MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 36 No. 10, June 2024 Editor: Bradford C. Vokey

Next Meeting: June 4th, 2024 7:30pm

Once again, note that MUUG meets on the first Tuesday of every month (except July and August). Update your calendars!

In Person and Online

After a very successful hybrid meeting last month (with 13 attending in-person and 7 joining online) we will continue meeting both physically and online. We encourage all members to attend in person. However, if you cannot attend in person, please watch and interact with the meeting online and partake of our professional grade camera, microphone and dedicated stream moderator.

In person attendees are treated to coffee, tea, pop, and cookies. Parking is free, copious, safe, and just a handful of feet from the door.

Main Presentation: Proxmox

With the recent acquisition of VMWare by Broadcom, many are looking for an alternative to closed source hypervisors. Wyatt Zacharias has previously presented on Linux KVM virtualization, but without a management layer it can be clunky to use. Proxmox offers a fully featured web based administration suite for KVM. It includes support for multi-host clusters, live migration, clustered filesystems, and more. Wyatt will give a tour of the Proxmox interface with a possible demo of VMWare to Proxmox migration.

To attend via the internet:

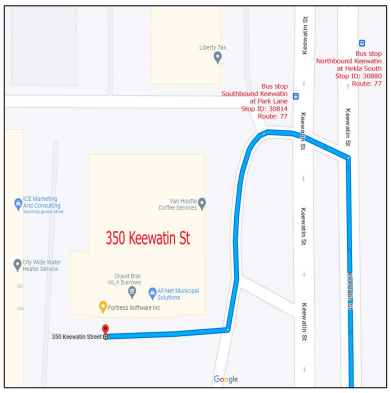
Go to `muug.ca/meet` anytime after 7:00 pm on June 4th. There is no need to create an account in Big Blue Button, nor login. Just enter a name as your screen name and click on the **join** button.

Where to Find the In Person Meeting

Fortress Software Inc.
350 Keewatin St – Unit #2

Once again, we are meeting at Brad Vokey's work office at Unit #2 – 350 Keewatin St. The doors will be open at 7:00 pm with the meeting starting at 7:30 pm.

If driving, enter the parking lot using the most north-eastern entrance (far right in the top picture) and drive around to the south west corner of the building (the blue route in the map detail on the right).



You can park in any of the free, ample, and safe parking spots that say "reserved" in front of units #1 through #4 before entering into unit #2.

Bus stops #30814 and #30880 (route 77) are only 150 meters away. The last bus leaves for Polo Park at 10:15 pm and for Garden City at 10:31 pm.

Logan Ave. bus routes #19, #26, and #27 are a 600 meter (8 minute) walk to the south.

MUUG Door Prizes

Every month MUUG gives away a couple of tech themed e-books, a couple of *NIX-themed stickers, and some months we even have physical paper books and magazines to give away!

Everyone is encouraged to enter the door prize draw, both in-person and virtual attendees. You don't have to be a member to enter, but members have exclusive access to the first draw. Members also get the privilege of not having to be present (physically or virtually) for the draw in order to claim their prize.

Father of SQL says YES to NoSQL

Sometimes your own invention just isn't enough anymore

As **SQL marks its 50th birthday,** Donald Chamberlin, who proposed the SQL language with IBM colleague Raymond Boyce back in 1974, explains in an `interview` that NoSQL databases and their query languages could help perform the tasks relational systems were never designed for.

> *"The world doesn't stay the same thing, especially in computer science," he says. "It's a very fast, evolving, industry. New requirements are coming along and technology has to change to meet them, I think that's what's happening. The NoSQL movement is motivated by new kinds of applications, particularly web applications, that need massive scalability and high performance. Relational databases were developed in an earlier generation when scalability and performance weren't quite as important. To get the scalability and performance that you need for modern apps, many systems are relaxing some of the constraints of the relational data model."*

NoSQL takes a variety of forms, each designed to address different challenges. Some forms include MongoDB, Couchbase, and Amazon's DynamoDB.

Chamberlin is now semi-retired, ***but finds time to fulfill a role as a technical advisor for NoSQL company Couchbase.*** *[Hmm....]*

`https://www.theregister.com/AMP/2024/05/10/sql_cocreator_nosql/`

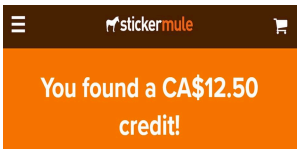
*NIXy Stickers

MUUG is still giving away some very fine UNIXy stickers from StickerMule.

Show up in person to check out the full assortment!

