

# Newsdesk

**THIS ISSUE:** Linux-exclusive PCs » Linus Torvalds has doubts  
» Microsoft protects Linux servers » Steam on Chromebooks

## HARDWARE SYSTEMS

# A new generation of Linux-only PCs

It's the year of Linux on some desktops – perhaps this whole FOSS thing will catch on!

**S**omething unusual is happening in the world of computing: companies big and small are releasing PCs with Linux running on them. Crucially, in these cases a Linux operating systems being the only OS option.

This shows an operational change in the marketplace, demonstrating that companies are not only confident that Linux-only models can sell in enough volume to make money, but that they're happy to support those devices. It's one thing to offer variations of existing Windows models, but quite another to only build a model that offers Linux.

We reported in **LXF265** that Lenovo has extended its Ubuntu certification, making it able to offer Ubuntu pre-installed on a wider range of its Workstation offerings. Dell has gone one further, announcing an Ubuntu-only model – the Dell XPS 13 Developer Edition – that ships with Ubuntu 20.04 LTS pre-installed<sup>1</sup>. This won't come as much of a surprise to anyone; Dell has been offering its Dell XPS 13 with Ubuntu for a number of years. What is surprising is that this is the first time it's built an Ubuntu-only model.

Purism had not one but two system announcements. The first is that its all-new Librem 14 is the successor to its long-running security-focused Librem 13. The 14-inch workstation laptop is based around the Intel Core i7-10710U six-core processor, runs Purism's own PureOS, and looks like a beast of a system<sup>2</sup>. Announced previous to this was the Librem Mini, an Intel NUC-styled mini PC running an Intel Core i7-8565U four-core processor. With HDMI 2.0

output supporting 4K at 60Hz it's ideal for use as a media centre system, but would run well as either a mini-desktop or mini-server.

Juno Computers, based both in the UK and the US, has made us aware of its all-new gaming laptop, the Neptune 15, that can be bought either with Ubuntu 20.04 pre-installed, or no OS at all<sup>3</sup>. It's powered by the latest Intel Core i7-10875H eight-core processor and runs a high-end Nvidia GeForce RTX 2060 GPU with 6GB of GDDR6. At £1,650 it's one powerful – if expensive – system.

We could argue that this trend, in part, coincides with figures that show during the

**“COMPANIES ARE NOT ONLY CONFIDENT THAT LINUX-ONLY MODELS CAN SELL, BUT THAT THEY'RE HAPPY TO SUPPORT THEM.”**

coronavirus lockdown that the Linux desktop share of the PC market has increased from around 1.5 per cent to just over three per cent. These browsing-based figures are full of uncertainty, though. It's likely the increase is linked with a drop in work-based Windows systems during lockdown, so perhaps we'll see an adjustment towards the end of 2020.

1. <https://ubuntu.com/blog/dell-xps-13-developer-edition-with-ubuntu-20-04-lts-pre-installed-is-now-available>  
2. <https://purism.com/products/librem-14>  
3. <https://junocomputers.com/product/neptune-15>



The Dell XPS 13 Developer Edition is an Ubuntu-only model.

CREDIT: Dell

## LINUS ON LINUX

# Maintain the maintainers

Kernel dad chats at the Open Source Summit 2020.

**T**he Linux Foundation has had its annual shindig at Open Source Summit 2020, and this year Linus Torvalds spoke about current and future kernel development.

Part of head kernel maintainer Linus Torvalds's job is to tour the world giving keynote talks at the various conferences and chiefly the Open Source Summit, which The Linux Foundation puts on around the globe. At the European event back in May this year he discussed a range of topics, including how Kernel 3.12 release got its name of Suicidal Squirrel and how the latest 5.4 release was awarded the name Kleptomaniac Octopus (this is quite a step up from its initial codename, Nesting Opossum).

At the latest Summit in North America Linus discussed the difficulty of finding kernel maintainers. He explained that, "It's hard to find people who really look at other people's code and funnel that code upstream all the way, eventually, to my

tree... It is one of the main issues we have." He went on to explain that he doesn't write code any longer and his main job is reading and replying to emails saying "No" to people and suggesting code changes.

When asked if C is at risk of becoming the new COBOL Linus replied, "C is still one of the top 10 languages" but on Go and Rust adoption he said, "I'm convinced it's going to happen. It might not be Rust. But it is going to happen."

You can watch a number of talks from the Open Source Summit 2020 at [www.youtube.com/user/TheLinuxFoundation/videos](https://www.youtube.com/user/TheLinuxFoundation/videos).



Linus (left) talks up being a kernel maintainer.

