MUUGLines

The Manitoba UNIX User Group Newsletter

Next Meeting: February 12, 2019 7:30pm

Presentation: Cacti - By Wyatt Zacharias

Cacti is an open-source, web-based network monitoring and graphing tool designed as a front-end application for the data logging tool RRDtool. Cacti allows a user to poll services at predetermined intervals and graph the resulting data.

RTFM: systemctl with Gilbert E. Detillieux

Most Linux distros have now adopted systemd as the new init process. Gilbert Detillieux will introduce the very basics of using systemctl(1) to control services in a systemd-based environment.

Crontab

7:30pm: Meeting begins (init)

7:40pm – 8:15pm: Announcements/Roundtable *(moderated by: Katherine Scrupa)*, RTFM

8:15pm - 8:30pm: Break – eat and socialize

8:30pm - 9:45pm: Presentation & questions

9:46pm – 9:59pm: (sigterm)

10:00pm: Room must be empty (*sigkill*)

Apple's FaceTime Bug: Spy on Friend's Microphone/Camera!

A serious issue. You can call somebody via FaceTime, and using a certain swipe action - listen to their phone's microphone regardless of whether the person you're calling picks up. If the recipient hits the power or volume button to ignore the call – it broadcasts the video as well. *I guess it's a good feature if you want to know the reason why the person did not take your call.* Apple has since made the group functionality on its FaceTime application temporarily unavailable while they rush to fix the glitch.

Where to Find the Meeting: 1M28 Manitoba Hall, U of W
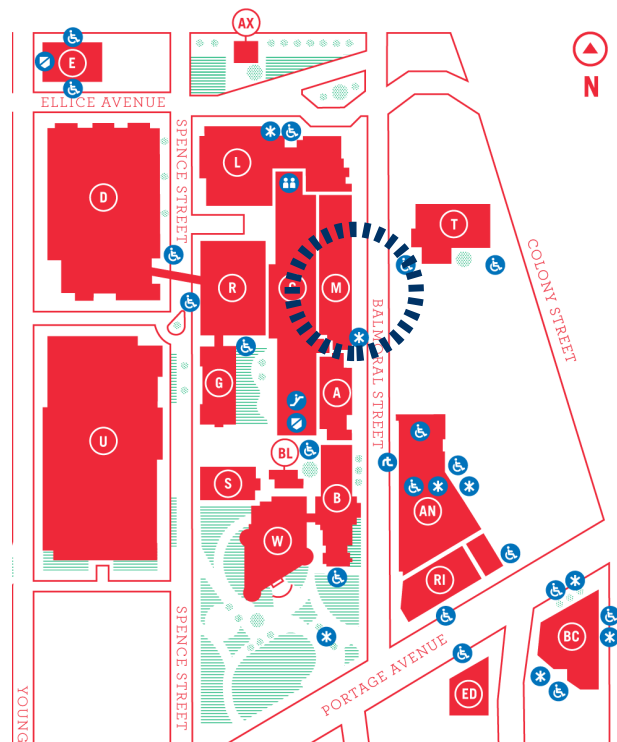
Meetings are held in the University of Winnipeg's Manitoba Hall (marked "M" on the map), along Balmoral St. We can normally be found in room 1M28, but occasionally get relocated to nearby rooms. If there is a change, it should be conveyed via a couple signs around the halls. Parking is available on the surrounding streets, or the bus terminal parkade. Please see http://www.uwinnipeg.ca/maps for further information about parking and access to the campus.

DNS Flag Day

A flag day for DNS is coming on February 1; it may have escaped notice even though it has been planned for nearly a year. Some DNS servers will simply be marked as "dead" by much of the rest of the internet on or after that day, which means that domain owners need to ensure their DNS records will still be available after that point. A longstanding workaround for non-compliant servers will be dropped—mostly for better performance but also in support of DNS extensions, some of which can help alleviate security problems.