Surely one must match your favorite distro or app?

Want your own complete set? Use our special $12.50 MUUG credit link `here` ***before*** buying your own set `here`.



Cleaning Crew Discovers One of the World's Oldest Surviving Desktop Computers

Last December, employees at a London-based house clearance company, were emptying a property when they stumbled across two rare pieces of technology history: a 1972 Q1 desktop microcomputer and a 1976 Q1 Lite.

The Q1 and the Q1 Lite originally sold for upwards of $90,000 each, making them too expensive for individual use.

> *"The Q1's champagne customer was NASA, and Q1 Lites were installed in all 11 NASA bases in 1974,"*

Over the past decade, similarly rare relics of computer history have gone under the hammer at auction houses around the world. In 2022, a prototype of Apple's first computer, the Apple 1, sold for $677,196; in 2023, a fully operational Apple 1 signed by company co-founder Steve Wozniak fetched $223,520. However, these 1972 era Q1 microcomputers are only expected to fetch up to $60,000 at auction. Still not a bad haul!

`https://www.smithsonianmag.com/smart-news/cleaning-crew-discovers-one-worlds-oldest-surviving-desktop-computers-180984399/`

Analyzing the Terminator's HUD

The T-800 Terminator viewed the world through a red tinted AR (Augmented Reality) with lines of code scrolling by. Upon further analysis, the code appears to match the output of various code listings and articles from the September 1984 issue of *Nibble Magazine*, plus various hexdumps of Apple II's memory and even assembly code from the Apple II DOS 3.3 RAM Disk driver.

> *It's clear that the whole cyberdyne thing was a false flag smoked red herring. It was all implemented on 6502s. Lots of them.*

https://hackaday.com/2024/04/15/analyzing-the-code-from-the-terminators-hud/

$1,000 worth of Free Credit Card Processing!

If you ever have a need to collect credit card payments be sure to sign up with Square (the credit card processor that MUUG uses) and both you and MUUG will receive $1,000 in free processing for the next 6 months (180 days).

You must use the following referral link to receive the credit:

https://squareup.com/i/MANITOBAU1

MUUG 2024 BBQ

MUUG is having another summer BBQ and everyone is invited!

Spouses, significant others, and children are also welcome to attend.

Date: July 9th, 2024

Time: 6:30 pm

Location: BBQ Site #5, Assiniboine Park

MUUG is hosting another BBQ event at Assiniboine Park! We will be at the exact same location as last year (site #5).

Burgers, hot dogs, and pop will be provided by MUUG. Feel free to bring your own food to share with others and your own beverages if you like.

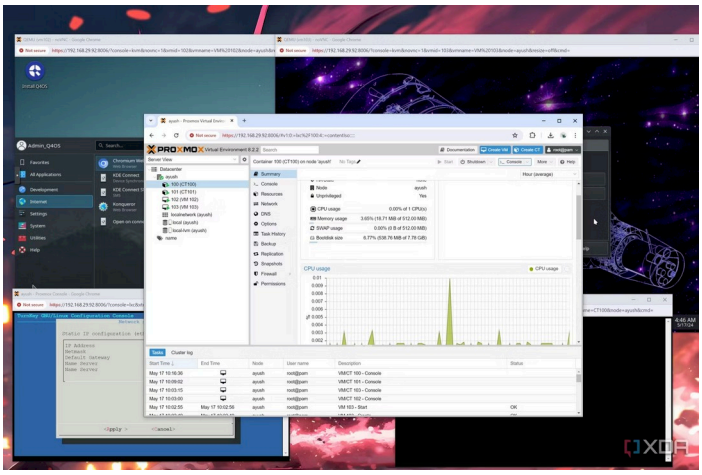
Please RSVP via email to: board@muug.ca with the subject "MUUG BBQ" before June 25th so we know how much food we need to buy and bring.

Turn your old PC into a Proxmox-powered home lab

Proxmox has become a favorite tool to experiment with (and break) containers and virtual machines

From building a NAS to creating a self-hosted web server, there's a lot you can do with a PC once it starts to show its age. But if you're a fan of trying out different projects, you can even convert an obsolete rig into a home lab that's capable of running different virtual machines and containers for all your computing needs.

To go along with this month's meeting presentation, follow along with PC hardware and gaming journalist, Ayush Pande, as he builds himself a Proxmox server.

