

Companies reaching for the clouds for computing power

By now, we've likely all at least heard of cloud computing, and to some extent may grasp what it's all about. But after delving into a recent article in *The New York Times*, I came to realize just how big of a deal it is—much bigger than my own limited experience with it had allowed me to see.

Cloud computing is the use of hardware or software computing resources that are delivered as a service over a network, typically via the web. The gist of it is, almost anything you can imagine doing with your computer system doesn't have to physically exist on your system or in your office in order to be accessible to you. You can entrust remote services with your data, software and computation. It's

easier, and also much less expensive.

This opens up obvious doors when it comes to data storage and the expense of purchasing and maintaining onsite servers. But there's so much more to it. Amazon, through its Amazon Web Services division created in 2006, is one major company that is literally, and significantly, helping change the business world through cloud computing.

It's allowing a start-up called Cue to scan upwards of 500 million emails, Facebook updates and corporate documents to create a service that can outline the biography of a given person you meet, warn you to be home to receive a package or text a lunch guest that you're running late.



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Another startup called Climate Corporation is using AWS to perform more than 10,000 simulations of the next two years' weather for more than a million locations in the United States each day, and combining that with specific agricultural data to write crop insurance for farmers.

An online education program from the Massachusetts Institute of Technology and Harvard used AWS to provide a single class to more than 120,000 students simultaneously. People in Africa are buying cars online using smartphones connected to AWS servers in other continents. Almost 200 government agencies run some part of their services on AWS. And this is apparently just the tip of the opportunity iceberg.

"You can now test a product against millions of users for just a few thousand dollars, or start a company

with just one or two people," said Graham Spencer, a partner at Google Ventures, which invests in data-heavy start-ups that rely on cheap computing resources. "It's a huge change for Silicon Valley."

With spending on IT cloud services projected by a recent Intelligent Distributed Computing report to exceed \$40 billion this year, and reach \$100 billion by 2016, cloud computing is poised to leave the rest of the IT industry securely in its dust. Industry giants like Amazon, Google, and Microsoft are on board, along with many others. And businesses around the globe are tapping into their services to harness computing power unheard of a decade ago to expand and enhance their offerings, while significantly reducing costs.

Cloud computing can't solve all our problems, but it does open doors for

businesses of all sizes to achieve things they never thought possible. In fact, an entirely new crop of companies has emerged specifically because of the computing opportunities it presents.

Whether you're thinking of starting a new company and doing your resource homework, or an existing business owner, you should look into your cloud computing options. You may just be able to improve your bottom line with less costly, more powerful, off-site computing resources, or even use them to create entirely new products or services.

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