

# MUUG Lines

The Manitoba UNIX User Group Newsletter

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## Next Meeting: February 10th, 2009

### Firewall Software for UNIX

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Network firewalls are typically dedicated boxes that sit between an organisation's internal network and the Internet. But how do you protect hosts that are outside of that, such as in a DMZ? How do you protect your internal hosts from potential rogue systems? What if you can't afford a dedicated firewall?

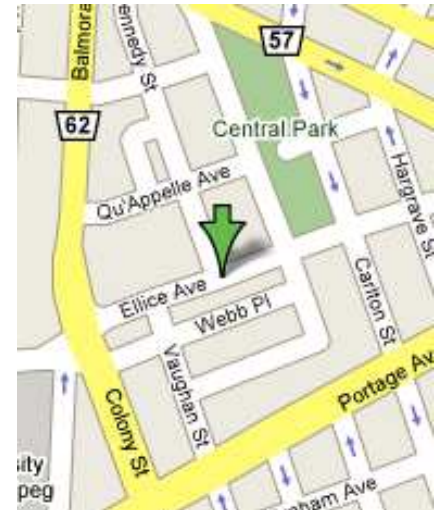
As it turns out, most common UNIX/Linux systems today have some form of packet filtering software included in their kernels. These can be used to provide added protection for Internet-connected hosts, at no extra cost. In this presentation, Gilbert Detillieux will look at three such solutions: *ipfilter* for Solaris (and also available for other platforms), *ipfw* for Mac OS X, and *netfilter/iptables* for Linux. In addition to showing some of the basic features of each, the presentation will also mention some of the limitations. Time permitting, a demo of each system will be given (possibly with GUI front-ends).

### Where to find the Meeting

Meetings are held at the IBM offices at 400 Ellice Ave. (between Edmonton and Kennedy). When you arrive, you will have to sign in at the reception desk, and then wait for someone to take you (in groups) to the meeting room. Please try to arrive by about 7:15pm, so the meeting can start promptly at 7:30pm.

Don't be late, or you may not get in. (But don't come too early either, since security may not be there to let you in before 7:15 or so.) Non-members are welcome, but may be required to show photo ID at the security desk.

Limited parking is available for free on the street, either on Ellice Ave. or on some of the intersecting streets. Indoor parking is also available nearby, at Portage Place, for \$3.00 for the evening. Bicycle parking is available in a bike rack under video surveillance located behind the building on Webb Place.



### In search of the Instant-On Linux

A couple of recent articles describe efforts made to get boot times down to previously impossible speeds: one team manages to boot an Asus EEE PC to either Fedora or Moblin in 5 seconds by making some pretty deep modifications to the kernel and to the startup processes (<http://lwn.net/Articles/299483/>). Inspired by this work, another hacker makes Debian boot in under 14 seconds on the same EEE 901 laptop. We still don't have the Microsoft-promised nirvana of "instant-on" PC's; this was once defined as being

“ready” in under four seconds. Of course, this was in an era where CRTs took more than four seconds to warm up coming out of sleep mode, so maybe we just never knew those Windows systems really *were* instantly-on?

Coreboot ([www.coreboot.org](http://www.coreboot.org)), formerly known as LinuxBIOS is one of a few projects underway to eliminate or replace the standard PC BIOS, whose architecture dates back to the original IBM PC in the 1980's. OpenFirmware and EFI-based systems don't seem to have improved boot times much, so some projects are taking pages from the embedded-systems handbook and trying to apply them to standard consumer hardware.

## Open-Xchange nabs \$9 million to fight Exchange

From [http://news.cnet.com/8301-13505\\_3-10082518-16.html?part=rss](http://news.cnet.com/8301-13505_3-10082518-16.html?part=rss), posted by Matt Asay.

Open-source email company Open-Xchange has raised a \$9 million Series B round in a difficult financing environment, bringing its total funding to \$17.8 million.

With this fresh infusion of cash Open-Xchange is expected to mount a more serious challenge to Microsoft's ubiquitous Exchange product. Open-Xchange claims 8.4 million paid mailboxes worldwide.

