

Cloud Services Technology evolution or business revolution?



Some business leaders think cloud computing is the next big disruptive technology. Others argue it's simply the natural evolution of distributed computing, requiring the same basic capabilities that have always been necessary for high-performing businesses. So which is it – technology evolution or business revolution? And why should you care?

Here's the debate:

	Point	Counterpoint
<p>Just another technology evolution.</p> <p><i>Cloud computing is important, but it's not that big a deal.</i></p>	<p>Isn't all this cloud business just IT outsourcing by another name?</p> <hr/> <p>Cloud computing matters only to CIOs. They're the ones who have to worry about servers, storage and software.</p> <hr/> <p>Isn't cloud just virtualization plus web services – with a little bit of automation thrown in?</p>	<p>IT outsourcing focuses on various layers of the technology stack. Cloud computing focuses on enabling specific business capabilities.</p> <hr/> <p>Sure CIOs care, but so does the rest of the C-suite. CFOs care about cost. COOs care about speed. CEOs care about business performance. That's a lot of caring.</p> <hr/> <p>The big IT challenges aren't about the technology tool set any more. The real challenges involve the business context – where IT is expected to enable elastic pricing, scalability, and self-provisioning.</p>
<p>A business revolution – if you want it.</p> <p><i>Cloud computing can transform business models and create fundamental shifts in the competitive landscape.</i></p>	<p>Look at the number of new businesses that have grown in the cloud services provider space.</p>	<p>But they're all technology companies. This is just another cycle of tech hype.</p>

	Point	Counterpoint
	With cloud computing, you're no longer restricted to working with static business processes – you can orchestrate dynamic business services.	How is that different from all the other promises? SOA? Distributed computing? Web services? Been there, tried that, no thanks.
	Not only can you orchestrate dynamic business services within your company, you can do it across companies, too. That means small and medium businesses can come together through federation to challenge much larger competitors.	Isn't information security one of the big problems with cloud services? And now you're thinking about spreading that problem across a sprawling federation of small businesses? Good luck with that.

The Debate includes perspectives from the Technology sector and the CIO. We are also pleased to share Federal marketplace insight from Doug Bourgeois, Director, National Business Center, Department of Interior.



My take

Mark White, Principal, Deloitte Consulting LLP

For a term first introduced by [researchers at MIT](#) nearly 15 years ago, it was hard to predict all the hype around cloud computing today. But hype there is – and businesses need to get to the bottom of it.

In my view, the challenges involved in cloud services are familiar ones, involving both technology choices and business issues. How to respond faster to the changing market needs. How to protect information privacy and security. How to drive up utilization ratios without sacrificing service levels. How to manage complexity. How to deliver more and better service – from IT to the business, and from the business to the customer.

These issues have been present since the beginning of computing itself. Remember the challenges businesses once had with big iron? That gave way to client-server and distributed computing, which gave way to web services, clusters, and grids – with every phase of the evolution targeting more agility and better cost/benefit results. In many ways, the emergence of cloud computing is just one more natural step in the grand scheme of things. That's not to say cloud computing architectures are unimportant – they're enormously important. But it's not revolutionary – it's evolutionary from a technology standpoint. The real revolution is happening on the business side of the house, where expectations for agility and flexibility in business operations are in demand – in response to the economic downturn and in preparation for whatever comes next. Cloud services create the possibility of rapid business model innovation, improved service levels and new ways of controlling costs. But there's even more at stake than being able to do current things faster, better and cheaper. Cloud services can also enable organizations to do entirely new things. Helping small companies transform into powerful federations that can compete on a global scale. Enabling supplier and customer networks with unprecedented knowledge sharing. Turning traditional models of transaction processing into value-added services.

Many IT organizations today are well on the path to cloud computing using services oriented software architecture and IT Services Management as central building blocks in those efforts. But unless business operating models evolve in a similar fashion – using services oriented business architecture – companies won't be able to take full advantage of the many capabilities cloud services can provide.

In practical terms, this requires a shift in focus from process reengineering to business services design – breaking up business functions into discrete, manageable services that can be composed, disassembled and re-orchestrated to deliver the capabilities the business needs. The combination of services thinking in technology and in business can create a multiplier effect that can help any organization capture the real value of cloud computing.

A view from Technology

Tomi Miller, Principal, Deloitte Consulting LLP

From all indications, companies in the high tech sector will be early and rapid adopters of cloud technologies. Some will be shapers of the next-generation digital ecosystem, while others will be followers. In either case, there will be great pressure for companies to reinvent themselves in light of cloud disruptions to their current business models.

Among early adopters, security and privacy concerns are common – and real – but there are other issues to manage as well. For example, tax considerations for cloud services are critical and can yield enormous differences in financial implications. When shifting to cloud computing, companies should think carefully about the tax impacts of what they're selling and where it's produced.

Another area of concern is the definition of standards – a critical link in the enablement of a cloud ecosystem. There are currently great gaps and opportunities for who will define standards for such industry requirements as security, provisioning formats, data-exchange, cloud-computing taxonomies, policy harmonization, and more.

A view from the CIO

Skip Bailey, Principal, Deloitte Consulting LLP

Federal CIO's face many of the same pressures any CIO faces, especially in law enforcement agencies, where issues of security, availability and reliability are critical. As a result, many CIO's are reluctant to jump into new or unproven technologies.

When it comes to cloud computing, the big show-stopper is security. There is a real reluctance to allow law enforcement data out of government owned and controlled data centers. Until sensitive data can be shown to be protected, this reluctance will keep many law enforcement agencies from pursuing cloud alternatives.

At the same time, the business side of the law enforcement community is beginning to demand the agility that cloud computing provides. This will produce creative tension that will likely lead some IT shops to move forward in selective ways – to prove concepts or to participate in low risk cloud solutions. Smart CIO's will begin to prepare for this pressure by moving their offerings to a services model.

A view from the Federal marketplace

Doug Bourgeois, Director, National Business Center, Department of the Interior

Our center handles payroll, HR and financial systems and services, contracting services and other computing tasks for dozens of federal agencies through two large data centers, one in Northern Virginia and another outside Denver. With the volume of data we manage continuing to explode, cloud computing can help us fulfill our mission – maybe even without having to build another \$20 million data center.

Security is an issue we have to manage, but the scalability, affordability, flexibility and maturity of the cloud computing model make it all but inevitable.

We're introducing several cloud-style applications in the months ahead, including Web-based training, and staffing and recruitment software. In tests with HR and procurement software, the cloud-computing environment has already delivered efficiencies of 40 to 60 percent in productivity and power consumption.

We see cloud computing as another way for government agencies to take advantage of the convergence of government business functions and the advent of the shared service center. Central to our mission is the idea of a converged Shared Service Provider that allows the government to streamline its business operations and leverage a common infrastructure. Cloud helps make that possible.

For more information, please visit: www.deloitte.com/us/debates/cloudserviceevolution.

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