

Diabologic: Cloud

by Frank Dolinar

When we were children, many of us looked at the clouds in the sky and tried to find patterns in their shapes. That one was a horse, another one was a plane, yet another was... well, whatever our active imaginations saw in the continuously changing forms.

Today, a different cloud, a metaphor for the Internet, is working its way into our perceptions. This is “Cloud Computing”, a name inspired by and derived from the cloud symbol often used to represent the Internet in flow charts and diagrams. Cloud Computing is the latest rage. According to Ben Pring, a senior analyst at the Gartner Group, “It’s become the phrase du jour.” Unfortunately, everyone seems to have a different definition of what it is.

The clearest definition I’ve seen to date is “Cloud computing is an emerging computing technology that uses the internet and central remote servers to maintain data and applications.” [1]

The basic idea is to allow consumers and businesses to use applications running on centralized servers without installing them on their own computers. The user’s files and data are also stored on these servers and therefore accessible at any computer with Internet access.

Convenience, i.e. “on demand” capabilities for a fee, appears to be a significant aspect of the game, and to date it’s the only cloud segment with a successful business model — i.e. it is making money.

A recent InfoWorld article “What cloud computing really means” [2] by Eric Knorr & Galen Gruman identified a number of components of cloud computing:

- **SaaS** (Software as a Service) delivers an application via browser to customers. For the customer there is no upfront investment in servers nor software licensing, e.g. Google Apps and Zoho Office.
- **Utility computing** provides storage and virtual servers available on demand.
- **Web services in the cloud** — for most of us the most visible of these is Google Maps.
- **Platform as a service** — delivers development environments (used by programmers) as a service. These are limited by the vendors design and capabilities, but are predictable and well integrated tools.
- **Managed Service Providers (MSP)** — These are applications available to IT (information technology) departments within organizations and not to individual users. For example, virus scanning of email.
- **Service commerce platforms** — A hybrid of SaaS and MSP, this is an automated service bureau.
- **Internet integration** — mainly concerns itself with serving SaaS providers.

As expected, the known names in the business are aggressively investigating how they can profit from the cloud. Names like Amazon, Google, HP, Microsoft, and NetSuite have developed ways for users to access applications from their servers. HP, Yahoo, and Intel announced, in July 2008, a research project to encourage development of cloud computing technologies.

A recent (2009 Dec 17) InfoWorld article “Hewlett-Packard Attacks Cloud-Computing Risks” [3] states **the** benefits expected from computing in the cloud are: “lightning-fast deployment, lower costs, simpler management, and greater flexibility.” (2009 Dec 17)

The primary questions / problems for people considering using applications that reside in the cloud are:

- Security — These are my programs and data. I don’t want anyone else to have access to it.
- Performance — does it run as fast as it would on my own computer at the office? If slower, will I notice?
- Availability — can I really access my stuff from anywhere, with only a browser?

If the answer to any of these questions negative, cloud computing is not yet ready for prime time.

This article is a bit more technical than some, but if you use a computer opportunities to use the cloud are in your foreseeable future. A shift toward cloud computing would affect us all, though the nature and extent of those changes are yet to be determined.

Cloud computing is still evolving and in the process is changing the options for how we will use computational resources in the future. Ultimately, it may have more manifestations than those clouds from our childhood that morphed their way across the sky.

References:

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