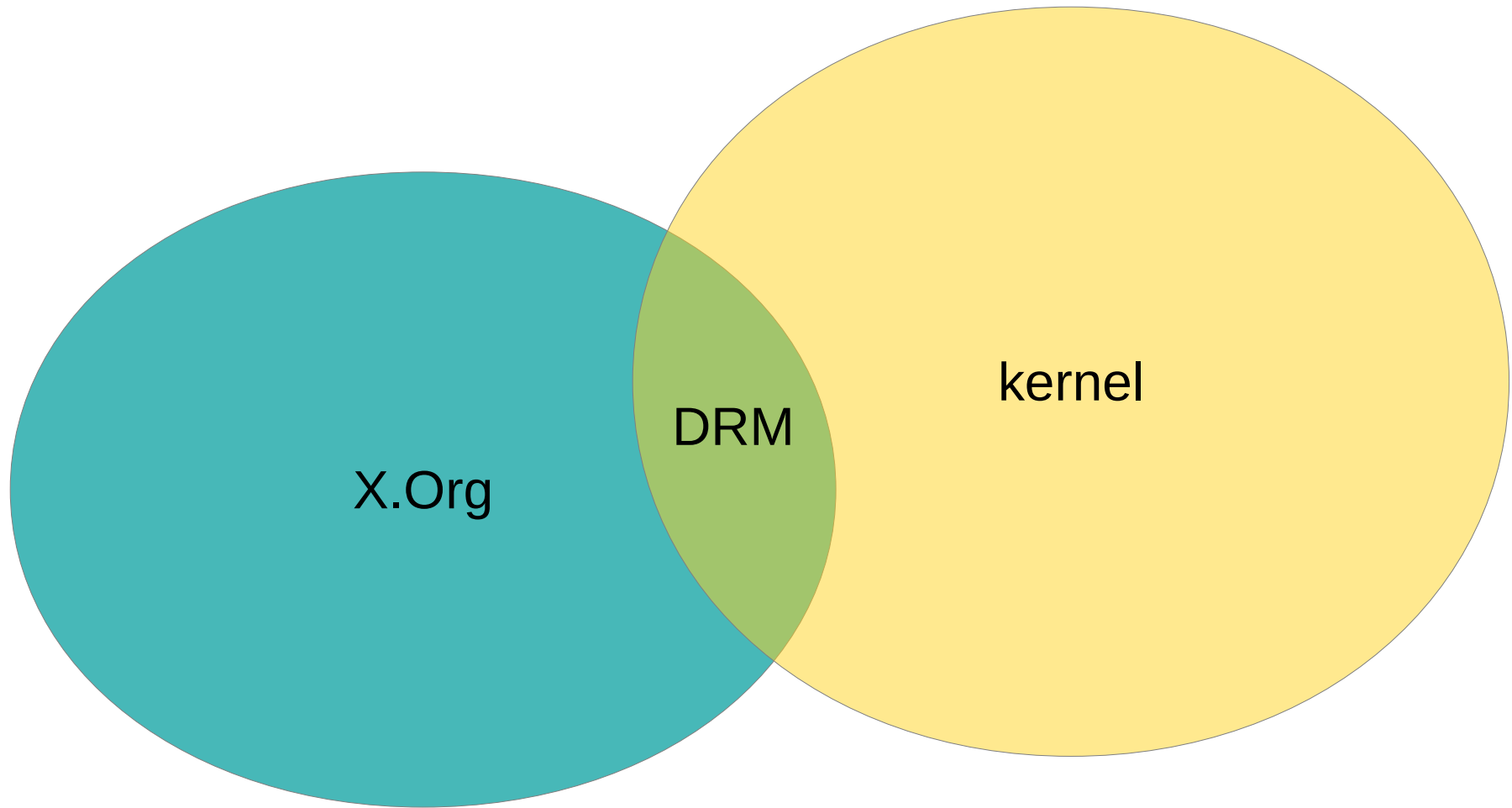


Migrating to Gitlab

Daniel Vetter, Intel OTC
@danvet
LPC 2018, Vancouver

why this talk



stuff from the kernel

- git (in 2006!)
- proper commit messages
- iterating on patch series
- maintainer model

stuff from X.org

- committer model
- testing/CI
- MIT licensing
- gitlab?

pain points

- popularity of git send-email
- admin pains: SMTP, bouquet of services
- exodus to github, w/ memories of bitkeeper

pw: not the droid you're looking for

- code interleaved with discussions
- loss of semantics: baseline, target, previous revisions
- pw is a sidechannel, no enforcing possible

pain points: tracking&coordination

- no chaining/deprecating of patch iterations
- no sync between inboxes and patchwork
- no standard setup
- patchwork is terrible

pain points: CI&tooling

- no positive confirmation, lack of transparency
- client side scripting, patch parsing is fun
- patchwork is terrible

why gitlab

- open core, but just DCO + MIT
- cares about big project workflows
- debian, gnome, khronos use it
- batteries included
- (failed pilot with phabricator)

big project workflows

- multiple repos, issue trackers, discussion channels, patch queues
- multi-repo pull requests
- kernel: single tree, x.org: multiple projects
- gitlab cares: super-pull, fork relationships, ...

gitlab: merge requests

- git branch, including reflog
- + target branch
- + discussions and review
- + CI results

gitlab: patch review

- but my mail setup!
- per-patch review only recently added
- probably stick to mailing lists
- merge request for tracking series evolution

gitlab: CI

- server-side CI: docker + scriptlets
- jobs, triggers, dependencies
- generic/special runners
- per-repo CI settings file, with `#include` directive
- hardware CI: external CI results/tracking
- CI can block merging
- full transparency for contributors

docker: not so great

- perfect control over build env, but:
- docker-in-docker build needs root
- binfmt-misc, kvm, ...
- probably need kvm-containers
- lots of cloud fun with runners

gitlab: automation

- webhooks, requires a server somewhere
- not (yet?) github actions
- biggest potential for long-term wins

gitlab: issue tracker

- bugzilla vs. GDPR
- per repo issue templates, w/ twists
- customization through labels

timeline

- most projects migrated git
- kernel migration blocked until early next year
- lots of experimenting with CI (8k runs thus far)
- migrating issue tracking
- 2k merge requests thus far

summary

- patchwork: solution to a self-inflicted problem
- you want to track merge/pull requests
- gitlab CI: awesome
- docker/cloud: not so awesome
- gitlab automation: falling behind
- gitlab patch review: bad, but with potential