Amazon Web Services (EC2 & S3)

I have recently started toying with Amazon Web Services (AWS), and so far have been rather impressed by the completeness of their offerings. In particular I have been playing with their Elastic Compute Cloud (EC2), Simple Storage Services (S3) and some of the corresponding APIs. The EC2 service allows you to rent computing time on a computer that exists in the nebulous "Cloud". The S3 service is, as the name implies, a simply storage container that exists in the "Cloud". The two together represent a potent method of deploying applications.

Elastic computing and the EC2 service are somewhat like next generation of renting a (virtual) dedicated server from your hosting provider. Once a month you pay some agreed upon fee in exchange for certain computing services. The major diference is that, for roughly the same money, rather than having a server limited to browser-based or web-service applications running on some arbitrary platform, you have control of what operating system and software run on the machine. Virtual machines can be quickly replicated, so if the application is correctly architected, it can scale instantly. Bascically, it is no different than having a magic server in your closet that can clone itself, except that you don't have to maintain any hardware or pay electric bills.

The S3 service is fairly mundane as compared to EC2, but it is a fundamental building block of an application in the AWS cloud. I think I would trust Amazon with most of my data and it appears they have, in terms of reliability and security, done a decent job of safeguarding it. They provide nice APIs to interact with your data from within EC2 or across the web. There is no direct browser or Windows Explorer access, but companies like Jungle Disk have made this a non-issue. Generally S3 looks like a good service with or without EC2, and is required if you are using EC2 in a serious way.

My belief is that, as we arrive at the convergence of network and hardware speeds that can support such an architecture, and soaring energy and labor costs, it only makes sense that most corporate data will move out of private data centers into the cloud - only a tiny fragment of extremely private and latency intolerant data and applications will be left behind. Amazon has lead the way into cloud computing, and I think it will continue to for the near term. There are some shortcomings, notably Windows is not supported as a guest OS. Other providers are sure to pop up, GoGrid looks to pretty close.

UPDATE: Amazon has announced they'll be supporting Windows in fall of 2008. More information .

Published by Wyatt
Wed Oct 01 07:04:54 EDT 2008
http://blog.wylovan.com/pebble/wyatt/2008/10/01/1222859094647.html