



# MUUGlines

The Manitoba UNIX User Group Newsletter

## Next Meeting: November 9, 2004: Building a transparent bridging firewall with OpenBSD

Shawn Wallbridge will be presenting on how to create a transparent bridging firewall with OpenBSD 3.6.

Shawn will demonstrate setting up the firewall and will (time permitting) show how to use OpenBSD's pf firewall to monitor bandwidth usage and getting the usage numbers into MySQL with some Perl.

### 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 up (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.

Limited parking is available for free on the street, or in a lot across Ellice from IBM, for \$1.00 for the evening. Indoor parking is also available nearby, at Portage Place, for \$2.00 for the evening.

### Wicked Cool Shell Scripts

101 Scripts for Linux, Mac OS X, and UNIX Systems  
*Reviewed by Kevin McGregor*

Dave Taylor  
No Starch Press, 2004  
341 pp  
First Edition  
\$43.95

When I first saw the title of this book, I wondered if it would be another dry compilation of complex scripts, which the author used to show how much more clever he was than the reader. I can authoritatively state that this was neither the author's intent, nor the result.

The book is engagingly written, as one would hope from someone with a Master's degree in Education. The biggest, and most pleasant, surprise is the book is somewhat of a tutorial, rather than simply a compilation.

Taylor could have just thrown together a collection of interesting and useful scripts and thus lived up to the title of the book. Instead, each of the 101-plus scripts (yes, the book is slightly misnamed; there's at least one unnumbered 'bonus' script) has up to six different sections:

- \* Introduction to a problem
- \* The code to solve it
- \* How it works
- \* Running the code
- \* Results
- \* Hacking the code

The tutorial aspect revolves around the "How it works" section. Sure, there is a verbose description of what each script does, more or less line-by-line. On top of that, he spends a fair bit of time explaining how shell scripting works and options and functions of many of the common UNIX utilities such as awk, bc, find, tr, cut and many more.

It's essentially a readable "UNIX command line tutorial in a nutshell" kind of book. It does assume you know what a command line is, and what a shell

script is. I also don't recall coming across an explanation of what a 'pipe' is in this book. Since I already have these things down pat, I think I was pretty much the target audience for this book!

So, it's not a primer. There are many such books around -- check the O'Reilly catalog, if nothing else. This one doesn't offer simple, uninteresting examples that don't do anything useful. It's more of a "cookbook" approach.

In that vein is the "Hacking the code" section found at the end of many of the scripts. This section describes an assortment of suggestions for improvements or enhancements that the "student" could try to develop on his or her own.

I was especially interested in Chapters 5 "System Administration: Managing Users" and 6, "System Administration: System Maintenance". While it seems every system comes set up to automatically do many things such as rotate logs, it's a nice example to use for explaining how it's done via scripting. These two chapters provide a good overview of general system administration problems, demonstrating the power of shell scripting to solve them.

Another very instructive area involves Apache. Chapter 10, "Internet Server Administration" covers several basic Apache tools. Not only are the tools presented, but some explanation of Apache's logs are included. This saves having to read up on those details in the Apache documentation before jumping into this book. The last script in this chapter shows a quick way to add a virtual host to a running Apache server. Again, the read ends up learning more about both scripting and the Apache server.

The author -- a Mac fan -- assures the Mac OS X owners that almost all of the scripts will run unchanged on Jaguar or Panther editions of that OS. To make up for those few that won't (mostly those that deal with files like "/etc/passwd", which don't exist on the Mac), there is a chapter devoted to Mac OS X scripts.

If you are a shell-scripting expert, and are curious about just the shell scripts, feel free to download them at <http://www.intuitive.com/wicked/>. All 101 (numbered) scripts, and many more that didn't get into the book, are freely available.

Those of us less expert will benefit from plunking down the \$43.95 and working through the scripts one at a time.

## OpenBSD 3.6 Released

OpenBSD 3.6 was released on October 29<sup>th</sup>, 2004. It is the 17<sup>th</sup> release of OpenBSD. The OpenBSD team is quite proud that in the projects 8-year history, there has only been one remote hole in the default install.

This release has a new platform, OpenBSD/luna88k supporting the Omron line of workstations.

