Examining power consumption in Linux

GREEN IT

How much power is your system really using? And how much can you actually save with the new generation of energy-conserving techniques and components? This month we study the phenomenon known as Green IT. **BY JOE CASAD**

The new mobile work life and the rising cost of energy have caused a flurry of innovations to promote efficiency and reduce consumption. Laptop users want more life in a single charge, and IT managers want lower electricity bills for the server room. Much of the story with the power-saving movement is about virtualization, which we have already covered in several previous issues – and will surely cover again. This month, we decided to study some other pieces of the puzzle. Our primary focus is on energy use in the life of an everyday PC, however, we do return to the virtualization topic with our study of the phenomenon known as cloud computing.

In the leadoff article, Karsten Reich looks at some techniques for reducing power use. You'll learn which components use the most power, and we'll show you some tips for minimizing power usage.

Our next article turns to the server room for a look at cloud computing with Amazon's Elastic Computer Cloud (EC2). The recent phenomenon of cloud computing is causing a stir throughout the world of IT. By leasing virtual server space on an as-needed basis, you can operate your home network with fewer resources, thus saving power and equip-

ment costs, and still provide the capacity for peak usage moments. Dan Frost offers a practical look at how to get started with creating and uploading a Linux image for Amazon's Elastic Cloud.

In the final article of the series, our monthly Q&A columnist Klaus Knopper runs some tests to study the power consumption of three common computers. Klaus also offers a few tricks for saving power, and he shows why the advertised energy-saving products might not really make a dent in your energy bill.

If you're looking for simple ways to save energy, or if you just want a solid methodology for understanding which components of your computer system use the most power, you're sure to find something useful in this month's Green IT cover story. ■