Collaborative GPL Enforcement Through Non-Profit Entities

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This is a text version of the slides. The "full experience" web version is available online at: http://ebb.org/bkuhn/talks/ELC-2014/compliance.html.

The source code for these slides is available at: https://gitorious.org/bkuhn/talks/source/master:ELC-2014.

My History

- Worked my first GPL enforcement case in 1999 (as FSF volunteer).

- Started working for FSF in 2000 (was there until 2005).

- Now: President & Distinguished Technologist of Software Freedom Conservancy & on Board of Directors of the FSF.

- Both FSF and Conservancy have extensive GPL enforcement programs:

    – so, the plurality of my time since 1999 has been spent on GPL enforcement.

How GPL Works (Theoretically)

- Copyright: the internationalized standard for authors' controls over works.

- Use copyright license to grant permission.

- Make permission conditional on giving your downstream the four freedoms.

- This is the copyright law hack of copyleft.

- Copyright rules require compliance with the license.

How GPL Works (In Reality)

- What do you do when someone violates?

    - (and social pressure for compliance fails)?

- Violation of the license means lost rights for distribution.

    - See GPLv2§4 & GPLv3§8
    - Further distribution thereafter (even in compliance) is copyright infringement.

- Copyright holders must use copyright enforcement:

    - . . . but for a *good* cause: the four freedoms.

Complexity of Modern Enforcement

- Not all GPL enforcement is software-freedom-motivated.

- Oracle, after all, holds MySQL's copyrights now & enforces.

    - I call this the corrupt version of what I do.

- Compliance must be paramount . . .

    - . . . over all other interests.
    - Some call this "community enforcement".
    - What's that mean?

Who Reports Violations?

- Who reports violations to community enforcers?

    - Individual users.

- The user buys buy embedded products . . .

    - . . . (such as a TV, DVD Player, wireless router, mobile phone) . . .
    - . . . user tries to get the GPL'd sources and build them . . .
    - . . . and it doesn't work.

- Conservancy gets a new report like this weekly.

Community Enforcement

- All community enforcement follows this rote procedure:

  - Receive a violation report from an end-user.
  - Verify it's really a violation.
  - Send a letter to the violator.
  - CCS-Ask: Ask the violator to submit CCS candidates
  - Review and provide feedback on CCS.
  - If we know why CCS doesn't work, give patches to violator.
  - If CCS still has issues, goto CCS-Ask.
  - Ask violator to inform past customers.
  - Ask violator to cover reasonable hourly cost of this work.
  - Restore copyright permissions.

- Let's talk about the money issue first.

Money

- No community enforcer is getting rich.

  - 501(c)(3) non-profit charity enforcement == accountability.
  - On a Form 990, you can look up: . . .
  - . . . how much Conservancy spends on / receives from enforcement.
  - . . . my annual salary & compensation.
  - https://sfconservancy.org/about/filings/

- Anyway, who should pay for enforcement:

  - Those who *comply* or those who *violate*?
  - Individual donors to non-profits?

- There must be a deterrent.
- Confidentiality is something violators ask for.

What Conservancy Strives to Avoid

- Junking products:

    - That's bad for the environment.

- Injunctions:

    - We've gotten them, but only after:
        * 1+ years of ongoing violation,
        * many warnings to the violator, &
        * explicitly warning the violator that's our plan.

- Companies switching away from GPL'd software.

    - We *all* want them to use: just in compliance

- Lawsuits of any kind:

    - suing someone is always a last resort . . .
    - . . . usually after years & hundreds of hours of begging them to comply.

What's CCS?

- The point of GPL is not merely to examine the source.

- GPLv2 requires what it calls "complete, corresponding source": CCS

- The freedom to modify requires, as GPLv2 says:

    - "the scripts used to control compilation and installation of the executable"

- CCS check: verify these scripts actually do compile and install the executable.

- For embedded systems, this is not always easy.

- But, why is it important?

Coalition of the Willing

- Spring 2003: dozens of reports on WRT54G.

- Discussions begin with Cisco (who'd bought Linksys just weeks before)

- Story hits slashdot on 2003-06-08.

- FSF puts together group to do enforcement.

    – key members: Erik Andersen (BusyBox) & Harald Welte (Linux)

WRT54G Begat OpenWRT

- After years of complex negotiation, and many CCS "rounds":

    – All CCS works (only two proprietary Linux modules held back).
    – First check-in of OpenWRT is that CCS release.

- OpenWRT project leaders to this day credit this as their start.

    – Source: Gregers Petersen on FLOSS Weekly Episode 265

- OpenWRT blossomed into *the* key replacement firmware for most wireless routers.

GPL-violations.org

- FSF was initially shy about lawsuits.

- Harald participated with FSF in WRT54G matter.

    – But Harald disagreed with FSF's early 2000s "no litigation" strategy.
    – (in hindsight, Harald was right).

- Launches multiple lawsuits in Germany (about 8 between 2005-2008).

- Quite successful, but gpl-violations.org is now mostly defunct.

    – except for running the mailing lists.

Embedded Violations Prevalent

- Erik Andersen becomes exasperated by mid-2006.

  - post-WRT54G: router & NAS market is a violation haven.

- Erik asks for help.

- Conservancy becomes his enforcement agent (& receives some others' © assignment)

- Conservancy has had > 100 GPL violations queued for action since 2007.

  - Conservancy's list is now > 300

- Conservancy's work in BusyBox enforcement *has* made a real difference.

  - both to BusyBox and Linux compliance.

Samsung: A Success Story

- Samsung has violated the GPL before.