Some new features in 3.6 are:

- SMP support for i386 and amd64
- Cleaned up DHCP client and server
- Complete rewrite of NTP
- `pfctl` can now optimize your firewall rules to help improve filtering speed
- `tcpdrop` command drops TCP connections
- new `hotplugd` daemon for removable devices
- `isakmpd` now support NAT-traversal
- and many new and/or improved drivers

If you'd like to see a complete list of what has changed between OpenBSD 3.5 and 3.6, look at

<http://www.OpenBSD.org/plus36.html>

## FreeBSD 5.3 RC2 Released

The FreeBSD Release Engineering Team announced the availability of FreeBSD 5.3-RC2 on October 31<sup>st</sup> 2004. This should be the last Release Candidate before 5.3 is released.

Hopefully this will also mean a STABLE branch for FreeBSD 5.x in the very near future.

## NSA Security Guide for Mac OS X

The National Security Agency has released a Security Configuration Guide for Apple Mac OS X. The guide mostly contains common sense configuration information that applies to many Unix systems. It also includes specific discussion for Apple's unique features such as Keychain and FileVault. A range of other NSA Security Configuration guides for other operating systems, applications, etc, are also available.

<http://shorterlink.org/28>

## OpenBSD Team firmware campaign

The OpenBSD team is trying to push both Intel and Texas Instruments into releasing the firmware for their wireless network cards in a more Open Source friendly way.

These cards are similar to the software modems in that part of the processing is done on the CPU of the machine via the firmware. Without the firmware, the driver is useless.

Currently the firmware is available that allow the cards to work with a few open source operating systems, but the actual firmware cannot be distributed with the operating system. The user must download the firmware from the manufacturer (after a click-through license) or in some cases get it off the CD's that came with the card.

Theo De Raadt and some of the other OpenBSD team have started an email campaign to possibly get the manufacturers to change the license in a way that would allow the projects to ship the firmware with the operating system.

So far Amtel and Zydas have made the changes necessary to allow the team to ship drivers for their

cards. But Texas Instruments hasn't even responded to their emails.

For more information on this campaign, please see the following web pages:

<http://shorterlink.org/29>

<http://shorterlink.org/30>

<http://shorterlink.org/31>

## A Quick Guide to BitTorrent

By Shawn Wallbridge

The first thing you need to do is get a client. If you are comfortable with a curses interface, you can use the original Python scripts that are available here:

<http://bittorrent.com/download.html>

If you are running Debian Testing (or Unstable), you can install Bittorrent with one command:

```
apt-get install bittorrent
```

If you are running OpenBSD it is in the ports tree, so you can install it with the following commands:

```
cd /usr/ports/net/BitTorrent
make install
```

Under FreeBSD it is:

```
cd /usr/ports/net/py-bittornado
make install
```

Once you have it installed, you can start downloading right away.

The first thing you need to do is find the .torrent file and download it. For example:

```
wget
http://sunsite.mff.cuni.cz/fedora-
torrent/FC3-test1-i386-DVD.torrent
```

Then you have a couple of options.

You can use the headless client or the curses client. I prefer to use screen and the curses client. So, first open a new screen window by simply typing:

```
screen
```

Then start the download with the following command:

```
btdownloadcurses.py -
display_interval 5 FC3-test1-i386-
DVD.torrent
```

That will start the download for you. Now, since you don't want to sit there and watch while it downloads, you can detach from the screen window by typing `Crtl-A` followed by `D` (for detach).

To check up on it later, you need to find out what socket screen used. You can find it with this command:

```
-bash-2.05b$ screen -ls
There are screens on:
      27197.ttyp0.biblio
(Detached)
1 Socket in /tmp/uscreens/S-shawn.
```

To attach to it, you can use:

```
screen -r -d 27197
```

And you are back, like you never left (screen is handy for things that take a long time and you might need to keep going once you have logged out)

To make things easier for myself, I have created an alias so that the command I type is shorter, this fires up screen and starts the download:

```
alias dltorrent='screen
```

```
btdownloadcurses.py --
display_interval 5';
```

You can edit your `.bash_profile` and add that line if you want it to be remembered after you log out.

The site that lots of these tips came from is:

[http://mst3k.booyaka.com/bittorrent\\_guide.shtml](http://mst3k.booyaka.com/bittorrent_guide.shtml)

## Rare, Collectible MUUG Shirts for Sale!

Don't miss out on the rare (only 35 made) and highly collectible MUUG Golf Shirts. We only have three left, one medium blue and two XL beige. They are \$40 and are available at the monthly MUUG meeting. Get them while they last!

## 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. Why not 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).