The real question for the company will be how to expand into enterprises. Most open-source software companies tend to infiltrate enterprises at the departmental level, proliferating from an initially small beachhead. Email, however, doesn't really work this way. Unlike an ECM or CRM system, it's tough to go off the company's Exchange or Domino grid to dally with Open-Xchange. It's a bit of an all-or-nothing approach.

It will also be interesting to see how it fares against Zimbra. There was a possibility of Zimbra getting buried in the Yahoo! mess, but the opposite seems to have happened. Zimbra's business has accelerated

within Yahoo!, making life a bit more difficult for Open-Xchange.

## Sun Microsystems Launches Latest Version of OpenSolaris; Unveils Time Slider Visualization Tool and New Partnership with Toshiba to Build Line of OpenSolaris Laptops

OpenSolaris provides a platform for developers to take their work from testbed to worldwide deployment. New features in OpenSolaris include Time Slider, an easy to use graphical interface that brings powerful ZFS functionality, like instant snapshots, to all users. Developers also have expanded access to repositories allowing them to get innovations out to all OpenSolaris users through the updated package manager. Sun also extended OpenSolaris subscription options to meet the growing needs of customers who are deploying open source solutions. Customers wanting to run OpenSolaris as their OS of choice now have two affordable subscription support plans from Sun - production and essentials - depending on their technology and business needs.

Sun and Digital Products Division of Toshiba America Information Systems announced their partnership to deliver OpenSolaris pre-installed on Toshiba laptops in the United States in early 2009. "We are very pleased to announce plans to include the OpenSolaris OS pre-installed on several of our award winning business Laptops," said Carl Pinto, vice president of product planning and product marketing, Digital Products Division, Toshiba America Information Systems, Inc. "Sun and Toshiba share a passion for innovation and strong engineering design, and we are excited to be collaborating to optimize OpenSolaris for our platforms."

## New & Updated Distributions

As reported previously, there just aren't enough Linux and UNIX distributions out there. Fortunately, people are hard at work to close the gap. Here's a sampling of more recent efforts.

## FreeBSD 7.1

The FreeBSD Release Engineering Team is pleased to announce the availability of FreeBSD 7.1-RELEASE. This is the second release from the 7-STABLE branch which improves on the functionality of FreeBSD 7.0 and introduces some new features. Some of the highlights:

- The ULE scheduler is now the default in GENERIC kernels for amd64 and i386 architectures. The ULE scheduler significantly improves performance on multi-core systems for many workloads.
- Support for using DTrace inside the kernel has been imported from OpenSolaris. DTrace is a comprehensive dynamic tracing framework.
- A new and much-improved NFS Lock Manager (NLM) client.
- Boot loader changes allow, among other things, booting from USB devices and booting from GPT-labeled devices.
- The cpuset(2) system call and cpuset(1) command have been added, providing an API for thread to CPU binding and CPU resource grouping and assignment.
- KDE updated to 3.5.10, GNOME updated to 2.22.3.
- DVD-sized media for the amd64 and i386 architectures

## rPath Linux 2.0

rPath Linux is designed to be a stable, high-quality, relatively “vanilla” distribution that closely tracks upstream stable packages and is easy to make a derivative distribution from, using Conary and rBuilder Online. You can download installable ISO images from <ftp://download.rpath.com/linux/>.

*[Ed: rPath Linux is, as far as I know, really only used as the basis for Linux-based appliances created using the rPath toolkit, which is available online for free at <http://www.rpath.org/>. It's quite similar to any other Red Hat-derived distribution in many ways, but*

*the creation – and use of – the Conary package management system is its main distinction.]*

## Foresight Linux

Foresight Linux is a Linux distribution for your desktop that features a rolling release schedule that always keeps your desktop up to date; a revolutionary package manager, Conary; the latest GNOME desktop environment and an innovative set of excellent, up to date packages, including:

- PackageKit, a GUI for managing updates and installed software
- Banshee for music management
- F-Spot for photo management
- Beagle for desktop search

Foresight Linux 2.0 is pre-installed on all Shuttle® KPC systems sold in the United States. The KPC is designed for web surfing, emailing, instant messaging, and light office applications. Shuttle is best known for its benchmark line of toaster-sized small-form-factor computers that fit just about anywhere. The KPC boasts the same small form factor and a unique changeable front image that works like a photo frame. (See <http://us.shuttle.com> for more information about Shuttle products.)

