MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 39 No. 3, November 2026 Editor: Kevin A.

Next Meeting: Annual General Meeting and Elections, November 3rd, 2026 7:30pm

In Person and Online

MUUG meets on the first Tuesday of the month.

Main Presentation – Red Baron

Ken Wong will present and demo running Red Baron (Red Hat's browser from 1997, that only shipped as a binary) on modern FreeBSD. It covers the browser's history, installation, the startup problem encountered, and the hack that allowed it to run.

He'll also discuss how FreeBSD is even able to run Linux software, compare the installation with a modern Linux distro, and the trick to view modern sites with this ancient browser.

Where to Find the Meeting:

Winnipeg Senior Citizens Radio Club
598 St. Mary's Rd. Winnipeg, MB.

MUUG holds their meetings at the Winnipeg Senior Citizens Radio Club (WSC). The WSC has graciously offered to host MUUG meetings going forward.

Several current and past MUUG members are also members of WSC. MUUG President Wyatt Zacharias will be our WSC liaison and duty officer.

WSC is located at 598 St. Mary's Road, 2nd Floor, a block South from the St. Mary's / St. Anne's fork, on the West side beside the Miller's Meats. It's in the old fire hall. Look for the red doors.

The meeting space is on the **2nd floor** and there is no elevator, so attendees will have to be able to climb 1 flight of beautiful character style stairs. Apologies to anyone requiring accessibility. It is also possible to attend via online videoconferencing: `https://muug.ca/meet`

Please Remove Your Footwear

To keep the carpets clean and dry please remove your outdoor footwear at the top of the stairs. Please feel free to bring your own comfortable indoor slippers.

Entry Log Book

To support WSC operations, we ask all guests to sign the log book provided by WSC as you enter the meeting space. They have been very generous in providing MUUG space to hold their meetings, and respectfully appreciate the log book signing.

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

If your MUUG membership has lapsed, please help support us by renewing today! Payment can be made via e-transfer, credit card, or PayPal here: `https://muug.ca/about.php#payment`

2026-2027 MUUG Board Elections

Every November, the group holds its Annual General Meeting. The main goals of the meeting are to elect the new board, and to pass any special resolutions, if required. The Board may consist of up to ten (10) people. Those elected will serve on the MUUG board from November 2026 to November 2027. Any MUUG member in good standing may nominate any member they feel would make a good candidate, including themselves.

The MUUG Board is tasked with coordinating the meetings and other events hosted by the group via an additional meeting each month that is limited to board members; group promotion and outreach; newsletter writing; and presentations. It's fun, it's social, and you get a role in deciding what the group will do.

The election this year will be by acclamation as there are more positions than nominees. See MUUG By-law 5.(c) and 10.(d).

The following members are currently on the board and are entering their names for re-election (alphabetically by last name):

Kevin Abedi

Software Developer, Activate Games

Kevin started working with computers at a young age and by shunning people aside, become the tech wiz of the family. A traitorous Windows user, he has infiltrated MUUG in order to learn more about the secrets of UNIX. Interests includes automation, IoT and quality of life tooling.

Trevor Cordes

Owner, Tecnopolis Enterprises

Trevor Cordes (B.Sc. CompSci) has owned and operated Tecnopolis Enterprises – a computer VAR, programming and consultancy company – since 1999. Linux and FOSS have been the keystone of Tecnopolis since inception. Since becoming a family man, he has shifted his primary focus to e-commerce development and operation. Trevor was President of the Atari ST User's Group for four years in the '90s. He prefers Fedora, Perl and PHP.

Gilbert Detillieux

Retired Information Technologist

Gilbert Detillieux has worked with UNIX as a programmer, system administrator, and trainer since 1980. He worked as a computer consultant specializing in UNIX, from 1983 to 1989, and has recently retired after over 36 years working as an Information Technologist for the University of Manitoba's Department of Computer Science, where's he's worked since 1989, installing, supporting and upgrading the department's network and UNIX/Linux workstation and server infrastructure. He was co-founder and past president of the Technical UNIX User Group (now MUUG), and has been an active member of the MUUG board ever since.

