

The pros and cons of cloud computing

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The implications of storing business information via the Internet on remote servers instead of on a personal computer or an office server.

I'm getting sales pitches for "cloud" computing, but I'm not sure what exactly it is or how it would benefit my service company. Also, is it safe to keep our client and employee data on the Internet? What about hackers? —G.E., Nashville

Your confusion and hesitation about cloud computing mirrors a wider perception, according to a new study commissioned by Canadian online business hosting firm PEER 1 Network Enterprises. Their survey, of 200-plus IT decision-makers, found 88% of them do not use cloud technologies. Lack of knowledge about cloud hosting was cited by 39% of respondents as the reason they don't use the technology. Interestingly, there were conflicting responses on security, with 43% of those surveyed pleased with the security advantages of cloud computing, while 23% pointed to perceived lack of security as a reason they don't use it.

What exactly are we talking about? The "cloud" is an IT term for the Internet, and cloud computing, or cloud integration, means storing and having access to your computer data and software on the Internet, rather than running it on your personal computer or office server. In fact, if you use programs such as Gmail or Google docs (GOOG), you may not realize you are already doing cloud computing.

Part of the confusion is that the terminology is rather vaporous, particularly for non-tech-savvy types, including many small business owners. And it does represent a major shift in how businesses and individuals use and store digital information. We'll go through some pros and cons that may help you decide whether this is right for your firm.

On the plus side, having your data and business computing programs running online, rather than exclusively on your office computers, means that you and your staff have access to them anytime, anywhere there's an Internet connection. "Small businesses like the idea of being able to access their data from home, at a client's location, on the road, or even on a smartphone," says Dave Greenbaum, owner of DoctorDave, a computer repair firm based in Lawrence, Kan., that serves small service companies and home-based business owners. "More of my clients are asking about Internet-based applications."

The fixed-cost advantage

Then there's the cost- and hassle-saving factor. Software provided online is upgraded and maintained by the provider, so the small business owner does not have to purchase the newest version of a software program or download fixes and patches. Not having to buy a program outright but entering into a monthly or annual contract (the "SaaS" or software-as-a-service model) is also appealing, as is the fact that many applications are offered for free. The fixed cost allows business owners to plan rather than be caught off-guard when a costly software or hardware upgrade must be purchased.

But the issue of security cuts both ways, which explains the conflicting results from the PEER 1 survey. On one hand, many small firms do not have the budget to invest in adequate on-site security and backup systems, leaving their business data vulnerable to theft, loss, hackers, power outages, and natural disasters, says Chad Barr, president of CB Software Systems, a Web services consulting firm in Shaker Heights, Ohio.

With your company documents, customer relationship management, and shopping cart data stored in password-protected, secure sites online, it's not necessarily a disaster if a sales rep loses a laptop or there's a break-in at your headquarters.

"Cloud is a very safe way of operating today, and it's going to get better and better," Barr says.

On the other hand, the idea that extremely sensitive data, perhaps including trade secrets or confidential legal documents, is not locked up on company premises but is hovering somewhere in a cloud disconcerts some business owners. "You are trusting your entire business operation to someone else that you think is doing a good job of backing up your data and making sure it's secure and available," Greenbaum says. "I understand why people are leery about putting critical, confidential, and proprietary business information online."

Keeping data safe

While anonymous computer hackers are very unlikely to gain access to your business information in the cloud, a disgruntled former employee familiar with your company might be able to guess your passwords or answer your security questions and get into your accounts to do mischief—or worse.

Also, there have been a couple of highly publicized incidents recently where online services lost supposedly secure data or went offline for some period of time, during which their customers' accounts were inaccessible. "If you use Google docs and you couldn't get into it when you had a meeting or a deadline coming up, you'd be in big trouble," Greenbaum notes.

The key to using cloud hosting safely is finding a responsible provider that provides back-up programs so your online data can also be stored in-house, both Barr and Greenbaum say. "Do it on a regular schedule—it doesn't have to be daily or weekly—and if the Web site goes down, you've got a copy of your data on your local hard drive," Greenbaum says.

Yaron Sinai, CEO of cloud services provider Elementool, recommends that entrepreneurs choose established providers, talk to their existing customers, and opt in to automated local back-up. Ask what kind of redundancy the company has built in to deal with a server that crashes or a power outage. "Make sure the cloud provider has their own servers, not shared servers with other companies," Sinai says. You can ask whether the provider undergoes third-party monitoring by security standards firms that inspect providers' systems periodically for vulnerability to data breaches.

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