CREDIT: The Linux Foundation, YouTube

## EVIL EMPIRE

# Microsoft Linux Defender

Enterprise protection now available on Linux servers.

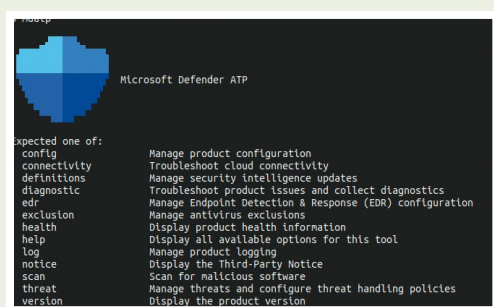
**M**icrosoft is hoping to boost its security protection for Android and Linux systems with a new release of its Defender Advanced Threat Protection (ATP) service. A public preview – what you might call a

first version of Defender ATP for Linux and Android devices – can now be installed on a range of systems.

"This initial release delivers strong preventive capabilities, a full command line experience on the client... a familiar integrated experience for machines and alert monitoring in the Microsoft Defender Security Center," Microsoft wrote in a blog post announcing the news.

The utility can be deployed and configured using Puppet, Ansible or through your existing Linux configuration management tool. Microsoft supports ATP for RHEL, CentOS, Ubuntu 16 LTS or higher, SLES, Debian 9+ and Oracle Linux.

Get more information straight from the horse's mouth: <https://bit.ly/lxf266defend>.



Microsoft deploy Defender onto Linux servers.

## OPINION

# BETTER CALL MATT



**Matt Yonkovit** is Percona's chief experience officer and a member of SHA (Silly Hats Anonymous).

Every year, Percona runs an Open Source Data Management Software survey. Here are a couple of early results I've cheery-picked from this year's survey, based on responses from just over 600 people.

As you'd expect, open source is winning. Last year's results suggest that 89 per cent of companies are running more than one OS database, and the 2020 figures look likely to match, if not exceed this. The use of more than one cloud provider or 'multi-cloud' has grown this year from 30 to 39 per cent. This is mostly a move to protect against outages and performance issues. Ironically, we also found that downtime is now the top issue that keeps DBAs up at night.

However, things aren't so rosy with the cloud and Database as a Service (DBaaS). The level of overworked staff jumped by 10 per cent between both non-cloud to cloud, and non-DBaaS to DBaaS environments.

What caused this jump? When companies move to DBaaS, they tend to redirect resources. This means that when database problems hit, they're added to an already extensive task list. The reality is that there is still no substitute for database experts.

## OPINION

## SKY HIGH



**Keith Edmunds** is Tiger Computing Ltd's MD, which provides support for businesses using Linux.

Given how businesses are re-evaluating the very foundations upon which they operate, it's perhaps not surprising that there's been a spike of interest in migrating to the Cloud recently.

Two recent, very similar, conversations reminded me that when it comes to Cloud migration, it's easy to do it badly and not even know how poorly you're doing.

Most times when we do something poorly, it's obvious. The paint looks awful; the seam's not level; the landing was jarring.

But you can set up Cloud systems badly, and it won't immediately show. Not until the bills come in or the data is compromised or the availability isn't what you were expecting.

If you're on the side of the desk that wants to migrate a business function to the cloud, make sure the person you're speaking to understands Cloud systems specifically, fully and deeply.

If you're on the side of the desk responsible for implementing the migration and you don't have that deep experience, it would be a strength rather than a weakness to say you need some help.

The Cloud is not just another computer system, and shouldn't be treated as such.

## GAMING

## Steam on Chrome OS

Google increases the playing possibilities on its hardware.

Google is getting a taste of the education market and it likes what it finds. As a result, Chrome OS's features continues to expand apace. The latest addition that's appeared on the *Chromium* project site under the codename Borealis appears to be a sandboxed Ubuntu build that includes Steam and available on new Intel 10th gen or later Chromebooks.

Rumours that Steam might be coming to Chrome OS started early in 2020, but appearance on the *Chromium* project all but confirms the move. Similar to the Debian-based Crostini sandboxes that enable standard Linux applications to run under Chrome OS, this latest moves up the ante to enable Steam gaming –



"Game on!" says Google, and who are we to argue?

something we're sure the youngsters might appreciate when taking some downtime during their history lessons. It could also help justify shelling out extra cash on those ever-more-expensive Chromebooks.

## VULKAN

## Hardware acceleration

Video encode/decode takes a step in the right direction.

