



# High-Level Security

The new Cloud Computing Age offers companies a tailored approach to protecting and monitoring data.

**IN A WELL-PUBLICIZED** raid last summer, British authorities descended on a little house in the Shetland Islands occupied by 16 computers and one irksome 18-year-old. It was the headquarters of LulzSec, a global hacker group whose name is geek-speak for making fun of attempts

by powerful organizations to safeguard their proprietary data. Among the group's attempted targets: the CIA, FBI, British police, Sony, and Rupert Murdoch's News Corp.

Understandably, hackers like LulzSec add fuel to anxieties about the global shift to cloud computing—the transformation of information technology and resources into a shared service

delivered by a utility akin to the electric grid, as opposed to individual IT systems owned and operated by each company or group. The cloud's myriad advantages for business and the public sector include large-scale cost savings, plus enhanced speed and agility. Not surprisingly, the move to the cloud is happening quickly. According to Forrester Research, the global cloud computing market is expected to reach \$241 billion by 2020, compared to roughly \$41 billion in 2011.

### Three Powerful Words

The cloud's powerful allure is that it is faster, simpler, and cheaper than almost any company's internal IT department. When a new need arises, there's no reason to wait for the internal IT staff to install new equipment. The capacity can be harnessed in the cloud in a matter of minutes.

The cloud is cheaper because when a company no longer requires all that computing horsepower, it can stop paying for it, much like flicking off the office lights when you go

home at night. Still, concerns about security are dampening enthusiasm, as confirmed by a recent Comcast survey of small-business operators—ostensibly the segment that should have the most interest in the cloud.

### A Matter of Trust

The good news is that most perceptions of risk as a barrier to cloud computing are not accurate, say experts. "Professionally managed clouds actually do a better job of security than most organizations can do on their own," says Jim Reavis, co-founder and executive director of the Cloud Security Alliance (CSA), a coalition of technology vendors, corporate customers, and IT users. Still, Reavis acknowledges, cloud providers must accept the challenge of getting businesses, governments, and others to place their trust in the cloud.

Concerns about cloud security typically boil down to questions about competency, transparency, and access. Developing a comfort level, says Reavis, requires cloud users to know their providers, actively manage the relationships, and invest in the

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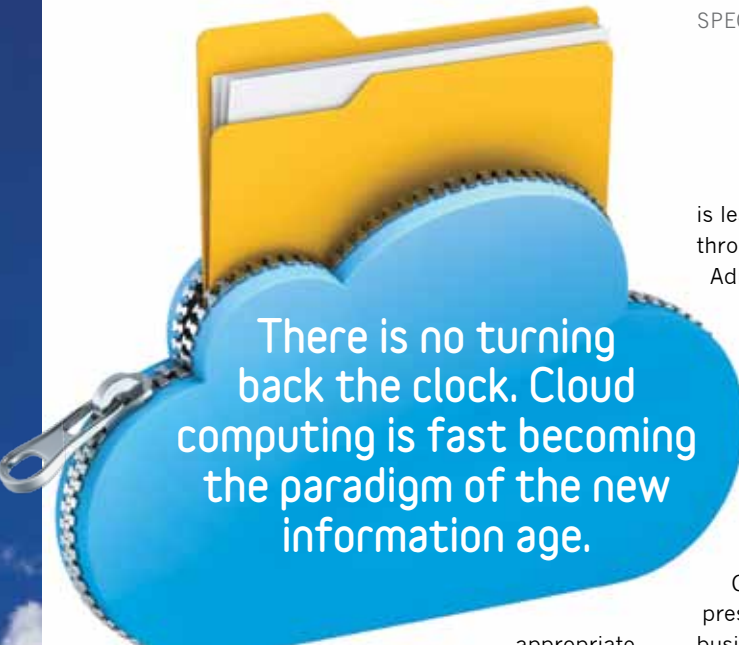


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There is no turning back the clock. Cloud computing is fast becoming the paradigm of the new information age.

appropriate degree of governance, data protection, and redundancy. Here's why: A service disruption at an Amazon data center in Northern Virginia last April reportedly did considerable damage to some business customers who had declined to pay for Amazon's full suite of cloud redundancies. For more savvy users, however, the effects of the outage were barely noticeable; when Amazon's Northern Virginia center went down, its IT workflow automatically shifted to Amazon data centers elsewhere in the U.S.

The best cloud service providers know that cloud systems cannot be managed like commodities. The traditional concept of IT security amounts to a checklist of requirements reviewed once a year, says Brian Cann, vice president of cloud infrastructure solutions at CGI, a global leader in end-to-end IT solutions.

For most businesses, what's needed is a more proactive approach—one known as operationalized security. CGI's method is vastly different from traditional checklist-style management in that it's based on continuous monitoring, reporting, and improvement. The U.S. federal government

is leading the way on this front through the General Services Administration and the Federal Risk and Authorization Management Program (FedRAMP), which are both seeking to harmonize federal cloud computing standards and procedures.

### Experience Counts

Gregg Mossburg, senior vice president in CGI's U.S. federal business unit, advises organizations that are planning a move to the cloud to look for providers with this real-time security mindset and a track record of performance. "It takes a surprising level of experience and investment to successfully design and implement operationalized security," Mossburg says.

At the same time, Mossburg and Cann both argue that customers themselves must make an effort to understand the security challenges, assess organizational needs, and seek out cloud providers that can address them effectively. Organizations turning to the cloud must make sure they are getting adequate redundancy, system availability, and reporting, they say, and not be seduced by promises of up-front, extra-deep cost savings.

Companies also need to remember that security entails more than just data integrity and confidentiality. For small businesses in particular, lack of system availability can be a huge issue largely because of the control exercised by local communications providers over the so-called "last mile" of connectivity—the critical

link between the customer and the Internet service provider. At some point in the life of nearly every business, says Kevin O'Toole, senior vice president for product management and strategy at Comcast Business Services, there is a realization that older wired technology "just can't get you there anymore—or it can't get you there fast enough.

"We tell new customers that we can provide them with next-generation data service that gives them more and costs them less," O'Toole adds. "It's also a data service technology that can scale with businesses as they grow—whether they need 12 megabits or 10 gigabits per second."

No IT system can claim 100% security, just as no bank could claim to have a completely theft-proof vault, acknowledges Daniel A. Varroney, interim CEO of TechAmerica, the IT industry's leading trade association. Moreover, IT security challenges do not remain static—not in a proprietary IT department and not in the cloud. Rather, they change daily as hackers and cybercriminals acquire new knowledge and new wiles.

Nonetheless, companies that forego the cloud out of unwarranted fear risk putting themselves at a competitive disadvantage. There is no turning back the clock. Cloud computing is fast becoming the paradigm of the new information age. ●

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