MUUGLines

The Manitoba UNIX User Group Newsletter

Next Meeting: September 10th, 2019

Presentation: Terraform (feat. Terragrunt)

Wyatt Zacharias will present Terraform, an open-source infrastructure-as-code tool maintained by HashiCorp, used to automate deployment of compute resources. Terraform provides a universal configuration language that can define resources across many different platforms. It offers stateful deployment to track and maintain deployed resources. Additionally Terragrunt is an open-source wrapper tool maintained by Gruntworks, which provides additional management features and fills in feature gaps of the vanilla Terraform tool.

The latest meeting details are always at:

https://muug.ca/meetings/

Creative Commons License

Door Prizes

On the dead-tree front, we will be giving away to one lucky winner "The Art of SEO" by Enge on O'Reilly. Subtitled "Mastering Search Engine Optimization", this book is widely applicable to both those in the computer industry, and anyone involved with a business or marketing.
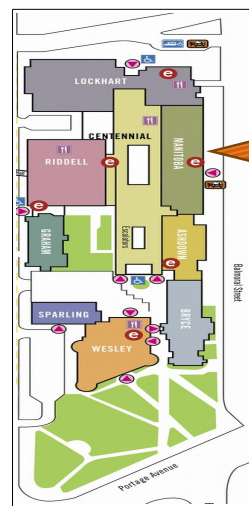
Also up for grabs courtesy of Adam Thompson is Java Foundation Classes In A Nutshell by Flanagan on O'Reilly. It's a bit older, but still relevant.

As usual we'll have an e-book and/or magazine assortment to add a little spice and excitement.

Door prize entry is free to all staying until the draw.

Where to Find the Meeting

University of Winnipeg, Room 1M28

Meetings are held in the University of Winnipeg's Centennial Hall, in the middle of the University Complex.

We can be found in room 1M28.

Doors are usually open by 7:00 pm with the meeting starting at 7:30 pm. Parking is available on the surrounding streets and in the parkade above the bus depot across Balmoral Street. See uwinnipeg.ca/maps for further information about parking and access to the campus.

Linux Turns 28

It was August 25, 1991, that Linus announced his new operating system to the Usenet world. Joey Sneddon's "27 Interesting Facts about Linux" gives an interesting anecdote:

> Linux very nearly wasn't called Linux! Linus wanted to call his "hobby" project "FreaX" (a combination of "free", "freak" and "Unix"). Thankfully, he was persuaded otherwise by the owner of the server hosting his early code, who happened to prefer the name "Linux" (a combination of "Linus" and "Unix").

I would say we're equally as lucky it wasn't called Torvix (sounds like a new pharmaceutical), or Unus (your great aunt's name misspelled), or Benedix (a breakfast cereal for dogs? Linus' middle name is Bendict).

Check Out That RHUG!

Do you use Red Hat or related distros such as Fedora or CentOS? Check out RHUG, the Red Hat Users Group. While obviously not as comprehensive or delightful as our very own MUUG, it can help satisfy your user-group hankerings on non-MUUG nights.

This month, find out what's new in RHEL 8!

If you want to attend, RSVP is requested at RHUG's **new** sign-up page on redhat.com:

https://events.redhat.com/profile/form/index.cfm?PKformID=0x79022abcd

Help us promote this month's meeting, by putting this poster up on your workplace bulletin board or other suitable public message board:

https://muug.ca/meetings/MUUGmeeting.pdf

Boot Option Doc Hiding Places

Doing some boot customization or debugging on dracut or systemd? Need to play with some of the more esoteric options? No, you can't just use Google, as the rapid development of both products means that what you find online will never match the version you are tinkering with. You don't want to add options that your version doesn't support and waste time rebooting and wondering why nothing changed, do you?

We've found the secret location for you, so you don't have to:

```
man dracut.cmdline
man 1 systemd
```
The "1" above is imperative to reach the correct page.

Do you know the name of a systemd option, but not where it's documented? That's very common considering systemd has 176 man pages as of Fedora 29. Here's how you can find what you're looking for:

```
cd /usr/share/man && \
zgrep -i foo */*systemd*
```

Debian 10 Busts Out

Debian stable version 10, code name "buster" was released July 6, 2019. This version will have 5 years of support, and took 25 months to develop.

Big changes include: GNOME defaults to Wayland; AppArmor, a MAC framework is installed and on by default; Secure Boot is supported and "should work out of the box".

