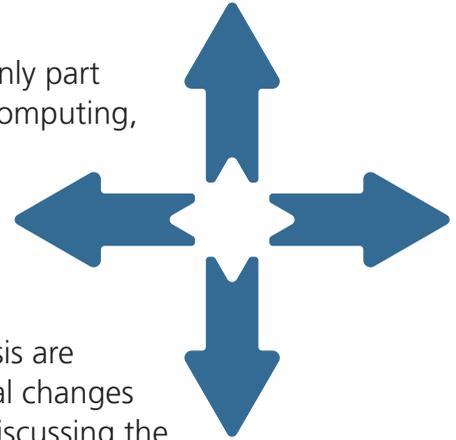
Redundancies

Just as cloud computing is a form of redundancy when used solely for business continuity, utilizing cloud computing on a daily basis requires its own redundancies. Talk to your potential providers. How will they work with you to avoid workflow stoppages in the event that your cloud access is disrupted? What types of on-site backups will you need? Is there a plan A and a plan B in place? Discuss how your on-site systems can work with the cloud systems to provide workflow stability through strategic redundancy.

Selecting Your Very Own Meteorologist

Selecting the right cloud solutions is key, but before doing so you need to first make sure you are working with the right partner who can serve as your very own IT meteorologist (i.e. IT solutions provider). It is imperative that you choose a partner who will help you predict, select, implement and manage your cloud services. A good IT meteorologist will immerse themselves in your business, ask questions first before recommending any cloud solutions and serve as your guide who can recommend and manage a cloud offering that is customized to your unique business needs and comfort level.

Involve All Departments For Best Results

Selecting the right IT solutions provider is imperative, but it's only part of the process. In order to truly reap all the benefits of cloud computing, your entire organization needs to buy in to the process and support the shift. That means taking the time to work with each department, discuss their concerns or questions, and ask for their input as you develop a plan.

The internal people who handle your data on a day-to-day basis are often in the best position to point out the necessary procedural changes and suggest new methods as you make this change. In fact, discussing the matter with them before hiring a IT solutions provider may also give you better insight when choosing which services you need. Ask each department for time and cost estimates for making the transition, and consider inviting department heads to meetings with your top provider choices.

Best Practices for A Smooth Transition

Once you've worked with your team to lay out the organizational and departmental goals of moving to cloud computing, follow these best practices as you begin to adopt cloud solutions:

- Remember that your staff may be leary of having to learn new software or do things differently. Help them see cloud computing as an opportunity for clarity, as opposed to a major change. Phase in your cloud computing solutions rather than replacing everything at once.

- Offer ongoing training and support so your team can work efficiently. Remember that while an initial training session is important, followup seminars are just as necessary. Most people learn as they go along, so your staff is likely to have many questions during the early adoption phase. Provide secondary trailing sessions and access to support personnel.

Quality IT solutions providers will share their knowledge of best industry practices for smooth transitions. They will support your organization, staff, and goals throughout the process, educate and empower your team, and ensure that you get the highest possible return on your customized cloud offerings.

About NetCenergy

NetCenergy is a local IT solutions provider serving the needs of small and mid-sized businesses in Southern New England. Our company consists of a team of collaborative, forward-thinking thought leaders who are passionate about finding and delivering practical solutions for small to mid-size organizations. We partner with you, listen to your concerns, learn your business, walk you through the best options, and then roll up our sleeves and implement cost-effective solutions, all while focusing on service, quality, and the strong personal relationships that form the heart of our business.

At NetCenergy, our actions show that we care about your success. This means never recommending unnecessary upgrades, always seeking the most cost-effective solutions, and treating your success as seriously as we do our own. Because when you're a NetCenergy client, your success is our success.

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