Kevin McGregor

Systems Specialist, City of Winnipeg

Kevin McGregor provides server, platform and infrastructure support in the City of Winnipeg's Information Systems Department. After having briefly used UTS on an Amdahl mainframe in university in the mid-80s, he dabbled in Coherent and then converted to Linux and OpenBSD. He has been a member of MUUG since the early 90s, edited the group's newsletter for a number of years, presented various topics at MUUG meetings and has served on the board for the majority of his membership.

Tyhr Trubiak

Systems Administrator, University of Manitoba

Tyhr has been a member of MUUG since 2013. He primarily manages Linux and Windows systems, but spends a lot of time with working with people. His first exposure to UNIX was when he received his B.Sc. CompSci at the University of Manitoba. His first love was the Commodore Amiga, whose infamous Guru Meditations perhaps influenced his current passion for yoga and meditation, as well as his enjoyment of all things graphics, such as 2D node-based digital compositing with Blackmagic Fusion. He was an ASP web developer back in the early days, and occasional programmer now.

Brad Vokey

Owner, Fortress Software

Brad is the owner of Fortress Software Inc. and the creator of the Matchmaker Fundraiser (aka "Matchomatics" - a fundraiser that provides compatibility lists for millions of students across Canada and the US). Brad started the company in 1985 using

Apple][computers and 6502 machine language. Then switched to 68000 machine language on Atari ST computers in 1986 and then to C on Atari TT030 computers soon after. The original C program and Atari TT030 computers are still very much alive and in use to this day! In 2004, Brad started using Linux on Tecnopolis servers, and joined MUUG in 2006. He previously served on the board of the Atari ST Users Group (STUG) and became a board member of MUUG in 2011. He has been keeping our finances in order as your MUUG treasurer since 2013.

Ken Wong

Unix Archaeologist / Tinkerer / Yoga Instructor

Ken's fascination with computing began with a 286 running DOS and exploring BBSes. He discovered Linux in 1993 and was later introduced to FreeBSD while working at an ISP, sparking a long-running interest in Unix systems. Since then, he has worked as a Software Development Engineer at Microsoft, contributed to FreeBSD ports and XigmaNAS, and presented at BSDCan. An avid operating-system tourist with a passion for Unix history and archaeology, Ken enjoys discovering software, building tools, and finding creative ways to do more with less. Got stories about old Unix machines? Ken would love to hear them.

Wyatt Zacharias

Lead Cloud Developer, Wawanesa Insurance

Wyatt Zacharias has been a member of MUUG since 2011, and president of MUUG since 2014. During the day, he works as Lead Cloud Developer at Wawanesa Insurance, where he manages an assortment of virtual Linux servers in AWS, and various serverless cloud solutions. In previous roles, he has worked with RedHat, SuSE, and HP-UX. Wyatt prefers to run Fedora, as well as Raspbian on the many Raspberry Pi's he owns. He is a licensed amateur radio operator and enjoys experimenting with open source software for radio communication. Wyatt graduated from Red River College in 2014, and has certifications from AWS and RedHat.

PHP2shell – World Wide Web Panic

Sysadmins and Cyber security professionals are having a busy time as critical PHP vulnerabilities were leaked on October 20th, about a day ahead of the official announcement.

The two critical remote code execution bugs, CVE-2026-109618 and CVE-2026-109619 – dubbed *PHP2shell* – are both rated with severity of 9.2 under CVSS 4.0 and affect PHP versions all the way from 5.4 to 8.5.

PHP maintainers had to ship an emergency security release on October 21st for PHP 8.2 and later as the news of the CVE started circulating *Hacker News*, and other social platforms. *Cloudflare* described how their platform started seeing thousands of exploit attempts hours before the patch was released, climbing up to a million after the public announcement.

Ahead of the patch being available, the community started coming up with solutions and workarounds for protecting the servers, legacy systems or any that could not be updated. While crude, workarounds such as disabling `upload_progress` or `multipart/form-data` requests were quickly found and shared on forums and blogs.

CISA, Canada's Cyber Centre and CERT-EU urged immediate patching and advised isolating or taking systems offline if they couldn't be patched. In Belgium, government sites, a hospital and media sites went dark, and Japanese banks and airlines reportedly did the same.

