

MUUGLines

The Manitoba UNIX User Group Newsletter

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Editor: Katherine Scrupa

Next Meeting: April 12, 2016, 7:30pm

Dæmon Dash: NFS

In this month's Dæmon Dash segment, Adam will demonstrate simple, common use cases for NFS (Network File System) sharing.

Main Topic: GNUPlot

Brian Lowe will be presenting gnuplot, a powerful mathematical graphing and charting program. In constant development for the past thirty years, gnuplot is a mature command-driven program capable of producing presentation-ready charts and graphs. Brian will be showing some of the more impressive 2D and 3D graphs gnuplot can produce, and a couple of practical charts he's used the program for.

Door Prizes

O'Reilly Book!

This month we will be giving away *Prefactoring* by Ken Pugh. It is a programming book that is timeless, dealing only in high-level language-agnostic lessons. One caveat – it is heavily slanted towards OO, useful mainly to users of big OO languages like C++ and Java.

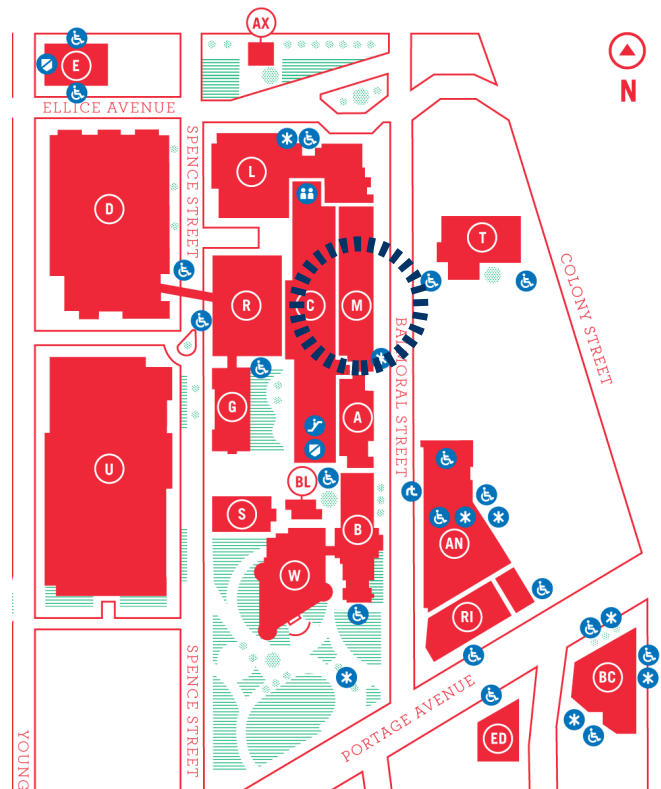
<http://shop.oreilly.com/product/9780596008741.do>

Opinion Survey

The member survey is still open! Please fill out the survey about various MUUG-related issues. We need your input!

<http://fluidsurveys.com/surveys/matchomatics/muug-survey/>

Where to Find the Meeting



This Month's Meeting: 3M60 Manitoba Hall

This month's meeting is on the east side of campus in room 3M60, 3rd floor, Manitoba Hall, close to Balmoral Street. Look for a sign on the door. There are elevators and escalators scattered around the buildings. A convenient one might be the elevator located right at the Ellice Ave entrance. Doors are usually open by 7:00 pm with the meeting starting at 7:30 pm. Parking is available on the surrounding streets. Please see <http://www.uwinnipeg.ca/maps> for further information about parking and access to the campus.

The latest meeting details are always at:

<https://www.muug.mb.ca/meetings>

Passing of Charles (Don) Stevens

It is with sadness that we relay the news that Don Stevens passed away suddenly on February 9, 2016 of an arrhythmia. Known at the club for his mirth and humour, he will be missed.