Security Vulnerability Found in APT

All Debian and Ubuntu users (as well as users of their derivatives, such as Linux Mint, Ubuntu MATE, Kubuntu, Lubuntu and Xubuntu) should update APT immediately. Softpedia News reports that Max Justicz discovered a vulnerability in the APT package that could "allow a remote attacker to trick APT into installing malicious packages that pose as valid ones, but which could be used for code execution with administrative (root) privileges after installation to gain control of the vulnerable machine." See CVE-2019-3462 for the details.

Linux systemd Affected by Memory Corruption Vulnerabilities – No Patches Yet

The bugs exist in 'journald' service, tasked with collecting and storing log data, and they can be exploited to obtain root privileges on the target machine or to leak information. No patches exist at the moment. Discovered by researchers at Qualys, the flaws are two memory corruption vulnerabilities (stack buffer overflow - CVE-2018-16864, and allocation of memory without limits - CVE-2018-16865) and one out-of-bounds error (CVE-2018-16866). They were able to obtain local root shell on both x86 and x64 machines by exploiting CVE-2018-16865 and CVE-2018-16866. The exploit worked faster on the x86 platform, achieving its purpose in ten minutes; on x64, though, the exploit took 70 minutes to complete.

Qualys is planning on publishing the proof-of-concept exploit code in the near future, but they did provide details on how they were able to take advantage of the flaws.

Red Hat drops MongoDB from Red Hat Enterprise Linux 8

MongoDB is an open-source document NoSQL database with a problem. While very popular, cloud companies, such as Amazon Web Services (AWS), IBM Cloud, Scalegrid, and ObjectRocket has profited from it by offering it as a service while MongoDB Inc. hasn't been able to monetize it to the same degree. MongoDB's answer? Relicense the program under its new Server Side Public License (SSPL).

Open-source powerhouse Red Hat's reaction? Drop MongoDB from Red Hat Enterprise Linux 8. and Fedora Linux, that "It is the belief of Fedora that the SSPL is intentionally crafted to be aggressively discriminatory towards a specific class of users." Debian Linux had already dropped MongoDB from its distribution....

The business point behind MongoDB's license change is to force cloud companies to use one of MongoDB's commercial cloud offerings. This hasn't worked either. AWS just launched DocumentDB, a database, which "is designed to be compatible with your existing MongoDB applications and tools," wrote AWS evangelist Jeff Barr.

Linux 4.20 Released

New hardware support! New hardware support includes bringing up the graphics for AMD Picasso and Raven 2 APUs, continued work on bringing up Vega 20, Intel has continued putting together its Icelake Gen 11 graphics support, there is support for the Hygon Dhyana CPUs out of China based upon AMD Zen, C-SKY 32-bit CPU support, Qualcomm Snapdragon 835 SoC enablement, Intel 2.5G Ethernet controller support for "Foxville", Creative Sound Blaster ZxR and AE-5 sound card support, and a lot of smaller additions.

Besides new hardware support when it comes to graphics processors, in the DRM driver space

there is also VCN JPEG acceleration for Raven Ridge, GPUVM performance work resulting in some nice Vulkan gaming boosts, Intel DRM now has full PPGTT support for Haswell/IvyBridge/ValleyView, and HDMI 2.0 support for the NVIDIA/Nouveau driver. On the CPU front there are some early signs of AMD Zen 2 bring-up, nested virtualization now enabled by default for AMD/Intel CPUs, faster context switching for IBM POWER9, and various x86_64 optimizations. Fortunately the STIBP work for cross-hyperthread Spectre V2 mitigation was smoothed out over the release candidates that the performance there is all good now.

Btrfs performance improvements, new F2FS features, faster FUSE performance, and MDRAID improvements for RAID10 round out the file-system/storage work. One of the technical highlights of Linux 4.20 that will be built up moving forward is the PCIe peer-to-peer memory support for device-to-device memory copies over PCIe for use-cases like data going directly from NICs to SSD storage or between multiple GPUs.

