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Deploying and managing sched_ext schedulers in CachyOS

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The CachyOS Linux distribution is sched-ext best friend! We're a young distro, a passion project born in mid 2021, focused on delivering a solid and performant desktop experience. As early adopters of sched-ext (we started shipping it in December 2023), we've learned some important lessons from the experience with our user base that we'd like to share with the community at large.

Integration of custom schedulers such as Rustland and LAVD with the OS as a whole is the aspect we've learned the most about. We'll describe the systemd services we've written to manage schedulers, the challenges we encountered along the way and what our solution has been. On an adjacent note, user-space schedulers such as Rustland are very "chatty" (produce a high volume of diagnostic information), and managing all that data with journald logs wasn't obvious. In our experience, system upgrades also need to be handled with care when custom schedulers are in use; our package manager (pacman) supports custom hooks, which we decided were the appropriate tool to employ. We'll describe our solutions, but most of all, we'd like to know if there's any obvious alternative that we overlook, and overall get some feedback from an audience that likely has been doing this for a lot longer than us.

Lastly, we'll share what our users told us about these enhancements. We're heavily involved with our community, via our Discord server, Telegram channel and Discourse forum. They helped us and the sched-ext developers identify and fix tons of bugs very early, and suggested a few improvements that we'll be reviewing.

Please join us for this session, we have gained lots of experience on what it means to choose a specialized scheduler depending on the activity you do on your machine, and we can't wait to share it.

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