The Reproducible Builds Project, featured in a previous MUUG presentation, touts that 91%+ of the source packages in Debian 10 "will build bit-for-bit identical binary packages".

https://www.debian.org/News/2019/20190706

Perl5 & PHP Add Indented HereDocs

Any coder will tell you it's highly annoying that here-doc syntax in most languages does not allow you to indent the end delimiter. That makes code where you use here-docs quite ugly if it falls within functions or otherwise indented code.

Perl 5 as of 5.26.0 (circa 2017) added a really slick new indented here-doc option. Simply put a ~ (tilde) in front of your starting delimiter and your ending delimiter can have any whitespace before it. And you can still use all the different interpolation modifiers on your delimiter.

But wait! There's more! Perl will also strip the same whitespace that's before the end delimiter from every line in the here-doc! So:

```
print <<~'EOF';
    MUUG $uninterpolated!
    EOF
```
Will output:

```
MUUG $uninterpolated!
```
with no spaces before the output! Luckily, as usual, PHP keeps an eye on every good Perl idea, and is stealing it for PHP 7.3.

Hand it to bash: they've had an option to strip leading tabs (but not spaces) for a while longer by using a – (dash) prefix. Pythonistas appear to be left out in the cold on this amazing miracle of modern coding. But, hey, you still get the amazingly pretty and eminently readable triple-quote syntax. Sorry.

MUUG Meeting Format Shuffle

In our continuing quest to delight MUUG members and guests, we will be testing a new meeting format starting this month.

1. Moderated round-table discussion (15 minutes): for member questions and comments; we ask that each topic be limited to a few minutes, and that followup/ expanded discussions take place in step 4.

2. Presentation(s) (45 minutes).

3. Door Prize Draw.

4. Pop, munchies, and mingling (until 9:00ish); great time to followup and expand on your discussions from the round-table, or talk with the presenter or a board member, in smaller groups; or just mill around to socialize.

Perl History Amuses

```
man perlhist
```
The above has more than just a dry listing of versions and dates and people. There's some really quirky, funny stuff contained within.

Keepers of the Pumpkin? Pumpking and Pumpki-neers? The cute anecdote about solving a real life concurrency issue makes this document worth a gander. It's something every tech worker can relate to; well, oldsters anyhow.

Also interesting is the "Selected Release Sizes" section (in KB). And this gem:

> *Perl 1 introduced Perl to the world, and changed /\(...\|...\)/ to /(...|...)/. \(Dan Faigin still hasn't forgiven me. :-\)*

Praise be to Larry that he made that sane choice that we can all enjoy in nearly every language and program using the PCRE library to this very day and for all time!

Linux Journal Gone – No, Really!

As of around August 8, 2019, the longest-running Linux magazine, "Linux Journal", has shut its doors. Again.

And they mean it this time! After several failed attempts to go bankrupt and quit in years past, they (appear to) have finally pulled it off, and will become bereft of life and cease to be. Yes, really!

Linus Makes Floppy Orphans

On July 18, 2019, Linus Torvalds made a kernel commit that marks floppy.c as orphaned. This means that floppy drive support may one day find itself removed from the Linux kernel. A call for a new maintainer was made at the same time. No one is holding their breath.

Before you panic and retrieve any ancient data you may still have kicking around on your 3.5-inchers, it was noted this only applies to floppies using the legacy floppy drivers and ports. USB floppy drives are unaffected and will continue to be supported.

Jiří Kosina, the heretofore kernel maintainer for floppy.c provides an amusing anecdote regarding his recent work on the old code because it is and always has been full of race conditions:

> *[...] funny thing is that it always used to be, but no one cared -- the real floppy hardware is just too slow to trigger any of the races in the code. But those who are brave enough to virtu-alize floppy drive will start hitting all those all of a sudden, as the virtualized floppy device is damn fast. After having fixed this, the driver just landed on my plate. Oh well, that's not the career I have always been dreaming for.*

https://tinyurl.com/yy3to5ha

https://tinyurl.com/y2kct2yn

Linux Blows Away Windows on Azure Cloud

As Ripley would say, "Believe it or not!": There are now more Linux VMs running on Microsoft's Azure cloud platform than Windows!

In 2016 Linux accounted for 25%. In 2017, 40%. 2018 was "about half". In July 2019 it was reported that Linux now accounts for more than half.

