

Linux 5.5-rc1

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We've had a normal merge window, and it's now early Sunday afternoon, and it's getting closed as has been the standard rule for a long while now.

Everything looks fairly regular - it's a tiny bit larger (in commit counts) than the few last merge windows have been, but not bigger enough to really raise any eyebrows. And there's nothing particularly odd in there either that I can think of: just a bit over half of the patch is drivers, with the next big area being arch updates. Which is pretty much the rule for how things have been forever by now.

Outside of that, the documentation and tooling (perf and selftests) updates stand out, but that's actually been a common pattern for a while now too, so it's not really surprising either. And the rest is all the usual core stuff - filesystems, core kernel, networking, etc. The pipe rework patches are a small drop in the ocean, but ended up being the most painful part of the merge for me personally. They clearly weren't quite ready, but it got fixed up and I didn't have to revert them. There may be other problems like that that I just didn't see and be involved in, and didn't strike me as painful as a result ;) We're missing some VFS updates, but I think we'll have Al on it for the next merge window. On the whole, considering that this was a big enough release anyway, I had no problem going "we can do that later". As usual, even the shortlog is much too large to post, and nobody would have the energy to read through it anyway. My mergelog below gives an overview of the top-level changes so that you can see the

different subsystems that got development. But with 12,500+ non-merge commits, there's obviously a little bit of everything going on. Go out and test (and special thanks to people who already did, and started sending reports even during the merge window),
Linus

- [Linus Torvalds Kicks Off Development of Linux Kernel 5.5, First RC Is Out Now](#) [3]

The two week-long merge window that opened with the release of the Linux 5.4 kernel series last month ended today with the launch of the first release candidate of Linux kernel 5.5, which was announced by Linus Torvalds himself.

That's right, Linus Torvalds has officially kicked off the development cycle of the next major Linux kernel series, Linux 5.5, which is now available for public testing from the kernel.org website. Linux kernel 5.5-rc1 is the first milestone in many to come and gives the community a first look at the new features and changes.

"We've had a normal merge window, and it's now early Sunday afternoon, and it's getting closed as has been the standard rule for a long while now," said Linus Torvalds. "Everything looks fairly regular - it's a tiny bit larger (in commit counts) than the few last merge windows have been, but not bigger enough to really raise any eyebrows. And there's nothing particularly odd in there either that I can think of: just a bit over half of the patch is drivers, with the next big area being Arch updates."

- [Linux 5.5 Feature Overview - Raspberry Pi 4 To New Graphics Capabilities To KUnit](#) [4]

Linux 5.5-rc1 is on the way to mirrors and with that the Linux 5.5 merge window is now over. Here is a look at the lengthy set of changes and new features for this next Linux kernel that will debut as stable in early 2020.

Among the many changes to find with Linux 5.5 are support for the Raspberry Pi 4 / BCM2711, various performance changes still being explored, support for reporting NVMe drive temperatures, a new Logitech keyboard driver, AMD HDCP support for content protection, wake-on-voice support from Chromebooks, the introduction of KUnit for unit testing the kernel, new RAID1 modes that are quite exciting for Btrfs, and much more. Below is a more detailed look based upon our original monitoring and reporting.

- [Unified sizeof_member\(\) Re-Proposed For Linux 5.5](#) [5]

After not being merged for Linux 5.4, the new sizeof_member() macro as a unified means of calculating the size of a member of a struct has been volleyed for Linux 5.5 for possible inclusion on this last day of the merge window.

The Linux kernel to now has supported `SIZEOF_FIELD`, `FIELD_SIZEOF`, `sizeof_field` as means of calculating the size of a member of a C struct... The new `sizeof_member` looks to clean-up that code cruft that has accumulated over the years with converting all usage of the old macros over to this new unified macro.

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[4] <https://www.phoronix.com/scan.php?page=article&item=linux-55-features&num=1>

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