<http://www.neilbardalinc.com/book-of-memories/2378858/Stevens-Don/obituary.php>

Aegri Somnia Correction

An error was made in the previous newsletter: the link provided for viewing the movie *Aegri Somnia* most likely did not point to a site that had legal rights to the movie. Never fear, however, the movie is available on DVD and Blu-ray at Amazon. The DVD appears to be hard to come by, but several sources of new and used Blu-rays are listed on Amazon.

ubuntuBSD—It’s Alive!

http://www.theregister.co.uk/2016/03/22/ubuntubsd_released/

You can always count on geeks to take matters into their own hands when they disagree with a technology decision.

This month, the nerdverse brings you...

ubuntuBSD, the alien love-child of *NIX and FreeBSD 10.1. As of March 23, 2016, there have been more than 5700 downloads. Still in beta, it uses Ubuntu 15.10 on top of the FreeBSD kernel, with sysvinit in the mix. This first release is code-named “Escape from systemd”, just to make its politics clear.

Being FreeBSD, it uses ZFS for its file system. There are pre-configured installs for setting it up as a server for OpenSSH, DNS, LAMP, mail, or databases. You have the option of installing the XFCE desktop to get a Xubuntu experience.

UbuntuBSD can be found at SourceForge:

<https://sourceforge.net/projects/ubuntubsd/>

Interested in Other Talks like BSides Winnipeg?

One of the presenters, Adrian Crenshaw (@irongeek_adc), has a treasure trove of links to many other security conference videos, such as BSides, CypherCon, SecureWV, Schmooscon Firetalks, HouSecCon, and others.

Sorry, “free as in beer”, but no actual free beer.

<http://www.irongeek.com>

The BSides Winnipeg Playlist is here:

https://www.youtube.com/playlist?list=PLxyG_Sh7NFechTfZb2DLQEUvy3FbaR3gd

February 20th Downloads of Linux Mint Infected With Malware

Linux Mint 17.3 Cinnamon edition from February 20 has IRC Tsunami backdoor

Hackers managed to make a modified Linux Mint ISO with the IRC backdoor Tsunami and hacked the Linux Mint web site to point to it. Clem Lefebvre, creator of the Linux Mint distribution, acknowledged the hack on February 21st on his blog. If you downloaded via torrents or via a direct HTTP link, this will not have affected you.

The official download server and the repositories were not compromised.

The downloads appeared to be hosted in Bulgaria and at absentvodka.com. Avast offered to do an malware analysis, which resulted in them pushing updates to their users and blocking the servers hosting the malware a day after the attack. The addresses the malware was connecting to were blocked by Kaspersky’s DNS sinkhole.

You can check for an infected download by comparing the MD5 signature with that of the official versions. (Note: Check your checksums. Yes, really.)

If you still have the burnt DVD or USB stick, boot a computer or a virtual machine offline with it and let it load the live session. If there is a file in `/var/lib/man.cy`, then this is an infected ISO.

If you do have an infected installation, take your computer offline, reinstall the operating system (you downloaded a new ISO and checked the checksum, didn't you?), and change passwords for sensitive websites and especially email.

Forums Information and Credentials Also Compromised

The forums database at forums.linuxmint.com was also compromised. Usernames, passwords (encrypted), email addresses and personal information from profiles and posts were leaked. Change your password, and change the password any other site that uses it (but the number of "other sites" is 0, correct?)

In the future, SHA256 sums and GPG information will be more prominent on the web site.

http://www.theregister.co.uk/2016/02/21/linux_mint_hacked_malwareinfected_isos_linked_from_official_site/

<http://blog.linuxmint.com/?p=3007>

Tool for Sending Linux Notifications to Android Devices

The command line utility for Linux is based on Node.js. When the Android app is installed on the phone, use the identifier string to link it to notify. Sending a message is as simple as

```
notify -t "Hello World"
or to pipe command output:
somecommand | notify
```

<https://mashlol.github.io/notify/>

Stream Media from Linux to Chromecast

If you mostly stream video, don't spend \$120 to \$300 on a wireless video transmitter/receiver, or have a long ugly cord from your computer to a TV. The nifty `stream2chromecast` tool on github allows you to stream media files from a Linux machine to a Chromecast device fairly easily. Clone the project's repository:

```
git clone
https://github.com/Pat-Carter/stream2chromecast.git
```

On Ubuntu-based distributions, run

```
sudo apt-get install libav-
tools
```

This installs the `avconv` package required for transcoding media files not supported by Chromecast.