Just as interesting, IDC reported in 2017 that Linux had 68% of the entire enterprise operating system market. Care to guess what that number is in 2019?

https://www.zdnet.com/article/microsoft-developer-reveals-linux-is-now-more-used-on-azure-than-windows-server/

Glimpse GIMP While You Still Can

In yet another example of "peak offendedness", a couple of offended GIMP users have forked the famous GIMP (GNU Image Manipulation Program) program just so they can change its name to Glimpse. Because offended.

The official GIMP FAQ already addresses this point:

> *"I don't like the name GIMP. Will you change it?"*
>
> *With all due respect, no. We've been using the name GIMP for more than 20 years and it's widely known ... on top of that, we feel that in the long run, sterilization of language will do more harm than good. ... Finally, if you still have strong feelings about the name "GIMP", you should feel free to promote the use of the long form GNU Image Manipulation Program or maintain your own releases of the software under a different name.*

We'll see if all the distros rush to replace GIMP with the near-identical Glimpse, and if the forkers' level of offence matches their desire and ability to handle all the work required to maintain, distribute and promote the fork.

Up next: git?
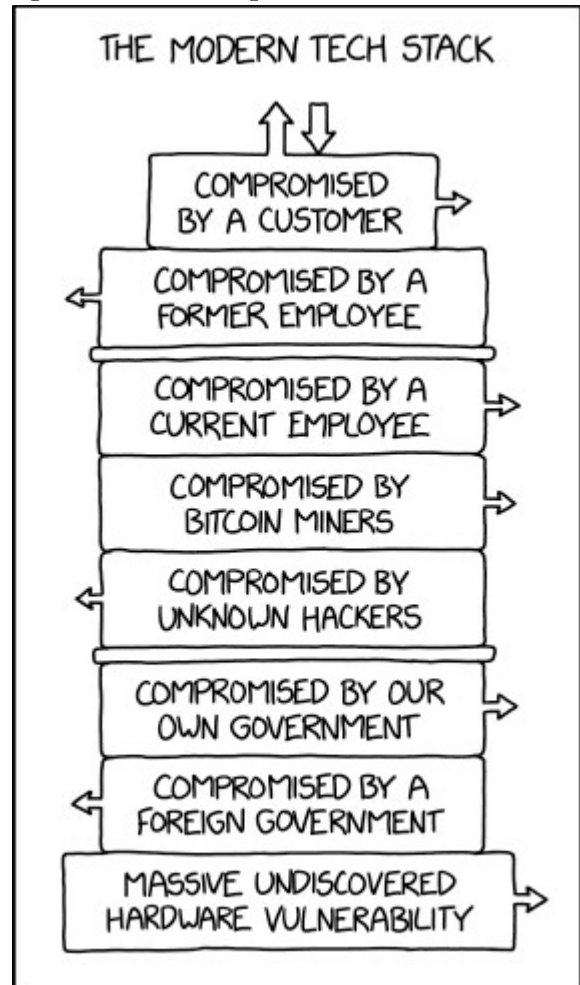
https://tinyurl.com/y3p87qma

Call For Presenters

Do you have something you think would make a good presentation and would like to present it? Or maybe you know someone in the industry who would has something new to discuss? Did you know MUUG welcomes presenters from inside and outside our membership? The only limitation is the topic has to be UNIX (any *NIX!) related. Often times just being open source (FLOSS) is good enough.

If you have an idea for one, simply mention it to any board member at the meeting (they are all wearing nametags), or email it to board@muug.ca and we'll get back to you!

And here's a big thank-you to all the members who have presented in the past! Thanks!

THE MODERN TECH STACK

COMPROMISED BY A CUSTOMER

COMPROMISED BY A FORMER EMPLOYEE

COMPROMISED BY A CURRENT EMPLOYEE

COMPROMISED BY BITCOIN MINERS

COMPROMISED BY UNKNOWN HACKERS

COMPROMISED BY OUR OWN GOVERNMENT

COMPROMISED BY A FOREIGN GOVERNMENT

MASSIVE UNDISCOVERED HARDWARE VULNERABILITY

https://xkcd.com/2166/

A big thanks to Les.net for providing MUUG with free hosting and all that bandwidth! Les.net (1996) Inc., a local provider of VoIP, Internet and Data Centre services, has offered to provide a 10% discount on recurring monthly services to MUUG members. Contact sales@les.net by email, or +1 (204) 944-0009 by phone, for details.