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## LETTER from the Board

### Shh, don't tell anyone.

It's a secret. We've compiled an entire issue on "security"! Well, actually, please do not keep this issue a secret as it contains an excellent roundup of interesting technologies that help make FreeBSD more secure as well as ways in which FreeBSD itself is applied to the problems of secure systems.

We kick off the issue with Michael Lucas's piece on the Firewalls of FreeBSD. FreeBSD contains the PF, IPFilter, and IPFW firewalls, systems that ostensibly implement the same features, but have several interesting differences. Next is an article on the CADETS research project. With CADETS, we're blending tracing—via DTrace—with the audit system and other components of FreeBSD to produce a platform based on the idea that having transparency—i.e., who does what to whom—on a computer allows us to build a more secure system overall. Then Jonathan Anderson, Stanley Godfrey, and Robert N. M. Watson take us on a journey through the sandbox, via their article on Capsicum, the native, capability-based isolation technology that is present in FreeBSD. Capsicum resurrected the concept of Capability Systems, first researched in the 1970s. Capabilities were once considered too computationally expensive for practical systems, but the work done by Robert N. M. Watson in his PhD thesis showed that a capability-based system could be built for Unix-like systems that was both practical and efficient. James Dekker, Renato Botelho, and Luiz Otavio O. Souza guide us through the main security features of pfSense in their article on this popular, FreeBSD-derived, open-source firewall product. FreeBSD can be found in many interesting environments, including devices that implement games of chance. In Europe, you'll see these games in corner bars and other venues. Roberto Fernández tries to induce a bit more paranoia than is typical by explaining what it takes to secure a gaming device with FreeBSD. We round out this issue with an update on CloudABI, by Ed Schouten. A tool that's part of FreeBSD, CloudABI helps create secure software that is easier to test and verify.

Steven Kreuzer also highlights the security theme, reviewing Joseph Kong's book *Designing BSD Rootkits: An Introduction to Kernel Hacking*, as well as covering all that's new in the FreeBSD source tree in his svn update column. Through Dru Lavigne's New Faces, we're introduced to Eugene Grosbein, a longtime contributor who transitioned to a ports committer in March. And don't forget to check out the BSD-related events we should consider putting on our calendars.

It's time now to sit back, put on your tinfoil hat, and enjoy reading this latest issue of the *FreeBSD Journal*.

George Neville-Neil  
**Editor in Chief of the *FreeBSD Journal***  
Director of the FreeBSD Foundation