MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 35 No. 7, March 2023 Editor: Alberto Abrao

Next Meeting: March 7th, 2023
*** In Person Meeting! ***

Feature Presentation:
KVM without a GUI - Have you lost your head?

Linux KVM (Kernel-Based Virtual Machine) is a full virtualization solution for Linux using hardware accelerated extensions to provide near physical performance. New users of KVM may find the CLI daunting and difficult to understand. Even the majority of KVM tutorials online rely on the GUI to do the initial installation and setup of your virtual machines, but what if we don't have a GUI? As Linux admins, we are accustomed to doing most of our work in a remote terminal, most of our servers don't even have a keyboard or monitor plugged in, and are located in remote data centers. In this presentation, Wyatt Zacharias will present the basics of how to use the KVM command line tools to create and setup a new virtual machine from scratch.

This will be an in-person meeting, but please be courteous and stay home if you are not feeling well.

This meeting will also be simulcast over Big Blue Button for those that can't attend in person.

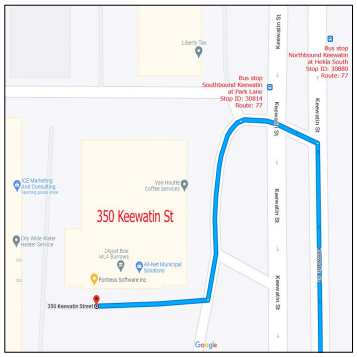
https://muug.ca/meet

The latest meeting details are always at:
https://muug.ca/meetings/

Where to Find the Meeting:

Fortress Software Inc.
350 Keewatin St – Unit #2

We have a new in-person meeting location now!



Brad Vokey has graciously let us use his work office for our next in-person meeting.

The meeting room will be open by 7:00 pm, with the actual meeting starting at 7:30 pm.

If driving, enter the lot using the most north east entrance (far right in the top picture) and drive around to the south west corner of the building (see route in map detail). You can use any of the free, ample, and safe parking spots that say “reserved” in front of units #1 through #4 before entering 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.

That's so Kool!

A few weeks ago, while I was busy typing away on my laptop, juggling terminals like a pro (*as if!*...), my wife asks me about this "pretentious thing that doesn't use a mouse" is about. That would be Sway – a Window Manager, not a Desktop Environment... *to be precise.*

One knows better than to go full "Well, akshually..." on his/her significant other. Still, it piques her curiosity: "show me this Linux thing you adore, what this is about?", she asks.

Fair enough! First of all, GNOME. That was a hard pass.

Then, XFCE. A true classic! Her verdict: *Intuitive, but ugly.* I could not resist: "Y'know, you can customize it, and this, and that, it doesn't need to be like that, and..." *That's not going to fly. Moving on...*

Ok, enough. Engage the ultimate secret weapon: KDE.

"That's really good", she exclaims.

Now that's an opportunity! "Maybe we could use this on our living room computer? With Windows, it insists on restarting itself after updates, usually right in the middle of a movie we are watching, very annoying!", I state. She agrees. *Taps forehead.*

A few hours after, there it is, in its full glory: KDE Plasma 5.26, Fedora 37. I quickly hook it all up, and leave it to her.

A few weeks after, I notice that she didn't say much about it, but still uses it regularly. So I ask.

As far as she's concerned, it works! She even installed a bunch of things on her own. Updates happen if we want to – I set them to automatic – but it doesn't reboot until we tell it to. Themes galore, endless customization... if you want (spot the pattern yet?). If you don't, the defaults are sane. It's a familiar interface, borrowing from a true classic – yes, Windows 95, a milestone in UI design – fight me.

Yet, instead of throwing it all away to "reinvent" the Desktop (as in Windows 8 and GNOME 3), or refurbishing it with ads and other "features" no one asked for (Windows 10 and 11), KDE distills what made the Classic Windows experience truly great, keeping it modern, fresh, and even unique in its own right.

Its uniqueness come from how polished it is: things jive together. Nothing is overdone, but you see hints of attention to detail all over. It also runs great on Wayland, and that comes with beautiful font rendering, and scaling that doesn't make a blurry mess out of everything. I guess I am kind of pretentious, indeed!...

A few weeks ago, version 5.27 added limited tiling support, so I could even Sway while I KDE, or KDE while I Sway, or something. That was a patch contributed by the community, which they engage regularly with. It shows: some issues I was having when using multiple displays on 5.26 were fixed on 5.27.

KDE blends the old and the modern, adds its own twist, tops it off with great integration, and delivers a stable, beautiful and cohesive – yet extremely customizable – desktop experience. Kool!

Now, want some (retro) gaming to go with your newfound Koolness?

Meet xpadneo, a driver for using Xbox Series S/X Bluetooth controllers on Linux. Now you can pair a couple of those nice, ergonomic, reasonably priced controllers, with your favourite gaming PC, and play your old (and new) favourites with your friends and/or family, all from the comfort of your home and couch! Try it now!

Bragging rights are also included, as you can NOT pair two Xbox controllers to a single dongle on Windows. With Linux and xpadneo, you can! Ha! Ha! Ha!

Score more points with a souped up KDE install (Themes‼) to make your friends wonder what kind of computing whiz you really are! Slick, eh? And fun!

Oh, snap!

Seems that Ubuntu 23.04 – and all of its flavours – will not have Flatpak installed by default. Users can install it manually… or use Snaps.

Fedora, for one, never included Snaps. Fair enough for Ubuntu to do the same, I guess? Not so fast.

