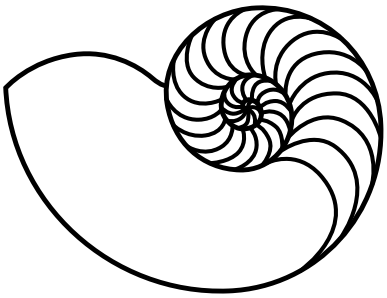


MUUGLines

The Manitoba UNIX User Group Newsletter

Volume 33 No. 2, October 2020 Editor: Katherine Scrupa

Next Meeting: October 13th, 2020

OpenBSD Traffic Shaping and Firewall Setup - Alberto Abrao

Alberto Abrao will show how to set up an OpenBSD box as a router, with a basic firewall, DHCP server etc., and as a bridging firewall, where it behaves like a transparent barrier. Alberto plan to touch on subjects such as the reasons for doing so, the motivation for the choices made, the hardware needed, OS installation and basic configuration. Then, he will give an overview of both scenarios aforementioned, and how to accomplish them.

October Door Prizes:

We'll have our usual e-book giveaway. We have added fifteen new AI & Machine Learning titles from O'Reilly to the batch (subjects such as Data Science, PyTorch, R, Deep Learning, Machine Learning, SQL, SAP).

Where to Find the Meeting:

`jitsi.merlin.mb.ca/muug.2020.10`

This month (just like last month) we are using our own online Jitsi meeting server hosted by `merlin.mb.ca` . The virtual meeting room will be open around 7:00 pm on October 13th, with the actual meeting starting at 7:30 pm. You do not need to install any special app or software to use Jitsi: you can use it via any modern webcam-enabled browser by going to the aforementioned link. Thank you `MERLIN` (the Manitoba Education Research and Learning Information Networks) for providing the hosting and bandwidth for our meetings.

Important Notice: Physical Mail to MUUG Currently Not Picked Up

Due to the pandemic and staff working from home, mail physically addressed to MUUG may not be picked up for some time (months). To reach the board, please email `board@muug.ca` .

MUUG Board Elections

Call for Nominations

Adam Thompson, Nomination Committee Chair

Calling all nominations! This is the preliminary call for nominees to participate in this year's MUUG Board election. Those elected will serve on the MUUG board from November 2020 to November 2021. Any MUUG member in good standing may nominate someone 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. It's fun, and you get a role in deciding what the group will do. All members are encouraged to apply. 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 10 people. The following 8 members are allowing their names to stand for re-election:

Wyatt Zacharias

MUUG President

Senior Cloud Developer – Wawanesa Insurance

Trevor Cordes

MUUG Vice-president

Owner – Tecnopolis Enterprises

Troy Denton, P.Eng

Senior Telecom Engineer – 24-7 Intouch

Gilbert Detillieux

MUUG Secretary

Systems Analyst – University of Manitoba

Brad Vokey

MUUG Treasurer

Owner – Fortress Software

Kevin McGregor

Systems Specialist – City of Winnipeg

Katherine Scrupa

LAN Administrator – Steinbach Credit Union

Adam Thompson

Consultant, Infrastructure Services – MERLIN

Tyhr Trubiak

Systems Administrator – AFNCloud

CVE-2020-1472: "Zerologon" Vulnerability in Netlogon Could Allow Attackers to Hijack Windows Domain Controller

This CVE prompted a "patch this now" directive from several countries' standards and security groups.

The privilege escalation stems from insecure usage of AES-CFB8 encryption for Netlogon sessions. An important part of the encryption algorithm requires a randomized initialization vector (IV), but the implementation used a fixed 16-bit value. This flaw allows an attack to impersonate any machine when talking to a Domain Controller. It can be further abused to completely take over the Windows domain.

https://www.tenable.com/blog/cve-2020-1472-zerologon-vulnerability-in-netlogon-could-allow-attackers-to-hijack-windows

Beware Updating Thunderbird (78.x.x)

Version 78 has major changes, notably affecting add-ons. MailExtension API add-ons are the only supported extensions. Other add-ons will break, so check your extensions and contact their providers if you can't determine what API they use.

General advice is to wait for an upgrade path.

Built-in support for OpenPGP has been temporarily disabled due to some outstanding issues.

On a more positive note, there are many UI improvements, and the Lightning calendar has now been fully incorporated into Thunderbird.

https://betanews.com/2020/07/16/thunderbird-78/

Eighteen Months of DDoS by TV

After a year-and-a-half of grief for local villagers, electrical engineers in Wales were finally able to identify an offending device causing broadband outages starting at 7am.

The TV was emitting a single high-level impulse noise.