When you think of Vulkan you probably think of 3D graphics, but it turns out that Vulkan with its low-level GPU access can help out in other areas of video graphics, too. The latest 4.3 release of *FFmpeg* sports a pile of hardware acceleration: Intel QSV Mjpeg and VP9, AMD AMF encoder via Vulkan, VDPAU VP9, together with AV1 encoding among many new features. Get the lowdown on what's new by visiting <https://ffmpeg.org>.



This is definitely the right logo.

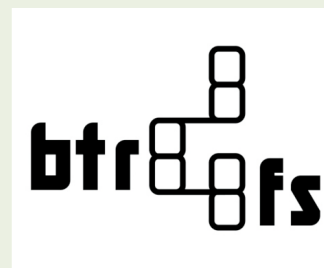
## FILE SYSTEM

## Fedora to adopt Btrfs

Buttery goodness.

People not in the know like to blame Btrfs (b-tree file system) for all their ill-fated storage problems, but OpenSUSE, Facebook and now Fedora know better with the blue-based distro choosing to use it as its default filesystem going forward. Expect to see Btrfs from Fedora 33 onwards.

You can read about the thinking behind the decision over here: <https://fedoraproject.org/wiki/Changes/BtrfsByDefault>.



This isn't the real logo – we're not sure it has one...

CREDIT: Daniel

# Distro watch

What's down the side of the free software sofa?

## NOMADBSD 1.3.2

A 64-bit live system designed for USB flash drives and based on FreeBSD. Following the release of FreeBSD 12.1 NomadBSD has updated and fixed the filesystem layout to enable tools such as *bectl* to snapshot the boot environment.

Chief updates include changes to the ZFS (filesystem) layout to make it possible for users to back up the boot environment, and support for special-case wireless driver licenses. See more at <http://nomadbsd.org/index.html#1.3.2>.



Now you can use utilities to take a record of NomadBSD's boot environment.

## SOLYDXK 10.4

Designed for small businesses, not-for-profit organisations and home users, this Debian-based distribution has been updated to Debian 10.4 "Buster" base, with a key update being new privacy settings for Firefox web browsing.

An interesting move is to merge all the *usr/* directories (*bin*, *sbin*, *lib*) with symbolic links to just the */usr/* directory. An Enthusiast release is expected to arrive later this year.

Find out what else is new by visiting <https://solydxk.com/news/solydxk-10-point-release-10.4>.



Firefox users will benefit from extra privacy settings in the new version of Debian-based distro SolydXK.

## TAILS 4.8

One of the best known privacy distros The Amnesic Incognito Live System (Tails) is a Debian-based live DVD/USB system designed to protect your privacy online. As you'd expect, this latest release contains many security fixes.

However, the key move appears to be disabling the *Unsafe Browser* (the hint is in the name) by default, because it's become clear that another compromised task (for example, a phishing attack on *Thunderbird*) could start an invisible *Unsafe Browser*. Learn more about the changes to the distro here: [https://tails.boum.org/news/version\\_4.8](https://tails.boum.org/news/version_4.8).



The privacy-orientated distro Tails has been updated, partly to foil the running of Unsafe Browser.

## ZENWALK 15.0 2020

Based on the Slackware development branch, Zenwalk is a lightweight Xfce 4.14 desktop with Flatpak support out of the box and offers modern features with an old-school approach.

Version 15 is the yearly milestone release for 2020, which the project always aims for. The goal is to provide a fast and simple setup, a refined desktop, a selection of the best tools and ease of use, all while fully respecting the Slackware philosophy.

Read up about the distro at [www.zenwalk.org](http://www.zenwalk.org).



The Zenwalk project first appeared on the open source scene in 2004.

## OPINION

# VIRTUAL PLUMBING



**Mark Filion** is a marketing manager at Collabora

2020 has been, and continues to be, a redefining year for conferences. With large in-person gatherings prohibited due to the pandemic, most technical conferences have decided to either cancel or venture into online conferencing.

While Halifax, Canada would have been a fantastic host city, the Linux Plumbers Conference (LPC) committee decided to host the event online for 2020. Using free software, the conference will happen from the comfort of everyone's homes.

Taking place over a whole week (24 to 28 August), this year's edition will have a different feel without its invaluable hallway track conversations. However, organisers are working to replicate as much of the LPC experience as possible, with refereed talks, microconferences and BoFs continuing to be the core of the 2020 edition.

This year again, the committee is very happy to welcome the Kernel Summit and the Networking & BPF Summit as part of LPC 2020.

With no in-person meeting this year, there will be plenty to discuss and address during the conference.

To learn more and perhaps register, visit [www.linuxplumbersconf.org](http://www.linuxplumbersconf.org) or follow @LinuxPlumbers on Twitter for all the latest information.