

CLOUD COMPUTING: WHAT'S THE FORECAST?

Cloud computing is not about weather predicting or hurricane tracking with super-computers. It's about the internet, and it may hold the future of IT. It also carries a set of dynamic risks with potentially stormy consequences.

The cloud *is* the internet, and cloud computing refers to the use of software and data stored externally online. Organizations seeking its efficiencies migrate their applications, data storage and operating platforms to third-party-owned servers they access via the internet. They spare themselves the expense of purchasing, maintaining and upgrading software and hardware. The cloud usually offers the ability to scale technology to meet the demands of organizations as they grow.

The risks? Security is the main issue. Your data is no longer under your own lock and key, and cyber crimes of the last several years have shown that sometimes seemingly secure systems can be breached. Another risk is dependence: as reliable as the internet is, the lines can go down, and the problem, like the computing power, may be located far away and far from your control.

Many companies that own their servers and software face similar risks, as servers located in one part of the world often must be accessed by employees across the globe, and security issues do not disappear because you own your data warehouse. Moving into the cloud changes a static risk into a dynamic risk. Your data will be in the hands of others across a network that is intangible, with several moving parts. As with any dynamic risk, there are no static solutions; however, there are four steps any company should take to evaluate the option of putting its data and software into the cloud.

VALUATION - WHAT IS THE VALUE OF YOUR ASSET EXPOSURES?

Moving data to the cloud automatically magnifies your data security exposure. Before making the move, you should perform a thorough asset valuation of the data that will be exposed. Are you worried



The benefits of cloud computing:

- Access to the latest technology without having to own and maintain the infrastructure
- No IT investment decisions or costs - computing resources are maintained and updated by third-party partners
- IT resources can be scaled up or down as needed
- Near universal access via the internet

about someone trying to steal your data or taking control of it? What are the fiscal risks if that were to happen? What damages could ensue if someone gained access to your data and intellectual property?

ANALYSIS - CAN I QUANTIFY WHAT'S IN MY CONTRACTUAL AGREEMENT?

Beyond analyzing the risk to your own company, it is vital to understand how your cloud computing contract might also generate liability concerns. One of the hidden legal dangers of cloud computing is that companies using the cloud may not be able to live up to their contractual privacy agreements. When data moves to the cloud, it can be spread across multiple servers, companies and countries. It is impossible to know where that data is floating at any given time, who has access to that data, and what procedures are in place for security at the various points of reference. If you are storing data for business partners or customers, you likely have offered assurances about the security of that data. If you choose the cloud, your contractual privacy agreements might need to be revisited to ensure you are not promising your clients something you cannot reasonably deliver. The same goes for your cyber security agreements. When entering into third-party cloud computing contracts, you should only consider working with vendors who offer data/privacy compliance of the highest caliber.

QUANTIFY - HOW MUCH WOULD I SAVE AND HOW MUCH WOULD I PAY?

After adequately determining asset value and analyzing liability risks, the next step is to measure two costs: the savings you could enjoy by migrating to the cloud, and how much you may need to pay to insure against the added security exposure. Would you need to pay \$50 to protect \$5? Do your savings, along with your access to continual software updates and internet convenience, justify the risk?

TRANSFER - SHOULD I RETAIN OR TRANSFER RISKS?

If you decide to move to the cloud, you must make a final decision about retaining the risk or transferring it. You may, for example, decide that the savings offered by cloud computing are too valuable to pass up, while the cost of insuring all potential exposures is unacceptably high. This discussion cannot take place without careful consideration of the risks that will be assumed, as well as the potential costs of those risks, in both the short and long term. Then you should work with a risk adviser to determine the range of coverage options available.

FEET ON THE GROUND

Potential cloud computing customers need to thoroughly evaluate providers in regard to recovery, data segregation, long-term viability, data location, privileged user access,

investigative support and regulatory compliance. Avoid vendors who are not willing to provide detailed information on their security procedures and ask about qualifications of the people who will be operating and maintaining the system. It is also important to keep in mind the unique requirements of your business when evaluating cloud computing vendors. A company with service-driven needs will require different levels of security, service agreements and governance than one that will focus on storage needs. Companies can also run into problems by locking into a substandard agreement on an unreliable network. You can help avoid these issues by thoroughly researching what is available and determining the level of reliability. Borrowing a term from the aerospace and automotive industries, where safety is paramount, determine an acceptable *mean time before failure* (MTBF) rate for your daily operations and for clients who may be using the servers.

Moving to the cloud is a decision that must be made carefully, but the potential benefits make the effort worthwhile. Keep your feet on the ground, and you'll better be able to keep your head – and data – in the clouds.

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