A chief engineer noted,

> *"We'd just advise the public to make sure that their electric appliances are properly certified and meet current British standards."*

No mention was made on the brand, model, or age of the television.

https://arstechnica.com/information-technology/2020/09/old-tv-set-interfered-with-villages-dsl-internet-each-day-for-18-months/

ack , the grep-like Source Code Search Tool

ack is an extremely quick search utility written in portable Perl 5. Its primary use is searching large code bases (such as the recently... released? XP codebase).

It has recently-added support for SVG, markdown, and POD.

Started in 2005, and now at version 3.4.0, ack is a mature open-source product. Give it a try if you haven't heard of it before.

https://beyondgrep.com/

Introducing DOS Subsystem for Linux

> *"A new [Windows Subsystem for Linux] alternative for users who prefer an MS-DOS based workflow. Vim or EDIT? It's your choice. Anything is possible."*

(The author admits it's not very robust yet, but a fun exercise, regardless.)

https://github.com/charliesome/doslinux/

Independent Internet Reseller TekSavvy Refuses to Pay Large ISPs Because of Rebates Owed

On September 10th, the Federal Court of Appeals dismissed appeals by Bell, Bell MTS, Eastlink, Cogeco, Rogers, Shaw, and Videotron. The big ISPs were objecting to a previous judgment finding they had overcharged reseller ISPs over the span of years.

The Court also ordered the appellants to pay court costs for smaller ISPs.

From the Court, with a 3-0 ruling:

> *this award reflects the number and complexity of the issues, a good number of dubious merit, which the appellants chose to put in play.*

The big ISPs' argument was that the rates were so low they didn't cover the cost of providing services purchased by their wholesale customers.

Industry Minister Navdeep Bains had concerns "[cheaper] rates may undermine investment in high-quality networks, particularly in rural and remote areas"

The CRTC ordered the facilities-based carriers to cut their wholesale capacity rates by up to 43 per cent and chop their access rates up to 77 per cent.

Teksavvy says it is owed tens of millions of dollars.

https://www.cbc.ca/news/business/teksavvy-bell-rogers-1.5720819

https://www.cbc.ca/news/business/crtc-broadband-court-1.5718922

https://decisions.fca-caf.gc.ca/fca-caf/decisions/en/item/485009/index.do

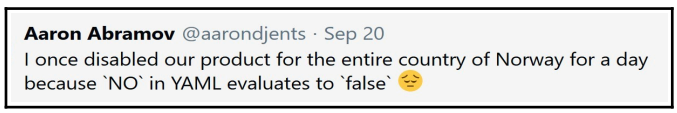
Underwater Data Centre Survives with 1/8 Failure Rate of a Land-based Data Centre

In 2018, Microsoft sunk 864 servers with 27.6 petabytes of storage 117 feet deep in the ocean. Results were analyzed when the "data sub" was retrieved this spring. A previous, smaller test was done in 2015.

The lower failure rate is attributed to extremely stable temperature control, reduced corrosion from oxygen and humidity, and lack of physical human interaction.

The intended use of these future data centres, big and small, is to provide cloud-based resources along coasts that require better access. More than half the world's population lives less than 200km of a coastline.

https://news.microsoft.com/innovation-stories/project-natick-underwater-datacenter/



Calibre Hits Version 5.0

This well-known multi-format E-book reader now supports highlighting in the reader with multiple colours and notes. New features also include dark-mode, and enhanced search. Python has been moved from version 2 to 3 (due to Python 2's end of life this year).

https://calibre-ebook.com/new-in/fourteen

OpenSSH 8.4 Released

SHA-1 is deprecated in this release. The "ssh-rsa" public key signature algorithm will be disabled by default in another release soon. Please use modern algorithms.

https://lwn.net/Articles/832857/

Microsoft Submits Linux Kernel Patches for a "Complete Virtualization Stack" with Linux and Hyper-V

Currently, when Linux is a root partition, it still runs on top of Microsoft's hypervisor. A change to a complete virtualization stack would mean you could run Linux on Azure without Windows. In this scenario, Linux will be able to run directly as the Hyper-V root partition, with direct access to hardware. Performance is expected to improve.

https://www.theregister.com/2020/09/15/microsoft_submits_linux_kernel_patches/

Linux Journal Lives Again

Slashdot media has picked up ownership the label and plans to publish on LinuxJournal.com free of charge. There are no plans for dead-tree version at the moment.

https://www.linuxjournal.com/content/linux-journal-back

Thank You LES.net

A big thanks to LES.net for providing MUUG with free hosting and all that bandwidth!

https://les.net/

$1,000 worth of Free Credit Card Processing!

Ever wanted to start accepting credit cards for your own needs?

Now it's FREE!

Sign up with Square (the credit card processor that MUUG uses at our monthly meetings) with the referral link below 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 for MUUG to receive the credit:

https://squareup.com/i/MANITOBAU1

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