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The Cloud: An Eco-Friendly Alternative?

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April 22 marked the annual worldwide observance of Earth Day. This made us think about the role small businesses play in the "Go Green" movement. Many companies have a genuine concern for preserving our planet's natural resources—even if many hotels use going green as a convenient excuse not to provide fresh bed sheets every morning.

Of course, here in California, we know conservation is no joke. As we endure a severe, multi-year drought—with no end in sight—we're just now realizing the potential long-term effects on our region's entire eco-system. The longer our resources continue to dwindle, the more all of us—households and businesses alike will be expected to make cutbacks to help sustain our environment.

Thinking Beyond the Bottom Line

When small businesses weigh the benefits of migrating their IT functions to the Cloud, they tend to frame their decision around only one context of "green"—the saving of dollars. Yet they usually overlook another viable justification of the Cloud: reducing the company's energy consumption and carbon footprint.

An onsite data center typically consists of multiple servers dedicated to general tasks, such as one server for email, one for database, one file server, and so on. Yet, like the human brain, a single server only uses a small fraction of its full capacity at any given moment—typically as low as six percent—while drawing continuous full power 24 hours a day, every day.

While that higher "firepower" is necessary for occasional spikes of peak usage, the rest of the time it simply gobbles up far more electricity than necessary.

By contrast, a shared, Cloud-based facility utilizing virtualization gains a much higher performance ratio from its offsite infrastructure, averaging 60 to 70 percent of capacity. Fewer machines are required to handle the same amount of work.

Cloud-hosting facilities also save energy when it comes to the massive cooling requirements of larger computer equipment. Most onsite data centers simply rely on the "chaos" method of cooling—virtually turning their existing computer room into a large refrigerator. Cloud colocation facilities consolidate climate-control costs, often engineering <u>rack-first</u> cooling systems to optimize efficiency—**saving both electricity and money.**

Also, larger Cloud colocation facilities have the flexibility to regularly upgrade their equipment to the latest energy-efficient solutions, while small businesses often rely on outdated, less efficient IT systems.

Benefits for Small Businesses

The bottom line is that Cloud computing generally requires less energy consumption than an traditional onsite data center, which directly translates into fewer carbon emissions—and a smaller impact on our environment. An <u>Accenture study</u> commissioned by Microsoft suggests **small businesses (100 employees or less) have the most to gain from the Cloud**, reducing their overall CO2 emissions by up to 90 percent.

Might Cloud migration be an eco-friendly IT solution for your company? Learn more <u>here</u>.