To stream a media file, switch to the `stream2-chromecast` directory and run the `stream2-chromecast.py /path/to/foo.mp4` command.

To transcode unsupported files on-the-fly, use the `-transcode` switch, for example: `stream2-chromecast.py -transcode /path/to/foo.mpg`.

The utility also supports basic playback controls through `-pause`, `-continue`, `-stop`, and a few other switches. This will be an interesting project to keep an eye on in the future!

<http://www.linuxpromagazine.com/Online/Blogs/Productivity-Sauce/Instant-Streaming-from-Linux-to-Chromecast-with-stream2chromecast>

<https://github.com/Pat-Carter/stream2-chromecast>

Fully-Open Source Processor

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The PULPino (Parallel Ultra Low Power) processor is designed for battery-powered devices with extremely low energy consumption.



These chips would be ideal for small devices such as smart watches, sensors for monitoring physiological functions, Internet of Things devices.

Luca Benin, a professor at ETH Zurich involved with the project, says making the system open source maximizes the freedom of other developers to use and change the system.

It will now be possible to build open-source hardware from the ground up. (cont'd)

Using the PULPino processor, we are developing a smart watch equipped with electronics and a micro-camera. It can analyze visual information and use it to determine the user's whereabouts. The idea is that such a smart watch could one day control something like home electronics."

Luca Benin, ETH Zurich

The processor is compatible with an open-source instruction set developed at the University of California in Berkeley.

You can download the entire source code, test programs, programming environment, and even the bitstream for the popular ZEDboard for free at

www.pulp-platform.org

<http://www.futurity.org/open-source-microprocessor-1128402-2>

Native Bash Support Coming on Windows 10

Does this mean we're obligated to like Windows 10 now?

Windows Subsystem for Linux (WSL) has some kernel components (lxcore.sys, lxcss.sys) that support the major Linux kernel APIs. They appear to implement the Linux kernel API using the native Windows NT API that the Windows kernel provides. It essentially translates Linux syscalls to Windows syscalls in real time.

Microsoft is working with Canonical for application support, and Canonical has provided Ubuntu versions of its command-line tools.

This isn't first time we've been down this road. The POSIX subsystem in Windows NT barely supported the standardized version of the Unix APIs. There were some differences in support which made porting applications difficult. Only time will tell what this attempt will bring.

<http://arstechnica.com/information-technology/2016/03/ubuntu-bash-and-linux-command-line-coming-to-windows-10>

<http://www.theverge.com/2016/3/30/11331014/microsoft-windows-linux-ubuntu-bash> (Video)

Macbook Counterfeit Charger Teardown Details Significant Safety Defects

Buyer Beware of Cheap or Oddly-Sourced Cables

Fakes can sometimes get quite good, but in this case, a few things still didn't seem quite right. A teardown of this Macbook charger reveals several problems such as high initial power, an unacceptable safety gap between the low-voltage and high-voltage sides of the board, and power quality issues (spikes). More obvious signs of poor quality are lacking a ground pole, significant weight differences from OEM chargers, plastic on cases that feels different, and tolerance limits that don't look right (parts or gaps that are noticeably uneven or askew).

<http://www.righto.com/2016/03/counterfeit-macbook-charger-teardown.html>

MUUG Mugs!

Back by popular demand! MUUG now has new coffee mugs, cobalt blue and deep laser-etched with our age old, lovable logo for sale for \$15 cash. They are quality mugs, made in the USA, and have a fairly large volume capacity. Want a mug but can't make meetings? Ask on the mailing list and most likely a board member can deliver one within Winnipeg.

Book & User Group Discounts

O'Reilly, No Starch Press and Les.Net continue to offer discounts to MUUG members. Remember to take advantage when you're buying anything from them!

<http://www.oreilly.com/>

<https://www.nostarch.com/>

<https://les.net/>

Picard management tip:

If you're on red alert every day, then red alert means nothing.

@PicardTips