## Flexible tools for configuring and managing your systems

## **NETWORK MANAGEMENT**

Professional admins with tightening IT budgets are always looking for new tools that will help them do more with less. This month we feature some popular open source applications for deploying, configuring, updating, and monitoring software and systems on the network. **BY JOE CASAD** 

re you tired of doing the same job twice - or a hundred times? Are you weary of trotting around carrying installation CDs? This month we feature tools for automating and simplifying the challenge of configuring and managing systems over the network. Of course, network management tools have a long history, and most IT professionals have some experience with the most common management utilities. But the landscape keeps changing, and it pays to listen for recent developments. The latest versions of the free tools in this issue offer new features for managing complex configurations in sophisticated ways.

Our leadoff article, "Big Engine: Managing the Network with Cfengine," takes a close look at the Cfengine system administration tool. Beginning with a simple "Hello, World" example, we go on to build a complete solution for installing and managing a software service. The article ends with a case study describing how to use Cfengine to deploy an Apache web server. Next we turn to another practical and powerful open source

management tool: Bcfg2, which was developed by the U.S. Department of Energy's Argonne National Laboratory. We show how you can use the advanced architecture of Bcfg2 as a flexible framework for configuring software on client systems across the network.

In the final article of our Network Management set, we tell you about Zenoss – a versatile network monitoring tool that provides trending, status monitoring, and performance monitoring services for big and small networks. Zenoss supports a range of protocols and technologies, including SNMP, SSH, and the Windows Management Instrumentation (WMI) infrastructure. A modular archi-

tecture and an array of interface options help you adapt Zenoss to your needs. In addition to showing how to install and configure Zenoss, we describe how to put Zenoss to work monitoring both Windows and Linux clients. The tools in this issue are great for the enterprise yet convenient enough for small-scale networks. We hope you enjoy this month's Network Management cover story.

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