

# The Open Pitt



What's cooking in Linux and Open Source in Western Pennsylvania

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## Pittsburgh's Wireless Community *by Drew Celley*

Pittsburgh is a very high-tech city. Didn't we used to be labeled as one of the top wireless cities, simply by association with Carnegie Mellon University? While we may not have the highest percentage of Wi-Fi users, we always end up on the map with at least an honorable mention. However, I'd like to see this situation improve.

Back when I worked at local ISPs, I stumbled upon some of Breezecom's equipment—the old 802.11 stuff. It was very new at the time, and also very expensive, but even the limited 3Mbps speed was faster than any of the analog dial-up speeds by far. I figured that this would be the future of Internet access, and would ask my bosses questions about it. One of them was uninterested, and the other mentioned packet radio, a HAM radio method of data transmission usually measured in bits per second.

Like many WPLUG users, I watch science fiction on TV, and have fantasies of blinking gadgetry transmitting data through the air, displaying pictures and video and neat looking technical schematics. In the real world, we can equate this to surfing, blogging, instant messaging, and the like. How do you think we're gonna get there? Like most things, with a small step.

The community-run wireless networks, like Seattle Wireless, NYC Wireless, and even commercial ISPs like Telerama have paved the way. They have shown us all how it is done—and it works. They have already explored hardware, software, interference, and many of the other issues related to providing Internet over Wi-Fi. As I figure it, there should be significant interest in our city to do something similar, and so now I'll point you to

<http://www.pghwireless.net/>, Pittsburgh's Wireless Community website.

As the name implies, Pittsburgh's Wireless Community website is geared toward building a community of those interested in wireless networking here in Pittsburgh. There are lots of links to equipment and software information, with particular emphasis on related local issues. If you are interested in building a link, experimenting with wireless equipment, or discussing local hotspots, you can post a message, get in touch with others, and share your experiences. Get connected!

*Drew Celley runs wifimaps.com and pghwireless.net and is working on the forthcoming O'Reilly book Geo Hacks.*

## Important Security Update

The Mozilla project and the US Computer Emergency Readiness Team reported the discovery of several security vulnerabilities. Affected are the Mozilla Internet suite, Firefox browser, and Thunderbird e-mail client. These vulnerabilities, part of a type known as buffer overflows, could potentially allow an attacker to crash the

program or execute malicious code on a user's system.

Users are strongly urged to upgrade to the latest version available for each program, which include fixes. You can use your distribution's update mechanism, or obtain the newest packages directly from the Mozilla web site at <http://www.mozilla.org/>.

## September Roundup

*Sep. 25 General User Meeting:* **Bill Moran** of **Potential Technologies** gave WPLUG a preview of the presentation he prepared for the Ohio LinuxFest, covering strategies for dealing with unwanted e-mail. He described various sanity checks that a

mail server can perform to assess the validity of an incoming message, the proper use of blocklists and Sender Policy Framework, and the importance of avoiding false positives. A PDF version of Bill's presentation is available.

E-mail Slides - <http://www.potentialtech.com/wmoran/>

## Coming Events

**Oct. 9:** General User Meeting,  
Topic: Voice Over IP Using  
*Asterisk*. 10AM to 2PM, 1507  
Newell-Simon Hall, CMU

**Oct. 16:** New User Tutorial,  
Topic: Linux Basics. 10AM to  
2PM, 1507 Newell-Simon Hall,  
CMU

**Nov. 6:** General User Meeting,  
Topic: Darwin and Mac OS X.  
10AM to 2PM, 1507 Newell-  
Simon Hall, CMU

**Nov. 13:** Installfest. 10AM to 5PM,  
1507 Newell-Simon Hall, CMU

**Dec. 4:** General User Meeting,  
Topic: Creating Flexible  
Documentation with DocBook.  
10AM to 2PM, 1507 Newell-  
Simon Hall, CMU

*The public is welcome at all events*

## From the Editors: Innovation

Open Source programs are often criticized for lacking originality. Detractors say, "After all, isn't Linux just a rip-off of UNIX, which is 30-year-old technology to begin with?" This is a bit like denigrating a Ferrari for having four wheels, since that's what the Model T had, too. But Linux is definitely *not* your father's Oldsmobile, if you'll forgive us mixing metaphors.

What is commonly thought of as the "definition" of UNIX is the Portable Operating System Interface (POSIX) specification. It has proved its worth over decades of use—even Digital's VMS and Microsoft's Windows NT implemented POSIX compatibility. For Open Source to follow that route is perfectly logical, and in no way forestalls opportunities for innovation. One need only look above and below the POSIX layer.

