GOOD FOR THE EARTH

Dear Linux Magazine Reader,

Joe Casad, Editor in Chief

The beautiful city of San Francisco is much the same as last year – and the San Francisco LinuxWorld looks much the same, with many of the same exhibitors and guests. I'm even starting to recognize some of the show staff. From what I've seen so far, this show could almost be last year's show, except for one thing. I have only been here for half a day, and I've heard one term more already than I heard it at all the other LinuxWorlds I've ever attended. That term is *power consumption*.

I'm not talking about *power management* – like how long your computer can operate on its battery. I'm talking about the problem of *reducing* power consumption, as in using less to save money. Most people generally believe it is better to conserve energy, but such things never used to get much notice from major IT vendors. The talk used to be about reliability and getting the maximum capacity for the minimum expense. More recent arguments have centered on saving floor space and lowering maintenance overhead. Since when did IT get so interested in the environment? A combination of forces certainly helped bring this issue into focus. Rising energy costs have certainly played a role, but maybe there is something else going on.

At this year's LinuxWorld, I heard about power consumption in the very first keynote address, by Amazon exec Werner Vogels, who was describing strategies for designing a data center. The topic even came up at a panel discussion on desktop Linux. Then came IBM's announcement of a "Big Green Linux" initiative – a new phase of Project Big Green, which they launched in May. IBM plans a major effort to convince their customers to consolidate server systems. To demonstrate the feasibility of this strategy, the IT behemoth will start consolidating their own server systems. The scope of this vision is most startling. IBM will start by consolidating 3,900 of its own servers onto about 30 System z series mainframes, which, they say, will use 80% less energy.

If you are a skeptic, you might assert that IBM's true motivation is not so much about environmental self-sacrifice but more about the business of selling System z series mainframes. Of course, you would be correct;

however, it still seems very promising when any industry can save 80% in energy costs. In this case, the technology behind all the green is virtualization. Hundreds of separate server instances can run within a single large server. IBM and its competitors have also been working steadily on a collection of surrounding technologies to support virtualization on this massive scale, gradually rolling out a new generation of tools for building bandwidth and managing the proliferation of server instances. Perhaps the real headline is that virtualization has finally arrived, but they can't get up and say "Virtualization has arrived" because they've been saying that for two years, and anyway, the term "virtualization" will probably never make a good sound bite, since it is essentially a very abstract adjective that has been embellished into a verb and then overbuilt as a noun. The concept of going green is far more concrete,

If this kind of solution does indeed reduce energy costs by 80%, it can only help, and it is good that a big company like IBM recognizes that the weight of public opinion is significant enough to base an entire marketing strategy around energy conservation. The Linux foundation has its own green initiative, and foundation director Jim Zemlin even showed up at IBM's press conference to lend support. So it is all good for the Earth, but meanwhile, if you're managing one of those 3,900 servers, this might be a good time to brush up on your virtualization.

Joe