Fedora 38 will (finally?) disable its filters on Flathub, thus allowing users to access the full breadth of packages available there without requiring further configuration. But that's only one repository. There are others. Therein lies the catch: one can host their own Flatpak repository, as it is open source. Snap server is proprietary, and controlled by Canonical. Other distributions have a good reason not to touch it.

Flathub is being touted as a possible "app store" for the Linux desktop, with the GNOME Foundation and KDE e.V. `seeking funding to accomplish that goal`. It mentions Snap as a "competitor", decrying its closed-source ethos, while also taking aim at how the distributions control the selection and distribution of applications.

They also proposed a new logo. So far, I could not find a single person that approves of it. I would wager that Sony is not going to be amused either…

New shiny: Kernel edition

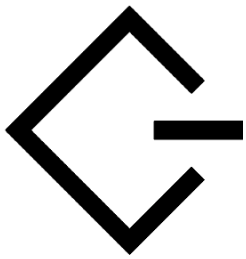
If you're running something old, say, a 6th Generation Intel Core Processor (Skylake), released in 2015 (yes, I was offended too!), you nay want to keep an eye out for the new shiny from the Kernel developers.

The just-released Kernel 6.2 reduces the performance impact of the Retbleed patch from last year. It remains to be seen if they'll backport the improvements to older long-term support versions.

Meanwhile, AMD has many patches waiting on the pipeline for the 6.3 release. Just like Intel, they also want to lessen the performance impact of security vulnerability mitigations, especially for older "Zen 1" and "Zen 2" processors that are affected by Retbleed. Most fun, though, are the ones that improve performance AND power efficiency (good!), and not related to any sad, sad security vulnerability. Once again, one wonders if these will be backported to the Kernel found on your regular Long Term Servicing Linux Distro(tm) of choice.

Nice stable LTS distro you have there. Would you like a cup of "latest kernel" with it?

Speaking of that, here's a funny anecdote, with a couple of surprising findings. The first one is that there is an easy way to install the newest Kernel on Enterprise Linux. The second one is how I found that out.



The problem: LTO 2 Tape Drive, and its matching "classic" PCI SCSI controller. Drivers for the latter were from around 1999 or so, and have long been part of the Kernel. They are still there as of 6.1. One wonders if they'll be there for longer than Itanium support. (*chuckles*)

Yet, EL 9 could not find the SCSI controller, nor its sidekick, the tape drive.

Surprise! Red Hat removes ancient hardware from its Kernel tree fairly often, the mainline Kernel doesn't do it nowhere near as fast or often. They are just now talking about removing the 3DFX drivers…

The irony: installing the latest Kernel… so one can use old hardware!

Fedora may (finally?) drop Delta RPM

```
Total
Delta RPMs reduced 58.4 MB of updates to 6.2 MB (89.3% saved)
```

Delta RPM allows DNF – the Fedora and its derivatives' package manager – to download the difference (delta) between the current and updated versions. It aims to reduce bandwidth usage.

Fairly often, though, what happens is that the process fails, and you end up downloading the delta, discarding it, then downloading the full package again. Others argue that it is not as useful anymore,

seeing that bandwidth constraints aren't as pronounced.

If our MUUG mirror could talk, one can assume it would support Delta RPM if it worked consistently. As it fails – often – it is easy to argue that one wastes bandwidth more often than not, thus making it pointless. On the other hand, the abysmal performance of many Fedora mirrors make a strong case for making it work better. Not that **we** care about the last point, though, because *our MUUG mirror is fantastic. (flexes)*

The discussion is still ongoing at the fedora-devel mailing list, and has not been made as of this writing. Support for its removal is strong, though.

Debian to make its "non-free" version official

Debian's upcoming "Bookworm" release, rumoured to use the recently-promoted-to-LTS Kernel 6.1, will also make its formerly unofficial "non-free" version its main one.

That results in any "non-free" firmware blobs being installed along with the operating system.

Qualifying the previous as a "good" or "bad" thing is a quagmire. Practical considerations range from "everybody else does it", to "you can disable it if you wish."

Things run better – or at all - with the accompanying firmware. On the other hand, even when manufacturers lose interest, the open source community doesn't. Some legends are born as a result, such as one of the absolute champions of longevity and performance: the ath9k Wi-Fi driver. Fully open source, no proprietary firmware blob needed, it was the darling of embedded systems for a long, long time. You can still run the latest OpenWRT on most – if not all – consumer routers that sport a chipset supported by it, and the performance is, to this day, no slouch.

A good thing, right? It was... until Atheros was purchased by Qualcomm. Anything after the ath9k vintage qualifies as "non-free".

My approach: if I already have the hardware, whatever it takes to make it work at top performance. If I am buying, only things that make F(L)OSS use easier are considered.

Coming up

As mentioned above, Debian 12 may show up sometime soon(tm). Alphas have recently shown up using the 6.1 kernel, a nice, solid release in my experience.

The non-LTS, Flatpak-less yet Snapful Ubuntu 23.04 is also well on its way. Its fans are hoping for the new installer to finally show up.

The aforementioned Flathub as an "app store" has the potential to generate a fair amount of headlines.

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A big thanks to Les.net for providing MUUG with free hosting and all that bandwidth! Les.net (1996) Inc. is a local provider of VoIP, Internet and Data Centre services. Contact **sales@les.net** by email, or +1 (204) 944-0009 by phone.

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:

Tilted Windmill Press

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

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