Many applications, either by design or by accident, are workalikes of or bear a resemblance to proprietary counterparts. But people often forget the cases where Open Source applications have outclassed their proprietary counterparts. In contrast to Mozilla, Internet Explorer only acquired built-in pop-up blocking with the recent release of Windows XP Service Pack 2. IE still does not come with tabbed browsing, and users can only dream of Firefox's live bookmarks feature, which provides automatic updates on your favorite sites using RSS. Writers on the Forbes and CNET web sites are now wondering how Microsoft's browser can possibly catch up.

## Hot Off the Grill...

Here's a sampling of some important September software releases:

Aimed for extreme ease-of-use, the **Lycoris Desktop/LX 1.4** Linux distribution was released on the 13th. [www.lycoris.com](http://www.lycoris.com)

The Community edition of **Mandrakelinux 10.1**, one of the major Linux distributions, appeared on the 16th. The Official version, to be available in boxed sets, is expected in November. [www.mandrakesoft.com](http://www.mandrakesoft.com)

More Open Source innovation takes place behind the scenes. A database-like filesystem allowing easy searching of files, called the Object File System, was to be included in Windows NT 4.0 in 1996. It was dropped in order to make the ship date. Later renamed WinFS, it was promised to be in the forthcoming Windows release code-named Longhorn. But as before, it has been sacrificed so Longhorn can ship by the end of 2006. Meanwhile, the Reiser4 filesystem incorporates advanced algorithms to speed searching, uses disk space more efficiently, is easily modified to add new features, and, best of all, is available right now.

Low-cost Beowulf clusters have transformed supercomputing, putting high-performance systems within reach of organizations which could never afford them before. Linux systems are fast increasing on the list of the most powerful supercomputers at <http://www.top500.org/>. IBM's newest Blue Gene/L, expected to top the list when it is updated this autumn, runs Linux alongside a custom-developed kernel. Linux will be a hot topic at November's supercomputer conference here <http://www.sc-conference.org/sc2004/>.

In many cases, finding Open Source innovation is merely a matter of looking. Browsing through web sites like <http://kerneltrap.org/> will quickly give you an appreciation of the amount, and quality, of software development happening every day.

Anyone with an e-mail account will be glad to hear of the release of **SpamAssassin 3.0** on the 22nd. It employs a variety of techniques to help keep those "enlargement" ads and other nasties out of your mailbox. [spamassassin.apache.org](http://spamassassin.apache.org)

GNOME's answer to Outlook, **Evolution 2.0.0** arrived on the 20th with many improvements. [www.novell.com/products/evolution](http://www.novell.com/products/evolution)

The arrival of **Asterisk 1.0.0** on the 23rd was greeted with great fanfare. Asterisk offers nearly limitless voice communications, including voice over

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Editors: Elwin Green  
Vance Kochenderfer

### What is Linux?

Linux is a *kernel*, the core of a computer operating system, created by Linus Torvalds. It is typically packaged as a *distribution*, which includes the extra programs necessary to make a computer functional and useful. Since 1991, it has grown from a one-man project which ran on one computer to one with thousands of contributors running on everything from personal organizers to million-dollar supercomputers.

### What are Open Source and Free Software?

Open Source and Free Software provide you, the user, with the opportunity to see the source code of the programs you use. You are free to use it, share it with others, and even make changes to it if you wish. While the Free Software and Open Source communities differ in their philosophical approach, in practical terms they share nearly identical goals. Learn more at <http://www.opensource.org/> and <http://www.gnu.org/>.

This newsletter was produced using Open Source and Free Software.

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## Help Wanted

Carnegie Mellon University's School of Computer Science is seeking a system administrator experienced with UNIX/Linux.

Visit the human resources site at <http://hr.web.cmu.edu/> and look in the employment opportunities for announcement number 91407.

IP, private branch exchange switching, automated attendant menus, and voicemail. [www.asterisk.org](http://www.asterisk.org)

**Yellow Dog Linux v4.0**, a distribution for Macintosh and other computers based on the PowerPC processor, was released on the 29th. It is now built upon Fedora Core 3. [www.yellowdoglinux.com](http://www.yellowdoglinux.com)

CDs containing **OpenBSD 3.6** began shipping on the 30th. OpenBSD is an operating system geared toward those needing a high level of security. [www.openbsd.org](http://www.openbsd.org)