The story is still developing and the impact is still being assessed as we recover from the shock and pick up the pieces.

https://www.tenable.com/blog/php2shell-cve-2026-109618-cve-2026-109619-frequently-asked-questions-about-critical-php-remote

https://www.channelnewsasia.com/world/cloudfare-hack-exploit-attempts-php-websites-6481421

https://www.php.net/archive/2026.php#2026-10-21-5

https://www.brusselstimes.com/belgium/2371464/major-websites-go-offline-as-critical-php-vulnerability-triggers-security-fears

But Wait, There's More! – TLS Certs Compromised

Well, I say "compromised", but does it really count when someone guesses your pin as *1234*, or in this case, just *4!*

On October 17th, Mozilla received a report that private keys for 8 *eMudhra* intermediate certificate authority were compromised. The proof? Following message signed with all the 8 keys:

> *We have a problem here - Wayne*

A P-384 private key is designed to have about 384 bits of entropy, all the bits randomly generated to create a private key. *eMudhra's* keys turned out to have 8 bits or less of entropy. Specifically the private keys were 237, 230, 156, 155, 115, 66, 56, and our favourite 4.

According to the community tracker run by Dennis Jackson and contributors, the keys were incorrectly generated, so anyone could recover them from the certificates. That has been possible since April 2025. The intermediates never appear in Certificate Transparency logs for that period, so browsers that enforce CT couldn't have been attacked unnoticed. Clients that don't enforce CT, including curl, are a different story, and nobody knows whether anyone exploited them.

Root programs and trust stores have already taken action to revoke these certificates and most consumer browsers have received the patch already. Other programs that bundle their own CA, like Discord and Slack require an update on their underlying framework such as Electron.

Following everything, *eMudhra* announced on Oct 22nd that it will be exiting the SSL/TLS certificate business as scrutiny they received thanks to social media "was out of proportion".

https://blog.mozilla.org/security/2026/10/20/protecting-firefox-users-following-the-compromise-of-emudhra-intermediate-certificates/

https://arstechnica.com/security/2026/10/the-internet-goes-on-high-alert-after-discovery-of-8-compromised-tls-certs/

https://emudhra.we-have-a-problem.com/

https://emudhra.com/en/press-release/emudhra-to-exit-global-ssl-tls-certificate-business

Time Zone Changes

This November 1st, when most of Canada sets its clock back 1 hour, Manitoba won't be one of them. Manitoba (UTC-5) is joining B.C. (UTC-7), Alberta and Northwest Territories (UTC-6) who are also opting to remain on DST permanently from this year.

Internet Assigned Numbers Authority (IANA) asks governments to give them a year's notice as time zone changes can take a long time to be updated everywhere. With Manitoba giving less than two months' notice, it has been interesting to say the least.

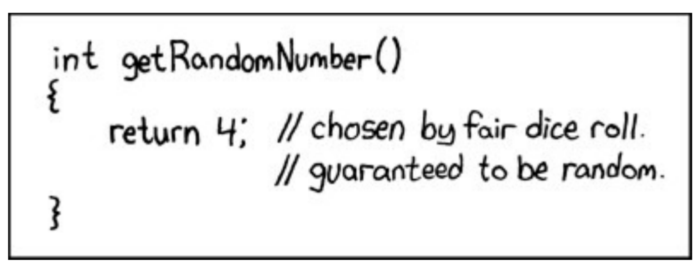
IANA's latest tz database release, 2026e, was published 12 days after Manitoba's announcement and has already been picked up by Ubuntu, Python's tzdata and Moment Timezone. Microsoft and Apple have also started rolling out updates in October for their systems, while other libraries such as Node.js won't be getting the update just yet and developers are encouraged to use workarounds to include the new time zones rules in their applications.

https://www.cp24.com/news/canada/2026/09/25/manitoba-premier-says-time-changes-are-officially-over-with-proclamation-signing/

https://www.iana.org/time-zones/releases/2026e

https://github.com/nodejs/node/pull/66667

xkcd/221: Random Number



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https://www.linux-magazine.com/

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/