

The Top 10 Cloud Computing Trends

David Hakala | April 30, 2009

Introduction

Cloud computing is just like the weather; it blows this way and that, and no one really knows exactly where it's going or what the cloud will cover. But looking into a murky crystal ball, one can see trends in cloud computing that deserve attention. Cloud computing may be ill-defined, but it's here to stay and it's having important effects upon the competitive landscape.

Analysis

1. Business intelligence goes open source.

IBM, for instance, announced its "Blue Cloud" initiative two years ago. The company has already built 13 massive datacenters around the world and is adding more every quarter. Private cloud services are run in datacenters managed by third parties such as Amazon.com, but also in private datacenters on company property managed by corporate IT staffs. Private clouds address the security concerns of large enterprises. They're scalable, growing and shrinking as needed. They're also managed centrally in a virtualized environment.

2. Cloud computing will shift the skills needed by IT workers.

It's no longer enough for a CIO to oversee rollouts, integrations and development projects. Instead, IT professionals need to focus on extracting the most business value from new technologies. Cloud computing helps them shed the burdens of technological implementation and concentrate on business processes. At the staffer level, coding and development skills will take a back seat to project management, quality assurance testing, business analysis and other high-level abstract thinking.

3. IT departments will shrink as users go directly to the cloud for IT resources.

In his book, "The Big Switch: Rewiring the World, From Edison to Google" (W.W. Norton, 2008), Nicholas Carr all but declares the pending death of IT. "In the long run, the IT department is unlikely to survive, at least in its familiar form," he writes. "It will have little left to do once the bulk of business computing shifts out of private data centers and into 'the cloud.' Business units and even individual employees will be able to control the processing of information directly, without the need for legions of technical specialists."

4. Concerns about information security will abate as CIOs "get" the cloud paradigm.

The idea of storing critical business data on a third-party server to which multiple "tenants" have access seems inherently insecure. Better to keep that data in house, many IT professionals think. But what CFO keeps the corporate treasury locked in a safe in his office? Banks store everyone's money together and people go in and out of banks all day long, knowing they're safer places to keep money than under mattresses. It's security procedures that matter, not physical walls between deposits of data.

5. Professional services will be bundled with commodity cloud services.

Today, cloud computing is just another way to pay for hardware and software. But a few SaaS vendors are partnering with professional services firms to provide expertise that makes applications actually useful. Salesforce.com's Successforce services let customers connect with either a Salesforce consultant or one of the company's partners, such as Accenture or Deloitte. NetSuite allows its professional services partners to implement its services as software that is provided on-demand to NetSuite clients. H&R Block's Tango consumer online tax-preparation service, for \$70, includes unlimited round-the-clock access to tax experts. Tomorrow's cloud will contain human intelligence as well as computational power.

5. SMBs, as well as large enterprises, will be run on the cloud.

Vendors such as NetSuite are leasing all the computing power and applications that SMBs need, such as Microsoft's Great Plains software, for far less than the cost of acquiring and implementing all the hardware, software and personnel required to run Great Plains in-house.

7. Cloud-computing resources will become more customizable.

Today, the paradigm of cloud computing is its implementation of best practices in standard ways. But that limits cloud computing to common-ground applications such as CRM. Extremely complex custom applications that provide competitive advantage, such as a travel reservation system, can't be implemented on a cloud's paradoxically flexible yet rigid platform. In the future, though, cloud-computing vendors will make their applications more customizable by end users. Then corporations will move mission-critical unique applications into the cloud.

8. Large enterprises will become part-time cloud-computing vendors.

Enterprises are maintaining huge IT infrastructures, often with excess capacity. To unlock the value in that investment, corporate IT departments will create clouds within their IT infrastructure and lease cloud power to suppliers and customers. This is exactly what Amazon.com is doing with its S3 and Elastic Compute Cloud initiatives. There is no reason General Motors and Target can't do that too.

9. Cloud computing will unleash innovation

Local constraints on energy costs and capacities; space requirements for IT infrastructure; and up-front costs will disappear as companies become able to tap computing resources situated anywhere on the planet. A datacenter parked next to a hydroelectric dam — perhaps also owned by the datacenter — will be cheaper and more reliable than one in midtown Manhattan. Transformational IT projects that were stalled by localized constraints will move forward.

10. The browser will be all the desktop software you need.

Local applications will become passé and PCs will become slimmer, more agile gateways to the cloud where the heavy lifting is done. Client-server computing will return under a new name.