Tesla Isn't the Only Automaker Running Linux in their Vehicles

While some companies, like Tesla, run their own homebrew Linux distros, most rely on Automotive Grade Linux (AGL). AGL is a collaborative cross-industry effort developing an open platform for connected cars with over 140 members. Its membership includes Audi, Ford, Honda, Mazda, Nissan, Mercedes, Suzuki, Hyundai and the world's biggest automobile company: Toyota. Why? "Automakers are becoming software companies, and just like in the tech industry, they are realizing that open source is the way forward," said Dan Cauchy, AGL's executive director, in a statement.

Car companies know that while horsepower sells, customers also want smart infotainment systems, automated safe drive features, and, eventually, self-driving cars. Linux and open-source company can give them all of that. The AGL's goal is to develop an open-source, common platform for infotainment systems: The Unified Code Base (UCB). This is a Linux distribution and open-source software platform for car in-

fotainment, telematics, and instrument cluster applications... The AGL's hope is that this will serve as a de facto industry standard.

Firefox 65.0 Released

New features include enhanced tracking protection: "Simplified content blocking settings give users standard, strict, and custom options to control online trackers. A redesigned content blocking section in the site information panel (viewed by expanding the small 'i' icon in the address bar) shows what Firefox detects and blocks on each website you visit."

Dell Launches New XPS 13 Laptop with Ubuntu Preloaded

Dell launched its new XPS 13 9380 Developer Edition laptop, which runs Ubuntu out of the box. According to *Forbes*, highlights include Intel 8th generation i3, i5 and i7 processors; Ubuntu 18.04 LTS preloaded

Wine 4.0 Released

The release represents a year of development and over 6,000 individual changes. The main highlights are:

- Vulkan supported
- Direct3D 12 supported
- Game controllers supported
- High-DPI support on Android

Google is Fined $57 Million Under Europe's Data Privacy Law

In the first major example, the French data protection authority announced Monday that it had fined Google 50 million euros, or about $57 million, for not properly disclosing to users how data is collected across its services — including its search engine, Google Maps and YouTube — to present personalized advertisements.

The penalty is the largest to date under the European Union privacy law, known as the General Data Protection Regulation, which took effect in May, and shows that regulators are fol-

lowing through on a pledge to use the rules to push back against internet companies whose businesses depend on collecting data. Facebook is also a subject of several investigations by the data protection authorities in Europe.

GitHub Offers Free Private Repositories

GitHub has announced that it is now taking on players like GitLabs and offering free private repositories. Anyone could always set-up free repository on GitHub; the condition was that the code had to be public, which meant that projects and organizations could not set up private repositories. If they want private repository, they had to pay.

Now anyone can create a private repository for free. The only caveat is that there can be at most three collaborators to the project, which means big organizations can't exploit the free service to manage their mega projects.

A private repository lets developers communities work on the code base internally, away from public. GitHub competitors like GitLab already offer free private repository.

Door Prize Books This Month:
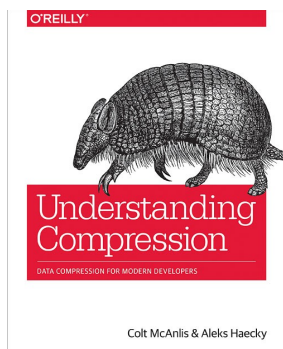
Understanding Compression – Data Compression for Modern Developers

O'Reilly Media, July 2016

This witty books helps you understand how data compression algorithm works – in theory and practice – so you can choose the best solution among all the available compression tools. With tables, diagrams, games, *and as little math as possible*, authors Colt McAnlis and Aleks Haeckly neatly explain the fundamentals.

MUUG Has Gone Social!

Twitter:
twitter.com/manitobaunix

Facebook:
facebook.com/ManitobaUnix

Meetup
meetup.com/Manitoba-UNIX-User-Group

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

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