

Going Green for St. Patrick's Day?

There is a big push for "greener" computing. Some of the proposals around more eco-friendly datacenters include everything from software to building design, to adjusting today's technology.



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One of the easiest ways to save some money is to understand that today's semiconductors are far more robust than they once were. In the old days, computer rooms were kept pretty cool. Air conditioning uses a lot of energy, but the older computers required the cooler climate. These days, some experts are advocating the allowance of temperatures as high as 85 degrees Fahrenheit and claim the computers can handle it. Some of the concepts for building design include venting the heat from the systems and using it to heat other parts of the building as well. One approach is to cycle the air through underground chambers and let the natural temperature of the earth take care of climate control.

On the software side, virtualization is really big. The idea is that you can run many servers on one powerful computer by using a different virtual computer for each server. This approach has been implemented extensively in large companies. If a company is hosting your web site, it is a good bet it's being run on a virtual computer.

Even in virtualized environments, security needs to be a top concern. Some people mistakenly think virtualization makes them more secure. The opposite is actually the case. Researchers use virtual machines to analyze and safely handle malicious files, but this is entirely different than using a virtual machine for normal real world tasks. If you run a keystroke logger in a virtual machine and then do online banking in the same virtual machine, you will lose real money.

When you put multiple virtual computers on one real, compromised computer, everything else can become compromised. There are also security concerns about interactions between the virtual computers. How do you secure information exchanged between them?

As a result of such concerns, companies like Altor Networks (<http://altornetworks.com/>) are developing products like a firewall specifically designed to take into account the unique nature of a virtual environment.

Virtualization holds great promise for a lot of things, but virtualization does not equal security. Consider virtualization for ecological reasons, for cost savings and efficiency, but don't be fooled into thinking that a virtual computer affords more security protection. It doesn't.

Feel free to email me at askeset@eset.com with any security-related questions or topics you would like to see addressed in future columns.



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