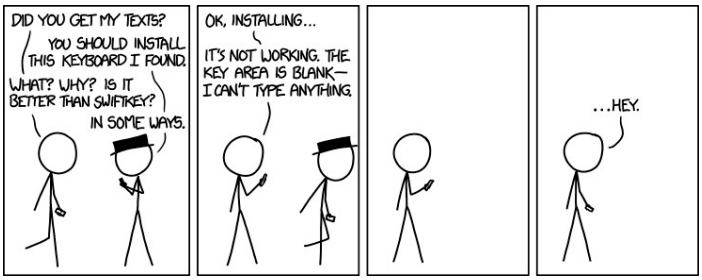


Ayush heartily recommends turning an old PC into a Proxmox server!

https://www.xda-developers.com/i-turned-my-old-pc-into-a-proxmox-home-lab/

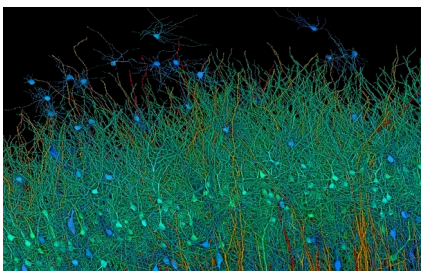
Improved Android Keyboard

For those friends that text you a just a little too much (you know who you are)...



https://xkcd.com/1284/

A scan of 1 cubic millimeter of brain tissue takes 1.4 petabytes of data



A recent attempt to fully map a mere cubic millimeter of a human brain took up 1.4 petabytes of storage just in pictures of the specimen.

A collaborative effort between Harvard researchers and Google AI experts took the deepest dive yet into neural mapping with the recent full imaging and mapping of the brain sample, making puzzling discoveries and utilizing incredible technology.

> *"We did the back-of-napkin math on what ramping up this experiment to the entire brain would cost, and the scale is impossibly large — 1.6 zettabytes of storage costing $50 billion and spanning 140 acres, making it the largest data center on the planet."*

https://www.tomshardware.com/tech-industry/full-scan-of-1-cubic-millimeter-of-brain-tissue-took-14-petabytes-of-data-equivalent-to-14000-full-length-4k-movies

Linus Torvalds Injects Tabs To Thwart Kconfig Parsers Not Correctly Handling Them

Don't challenge the Father of Linux to humble your opinion that spaces are better than tabs.

Within the release of Linux 6.9-rc4 (released on April 14th) is an interesting little nugget by Linus Torvalds to battle Kconfig parsers that can't correctly handle tabs (they were just assuming spaces for whitespace for this kernel configuration format).

Due to a patch having been queued to replace a tab with a space character in the kernel tracing Kconfig file, Linus Torvalds decided to take matters into his own hand for Kconfig parsers that can't deal with tabs: Torvalds authored a patch to intentionally add some tabs of his own into Kconfig for throwing off any out-of-tree/third-party parsers that can't correctly handle them.

https://www.phoronix.com/news/Linux-Kconfig-Tabs

Raspberry Pi Weather Station Uses One Sensor, Displays Data via Web Based Dashboard

"And over to Raspberry Pi with the weather."

The Raspberry Pi is truly a device for all makers. The Raspberry Pi can be a fun retro gaming device or it can be a serious scientific project, and many things in between. Maker Donsky, the mastermind behind `Donskytech`, has used one to create a lovely `Raspberry Pi weather station project`. It uses just one sensor so you don't need much hardware to get off the ground and he also provided a very thorough tutorial to follow along with making it an excellent beginner's project.

`https://www.tomshardware.com/news/raspberry-pi-weather-station-with-flask`

`https://www.donskytech.com/raspberry-pi-dht22-weather-station-project`

Linus Torvalds on Security, AI, Open Source and Trust

Linux creator Linus Torvalds sat down on April 17th for a rare "keynote interview" at the Linux Foundation's Open Source Summit North America in Seattle. Torvalds was interviewed by Dirk Hohndel, an early Linux contributor (and currently the head of Verizon's Open Source program office) — in what was billed as a "fireside chat."

> *Hohndel: "We all know kernel development does include a lot of drama and a lot of high-stakes discussions... For example, a really important topic that once again has reared its ugly head is tabs versus spaces."*
>
> *Torvalds: "Oh, Christ..."*

`https://thenewstack.io/linus-torvalds-on-security-ai-open-source-and-trust/`

`Full Interview on YouTube:`
`https://www.youtube.com/watch?v=cPvRIWXNgaM`

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MUUG would like to thank Michael W. Lucas for donating one of his ebooks every month as a door prize. You can view and purchase his tech books here:

`https://www.tiltedwindmillpress.com/product-category/tech/`

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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`