Linux Kernel 5.4

This past Sunday saw the [announcement of Linux Kernel 5.4](), this release brings a number of significant improvements.

I think it will be cool to try the following:

- **new virtiofs filesystem** – a FUSE based implementation for sharing physical host filesystems with virtual machine guests.
- **exFAT and sdFAT implementations** – although my issues on Linux laptop are more to do with card reader than the exFAT filesystem on the microSD Cards
- **booting from CIFS (Wndows share)** – don't quite know how it works, but sounds too cool not to try!
- **lockdown module** – a feature aimed to minimise access to Linux kernel even for root user – meaning no direct access to memory and device ports, limited calls and fully controlled debugfs amd kprobes.

Lots of new graphics cards are added into both AMD and Intel drivers, will be interesting to see if anything is improved for my [Ubuntu 19.10 laptop]().

See Also

- [Linux Kernel]()
- [Unix Tutorial Digests]()
- [Confirm current Kernel boot command]()
- [Linux Commands]()

Red Hat Enterprise Linux 8.1

RHEL 8

Just as I published last [Unix Tutorial Digest](#) on November 5th, **RHEL 8.1** release got shipped — think this is a great incremental release bringing a number of key improvements to the **[Red Hat Enterprise Linux 8](#)**.

RHEL 8 Release Cadence

Red Hat announced that going forward **[Red Hat Enterprise Linux OS](#)** will be receiving regular updates every 6 months. Since RHEL 8 release was in May 2019, this current RHEL 8.1 update is right on time, 6 months after.

RHEL 8.1 Improvements I Want To Try

There's a number of great improvements in this release:

- **Live Kernel Patching with kpatch**
- [SELinux](#) profiles for containers and tbolt for Thunderbolt devices — will be cool to try on my RHEL 8 PC
- Perhaps try **RHEL 7.6 in-place upgrade to RHEL 8.1**
- Review **rhel-system-roles** and specifically the new **storage** role added in RHEL 8.1
- [LUKS2](#) **online re-encryption**
- [RHEL 8 Web Console](#)
  - firewall zones management
  - Virtual Machines configuration

I also want to try **Red Hat Universal Base Image for RHEL 8** — it's been around since initial release in May, I just never got the chance to have a look.

See Also

- [Red Hat Enterprise Linux 8.1 release notes](#)
- [RHEL 8 Reference](#)
- [Red Hat Linux](#)
- [Hello, world with podman](#)
- [Docker software](#)

OpenIndiana 2019.10 Released

OpenIndiana

I'm hardly getting any chance to work on Sun/Oracle hardware and Solaris anymore, but still like tracking the releases. [OpenIndiana](#) is a free **Solaris** implementation based on the **[Illumos](#)** project, and OpenIndiana 2019.10 just got released.

Improvements in OpenIndiana 2019.10

- Latest improvements from the Illumos project (namely **illumos-gate**)
- Lots of documentation updated and moved from old wiki to https://docs.openindiana.org
- Python dependent tools (including IPS) upgraded to support Python 3
    - IPS ships Python 3.5 tools and libraries
- Bash updated; [sudo](#) updated; [vim](#) updated – these are like my top 3 [commands](#)!

- Development toolchain is refreshed
- Server software packages updated
    - nginx 1.16.1
    - BIND 9.14
    - Samba 4.11 (plus lots of improvements for SMBv3 from Illumos)

More information can be found here: [OpenIndiana 2019.10 Release Notes](#).

Installing OpenIndiana 2019.10

This section is a placeholder: I plan on downloading **OpenIndiana** ISO image and installing it inside a [virtual machine](#).

Will update this post with links to the **OpenIndiana** install notes and first screenshots shortly.

See Also

- [**Solaris Blog**](#) – one of my older projects. Still lots of useful info on Solaris
- [OpenIndiana Project](#)
- [**Solaris OS**](#)
- [Solaris devices tutorial](#)
- [How To confirm Solaris 11 version](#)
- [Solaris @ Unix Tutorial](#)
- [See future timestamps in Solaris](#)

- [Find release version in Unix/Linux](#)
- [Mount ISO image in Solaris](#)
- [Process tree in Solaris](#)