## GNOME Developer Kit

Available as a VMWare image and an installable ISO, the GNOME Developer Kit is a full Linux distribution derived from Foresight Linux containing daily builds of GNOME unstable from Subversion.

## Ubuntu 8.04.2 LTS

The Ubuntu team is proud to announce the release of Ubuntu 8.04.2 LTS, the second maintenance update to Ubuntu's 8.04 LTS release. This release includes updated server, desktop, and alternate installation CDs for the i386 and amd64 architectures.

In all, over 200 updates have been integrated, and updated installation media has been provided so that

fewer updates will need to be downloaded after installation. These include security updates and corrections for other high-impact bugs, with a focus on maintaining stability and compatibility with Ubuntu 8.04 LTS.

Please see

<https://wiki.ubuntu.com/HardyReleaseNotes/ChangeSummary/8.04.2> for important changes made since 8.04.1.

## Knoppix 6.0

Klaus Knopper has released KNOPPIX 6.0, a brand new version of the popular Debian-based live CD, now with LXDE as the default desktop and ADRIANE, an audio desktop for the visually impaired. From the changelog for KNOPPIX 6.0.0 / ADRIANE 1.1:

- Complete rebuild from scratch, based on Debian 'Lenny' (draft)
- new boot procedure with highly parallelized hardware detection and configuration
- LXDE as default desktop
- OpenOffice.org 3.0.1
- Firefox / Iceweasel 3.0.5
- starts blind-friendly, talking ADRIANE menu by default
- very reduced software collection in order to easily fit on CD
- NetworkManager (support for Debian interfaces enabled)
- 'flash-knoppix' - create bootable USB memory stick from CD
- began porting Knoppix 5.x boot options and features to the new system (not complete yet)."

## Red Hat Enterprise Linux 5.3

Red Hat announced the global availability of Red Hat Enterprise Linux 5.3, featuring the latest open source, commercial-strength technology innovations. In the third update to Red Hat Enterprise Linux 5, customers will receive a wide range of enhancements, including significantly increased virtualization scalability, ex-

panded hardware platform support and incorporation of OpenJDK Java technologies.

- The primary new features of Red Hat Enterprise Linux 5.3 include:
- Increased scalability of virtualized x86-64 environments (up to 32 virtual CPUs and 80GB of virtual memory). Physical server limits have also been expanded to match the size of today's latest hardware systems, with up to 126 CPUs and 1TB main memory.
- Support for Intel Core i7 (Nehalem) processors. Internal (unaudited) tests show gains of 1.7x for commercial applications and up to 3.5x for high-performance technical computing applications compared to the previous generation of Intel processors.
- Inclusion of OpenJDK: OpenJDK is a high-performance, fully open source implementation of Java SE 6.

## Sending Us E-Mail?

Due to the amount of e-mail MUUG receives, we've set up an auto-reply to give you immediate feedback, and redirect some of the e-mail to the appropriate places. Please have a look at <http://www.muug.mb.ca/about.html#contacts> first!

## Share Your Thoughts

E-mail us with your comments on the newsletter, whether it's criticisms or commendations, and continue to send in articles or ideas for the same. Specifically, what sort of material you would rather see: Announcements, technical articles, new products, or...?

If you have a How-To or other idea, and aren't ready to give a presentation at MUUG, an article is a great alternative! If you can write better than the editor, that's terrific; if you can't, submit it anyway and we'll get it into shape for publication. We know that many of you have some great ideas and lots of knowledge. Why not share? Send Mail to: [editor@muug.mb.ca](mailto:editor@muug.mb.ca).