  - Conservancy even had to sue them over TV products.

- Conservancy settled & the final CCS was really good!

  - That CCS launched SamyGo project

- More recently, Conservancy helped Samsung fix their exFAT module violation.

Why Do Violations Happen?

- As Samsung now knows:

- Compliance actually isn't difficult.

  - & compliance problems are easily remedied.

- So, why are there so many violations?

The Upstream Problem

When I said that I was king of forwards, you got to understand that I don't come up with this stuff. I just forward it along. You wouldn't arrest a guy who was just passing drugs from one guy to another.

— Michael Scott, *The Office* (USA Version)

Suppliers Bully OEMs, AFAICT

- I'd be the worst police officer in the world.

- No one ever turns "states' evidence"

  - ... at least they don't for *me*, anyway.

- Me: "Please, just tell me on the record your supplier violated when distributing to you."

- Them: "We'll work with our upstream to get into compliance."

What Can You Do About This?

What Can You Do About This? (0)

- Make sure the suppliers' base system builds/installs from sources.

  - Consider using Yocto (automated tools to help w/ compliance)
  - It's better engineering to have reproducible builds anyway.
  - Convince your bosses the build/install process isn't their value add.

What Can You Do About This? (1)

- Just put that CCS online & put URL in the manual.

  - No, GPLv2 doesn't require this!
  - But, I don't want to test your offers for source.
  - Your fulfillment department *will* screw this up.

What Can You Do About This? (2)

- If possible, help select the supplier.

    - Ask the supplier up front about CCS.
    - Demand legal indemnity from your upstream!

What Can You Do About This? (3)

- But, most importantly:

- Please join Conservancy's Coalition.

- For context, a bit of the coalition's history:

Historical BusyBox Enforcement

- Erik Andersen rewrote BusyBox from scratch (starting 2001).

- BusyBox slowly but surely became standard userspace for embedded systems.

- Linux plus BusyBox:

    - Standard for embedded systems.
    - Usually out of compliance.

Just Look Busy!

- BusyBox enforcement was de-facto for Linux.

    - The Tempest in a Toybox
    - BusyBox copyright holders request comprehensive GPL compliance.
    - Some Linux developers felt this was unfair. . .
    - . . . but other Linux developers supported it.
    - (i.e., community was already split on this question.)

- BusyBox copyright holders don't stand alone.

    Busybox is arguably the most litigated piece of GPL software in the world. . . . Litigants have sometimes requested remedies outside the scope of busybox itself. . .

    — Tim Bird of Sony Corporation, in January 2012

Denys, The Voice of Reason

- Current BusyBox maintainer has that special skill of Free Software developers . . .

    - . . . to find the sane arguments hidden among troll-ish attacks.

- I walk through Brussels on the phone with Denys . . .

    - . . . the day before FOSDEM 2012 . . .
    - . . . and he convinces me:

- To continue with enforcement, Linux developers must be involved.

Garrett, Linux's Freedom Fighter

- For years, Matthew Garrett had asked me to help him enforce the GPL on Linux.

- I'd told him that as it stood, it was easier to just work based on BusyBox.

- After so much had changed, it made sense to simply engage directly on behalf of Linux developers.

    - & there were many others who felt the same as Matthew did.

- GPL Compliance Project for Linux Developers gives structure to Linux compliance activity.

Expanding the Coalition

- On 2012-05-29, Conservancy announced expanded GPL enforcement efforts.

- Conservancy now actively enforces GPL for:

    - BusyBox, Linux, Samba, Mercurial

- Linux is not a full Conservancy member project:

    - Conservancy enforces for a coalition of about a dozen prominent copyright holders.
    - Matthew Garrett & David Woodhouse are the most public.
    - We expect to offer this service to more projects.

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The Great Queue

- We're aware of hundreds of embedded Linux GPL violations.
    - Each one takes 40-100 hours of work to resolve.
    - Over a period of usually 3-6 months.
- The CCS issue is the most difficult:
    - CCS candidates just don't build.
- But, we're facing a worse problem everywhere.

Linux's GPL Elephant

- I used to avoid the elephant, but now it's *the* central issue of compliance.

Linux's GPL Elephant

- Are Linux modules derivative/combined works of/with Linux?
    - I & our lawyers believe they almost always are.
    - Many corporate lawyers disagree.
- Case law is limited:
    - Both sides believe they're correct.
    - No general rule: the actual facts of a specific situation always matter.
    - This is the exact type of issue that becomes a big court case.
- My political opponents call this: "the ground war of GPL"
    - Maybe it's time for that ground war.

Biggest Way You Can Help

- You're all embedded Linux developers.
    - That means it's likely your copyrighted work that violators infringe.
    - Only *you* can help your users.
- OTOH, maybe you don't care about the GPL or the freedoms it protects.

- I don't blame you if you don't . . .

- . . . the GPL doesn't require you to *like* the license.

- But, if you *do* care, you can join our coalition:

  - To join the GPL Compliance Project for Linux Developers . . .

  - . . . see me after the talk; I have blank forms with me. :)

More Info / Talk License

- URLs / Social Networking / Email:

  - Sign Up Today as part of the *GPL Compliance Project for Linux Developers*.

  - A Book I helped write: *Copyleft and the GNU General Public License: A Comprehensive Tutorial* is available.

  - Conservancy: sfconservancy.org & @conservancy

  - Me: faif.us & ebb.org/bkuhn

  - Slides: ebb.org/bkuhn/talks & gitorious.org/bkuhn/talks (source)

  - DONATE: https://sfconservancy.org/donate/